INTERNATIONAL TECHNOLOGY TRANSFER:
A REVIEW OF RELATED LEGAL ISSUES

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UNITED STATES INTERNATIONAL TRADE COMMISSION

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FOREWORD

This report is a staff research study prepared by members of the Office of General Counsel, United States International Trade Commission. The study reviews legal issues related to the international transfer of technology and was prepared by our legal staff to complement the technology export study mandated by Section 119 of Public Law 95-52. By letter to the Commission's Chairman of October 18, 1978, Congresswoman Cardiss Collins, who introduced Section 119, requested the Commission to publish the staff study on its own motion. The text of Congresswoman Collins' letter of request follows:

The Committee on International Relations, of which I am a member, is interested in issues related to the export of technology from the United States abroad. In January of this year members of my staff requested an overview of legal issues related to technology transfer during discussions of a technology export study which I introduced and which became Section 119 of the Export Administration Amendments of 1977 (Public Law No. 95-52, approved June 22, 1977, 50 U.S.C. App. 2403 Note).

I understand that members of your legal staff have responded to this request by preparing a report reviewing legal issues related to international technology transfer which was approved by the Commission in connection with the Section 119 study. Such a study complements the Section 119 efforts and will be useful to those concerned with these issues. I, therefore, request that the Commission publish this report on its own motion.

The Commission, desiring to be responsive to this request, has published the staff report on its own motion. The Commission hopes that this report will be useful to those concerned with issues related to the international transfer of technology. The views expressed in this staff study do not necessarily represent the views of the Commission or individual Commissioners.
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INTRODUCTION

This report reviews legal issues related to the international transfer of technology and was prepared to complement the technology export study mandated by the Export Administration Amendments of 1977. 1/ These issues are varied and complex and extend far beyond those issues which only relate to the United States system for export control and export licensing of industrial technology. 2/ Antitrust aspects, tax implications, and national standards must be treated in addition to export licensing controls. Attention must be paid to the special role of patents as a form of industrial property in the transfer process. 3/ However, before these issues can themselves be discussed, some of the more important modes in which the transfer of technology occurs must be discussed, since these modes are legally significant in themselves.

A review of legal issues related to the international transfer of technology cannot be limited to aspects of national law. These issues must also be considered comparatively by looking to some of the more important legal regimes affecting and conditioning the transfer of technology at the foreign governmental level. In this respect, relevant aspects of the laws of Japan, Mexico, and Brazil are treated at an appropriate point in the discussion. Likewise, the discussion of legal issues must also include a treatment of important regional legal regimes related to technology transfer. Accordingly, the EEC 4/ and ANCOM 5/ experiences are outlined. Finally, the discussion must also deal with related legal developments at the international level. In this regard, the role of COCOM 6/ in relation to levels of export control among western nations is worthy of mention. Further, inasmuch as the international transfer of technology is currently the subject of a draft code of conduct being prepared by UNCTAD, 7/ in addition to other multilateral efforts, such relevant international legislative proposals must also be treated.

The review of legal issues therefore will be divided into these parts:

I. Selected Modes of Technology Transfer;

II. The Legal Environment for the transfer Process;

III. The Special Role of Patents in the Transfer of Technology;

IV. Consideration of Technology Transfer by International Organizations; and

V. Conclusions.
As a point of departure to the review, however, it is necessary to describe what is meant by the international transfer of technology. For the purposes of this review, the subject matter of an international transfer of technology consists of proprietary or nonproprietary technology, and related rights, transferred from a source enterprise to a recipient enterprise.

The transfer may comprise any or all of the following:

1. Assignment, sale and licensing agreement covering legally protected inventions and other forms of industrial property;

2. Arrangements covering the provision of know-how and technical expertise in the form of feasibility studies, plans, diagrams, and advisory and managerial personnel; and

3. Arrangements covering the provision of basic or detailed engineering designs.

Having defined the proper scope and subject matter of our review of legal issues, we shall proceed to an exposition of various selected modes of technology transfer.
I. SELECTED MODES OF TECHNOLOGY TRANSFER

In this section we describe selected modes of technology transfer which are relevant to the subsequent discussion of the legal environment for the transfer process.

A. Licensing Agreements.

Introduction

The term "foreign licensing agreement" describes the contracting arrangement where one party gives or sells technology, as a patent and of other rights and services, to another party in another country in return for royalties and other forms of remuneration. These transfers can occur between related companies as well as between unrelated companies.

Until quite recently the typical foreign licensing agreement was a simple contract extending to the licensee the bare legal right to use the licensor's patent, trademark, or other industrial property. However, since World War II the simple patent or trademark license has given way to comprehensive contractual arrangements which often involve the licensor in active participation in ownership and management. These contractual arrangements generally provide for the following: (1) The licensing of patents, trademarks and copyrights; (2) the furnishing of "know-how" consisting of processes, techniques, designs, patterns, blueprints, plant layouts, specifications, and similar industrial or intellectual property rights; (3) providing technical and managerial services in engineering, design, supervision of constructions and installation, and production layout; and (4) supplying engineering and technical personnel to initiate the industrial undertaking and training for foreign managerial, engineering, technical, and other skilled personnel.

1. Terms and Provisions of Foreign Licensing Agreements

(a) Subject matter identification and definition. -- Licensing agreements cover the following types of technical property rights. Most agreements generally include all of these rights, with the possible exception of copyrights, in a "package type" arrangement.

(1) Patents. -- Defined as nonrenewable grants by the Government of certain exclusive rights to inventions for a term of years. The grant to inventors includes rights to prevent others from making, using, and selling the patented invention. The patent may be granted for any new invention for a product, or for a new process for manufacturing, or for an industrial design.
Trademarks. -- Defined as marks, works, letters, numbers, designs, pictures, or symbols adopted and used by parties to distinguish their goods in trade. A trademark right vests in the owner legal authorization to prevent others from using the mark on the same type of goods. The right is granted for a specified term of years, usually renewable for a further period of time.

Know-how, trade secrets and other unpatented technical data. -- Includes technical expertise that the licensor has accumulated in his manufacturing operations, and in which he has proprietary rights, even though unpatented. May include professional, scientific, or technical documentation such as plans, photographs, blueprints, specifications, manuals, and instruction sheets. May also include technical assistance, advice and information communicated by the licensor's engineering, management and service personnel.

Copyrights. -- Defined as exclusive rights in creative works of an author; enforceable against copyright or reproduction by others. In the context of technology licensing, pertinent copyrights would involve exclusive rights in advertising and promotional literature, manuals, and other technical documents made available to the licensee.

(b) Territorial coverage. -- The licensee is usually granted manufacturing, use, and distribution rights, as described above, for his home country. Such rights may be extended to other countries, or to the regional or continental area of his location, or to broader worldwide activities. The territorial rights granted to the foreign company may be entirely exclusive, or nonexclusive. In most instances, however, the licensee has exclusive manufacturing, sales, and distribution rights in his home country.

(c) Licensor -- Principal Commitments

Protection of rights subject to license. -- It is usual for the licensor to agree that he will, at his own expense, apply for and acquire patents, as appropriate, to be included in the licensing arrangement, and to maintain, enforce, and protect all patents subject to the license. When any such patent is reportedly being infringed, the licensor usually assumes the responsibility and expense of an infringement action. Where an infringement action is left to the licensee, his costs are usually defrayed by the licensor. The licensor retains sole discretion to defend, settle, adjust, or compromise any infringement suit involving the licensed rights, but with the understanding that he will impose no money damages on the licensee beyond those already incurred by the latter and reimbursed by the licensor. The licensor also undertakes specific commitments, subject to his right to grant other licenses, to safeguard the secrecy of the licensed inventions and technology and to guard them against unauthorized disclosure and use.

Registrations and renewals of licensed trademarks are usually conducted at the licensor's expense. The licensor may accept full responsibility for bearing all expenses of prosecuting actions against
infringers of his trademark in countries where it is licensed. Where the
licensee is faced with trademark infringement charges, the licensor generally
assumes full responsibility for action.

(2) **Provision of technical information and services** -- Where
the agreement involves licensing of patents and unpatented technology, the
licensor also obligates himself to provide certain technical, engineering and
manufacturing assistance and information. This includes commitments to
furnish the services of such competent specialists as the licensee may
reasonably require, and the licensor can conveniently supply, to assist in
installation, testing, and technical supervision operations under the
license. The licensor may also agree to permit licensee's representatives to
visit his plants and laboratories for instructional and orientation purposes.

(3) **Merchandising and management assistance.** -- It is common
for the licensor to provide this assistance where the agreement involves sales
and distribution. In this connection, the licensor may make available members
of his sales, production and technical staffs to the licensee, on an "as
needed" basis. Such personnel provide advice and instruction on the
licensor's marketing experiences, advertising campaigns, and use of samples
for the subject product. The licensor may also assist the licensee in setting
up and operating displays at trade shows, as well as providing other marketing
and management assistance.

(d) **Licensee -- Principal Commitments**

(1) **Use and development of licensed rights.** -- The licensee's
commitment in most agreements is to use the licensed inventions and
technology. An exception is where the licensee is permitted the right to
sub-license. He is usually required to continue production "diligently" so
long as the agreement remains in effect. The licensee's new improvement and
developments on the subject matter are supposed to be revealed to the
licensor, either in the form of a "grant back" license or a complete
assignment of such rights.

(2) **Marketing and sales obligations.** -- Where the license
provides for distribution and sales of the subject product, the licensee is
also obligated to use his best efforts to further the product's sales in the
defined territory. In this connection, the licensee undertakes to advertise
and promote the product through his catalogs and other sales media.

(3) **Quality control.** -- Where the agreement involves licensing
of trademarks, maintenance of the licensor's quality standards for products
using his mark is an integral feature. Even if the licensing agreement does
not involve trademarks, but only patents and technical assistance, the
licensor, desiring to protect his product's reputation, will usually impose
commitments on the licensee that all products made under the agreement are to
meet his standards of quality and performance. In this connection, the
agreement will require the licensee to accord the licensor's representatives
full access, test, and inspection rights at his facilities to see that the
standards are being met.
(4) Cross-licensing and related commitments. -- Licensors generally require their licensees to grant them return licenses on any inventions or technology which they (the licensee) may also have on the subject matter. This cross license is also required for new improvements or inventions developed by the licensee under the agreement. In some instances, the licensee may have to assign ownership of such new developments to the licensor.

On the other hand, there are agreements where the licensee is under no obligation to feed back any of his own inventions or technology, present or future, to the supplier. Under such agreements, the licensor's technology is licensed or sold outright to the other party for monetary payment.

(e) Royalties and other remuneration

(1) Royalty rate and structure. -- In most licensing agreements, the parties agree to a royalty rate that is relatively easy to police, calculate, and handle in accounting. The rate is usually calculated as a fixed percentage of either the licensee's net sales or gross sales price of the product made under the license. Net sales price means gross sales price as billed by the licensee, less any accepted returns from licensee's customers, credit given to customers for breakage and spoilage, sales and excise taxes absorbed by licensee, customs duties, if any, and transportation and insurance charges. There are other bases upon which the royalty rate may be calculated, but they are not as prevalent as sales prices. They may include a fixed percentage of the net or gross profit from the sale of, the invoiced value of, or of the manufacturing cost of, the licensed products.

Although royalty rates may range from a fraction of 1 percent to as high as 50 percent, 5 or 6 percent is generally considered an average rate for licensing agreements. This average may be lower or higher depending upon how much the licensor values his patents, know-how, and trademarks subject to the agreement; how extensively he licenses such rights to others; and how much profit he wants therefrom. Other factors usually considered in fixing rates are the royalty patterns in the particular industries, attractiveness of the rights to the licensee, territorial scope of the agreement, and legal strength of licensor's patent rights as to validity and scope.

Most agreements also provide for renegotiation of the royalty and fee rate structures during their lives to take into account changing market conditions. Also, it may be necessary to reduce the royalties and fees during the later life of a licensed patent when it is perhaps not as valuable for commercial exploitation as earlier. Further, if a licensor, under substantially identical conditions, grants to a licensee a lower royalty rate than that in a preexisting agreement with another licensee, he may be required under the latter agreement to give that party the same lower rate.
(2) **Royalty-free licenses.** -- Patents and technology are licensed in many cases for reasons other than monetary compensation. Royalty-free licenses are used by the parties for the main purpose of granting to each other complete rights and infringement immunities under their patents and technology in specified territories; or where they primarily wish to promote, through a licensing agreement, an active two-way flow of know-how and technical data; or where they primarily wish to obtain the services of each other's key personnel on the subject matter of the license.

There are also occasions where a U.S. firm may be required, as the result of an antitrust consent decree, to license certain of its patents, royalty free, on a nonexclusive territorial basis, to all applicants. In addition, patents and technology owned by the U.S. Government are available for licensing and use on a royalty-free basis.

(3) **Service charges.** -- Where technical, engineering and manufacturing assistance is to be rendered by the licensor in connection with his patent, trademark, and/or know-how license, specific payments are required. Such services and payments may be spelled out in a separate technical aid and assistance contract with the licensor, or the overall contract itself may include this feature in a combination licensing and assistance agreement. The most common services generally include supplying of plant and equipment layouts, installing equipment, architectural assistance, purchasing assistance, training of key personnel, startup of new equipment, providing advice on use of equipment in assemblies and end products, and information on new developments in the industry.

Other services of a nontechnical nature may include management assistance and help with governmental administrative procedures. In marketing, information may be provided on advertising and sales promotion and other operational experience in selling the licensed products. In many agreements, services of a personalized or nontechnical nature are provided without extra payment. Where a licensing agreement includes equipment leasing or other provisions for licensor's equipment to be used by the licensee, services are also required for taking care of and supplying parts for the equipment. If the licensee is to pay for the above described non-technical services, payment terms may also be set out in the basic contract or in a separate service contract.

2. **Advantages/Disadvantages Attendant to Licensing**

   (a) **Advantages**

   - Licensing allows a company to obtain a foothold in foreign markets without large capital outlays.
   
   - Income from licensing helps pay for costly research programs.
- Licensing can be used as a test of the foreign market prior to any large-scale investment.

- Licensing allows the establishment of a company in a country which is sensitive to foreign ownership.

- Licensing, or, more particularly, cross licensing, facilitates the flow of technology desired by both parties to the agreement.

(b) Disadvantages

- Every licensee can be a potential competitor.

- Licensor can rarely maintain sufficient control over quality and marketing techniques of the licensee.

- Licensing is probably the least profitable way of exploiting the foreign market.

- Licensing practices may have various effects which violate antitrust laws, either those in the United States or abroad.

- Foreign governments have tended to become more restrictive towards licensing by foreigners, and attempt to control the terms and amount of payments permissible when the licensee is a national and the licensor is a foreigner.

B. Distributorship Agreements

1. Approach

U.S. manufacturers may utilize foreign firms as distributors abroad for the products of U.S. technology. These distributorship agreements constitute significant vehicles for the transmission of the products of U.S. industrial technology abroad; however, a distributorship relationship alone does not constitute a transfer of technology. Rather, the distributorship provides a conduit for the transmission of the products of U.S. technology without transferring the underlying technology itself to the foreign entity. Nevertheless, we briefly discuss distributorship agreements as a type of technological transfer for two reasons: (1) They play a significant role in the export of technology from the United States; and (2) the distributorship relationship may be used in combination with licensing agreements which provide for the transfer of the underlying technology itself. However, a distributorship agreement could constitute a transfer of technology in itself where the methods of distribution themselves involve technological know-how or processes. Presumably, however, to the extent that the methods or processes of distribution involved industrial and/or intellectual property capable of being licensed, such distributorship relationship would be accompanied by a licensing agreement.
2. Advantages

The distributorship relationship is primarily utilized by a U.S. producer or manufacturer to gain entry to a particular export market. Through the distributorship agreement the United States exporter benefits by obtaining entry into a foreign market through a local firm familiar with marketing aspects peculiar to the local market. Capital investment on the part of the exporter may be minimized, and special technical and language skills, which otherwise may be required, are obtained through the foreign distributor.

3. Form

Ranging from a simple to a complex agreement, a distributorship agreement will designate a foreign firm as having marketing responsibility for the manufacturer's products for a given foreign territory. The parties will provide an easy way to terminate an unsatisfactory relationship.

4. Cautions

If the rights of the parties are not spelled out in detail in the text of a distributorship agreement, the relationship may generate unexpected results should legal disputes arise. Informal interchanges of information and correspondence between both parties may be found to have established a legal relationship not intended by either party to the relationship (e.g., although two parties may have intended to deal with each other as principal independent entities, an agency relationship may be inferred). Accordingly, it is advisable that the relationship be accurately described in the agreement and that the parties act accordingly.

In addition, should the distributorship relationship contain exclusive rights for the distributor, antitrust questions under United States, foreign, and regional, e.g. EEC, law may be raised. (See the discussion of antitrust aspects, infra.) For a more detailed treatment of distributorship agreements and technology transfer, see Moore, "Agreements for the Transmission of Technology Abroad: The Distributor Relationships" in 45 DENVER L. J. 43-63 (1968).

C. Joint Ventures

Technology transfer also occurs through the establishment of international joint ventures, a relationship wherein one or more parties will supply, for instance, the technology and related technical assistance while the other party will supply, for instance, capital and other requirements for the venture. Ownership and management will be jointly controlled by the parties to the international joint venture. The venture may call for the direct participation by the parties or may result in the establishment of a new entity, owned and controlled by the parties.
Only a few Eastern bloc countries--Yugoslavia, Romania, and Hungary--permit such arrangements. Participation by the foreign party to the joint venture is typically limited to 49 per cent of total capital. Special considerations concerning taxation and repatriated profits apply. For a more detailed discussion of special considerations regarding joint ventures between East and West see Rohlik, "Trading with Socialist Partners," in 4 GA. J. INT'L & COMP. L. 383-386 (1974), and W. Surrey and D. Wallace, eds., A Lawyer's Guide to International Business Transactions 204-208 (2d ed. 1977).

D. Turnkey Plants

The turnkey plant, as a mode of technology transfer, is a complete package transfer involving not only the licensing of the underlying technological know-how and any patents involved, but also the furnishing of necessary services, technical assistance, and the construction of a complete plant to manufacture the product of the underlying technology. The transferor of technology will typically be charged with the responsibility of plant construction as part of the package deal. Where turnkey plants are built by Western countries in the Socialist countries, however, the transferee, e.g., the Socialist enterprise, is usually responsible for supplying the plant and utilities in conformity with the seller's requirements. See, W. Surrey & D. Wallace, Jr., eds., A Lawyer's Guide to International Business Transactions 204 (2d ed., 1977).
II. THE LEGAL ENVIRONMENT FOR THE TRANSFER PROCESS

A. On the National Level

Policy Considerations

Basic U.S. Government policy toward technology transfers is in accord with policy towards international investment generally, and appears to be essentially neutral, neither promoting nor discouraging investment and technology flows. Specifically, present U.S. policy is based on the premises: (1) that investment and technology flows will generally result in the most efficient allocation of economic resources governed by market forces; (2) that there is no basis for concluding that a policy of promoting or restricting technology transfers would further the U.S. national interest; and (3) that unilateral U.S. government intervention in the transfer process could prompt counteractions by other governments with consequent adverse effects on the U.S. economy and U.S. foreign policy. Generally the foregoing is applicable to both developed countries and developing countries, although it is not the intent of the U.S. policy to preclude appropriate assistance to those developing countries wishing to attract foreign direct investment and technology. Towards Communist countries, however, U.S. policy rather restricts transfers to these countries which do not adversely affect the U.S. national security.

The U.S. has an important interest in seeking a sound investment climate in the foreign country, and to ensure that established investors receive equitable and non-discriminatory treatment from host governments. The United States also seeks to assist the developing countries to participate in the industrialization process, and is committed to participate actively in formulating a nonbinding international code of conduct on the transfer of technology (in UNCTAD), as well as practicable proposals for revision of the Paris Industrial Property Convention, aspects of which are discussed below. It should be recognized, however, that both of these exercises were endorsed by the United States to counter the developing countries' insistence on a legally binding code governing technology transfers.

U.S. technology transfer policies are shared by our major trading partners, and find expression in the technology transfer section of the OECD Guidelines for Multinational Enterprises. The United States and other signatories to the voluntary OECD Guidelines have agreed that enterprises of an OECD country, when transferring technology into another OECD country, should: (1) contribute to the development of national scientific and technological capabilities of the host country; (2) adopt business practices to permit rapid diffusion of technology, but with due regard for industrial and intellectual property rights; and (3) grant technology transfer licenses on reasonable terms and conditions.

It should be emphasized that this U.S. policy is applicable both to outflows of technology as well as to technology transfers into the United
States. Although the policy of neutrality is still viable, and is in fact generally followed in practice, there are some exceptions under U.S. law which affect technology transfers and these are the subject of the following discussion.

Exceptions to the Neutrality Policy

The United States Export Control and Export Licensing Regime

1. Approach; Statutory Framework

The Export Administration Act of 1969, as amended, (most recently by the Export Administration Amendments of 1977, approved June 22, 1977, and Public Law No. 95-233, approved December 28, 1977) constitutes the most important statutory scheme restricting exports of technology from the United States under United States law, replacing the Export Control Act of 1949. Other United States legislation which conditions and restricts technology exports include (1) section 38 of the Arms Export Control Act, replacing section 414 of the Mutual Security Act of 1954, (2) the Trading With the Enemy Acts, and (3) the Equal Export Opportunity Act of 1972. In this study of technology exports, mandated by section 119 of the Export Administration Amendments of 1977, key provisions of the Export Administration Act of 1969, as amended, will be fully discussed, while the provisions of the Arms Export Control Act and Trading With the Enemy Acts are more suitably discussed in the related study mandated by the International Security Assistance Act of 1977. The role of the multilateral export control mechanism of the COCOM, however, should be noted. COCOM, whose members include the NATO nations minus Iceland, plus Japan, maintains an "embargo" list and a "watch" list of strategic commodities. Since any COCOM member can prevent the inclusion of an item on the embargo list, the list is less restrictive than the United States export control regime. United States participation in COCOM is a responsibility of the Department of State.

The Equal Export Opportunity Act of 1972 is only another name for the 1972 amendments to the Export Administration Act of 1969 and, accordingly, will also be included in the discussion of the requirements for export control and licensing under the Export Administration Act of 1969, as amended. In addition, the export administration regulations, as promulgated by the Department of Commerce pursuant to the Export Administration Act and administered by its Office of Export Administration, will be discussed.

2. Congressional findings of fact and declarations of policy.

The congressional findings of fact and declarations of policy expressed in the Export Administration Act of 1969, as amended twice since 1969 are--
(1) The availability of certain materials at home and abroad varies so the quantity and composition of United States exports and their distribution among importing countries may affect the welfare of the domestic economy and may have an important bearing upon fulfillment of the foreign policy of the United States. 21/

(2) The unrestricted export of materials, information, and technology without regard to whether they make a significant contribution to the military potential of any other nation may adversely affect the national security of the United States. 22/

(3) The unwarranted restriction of exports from the United States has a serious effect on our balance of payments, particularly when export restrictions applied by the United States are more extensive than export restrictions imposed by countries with which the United States has defense treaty commitments. 23/

The Equal Export Opportunity Act of 1972, 24/ amending the 1969 act, restricted the adverse effect of United States export restrictions on the balance of payments to those cases where United States restrictions are more extensive than those of her allies.

(4) The uncertainty of policy toward certain categories of exports has curtailed the efforts of U.S. business in these categories to the detriment of the overall attempt to improve the trade balance of the United States. 25/

(5) Unreasonable restrictions on access to world supplies can cause worldwide political and economic instability, interfere with free international trade, and retard the growth and development of nations. 26/

This last finding of fact was added by 1974 amendments to the Export Administration Act 27/ and can be seen as a congressional reaction to the restrictions placed on world petroleum supplies by oil-exporting nations.

Second, the Congress made numerous declarations of policy respecting export regulation, many of which are of particular relevance to the export of technology from the United States and are also illustrative of congressional intent. In pertinent part, the Congress declared that--

(1) It is the policy of the United States both (A) to encourage trade with all countries with which we have diplomatic or trading relations, except with those countries with which trade has been determined by the President to be against the national interest, and (B) to restrict the export of goods and technology which would make a significant contribution to the military potential of any other nation or nations which would prove detrimental to the national security of the United States. 28/
It is the policy of the United States to use export controls (A) to the extent necessary to protect the domestic economy from the excessive drain of scarce materials and to reduce the serious inflationary impact of foreign demand, (B) to the extent necessary to further significantly the foreign policy of the United States and to fulfill its international responsibilities, and (C) to the extent necessary to exercise the necessary vigilance over exports from the standpoint of their significance to the national security of the United States. 29/

It is the policy of the United States (A) to formulate, reformulate, and apply any necessary controls to the maximum extent possible in cooperation with all nations, and (B) to formulate a unified trade control policy to be observed by all such nations. 30/

The 1974 amendments broadened the policy of cooperation from those nations with which the United States has defense treaty commitments to all nations. 31/

It is the policy of the United States to use its economic resources and trade potential to further the sound growth and stability of its economy as well as to further its national security and foreign policy objectives. 32/

In addition, the Congress, in the Equal Export Opportunity Act of 1972, made the further policy declaration that the continued restriction and export control of United States articles, materials, and supplies, including technical data or other information, should be subject to review by appropriate Federal agencies and qualified experts from the private sector. 33/

The 1974 amendments enunciated the additional policy of using export controls to secure the removal by foreign countries of restrictions on access to supplies where such restrictions may have a serious domestic inflationary impact, can cause serious domestic shortages, or have been imposed in order to influence United States foreign policy. 34/ Finally, the Export Administration Amendments of 1977 declared it to be United States policy to use export controls to encourage countries to refuse to give sanctuary resources, aid, or encouragement to international terrorists. 35/

3. Authority and Discretion Established by Statute.

The Export Administration Act directs the Secretary of Commerce to institute a procedural and organizational regime for the continued administration and exercise of export controls to implement of basic congressional findings of fact, discussed above, in a manner which promotes international trade. The Secretary is directed to review export control lists and promptly make any changes and revisions in the list in furtherance of the policies and purposes of the Export Administration Act. 36/ In addition, the President, or his delegate, 37/ may prohibit or curtail exportation, except
under rules and regulations he prescribes, of any articles, materials, or supplies, including technical data or any other information, which is subject to the jurisdiction of the United States or exported by any person subject to United States jurisdiction. 38/ Such rules and regulations may also apply to financing, transporting, and servicing such exports. 39/

In administering export controls for national security purposes, the following factors are taken into account in determining United States policy toward other countries:

-- Communist or non-Communist status;

-- Present and potential relationship to the United States;

-- Present and potential relationship to countries friendly or hostile to the United States;

-- Ability and willingness to control retransfers of United States exports in accordance with United States policy; and

-- Such other factors as the President may deem appropriate. 40/

An annual review of export control policy by the President of the United States is required. 41/

In addition, the President, or his delegate, 42/ is empowered to deny export licensing requests for exports to nations or groups of nations if the President, or his delegate, determines that the exports would be detrimental to United States security. 43/ However, (1) if the same articles, materials, or supplies and technical data or other information are available in significant quantities and comparable quality, without export restriction, from sources outside the United States, and (2) if it has been adequately demonstrated that the absence of controls would not prove detrimental to United States national security, the President, or his delegate, shall not impose controls. Where export controls are imposed notwithstanding foreign availability, the President, or his delegate, is directed to initiate negotiations with foreign governments to eliminate foreign availability which threatens United States national security. 44/

In 1974 45/ and 1977 46/ the Congress addressed the question of strategic commodity controls in amendments to the 1969 act, which enunciated a new finding of fact and established a special and preeminent role for the Secretary of Defense in an interagency export control process. The Congress found that--

The defense posture of the United States may be seriously compromised if the nation's goods and technology are exported to a country to which exports are restricted for national security purposes without an adequate and knowledgeable assessment being made to determine whether export of such goods and technology will make a significant contribution to the military potential of such country. 47/
The Secretary of Defense is authorized to review any proposed export of goods or technology and, if he determines that such export would make a significant contribution to the military potential of a country which would prove detrimental to United States national security, he may recommend to the President that such export be disapproved. In addition, whenever a license or authority is requested for export of goods or technology to a country to which such exports are restricted for national security purposes, the Secretary of Defense must be satisfied by the appropriate agency (e.g., Office of Export Administration) and action on the request must be suspended until expiration of the period during which the President may disapprove such export. For the purpose of the power of the Secretary of Defense to recommend Presidential disapproval of a proposed export, the term "goods or technology" is defined as (i) machinery, equipment, capital goods, or computer software, or (ii) any license or other arrangement for the use of any patent, trade secret, design, or plan with respect to any such item.  

4. Implementation and Regulatory Regime—Generally.

Export Administration regulations, promulgated pursuant to the Export Administration Act of 1969, as amended, are found in title 15, of the Code of Federal Regulations, Parts 368-399. The Department of Commerce, Office of Export Administration, is charged with the regulation of the export of the great majority of products and commodities. However, other agencies regulate the export of special items within their jurisdiction. In addition, the regulations govern the reexport, transshipment, or diversion of commodities or technical data from one foreign destination to another. A special exception from the export control regulations is established by the regulations for exports to Canada, except for those commodities or technical data specified in the text of the rules themselves.  

For the purposes of administration of the 1969 act, as amended, the rest of the world has been divided by the Office of Export Administration into seven country groups, as follows:

Country Group Q

Romania.

Country Group S

Southern Rhodesia.

Country Group T

North America

Northern Area:
Greenland.
Miquelon and St. Pierre Islands.
Southern Area:
Mexico (including Cozumel and Revilla Gigedo Islands).

Central America:
British Honduras.
Costa Rica.
El Salvador.
Guatemala.
Honduras (including the Bay Islands).
Nicaragua.
Panama, Republic of.

Bermuda and Caribbean Area:
Bahamas.
Barbados.
Bermuda.
Dominican Republic.
French West Indies.
Haiti (including Gonave and Tortuga Islands).
Jamaica.
Leeward and Windward Islands.
Netherlands Antilles (formerly Curacao, N.W.I.).
Trinidad and Tobago.

South America

Northern Area:
Columbia.
French Guiana (including Inini).
Guyana (formerly British Guiana).
Surinam (Netherlands Guiana).
Venezuela.

Western Area:
Bolivia.
Chile (including the islands Sals-y-Gomez, Juan Fernades, San Felix, San Ambrosio and Easter Island).
Ecuador (including the Galapagos Islands).
Peru.

Eastern Area:
Argentina.
Brazil (including the islands of St. Paul, Fernando Noronha, and Trinidad (in South Atlantic)).
Falkland Islands.
Paraguay.
Uruguay.

Country Group V

All countries not included in any other country group (except Canada).
Country Group W

Poland.

Country Group Y

Albania.
Bulgaria
Czechoslovakia.
Estonia.
German Democratic Republic (including East Berlin).
Hungary.
Laos.
Latvia.
Lithuania.
Outer Mongolia.
Union of Soviet Socialist Republics.
People's Republic of China (excluding Republic of China (Taiwan))

Country Group Z

Cambodia.
Cuba.
North Korea.
North Vietnam.
South Vietnam. 54/

Exports to Groups S and Z receive the greatest control, with all licenses being denied except exports for limited humanitarian purposes. 55/
A less restrictive policy is pursued with respect to Groups Q, W, and Y, 56/ with groups Q and W receiving less restrictive treatment than Group Y. 57/
Group V receives the least restrictive export treatment. 58/

As a general proposition, the export licenses granted by the Department of Commerce, Office of Export Administration, are of two types, "general" and "validated" licenses, although there are specific variations of each type. A "general" license is defined as--

A license established by the U.S. Department of Commerce for which no application is required and for which no document is granted or issued. It is available for use by all persons, and permits export within the provisions thereof as prescribed in the Export Administration Regulations. These general exports are not applicable to exports under the licensing jurisdiction of agencies other than the Department of Commerce. 59/
A "validated" license is defined as--

A document issued by or under authority of the Office of Export Administration, authorizing export. 60/

General and/or validated licenses are issued in accordance with the established policies for the various country groups in relation to the Commodity Control List, which comprises a listing of all commodities under the jurisdiction of the Office of Export Administration, Department of Commerce. 61/ "Commodity" is defined as any article, material, or supply, except technical data. 62/

The Commodity Control List is reassessed from time to time to assure that validated licenses are required for such commodities --

-- To protect the domestic economy from the excessive drain of scarce materials and to reduce the serious inflationary impact of abnormal foreign demand;

-- To further significantly the foreign policy of the United States and to fulfill its international responsibilities; and

-- To exercise the necessary vigilance over exports from the standpoint of their significance to the national security of the United States. 63/

During the periodic review, particular emphasis is placed by the Department of Commerce upon commodities controlled for national security purposes, with the following factors being considered:

-- Its essential features (distinguishing physical or operating characteristics; variations between types, models, grades, etc.; and the technical and strategic significances of these differences).

-- Its civilian uses.

-- Its military or military-support uses.

-- Its end-use pattern in the United States.

-- Its technological state of development (Whether it involves a new product and represents the current state of the art. Whether it contains advanced technology that can feasibly be extracted).

-- Its availability abroad (Whether the same or a comparable commodity is available from other non-Communist countries and
where and by whom. Whether the foreign product is manufactured abroad with U.S.-origin technology or components. 64/

5. Implementation and Regulatory Regime--Technical Data.

The regulation of exports of technical data under general and validated licenses is governed by Part 379 of the Office of Export Administration regulations. 65/ "Technical data" is defined, for purposes of the regulations, as--

Information of any kind that can be used, or adapted for use, in the design, production, manufacture, utilization, or reconstruction of articles or materials. The data may take a tangible form, such as a model, prototype, blueprint, or an operating manual; or they may take an intangible form such as technical service. 66/

The export of technical data includes not only an actual shipment or transmission of such data outside the United States, but also the release of technical data in the United States with the knowledge or intent that such data will be shipped or transmitted to a foreign country, and the release of technical data of United States origin in a foreign country. 67/. Technical data may be released for export through (i) visual inspection by foreign nations of equipment of U.S. origin and of facilities; (ii) oral exchanges of information, whether in the United States or abroad, and (iii) the application to situations abroad of personal knowledge or technical experience acquired in the United States. 68/ As a general rule, exports of technical data must be made under a Department of Commerce general license or validated export license, 69/ the degree of restrictiveness depending upon the type of technical data and the country group to which export is proposed. 70/ In addition, the reexport of technical data is prohibited, 71/ except with regard to certain reexports of generally licensed data. 72/ The provisions of the Export Administration Regulations are intended to apply equally to exports of technical data and to licenses issued therefor. 73/

With respect to technology based on technical data of United States origin, such technical data has been interpreted for purposes of the Export Administration Regulations as follows:

U.S.-origin technical data does not lose its U.S.-origin when it is redrawn, used, consulted, or otherwise commingled abroad in any respect with other technical data of any other origin. Therefore, any subsequent or similar technical data prepared or engineered abroad for the design, construction, operation, or maintenance of any plant or equipment, or part thereof, which is based on or utilizes any U.S.-origin technical data, is subject to the same U.S. Export Administration regulations that are applicable to the original U.S.-origin technical data, including the requirement for obtaining Office of Export Administration authorization prior to reexportation. 74/
No foreign law, rule, regulation, or authorization can relieve any person from
the responsibility to obtain the proper authorization for the export or
reexport of technical data from the Department of Commerce under the Export
Administration Regulations. 75/

As is evidenced by the above discussion, the exportation of
technology from the United States is conditioned and restricted by export
controls and licensing provisions established to implement the Export
Administration Act of 1969, as amended, among other statutes. In accordance
with congressional findings of fact and declarations of policy, the Secretary
of Commerce, the President, or his delegate, and the Secretary of Defense,
possess authority and discretion to effectuate export control policy.
Particular emphasis is placed upon national security considerations. The
implementing regulations have established a framework of general and validated
licenses in relation to specified Country Groups, to which a varying degree of
restriction and control is applied, for exports and reexports of commodities
on the commodity control list and for exports and reexports of technical
data.

Antitrust Policies Toward Licensing Technology Abroad

Licensing agreements are the usual means for transferring technology
from the United States to foreign enterprises. Moreover, the increased use of
licensing is likely to increase as certain countries begin to discourage
direct foreign investment. 76/ This section provides an introduction to
antitrust issues in the licensing of U.S. patents and know-how. Readers are
couraged also to refer to the Antitrust Guide for International Operations
prepared by the Department of Justice (1977). 77/ The guide uses
illustrative factual situations, a few of which involve the transferring of
patent and know-how technology. A fuller discussion of the material presented
here is found in Marcus B. Finnigan, "How the Rules of Competition Affect
Licensing in the U.S.A.," in Finnegan and Brunsvold, The Law & Business of
Patent & Know-How Licensing (3d ed. 1975). A more comprehensive treatment is

The Report of the Attorney General's National Committee To Study the
Antitrust Laws states that "The general objective of the antitrust laws is the
promotion of competition in open markets." 78/ The purpose is to prevent
concentration of economic power and promote pluralism in economic
decisionmaking. 79/ One of the effects of antitrust enforcement is to
subject powerful decisionmakers in otherwise unregulated markets "... to the
threat of encroachment by other authorities." 80/ Other objectives of
antitrust are to preserve opportunities for newcomers to enter fields of
economic activity and to encourage a market-oriented environment in which
consumers "... will have the maximum possible choice as to what goods are
produced and offered to them, and ... will receive the lowest possible price
for such goods." 81/
1. **Antitrust in international commerce**

The Justice Department's Antitrust Guide identifies two major goals in its enforcement of the antitrust laws in international commerce as follows:

- The first is to protect the American consuming public by assuring it the benefit of competitive products and ideas produced by foreign competitors. . . . The second major antitrust enforcement purpose is to protect American export and investment opportunities against privately imposed restrictions. 82/

The extraterritorial reach of U.S. antitrust laws has been the subject of controversy since the decision in United States v. Aluminum Co. of America, 83/ which held that the antitrust laws (Sherman Act) may reach contracts and combinations made abroad, including those exclusively among foreign companies, if they are intended to restrain U.S. foreign commerce and actually do result in anticompetitive effects on U.S. commerce. The Antitrust Guide adopts the Restatement (Second) of Foreign Relations Law of the United States on the question of the jurisdictional reach of U.S. antitrust law to overseas acts not committed by U.S. citizens. 84/ "When foreign transactions have a substantial and foreseeable effect on U.S. commerce, they are subject to U.S. law regardless of where they take place." 85/ Where foreign activities would have no direct or intended effect on either U.S. consumers or export opportunities, the Antitrust Guide indicates that the U.S. antitrust laws do not apply. 86/

U.S. antitrust policies in the area of foreign trade are coordinated by liaison activities among the Departments of Justice, State and Commerce and the Federal Trade Commission. 87/ The United States maintains antitrust cooperation arrangements with Canada 88/ and West Germany. 89/ The United States is a signatory to a number of treaties of friendship, commerce, and navigation, each of which includes a "restrictive business practice" clause providing that each signatory agrees, upon the request of the other, to consult with respect to such practices and to take such measures as it deems appropriate to eliminate harmful effects of such practices. 90/ In 1960 the Contracting Parties to the General Agreement on Tariffs and Trade passed a resolution recommending both bilateral and multilateral consultations concerning restrictive business practices. 91/ In 1967 the Council of the Organization for Economic Cooperation and Development recommended that member countries cooperate with respect to—

(1) Notification of actions by one country under its antitrust or restrictive business practice legislation affecting the important interests of another country. . . . (2) Coordination of enforcement under national laws where appropriate and practicable. And (3) exchange of information on restrictive business practices to the extent permitted by the national laws and legitimate interest of member countries. 92/
2. **U.S. antitrust laws.**

Although the Sherman Act is predominant in antitrust enforcement, other statutory provisions are also important. The following discussion includes a brief analysis of the judicial interpretation of the Sherman Act and a sketch of the provisions of other statutes.

**Sherman Act.** 93/ — Read literally, section 1 of the Sherman Act declares illegal "Every contract, combination in the form of a trust or otherwise, or conspiracy in restraint of" interstate or foreign commerce. Similarly, section 2 provides that "Every person who shall monopolize or attempt to monopolize . . . any part of interstate or foreign commerce shall be guilty of a misdemeanor." The Supreme Court adopted a "rule of reason" construction for applying these provisions. 94/ Thus, not every restraint of trade is illegal. Only those which "unreasonably" restrain trade are illegal. The application of the rule of reason construction has relied upon the subordinate doctrines of ancillary restraints 95/ and per se rules. In applying the rule of reason to specific factual circumstances, the Antitrust Guide adopts three threshold inquiries:

First, is it an anticompetitive restraint which is ancillary to a lawful main purpose? Secondly, is its scope or duration greater than necessary to achieve that purpose? Thirdly, is it otherwise reasonable, either alone or in conjunction with other circumstances? 96/

Through application of the rule of reason, the Supreme Court has determined that certain conduct in restraint of trade is unreasonable per se. The per se classification has been applied to price fixing agreements among competitors, agreements to limit production, agreements among competitors to divide markets, group boycotts, concerted refusals to deal, and other behavior determined to be undesirable regardless of the economic context in which it took place. The significance of the per se classification is evidentiary. 97/ If a challenged conduct falls within the classification, the challenger has to prove only that as a matter of fact the conduct took place. No justification for the conduct is admissible in its defense.

**Clayton Act.** 98/ — Section 3 of the Clayton Act prohibits a seller's use of leverage by supplying one product to force sales of another product where the effect is substantially to lessen competition. Such transactions are referred to as tie-ins. Section 4 of the act permits any person who is harmed by violations of the antitrust laws to bring suit in the U.S. district courts for three times the amount of the damages sustained. The significance of this provision is that private parties have a financial incentive to enforce antitrust provisions in circumstances where the Government has not challenged the conduct. Section 7 prohibits corporations subject to the jurisdiction of the Federal Trade Commission from acquiring "assets of another corporation . . . where in any line of commerce in any section of the
country, the effect . . . may be to substantially lessen competition." This provision would prohibit the acquisition of patents and know-how in cases where the acquisition could have the requisite effect.

**Federal Trade Commission Act.** 99/ -- Section 5 of the Federal Trade Commission Act authorizes the Commission to issue cease and desist orders against persons engaged in "unfair methods of competition in commerce, and unfair or deceptive acts or practices in commerce." This section prohibits conduct prohibited by the Sherman and Clayton Acts and also authorizes the agency to stop in their incipiency any practices which where full-blown would violate those statutes. Prosecution of conduct on the basis of an incipiency theory may substantially "reduce the burden of proof the government must carry in order to prevail." 100/ Private parties may not bring suit for violations of section 5; however, in a capacity as complaining witnesses they may persuade the agency to initiate proceedings.

The **Tariff Act of 1930.** -- Section 337 of the Tariff Act 101/ authorizes the U.S. International Trade Commission to bar unlicensed foreign goods from entry into U.S. commerce where such goods infringe a U.S. product patent or have been produced abroad by a process subject to either a U.S. process patent or a trade secret. In certain controversies before the Commission the parties have proposed settlement of cases prior to agency adjudication by licensing disputed rights to the technology. Such proposed license agreements are subject to Commission regulation.

3. **Application of antitrust standards to patent licenses.**

The holder of a U.S. patent receives a 17-year monopoly from the Government, i.e., "the right to exclude others from making, using or selling (the patented) invention throughout the United States." 102/ Although the patent grant has been likened to personal property, the courts stress the public interest inherent in patent grants. A patentee is permitted to license under his patent grant.

Antitrust prosecution of anticompetitive behavior and the monopolistic nature of patent grants sometimes seem to be in conflict. However, both the patent system and the antitrust laws encourage the disclosure of technology. The disclosure of inventions protected by a patent monopoly increases the likelihood that consumers will benefit from the inventions. This incentive complements the goal of antitrust policy to promote a market-oriented environment which provides what consumers want. 103/

Conflicts between patent grants and antitrust strictures generally revolve around the issue of whether a particular license restriction "is reasonably necessary to afford the patentee the rewards of his invention or whether the restriction goes further and constitutes an unreasonable restraint of trade." 104/ The following types of patent license restrictions have been subject to antitrust challenge and scrutiny. 105/
Restrictions on price. In 1926 the Supreme Court held that a manufacturing patentee could fix the price at which manufacturing licensees could sell articles covered by the patent. 106/ This holding barely survived a 1965 case in which the Court upheld the result in an evenly divided decision without an opinion. 107/ The Justice Department has announced that it will attempt to have the 1926 decision overturned. 108/

Territorial restrictions. The patent laws authorize a patent owner to "convey an exclusive right under his application for a patent, or patents, to the whole or any specified part of the United States." 109/ The lawfulness of a territorial restriction depends therefore on whether or not it is ancillary to a lawful main purpose of the license. For instance, if the license is merely a form to enable the parties to attempt to divide markets, the license is illegal. Moreover, the scope of the license must reflect the scope of the patent grant, and the duration of the restriction must be appropriate also. 110/

Grant-backs and license-backs. A grant-back provision is one in which the licensee agrees to grant-back to the owner of the basic patent any improvement patents the licensee may develop. 111/ Antitrust authorities assume that exclusive grant-back provisions discourage innovations by licensees. 112/ The Justice Department has announced a policy of questioning exclusive grant-backs. 113/ Nonexclusive license-back provisions are not objectionable. 114/

Field-of-use limitations. Field-of-use licensing has been described as "a term of art describing agreements under which a licensor grants a (manufacturing) licensee a restricted use of patented subject matter, but declines to grant all possible uses to one licensee, reserving some uses for self-exploitation, or for exploitation by other licensees." 115/ Such licenses enable the patent owner to subdivide the market for the patented product into noncompetitive submarkets. Although the Supreme Court sanctioned field-of-use restrictions in a 1938 case, 116/ the Department of Justice has subsequently challenged these restrictions 117/ and has been successful in a case of where the restrictions operated to put restraints on resale by a licensor. 118/

Resale restrictions. Very early case law established the proposition that the first authorized sale of a patented product exhausts the patent monopoly and that further restraints on alienation may not be imposed on a purchaser by a patentee seller. 119/ In United States v. Glaxo Group, Ltd., a licensor restricted its licensees from making bulk sales of a patented antibiotic, allowing them to sell in dosage forms only. The licensor had sold the drug to the licensees, and the policy against restraints upon alienation in resales was applied to the case. 120/ As a result of the Supreme Court's recent ruling in Continental TV, Inc. v. GTE Sylvania, Inc., all vertical territorial or customer restrictions after the manufacturer has sold its goods will be subject to a rule-of-reason test. 121/
Tying arrangements (tie-ins). Tying arrangements are those in which the patentee licenses under a patent on the condition that the licensee also purchase unpatented materials. In International Salt Co. v. United States, the Supreme Court held leases of patented salt machines invalid per se on the ground that the lessees were required to use only the lessor's unpatented products with the machines. 122/

Restricting licensee's freedom to deal with competitors (tie-outs). In National Lockwasher Co. v. George K. Garrett Co., the patent owner licensed manufacturers under an agreement restricting licensees from manufacturing any washers not covered in the license. The court, noting the existence of unpatented washers, stated that the patent grant was being used to suppress the possible manufacture of competing unpatented goods. 123/

Package licenses. A package license is a license under more than one patent. Where the patent owner refuses to license the patents individually or charges an unreasonably high royalty for the individual patents, the license is vulnerable to antitrust challenge. In Zenith Radio Corp. v. Hazeltine Research, Inc., the Supreme Court held that there is no violation of the antitrust laws where a package license had been offered for the mutual convenience of the parties. 124/ If it appears that the licensor is using economic power to coerce a royalty for patents the licensee did not want, however, the license will be declared invalid. 125/ To avoid the risk of antitrust challenge, licensees ought to be given the option of a license under selected patents for a lower royalty than that charged for the entire package. 126/

Postexpiration royalties. In Brulotte v. Thys Co., the Supreme Court held that a patentee cannot collect royalties after the expiration of the licensed patent. 127/ This ruling can complicate package licensing. 128/ Royalties may be collected on a deferred-payment basis, however, as long as they are based upon use during a period before the patent expired. 129/

Cross-licenses and patent pooling. Cross-licensing exists where a part of the consideration for licensing a patent consists of the licensing-back of another patent. This does not by itself create antitrust problems. Patent pooling consists of a cross-licensing arrangement which involves more than two parties. 130/ In a 1931 Supreme Court case a pooling arrangement formed by four corporations as a means of settling infringement suits brought against each other resulted in a ruling that pooling arrangements are not per se antitrust violations. 131/ Commentators suggest that membership in a patent pool should be open to any interested person at a reasonable royalty rate to protect a patent pool from antitrust attack. 132/

Quantity restrictions. -- The Department of Justice takes the position that any quantity restrictions in patent licensing agreements are illegal. 133/ Such restrictions have been condemned in the courts where a patent owner licensed a patented process and established a limitation on the quantity of unpatented products to be manufactured from the process. 134/
Royalty discrimination. -- In *La Peyre v. FTC* the fifth circuit held that discriminatory rental rates on patented machines may violate section 5 of the Federal Trade Commission Act. 135/

Licensee veto over granting other licenses. -- In *United States v. Besser Mfg. Co.*, it was held illegal, per se, for a licensor and licensee, who were competitors controlling the subject market, to agree not to grant further licenses without the consent of the other. 136/

4. Application of antitrust standards to know-how licenses.

Kirkpatrick and Mahinka define know-how as consisting of "technological information concerning manufacturing processes not protected by patent, not generally known or accessible, and of competitive advantage to its owner." 137/ Legal protection of know-how is usually based upon a theory of the breach of trust in the misappropriation of trade secrets. 138/ In contrast, patented information is granted protection in return for its disclosure. To the degree that particular know-how is known only to its owner and is, therefore, secret, the owner possesses a limited monopoly. Where the owner uses the secret within his own business, as, for instance, in manufacturing a product, the monopoly is ordinarily legal and there are no antitrust problems in the conduct. 139/ Should the owner desire to license the secret, the license will be subject to antitrust scrutiny. The Department of Justice has taken the position that, because know-how lacks the legislative status of the patent system, "know-how licenses will in general be subject to antitrust standards which, if anything, are stricter than those applied to patent licenses." 140/

Most commentators recite the ancillary restraints doctrine and warn of know-how licensing restrictions involving tying agreements, restrictions on price, restraints on territory, restrictions on field of use, restrictions on the duration of the license and grant-back requirements 141/ as areas in which antitrust problems may arise. 142/ The Justice Department has taken the position that restrictions in know-how licenses should not last longer than the time necessary for the licensee to develop equivalent know-how for itself—"a reverse engineering period." 143/ The rationale for the concept of the reverse engineering period appears to be that a restraint limited to the length of time necessary to invent around the licensed know-how "does not eliminate competition which would have taken place in the absence of the licensing agreement." 144/

There has been very little antitrust litigation involving only know-how licensing. The cases usually associated with know-how have involved territorial restraints by international cartels. 145/ Know-how is not readily analogous to patent licensing experience. Stedman explains: 1) patent claims must be very definite in scope while know-how is usually of an amorphous character and cannot be described precisely; 2) patent protection is limited to the territory of the country granting the patent, while know-how
could be protected, at least in theory, wherever the domestic law of the forum protects trade secrets; 3) patents are limited to the 17-year period of protection, while know-how is protected for as long as it does not become generally known; 4) a patent grant protects its owner from a duplicative independent invention, but the character of know-how can be destroyed by an independent discovery; and, 5) know-how content changes as new information is incorporated, and old information becomes publically known. 146/

**Tax Implications**

1. **Introduction**

Tax laws affect the transfer of technology. The basic policy which the United States has followed, or has sought to follow, is that of tax neutrality, taxing all income from foreign and domestic sources equally. 147/ The U.S. tax approach is to assure, primarily through the operation of the foreign tax credit, that income earned abroad will be taxed at a rate at least as high as the prevailing U.S. rate, thus attempting to neither paralyze nor encourage activity which would result in foreign source income.

There are and have been, however, exceptions to the general principle of tax neutrality. 148/ In particular, until recently, the tax code granted some rather substantial incentives for U.S. companies to invest in and transfer technology to the developing countries. These will be discussed in a section below.

2. **Definitional Problems Relating to Transfers of Technology Abroad**

**Tax Definition of Technology.** The fundamental problem in discussing the tax treatment of transfers of technology is defining what constitutes "technology." The tax law has for many years distinguished between "property" and "services," 149/ with different tax consequences applicable to each. While income from services is taxed at ordinary income tax rates, income from property transfers may be taxed at capital gains rates. Under certain conditions, taxes on property transfers may be deferred or even avoided. Technology is more closely akin to property and will be treated as such for purposes of this study.

The courts and the Internal Revenue Service (IRS) have defined technological property to include patents, copyrights, secret processes and formulas, and any other secret information as to a device or process in the general nature of a patentable invention without regard to whether a patent has been applied for. In general, the fact that services were used to produce property will be disregarded for tax purposes. 150/ Moreover, where the transferor of such property agrees to perform services in connection with the transfer and the services are merely ancillary and subsidiary to the property transfer, such services will not be taxed separately from the transfer. However, continuing technical assistance after the start-up period will be regarded as the performance of services, and the consideration therefor will be taxed as compensation rather than as payment for the property. 151/
Sale v. License. A second definitional problem is determining when the owner of technological property has transferred all substantial rights in the property (a sale) and when he has transferred a partial interest in the property (license). This distinction is of critical importance under the tax law for a number of reasons, including the characterization of the income realized on transfer as capital gain or ordinary income.

In general, a transfer of "all substantial rights" in property means a transfer of the exclusive right to make, use, or vend the property for all purposes throughout the life of the property or a transfer of an undivided interest therein which includes a part of all such rights. A grant of an exclusive right that is limited geographically to a particular country or group of countries will be considered as a transfer of "all substantial rights." 152/

The nonexclusive transfer of technological property will not be treated as a sale or exchange, but rather as a license agreement. One could qualify for capital gains treatment, however, even with a license, but only if the transferor retains only bare legal title to the property and a forfeiture clause for noncompliance is included with the conditions of the license. 153/

Transfers of know-how are treated much the same as transfers of patents. In order to qualify as property, however, the right to use the know-how 154/ must be granted in perpetuity, and the country of the recipient of the know-how must provide some sort of legal protection for the know-how transferred in order to receive capital-gains treatment by the IRS.

3. IRS Regulation 1.861-8

On June 18, 1973, the Commissioner of Internal Revenue 155/ published a new proposed regulation, entitled "sec. 1.861-8, computation of taxable income from sources within the United States and from other sources and activities." The proposed regulation was withdrawn by the IRS in November 1976, and was replaced by a new proposed regulation on November 8, 1976. A public hearing was held December 16, 1976, and the regulation issued in final form in January 1977. 156/

The foreign tax credit allowed to a taxpayer 157/ in effect cannot exceed an amount equal to what the U.S. tax (48 percent) would be on the taxpayer's foreign source income. 158/ In international business there is often no obvious line of demarcation between foreign source income and U.S. source income. Sections 861 to 864 of the Internal Revenue Code set forth statutory rules for determining what is foreign source income and what is U.S. source income. The rules for allocating expenses incurred in the United States between foreign source and U.S. source income are contained in secs. 861(1b), and 862(b), and 863.
There was a need to promulgate new regulations primarily because (1) the existing regulations were too brief and ambiguous to be uniformly administered, and (2) the formula for determining the allocation was deemed to be seriously defective. The pertinent language of the formula was "the relation of gross income from sources within the United States to the total gross income." The income tax definition for gross income from U.S. operations and foreign branch operations was approximately the amount of sales less the cost of sales. Gross income from other foreign sources (subsidiaries and foreign licensees), however, included only royalties, dividends, and interest received by the parent in the particular year. These payments closely approximate "net" income and are therefore smaller than "sales less the cost of sales" would be. Moreover, in case no dividends, interest, or royalties were paid to the parent corporation in a given year, there would be no allocation of R&D to foreign source income for that year.

The regulation is intended to remedy both objections to the existing regulation mentioned above. The objective of the proposed regulation is to match expenses to income. If certain research can be definitely related to one class of income and no other, the research expense should be charged against that class. If the research is related to more than one class of income, it must be allocated between them on a basis that will match expenses to income. If a class of income has its source solely within the United States or solely without the United States, no apportionment is necessary. If, however, the source of the income is both within and without the United States, apportionment is necessary.

Although the regulation has been effective for more than a year, its effects remain uncertain. However, it would seem that the net effect of the regulation may be to increase the costs required to be allocated against foreign source income. This, in turn, would reduce taxable income from foreign sources and thus reduce the amount of foreign tax credits available. One problem is that items of cost, like R&D costs, may not be allowed as deductions by foreign tax authorities. One possible solution might be to increase royalty payments to compensate for any income loss caused by reduced foreign tax credits. However, this remedy would not seem feasible because in many countries amounts payable for royalties are controlled and limited by the government. 159/

4. Research and Development Expenditures

Under the Internal Revenue Code, expenditures for research and development may generally be treated as a current expenditure or capitalized at the option of the taxpayer. This choice does not apply to an expenditure for land or for depreciable property.

If expenditures are capitalized, they may be depreciated over their useful life, or, if no useful life is determinable, amortized over a period of at least 60 months. Depreciation or amortization begins in the month when
benefits are first realized from the expenditure. However, if the research expenditure results in the issuance of a patent, the unrecovered expenditure can thereafter be recovered through depreciation charges over the useful life of the patent.

Since research and development expenditures are essentially capital expenditures, the option to treat them as current expenditures constitutes favorable tax treatment. This favorable tax treatment is an incentive to domestic concerns to make research and development expenditures but does not, in itself, encourage the transfer of domestically developed technology abroad.

5. License Agreements and Technological Property Sales Between Unrelated Parties

Patent royalties are taxed as ordinary income to the recipient. Gains from sales of patents and other technological properties (but not services) to unrelated parties are subject to capital gains tax.

These rules apply whether the licensee or purchaser of the technological property is a domestic or foreign concern. In general, this tax treatment is neutral with respect to technological transfers to foreign as opposed to domestic concerns.

6. License Agreements and Technological Property Transfers Between Related Parties

License Agreements. Patent royalties between related companies are taxed as ordinary income to the recipient. This rule applies to receipts from foreign as well as domestic related companies. However, in the case of a license to a related foreign company, a problem may arise as to whether the related foreign company is being charged a valid market price for the use of patents or technological know-how. The domestic parent company may charge research and development expenditures fully against domestic income subject to U.S. tax and allow its foreign subsidiary to exploit the developed technological properties without paying adequate royalties, thereby inflating the income of the foreign subsidiary. If the foreign tax rate paid by the foreign subsidiary is below the U.S. tax rate and is not fully repatriated, the domestic company would receive a tax advantage from licensing domestically developed technology to foreign subsidiaries below development cost. In recognition of this problem with respect to all transactions between related companies, Section 482 of the Internal Revenue Code permits the IRS to distribute gross income, deductions, credits, or allowances between such companies if it is determined that such action is necessary to prevent evasion of taxes or to clearly reflect the incomes of the related companies. Section 482 may be applied to research and development expenditures by U.S. companies on behalf of their foreign subsidiaries in order to safeguard against underpricing of technological services to foreign subsidiaries.
Technological Property Transfers. Gains from the sale of technological property from one domestic company to another domestic company are taxed at capital gains tax rates whether or not the two companies are related. Under Section 1249 of the Internal Revenue Code, gains from the sale of technological property by a domestic company to a controlled foreign corporation are taxed as ordinary income.

Tax-Free Transfers. Technological property may be transferred from one corporation to another related corporation in exchange for stock rather than cash. Under the Internal Revenue Code, property of one corporation, including technological property, may be transferred free of tax to another corporation in exchange for stock, provided that the transferor of the property owns at least 80 percent of the voting stock of the recipient corporation after the exchange. However, if the recipient corporation is a foreign corporation, proceeds from the exchange may be taxed at ordinary income tax rates, as provided for in the Internal Revenue Code.

Section 367 of the tax code formerly required that a taxpayer obtain a favorable ruling in advance of transfer of property abroad in certain exchanges, such as exchanges under section 351. This requirement is now modified by the Tax Reform Act of 1976 so that a taxpayer need only file a request for a ruling within 183 days after the beginning of the exchange. To be granted tax-free status, the taxpayer must then establish to the satisfaction of the IRS that the exchange did not have as one of its principal purposes the avoidance of Federal income taxes.

Taxation of Income Resulting From the Transfer. If the recipient of transferred technological property is a related domestic company, profits arising from the exploitation of the transferred property are subject to U.S. tax just as they would have been in the absence of the transfer. However, this result does not necessarily occur if the property is transferred to a controlled foreign corporation.

If the controlled foreign corporation in turn licenses the technological property to other companies, the royalty income recovered may be treated as subpart F income under section 951 of the Internal Revenue Code. Such income must be included in the gross income of the U.S. parent corporation.

If the controlled foreign corporation uses the technological property in the active conduct of a trade or business (such as manufacturing goods using the technological property), subpart F will not apply. Thus, income derived from the exploitation of the property transferred for such purposes becomes subject to U.S. tax only when and if such income is repatriated (tax deferral). If the foreign effective income tax rate is below the U.S. tax rate, indefinite deferral of at least part of the U.S. tax results in more favorable tax treatment of income earned on technological properties transferred abroad than on domestic exploitation of such properties.
Tax Provisions Favoring Domestic Exploitation of Technological Property. There are, however, certain tax provisions that favor domestic as opposed to foreign exploitation of technological property. The 7-percent tax credit for investment 165/ and the accelerated depreciation range (ADR) 166/ of plant and equipment apply only to domestic investment. United States companies are permitted to establish Domestic International Sales Corporations (DISCs) 167/ through which up to one-half of earnings derived from exports may be considered foreign source income and not subject to U.S. income tax until paid out to the parent company. Earnings from royalties and license fees are not eligible for this treatment, however. The DISC option encourages the domestic exploitation of technological property in the production of exports rather than the licensing of the technological property for exploitation abroad.

Tax Incentives for the Transfer of Technology. Presently, the United States provides no special incentives in its tax system for the transfer of technology abroad. It should be understood that much, if not most, of all technology transferred occurs through the foreign direct investment process, as well as through transfers to unaffiliated parties. As such, the question of general incentives to invest or transfer technology abroad must be considered, and especially those incentives as are applicable to investments in developing countries.

Although no incentives currently exist for investments and technology transfers abroad, as late as 1976 there were several incentives, which were eliminated by the Tax Reform Act of 1976. 168/

Prior to the 1976 Tax Reform Act, the following tax incentives for investment in developing countries existed under U.S. law:

(a) More favorable method of calculating the foreign tax credit - The Revenue Act of 1962 169/ made a change in the computation of the foreign tax credit by requiring companies to "gross up", that is, to include in their income the foreign tax paid by the foreign company with respect to dividends repatriated, as well as the amount of the dividend itself, resulting in a tax burden at least equal to the U.S. tax rate. Prior to this time, the foreign tax paid was deducted from taxable profits in computing the U.S. tax, thus reducing the overall tax paid. 170/ However, the 1962 act made the gross-up rule inapplicable to income derived from a Less Developed Country (LDC) Corporation, which is defined as one which derives at least 80 percent of its gross income from sources within an LDC with at least 80 percent of its assets located there. 171/ This evolved from Congress' policy at that time of promoting investments in the developing countries. 172/ This preference was eliminated in the 1976 Tax Reform Act.

(b) Relief from section 1248.--This section of the Internal Revenue Code prohibits income from the sale or exchange of stock of a controlled foreign corporation from receiving capital gains treatment. If the seller has
an LDC corporation of which he has owned the stock for a period of 10 years, the sale or exchange was not taxed at ordinary income rates but at the lower capital gains rates. This provision was also eliminated by the 1976 Tax Reform Act.

(c) The Western Hemisphere Trade Corporation.--This tax benefit grants an effective 14-percentage-point reduction in the 48-percent U.S. corporate tax rate, and is available to U.S. businesses which invest in, or trade with, countries of the Western Hemisphere. The Tax Reform Act of 1976 phased out this device over a period of 4 years, beginning with tax year 1976.

(d) Section 1249 of the Internal Revenue Code.--Section 1249 is designed to tax certain income as ordinary income that formerly had been given capital gains treatment. Prior to 1962, the transfer of patents, secret processes, and other types of industrial property could be accomplished with taxation only on a capital gains basis. Under section 1249, those transfers are now treated as ordinary income.

Another vehicle by which tax benefits can result to investors is through rights granted in a bilateral income tax treaty. However, there are instances in which double taxation can still occur, despite the existence of the foreign tax credit due to the dissimilarity of the U.S. and the foreign country's tax laws and because of differences in the concepts of what income should be taxed by whom. The United States has entered into a program of tax treaties to alleviate these problems and to lessen the impact of tax differences in determining international capital movements. These tax treaties have other provisions which reduce the withholding tax on certain remittances to the home country of the investor for royalty payments.

Many developing countries have sought to induce foreign investment in their countries by allowing tax holidays or reduced income taxes for specified periods of time for foreign investments in their countries. Under U.S. law, however, a reduction of tax by the host country will result in the United States collecting the remainder of the tax up to the normal U.S. corporate tax limit of 48 percent.

To induce investment in developing countries, the concept of tax sparing developed. The United States would grant a foreign tax credit to U.S. investors for taxes which were spared by the host government. Treaties containing tax-sparing provisions were negotiated by the United States in the 1950's and 1960's, but none then or since were ever ratified. The Kennedy and Johnson administrations proposed that an investment tax credit be granted for investments in developing countries (much as this credit is presently available for domestic investments), but these were likewise rejected by the Senate.
Recently, the treaty with Trinidad and Tobago contained a section to defer taxation on the transfer of technology for shares until the shares were disposed of, but the Senate rejected this provision. The income tax treaty signed by the United States and Korea in 1976 contains language by which the parties agree, when feasible, to resume discussions to draft a protocol to the treaty to give tax incentives for the transfers of U.S. technology and capital to Korea. 175/

**Industrial Standardization**

A 1970 study of the National Bureau of Standards estimated that more than 20,000 industrial standards, including duplications, exist in the United States; 13,000 exist in the Soviet Union; 11,000 in West Germany; 7,000 each, in Japan and France; 6,000, in Italy; 5,500, in Great Britain; and 5,000, in India. 176/ In 1971, it was estimated that 9 out of every 10 international standards had been adopted since 1960 and that the number of standards would increase tenfold by 1980. 177/ The accelerated pace of creating standards, however, is increasing the likelihood of disparities among the national standards.

The increased emphasis on nontariff barriers to imports—as opposed to a historical emphasis on protectionist tariff levels—and the increased attention to environmental and safety standards have contributed to the threat of trade conflict. Although there are no reliable estimates as to the extent to which international trade is restricted by different product standards from country to country, standards tend to discriminate in favor of domestic rather than foreign suppliers if only to the extent that domestic suppliers have the advantage of certainty concerning specifications merely because of their location. 178/ In cases where standards programs include testing procedures within national borders and imports are subjected to a certification process, firms may be discouraged from exporting to enter a foreign market or to maintain a market share 179/ and feel compelled to license or manufacture abroad.

Approaches to product harmonization standards are necessarily different from those to product safety standards. In the case of product harmonization, standards facilitate the interchangeability of products by requiring strict conformity with a standard. In the case of safety standards, however, the standards are established in response to local performance requirements and divergent standards are inevitable. 180/ To avoid divergent standards, a manufacturer could produce in accordance with the highest standards of any of the markets he supplied—but the harmonization would force him to incur and pass on increased production costs in those markets where less stringent standards were required. 181/
The United States is currently participating in multilateral trade negotiations under the aegis of the General Agreement on Tariffs and Trade (GATT) to develop an international code dealing with standards. Among the concepts being negotiated are the publication of all standards and rules of certification proceedings; provision of both notice of and an opportunity to comment on the future adoption of government standards to all interested parties; recognition in importing countries of product tests by the proper authorities in exporting countries; encouragement, if appropriate, of basing national standards on international standards; and a consulting mechanism for disputes between signatories. 182/

The two most important organizations attempting to harmonize international standards" are the International Organization for Standardization and the International Electrotechnical Commission. 183/ To date, their efforts to reduce barriers to international trade have been largely ineffective. 184/ Although the GATT negotiations do not attempt to establish actual standards, adoption of the contemplated code could both encourage the use of standards to promote trade and discourage their use as trade barriers.

B. On the Foreign Governmental Level

Basic Policy Goals of Two Regional Groups

Regional arrangements regarding the transfer of technology have been developed by both the European Economic Community (EEC) and the Andean Pact countries (ANCOM). The goals which the two groups wish to achieve vary significantly, however, and the resultant codes reflect that variation. The EEC, composed of more developed nations, is generally much more able to develop technologies internally comparable to any of those which are imported from outside the Community. ANCOM members, on the other hand, are now attempting to develop the necessary infrastructure to make technical innovation in a wide variety of products a real possibility in their countries.

One principal aim of the EEC has been to create a unified regional market. The ANCOM nations have a similar goal in mind. The EEC countries, major creators and exporters of technology as well as importers, have as their primary objective the protection of industrial property in a more efficient and systematic manner. 185/ The ANCOM nations, while desiring an efficient system of technology transfer, place much more stress on the speed with which the transfer takes place and wish to control the conditions under which it occurs. ANCOM also wishes to promote indigenous growth of technologies and prevent internal competition of member countries in attracting foreign technology. The regulations adopted by the two groups reflect these differences.
1. EEC Provisions

The EEC countries' regulations on the transfer of technology are both national and regional in scope. The antitrust aspects of the law are found at the regional level, principally in articles 85 and 86 of the Treaty of Rome. Patent law among EEC nations is still at the national level, although there are now under consideration proposals for the granting of Community patents and trademarks. Observers seem to feel that the quick adoption of such a convention is not likely in the near future, although a European Patent Convention, discussed in section III, has now become effective.

The rules on competition for the EEC to some degree parallel provisions of U.S. laws. Article 85 prohibits certain "concerted practices . . . which have as their object or effect the prevention, restriction or distortion of competition." Those practices which are specifically forbidden by article 85(1), in a technology context, include (a) price fixing; (b) limiting or controlling production, markets, technical development, or investment; (c) sharing markets or sources of supply; (d) applying dissimilar conditions to equivalent transactions with other trading parties; and (e) tying arrangements. Article 85 makes explicit exceptions for certain restrictive practices which would fall under the prohibition of 85(1) for any agreement that "contributes to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit . . . ."

Article 86 of the Rome Treaty prohibits "any abuse by one or more undertakings of a dominant position." This article, which bears many similarities to section 2 of the Sherman Act, defines the following as particularly offensive: (a) directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions; (b) limiting production, markets, or technical development to the prejudice of consumers; (c) applying dissimilar conditions to equivalent transactions with other trading parties; (d) tying arrangements that have no connection with the subject of the contracts.

Patent, trademark, and know-how licensing arrangements have raised varying problems under articles 85 and 86. Patent rights have generally not been affected by the prohibitions of article 85. In the so-called Christmas Resolution of 1962, certain obligations of a licensee manufacturing a licensor's patented goods were held not to be prohibited by article 85(1). The acceptable clauses in licensor-licensee patent contracts included restrictions on the licensee to certain methods of utilization, restrictions as to territories, restrictions as to time of the license, and other provisions which came within the scope of the patent. Obligations that go beyond the scope of the patent, such as tying clauses that are necessary to a technically sufficient application of the invention and exclusive licenses, are also permitted. Other restrictions on patent rights may also be imposed if they are exempted under article 85(3).
Currently the EEC is considering new regulations that would grant block-exemptions for patent-licensing agreements and set guidelines for permissible licensing agreements. Those regulations would prohibit licensing agreements that can be indefinitely extended by means of new improvement patents. 188/

Nonpatent licensing agreements that embody territorial restrictions have posed the greatest problems in the EEC. Restrictions that have been held to be particularly offensive are those which prohibit export by a party from one member country to another. Although the law in this area is rather confused, it now appears fairly certain that, at the very least, prohibitions directed at preventing third persons from buying the products of a licensee in a low price area and selling it in member States will be struck down. 189/

Article 86, which prohibits the abuse of a dominant position, does not prohibit acquiring such a position. Thus far industrial property licenses have not been found to violate this article, although there has been speculation that the interpretation of the article is increasingly moving in that direction.

The EEC can be seen as having taken certain steps to restrain what it sees as unduly restrictive practices through the use of article 85. The EEC, as a major source of technological innovation, remains relatively liberal in terms of the provisions which it will allow in licensor-licensee contracts. Where collaboration and somewhat restrictive practices are believed to lead to the promotion of the development of technology, these practices have been allowed. At this time it appears that the general lack of regulation of licensor-licensee arrangements will continue to be the policy of the EEC.


The Andean Foreign Investment Code's rules for the transfer of technology grew out of the Cartegena Agreement of 1969. By December 1970, the members of the Andean Group (Bolivia, Chile, Columbia, Ecuador, Peru, and Venezuela) had adopted Decision No. 24, 190/ the basis for the so-called Andean Code. This Code was to be developed on a multilateral basis. Unlike the EEC's articles 85 and 86, however, the administration of this Code was to take place on a national basis. Periodic meetings of appropriate government lawyers are designed to create a uniform interpretation of the provisions adopted by the Andean Group. In the EEC, on the other hand, the European Court of Justice resolves many the major conflicts which arise regarding licensing agreements.

The basic attitude of the Andean Group toward trademark and patent contracts is set forth in article 18 of Decision 24, where it states that the agreements will be appraised for "the effective contribution of the goods incorporating the technology, or other specific forms of measuring the effects of the imported technology." The Andean Group, desiring the best technology
for their money and only that which will be the most useful to them, have adopted what they see as safeguards in the contracts of sale. Included in every contract of sale must be the value of each element concerned in the transfer of technology. Forbidden from inclusion in the contracts are provisions for tying arrangements (except in unusual circumstances), the fixing of the sale or resale prices of the products, restrictions on the volume and structure of production, prohibitions on the use of competitive technologies, full or partial purchase options on the part of the supplier of the technology, obligations on the part of the purchaser of the technology to transfer to the supplier any inventions or improvements that may be obtained, and requirements for payments of royalties to the supplier for patents which are not used. Also negated are agreements that prohibit the exporting of products made by the transferred technology.

Incentives for the development of indigenous technologies are also built into the Code, such as through tax benefits and preferences in buying Andean products. In this way the Andean Group hopes eventually to move toward a situation in which most of the transfers of technology will take place among the Group's members.

In 1974, with the adoption of Decisions 84 and 85 the Andean Group moved even further along the path toward strict regulation of the terms of transfer agreements. It required that applicants for proposed agreements present data concerning alternate technology solutions and specifications explaining the reasons why the particular technology selected is appropriate. New rules would also lead to the expiration of licensing agreements after 5 years. This provision is based on the belief by ANCOM that technology will generally become stale within 5 years and the local user should at that time be permitted to use it on a royalty-free basis.

Although some see antitrust law in Latin America as relatively underdeveloped when compared with the U.S. and EEC rules, the restrictions placed on contract clauses may be regarded as a form of antitrust law. The Andean Group's regulations, however, are not designed so much to foster competition as to foster the growth of local technologies in the region and to prevent precious foreign exchange from being spent on technologies which are not useful to the Andean countries in their developmental process. Lacking a large technical infrastructure at the present time, the Andean Group has chosen to counter what they view as the multinational corporation's unfair bargaining position with their regulations that are designed to curb the perceived adverse effects. In many ways, the proposals of the Andean Group reflect those which the Group of 77 of UNCTAD would impose on a worldwide basis.

Selected National Programs Regarding Technology Transfer

Three nations which have been in the forefront of legislative regulation of the transfer of technology are Japan, Mexico, and Brazil. In recent years all three of these countries have made major revisions in their
laws governing technology transfer. Mexico and Brazil have tightened the standards which are applied to licensor-licensee agreements, while Japan has begun to ease restrictions in its laws. These changes generally reflect the stage of economic development of the three nations. Mexico and Brazil are two countries which have experienced rapid growth in recent times, yet remain in the "developing" group of nations. Japan, on the other hand, had by the mid 1960's come to be regarded as among the "developed" countries. She is becoming a major exporter of technology herself. The changing attitudes of the Japanese toward technology transfer reflect Japan's changed position in the world. In order to have Japanese technology accepted abroad, the Japanese found it necessary to grant a reciprocal easing of transfer restrictions in Japan.

All three nations require approval of international technology transfer agreements by some agency. In Japan, the agreement need only be scrutinized by the Fair Trade Commission, which examines the agreement to determine whether it is in conformance with the Antimonopoly Act. 192/ This procedure is in marked contrast to the screening practiced prior to 1968. During that period procedures were developed under the Foreign Investment Act to restrict the importation of foreign technology to that which was considered to be necessary for Japanese development plans and which would avoid a shortage of foreign exchange. 193/

The current restrictions on the transfer of technology to Japan are parallel to U.S. antitrust laws in many respects. President Japanese practice allows the following restrictions: The amount of production in both exclusive and nonexclusive licensing contracts may be restricted, a minimum price at which a licensee may sell may be set, and restrictions on field of use of the product may be set.

The Japanese laws do not allow the setting of resale prices at the wholesale or retail level or tying arrangements that are not indispensable to the working of the patent. Before 1973 Japan took a rather lenient view toward market export restrictions. Since 1973 there have been some successful attacks on this type of restriction, however. Restrictions on the use of competing products or technology are allowed insofar as a licensee promises, beginning at the time of the agreement, not to use competing products or different technologies. But licensors cannot require licensees to discontinue practices already established. Such requirements would violate the Antimonopoly Act.

On February 11, 1976, the new Mexican patent law went into effect. This law introduced Certificates of Invention, which are to be granted for 10 years. These Certificates differ from traditional patent protection in several ways. Most significantly, the licensor has no control over the disposition of his invention under the Certificates. Anyone who signs a royalty agreement is allowed to use the invention. 194/
The new Mexican law gives the designated government agency the right to review royalty fees and set terms if the parties fail to come to terms. The Mexican law also seeks to insure that the patent is worked within the country. It therefore sets out a 3-year time limit within which a patent must be used. If the licensee fails to so use it, compulsory licenses will be awarded and the government board will establish suitable royalty fees.

The new trademark law in Mexico also makes an attempt to encourage the "Mexicanization" of the technology or brand. Any foreign mark registered in Mexico must be used jointly with a Mexican mark. The purpose of this requirement is to build up recognition of the Mexican mark, so that once the license is terminated, the Mexican licensee may continue to sell a brand name recognized by the public. 195/ The requirement does pose major problems from the viewpoint of the trademark licensor, however. He is not likely to desire the export of the trademarked product from Mexico to other countries because of the fear that upon expiration of the mark the public may be misled into believing that it is getting the same product with the same quality controls.

The legal criteria for approval of licensing agreements by the government board are complex and open to several interpretations. However, practice under the new law indicates that the Mexican government is keenly aware of the need to balance the incentives which must be given foreign owners against the need of Mexico for "appropriate technology." The registration requirements give the Mexican government detailed information on what technology is being transferred and what costs are being paid for that technology. 196/ By prohibiting limitations on the right of exportation of goods or services which are not in the best interests of Mexico, the Government has tried to encourage Mexican licensees to become exporters of goods instead of mere recipients of foreign processes. Future practice will tell how successful this effort has been. 197/

In Brazil, new regulations, which parallel the Mexican law in many respects, were introduced in 1976. License agreements for patents and trademarks are now limited to 10 years, after which time the licensee may continue to use the technology without any further obligation to the licensor. The Brazilians have sought to build up their technical knowledge by requiring the licensor to pass on any improvements which it makes on the technology and by obligating the licensor to prepare the licensee's employees to use the technology in the license agreement. Combined with the prohibition on payment of royalties to foreign parents of Brazilian subsidiary-licensees, the new Brazilian regulations have been designed to foster the establishment of a technical infrastructure essentially Brazilian.
III. THE SPECIAL ROLE OF PATENTS IN THE TRANSFER OF TECHNOLOGY.

A. United States Patent Laws and Policies

The United States grants patents on machines, manufactured articles, processes and chemical compositions which meet certain statutory requirements with regard to novelty and utility. 198/ The grant of a patent confers upon the inventor the right to exclude others from making, using or selling his invention within the United States for a nonrenewable term of 17 years. 199/

The U.S. Constitution establishes the goal of the patent system as the promotion of progress of the useful arts. 200/ From its beginning, as an incentive to invest and as a stimulus to the beginning of new businesses and to the introduction of new products, it has become an integral part of our free enterprise system; as a vehicle for the transfer of technology, and as a storehouse of technical knowledge, it is a major factor in the dissemination of technical information.

B. Vehicle for Transfer of Technology

It is not only the ability to maintain a competitive advantage through patent protection that encourages the investment of capital in research and development efforts, but it is also the potential for licensing others (transferring technology) to utilize inventions protected by patents for a monetary consideration. Income from the licensing and sale of patented inventions and other technology provides, in some organizations, major support for research and development efforts. Thus, the patent system is the vehicle for the transfer of technology from one organization to another and, frequently, it is the vehicle for an exchange of technology between two organizations through an exchange of licenses.

C. Patent Laws and Policies Abroad

Most foreign nations have patent systems much like the U.S. system. Where inventions are of special interest to the public welfare, health, or security, countries have enacted various provisions abolishing or limiting the effects of the patent grant. Thus, under the patent laws in many countries, no patents may be issued for inventions in certain fields, especially in foods and medicines. In other cases, where patents are issued, provisions are made in the public interest for compulsory licensing of the patent to the Government or to any other interested party, or for the expropriation of the patented invention by the Government. 201/

The public interest deemed to justify the exclusion from patentability, compulsory licensing, or expropriation of patents may relate to such diverse matters as the national defense, public health, improvements in the international balance of trade, development of special resources available in the country, or general industrial development.
Some statutes specifically exclude from patenting plant or animal varieties or biological processes for their production. For this subject matter, in some countries, patent-like protection can be obtained under laws other than patent statutes. Also excluded in most countries are inventions relating to nuclear energy, and inventions contrary to health and safety, morality, or public order. Unlike the situation in the United States, in most foreign countries new chemical compounds, and particularly new pharmaceutical compounds, cannot be protected per se, but only when prepared by a patentable process. Many countries that do not grant independent product protection for such compounds may grant process protection of such a broad nature that it actually approaches product protection.

In summary, the inducement in many foreign countries to obtain protection for pharmaceuticals, foods, and other generally excludable subject matter is not as great as that for obtaining patent protection in the United States. This may decrease the incentives for U.S. nationals to enter foreign markets for these types of subject matter.


The patent laws of most nations include statutory provisions for the revocation or compulsory licensing of patents which have not been commercially exploited in the country within a prescribed time after the patent grant. Such provisions against patent nonuse usually apply whether or not the invention involved is of national or foreign origin.

National statutes providing for the compulsory licensing or revocation of patents differ with respect to the standards for guiding their application. Generally, however, all compulsory working and licensing statutes are directed against practices that are considered abuses of national patent systems, chiefly the nonuse of patents, restrictive business practices, and excessive royalties. Historically, the legislation was aimed primarily toward foreign nationals, the concern being that foreign owners of inventions could, by refusing to exploit patents, prevent the development of national industries, preclude the creation of additional employment opportunities, and preclude the utilization of available national resources. There are still a few countries which provide for revocation of a patent where it has not been exploited within a prescribed time period, but the trend is toward the granting of a compulsory license first.

In the United States, there is no general statutory provision for the compulsory licensing of patents on the grounds of nonworking or nonuse; but, U.S. courts may impose compulsory licensing in cases involving abuses of monopoly or other violations of the antitrust laws. Thus, in the United States the mere nonuse of a patented invention is not a ground for attacking a patent or preventing the patentee from obtaining injunctive relief against infringers. However, agreements among enterprises not to use a patented invention involving the fencing in of the patentee against competitors or the
blocking of a competing technology, have been held by the courts to constitute violations of the antitrust laws. When patent nonuse is found to be part of an effort to foreclose competition or shows an intent to monopolize, it may be violative of sections 1 and 2 of the Sherman Act. 202/

E. Expropriations

For inventions of special interest to the public welfare or security, provisions are made in many laws to throw their use open to other than the inventor. Thus, in many countries, no patents may be granted for inventions in certain fields. In other instances, where patents are granted, provision is made for compulsory licensing to the government or an interested party, or for expropriation by the government.

National policies differ as to the circumstances and the nature of the public interest which justifies the expropriation. Such interest may relate to such matters as the national defense, public health, improvements in the international balance of trade, development of special resources available in the country, or general industrial development. In most countries, the government reserves the right to use a patented invention for the purposes of the state and particularly for defense purposes. Provision is generally made for compensation for such use.

National policies differ not only as to the circumstances under which governments may use patented inventions, but also as to the nature of the public interest which justifies the compulsory licensing or expropriation of patented inventions and the procedures employed. These different rules suggest that compulsory licensing and expropriation are considered as special alternatives, used only in exceptional circumstances. The expropriation of patent property in foreign countries is not completely unlike the powers of the U.S. Federal Government to appropriate property, 203/ wherein an invention covered by a patent may be used or manufactured by or for the United States without a license of the owner. The owner's remedy is by action against the United States in the Court of Claims for the recovery of reasonable compensation for the use and manufacture of the invention. This "eminent domain" power of the United States Government has presented no problems to U.S. patent owners, and, if the power is equitably applied by foreign governments, should present no problems abroad. The difficulty arises when the ground rules for expropriation are not understood in foreign countries, or when action is taken arbitrarily without compensation or notice. Therefore, the threat of expropriation of foreign patents, particularly in developing countries, may well discourage U.S. patent owners from entering the markets of such countries.

F. International Aspects of the Patent System

As already mentioned, patents are well recognized as a vehicle for the transfer of technology both within and between nations. Thus by offering protection against piracy of the invention by infringement of new products and
processes, they encourage capital investments in research and development efforts and provide a sound basis for the licensing and sale of patented technology and related know-how. It might therefore be argued that a uniform international patent system capable of processing and granting patents enforceable in all countries would provide the optimum vehicle for transferring technology from nation to nation. At the outset, however, it should be emphasized that no full-fledged international patent system exists today. In fact, what is generally referred to as an "international patent system" is in actuality the carrying out of international patent relations under the practices and procedures of international industrial property treaties. These treaties define certain rights of patentees within the signatory countries, but patents granted by each country remain enforceable only within the jurisdiction of that country.

G. Paris Union, Rights of Priority, and National Treatment

The oldest and most important of these international treaties, the Paris Convention, the official name of which is the International Convention for the Protection of Industrial Property, was founded by a treaty signed in Paris in 1833 to which the United States has been party since 1887. At present there are more than 80 member States of the Paris Convention. This convention relates to industrial property in its widest sense and includes not only inventions, trademarks, and industrial designs, but also utility models, trade names, and, under the 1967 Stockholm Revision, inventors certificates. The treaty's main provisions concern national treatment and the right of priority.

Under the national treatment provision, the Convention provides that, with regard to the protection of industrial property, each contracting State must grant the same protection to nationals of other contracting States as it grants to its own nationals. This provision guarantees that foreign applicants will be treated at least as well as domestic applicants in pursuing protection of their industrial property rights.

Under the right of priority provision, on the basis of a regular application first filed in one of the contracting States the applicant may, within a certain period (12 months for patents), apply for protection in any or all other contracting States and have such later filed applications regarded as if they were filed on the same date as the first application.

Compulsory licensing has existed overseas for a long time and is enabled in one form or another if the patentee does not meet certain conditions and prospective applicants want licenses, or if the government wants the patent worked. Prior to the Paris Convention, patent statutes in many foreign countries concerning the revocation of patents or compulsory licenses were very stringent. In some situations, revocation of a patent could occur where the invention had not been used within 1 or 2 years of the granting of the patent. These laws relaxed following the work that resulted
in the adoption of the Paris Convention. Article 5 of the Convention deals with compulsory licensing and nonworking. In this context, nonworking refers to a patentee's failure to practice his invention while at the same time excluding others from doing so. Article 5 establishes measures necessary to prevent the abuse of patent rights and provides that the importation of products patented in a signatory nation into the country where the patent is granted will not cause forfeiture of the patent. Each nation has the right to prevent abuses which may result from the exclusive patent right, or from its nonuse. The patent may be revoked because of abuse or nonuse unless a compulsory license would not be sufficient to end the abuses. Also, the compulsory license cannot be imposed on the patent holder until after 4 years from the filing date or 3 years from the date the patent was granted, whichever period last expires. If at that point compulsory licensing does not end the abuses, the signatory nation where the patent is held can, after 2 years of compulsory licensing, revoke the patent. Most of the legislation now in force in foreign nations has replaced revocation with compulsory licensing for nonuse of patents. It can be argued that holding the threat of revocation over a patentee's head for nonworking could well have the effect of dissuading persons from filing applications for patents outside their own country, which would not occur if compulsory licensing were mandated instead.

The Paris Convention may well be the best present guarantee to patentees that their rights will be protected in foreign markets, at least insofar as any given foreign market offers sound protection to its own nationals. There have been six major revisions of the Paris Convention since its establishment in 1883; and through the years there have been numerous suggestions for further liberalizing its provisions, the vast majority being aimed at making foreign patenting more attractive on a worldwide scale. Efforts to revise the Paris Convention are discussed below.

H. The Patent Cooperation Treaty

This treaty was unanimously approved by a plenary session of the members of the Paris Union in 1970, and was signed by 20 member States. The treaty grew from a proposal of 1966 of the United States. A first draft was released in 1967, and a later draft in 1969 formed the preconference draft for submission to the plenary session in 1970.

The Patent Cooperation Treaty (PCT) came into force on January 24, 1978, with its ratification by the United Kingdom. The U.S. implementing legislation came into force the same day the PCT came into force.

Basically, the treaty provides centralized filing procedures and a standardized international application format, and should serve as a further stimulus to the cross-filing of patent applications which should, in turn, increase the transfer of technology to member States of the PCT. Under the PCT, U.S. citizens may file an international patent application at the U.S. Patent and Trademark Office. This filing has the same effect as if that
person had filed several or many individual applications with the national foreign patent offices. After filing, the application is subjected to a patentability search. The applicant, when he receives this search of the prior art, can then decide whether or not he wishes to proceed with the filing of his applications in the countries he had designated. 210/

Among the benefits of the treaty are the following:

1. It permits a U.S. applicant to make a single filing in the United States of an international application in English and according to a uniform format.

2. In the typical case, the U.S. applicant could use the drawings, specifications and claims from his earlier U.S. application in preparing the standardized international application.

3. The use of a standardized format should minimize the expenditure of time and money, particularly with respect to such formal requirements as certifications, consul stamps, and other foreign legal procedures.

4. Applicants will be provided additional time (up to 20 months) within which to submit translations and national fees to foreign countries. During this time applicants will have available international search reports, including prior art citations. As advisory opinions, these reports may further aid applicants in deciding whether to proceed in one or more foreign countries.

5. The inclusion of English language search reports and abstracts with all published international applications should be of assistance to parties interested in evaluating foreign patents and should aid in classifying such patents into national classification systems.

6. National patent offices should save processing time by having available with each international application of foreign origin an international search report based upon an agreed standard of minimum documentation. Thus, insofar as an international search report contains pertinent prior art discovered on an international search obtained in the country of first filing, examiners acting on subsequently filed applications on the same inventions in other countries should have a "flying start" in their application processing work, rather than, as at present being forced to take up the case "cold" without the availability of prior art citations.

7. As a long range benefit, PCT should provide a focal point for continued cooperation among the world's patent offices toward the improvement of patent practices to the advantage of inventors, attorneys, and the scientific community as a whole.
8. The treaty is also designed to benefit developing nations. It provides for the establishment of information services to facilitate acquisition of technology and technical information. It also requires that a committee be established to organize and supervise technical assistance programs to aid developing countries in improving their patent systems. To the extent that developing countries offer sound patent systems so also should their market potential become increasingly attractive for the investment of foreign technology, know-how, and capital.

The PCT makes no substantive changes as to what is or is not patentable in an individual member country. The patent grant ultimately relies on the member State's laws. The main thrust of the PCT, then, is one of facilitation, or to use the PCT title's language, cooperation, in the filing of patent applications in other than one's own country.

I. The European Patent Convention.

The Patent Cooperation Treaty deals with procedural and facilitation matters, but does not result in the issuance of international patents. In the European Patent Convention (EPC), which entered into force on October 7, 1977, a European Patent Office established by the EPC, situated in Munich, Germany, receives, then examines, and grants a series of patents for each State which is a member of the Convention and which has been designated for patent application by the applicant. The application for an EPC patent may be filed by any person either directly or through an international application filed pursuant to the PCT. An EPC patent has the same force as if the patent had been granted by the individual member State in terms of uniform examination and on questions of validity, but questions of infringement are left to member states under their national laws. Thus, the EPC introduces a step towards progressive unity in the filing and grant of patent applications, but does not go so far as to remove all rights from the member States relating to patents. An advantage of the EPC is that it and the PCT have the same formal requirements for filing patent applications. Applicants can now prepare national patent applications for filing in the United States in the format used under both the EPC and the PCT.


In addition to the EPC, members of the EPC are working towards the establishment of a Community patent which would be a single patent for the European Community's member States. This treaty was signed on December 15, 1975, but has not yet come into force. The Community patent will go one step further than the EPC, in that a unitary legal regime will evolve for the governance of effects of the Community patent and for the centralization of proceedings and the application of common procedures by the European Patent Office and the European Community's Court of Justice in most actions concerning the Community patent. Although in infringement proceedings the national laws of member States would apply, it is expected that the European Patent Office would act as a guiding principle.
IV. INTERNATIONAL CONSIDERATION OF TECHNOLOGY TRANSFER

A. United Nations Conference on Trade and Development

The United Nations Conference on Trade and development (UNCTAD) has in recent years played a major role as a forum for the developing nations' proposals for an international agreement on the transfer of technology. The first and most widely publicized draft code to come out UNCTAD was the so-called "Pugwash Code," proposed at UNCTAD's meeting in April of 1974. Since 1974 UNCTAD has considered several other proposals concerning the transfer of technology. 217/ At their Nairobi meeting in May of 1976, UNCTAD established an intergovernmental group of experts which is to prepare a draft international code of conduct for the transfer of technology.

The proposals that have thus far emerged from UNCTAD reflect the economic and political needs and desires of three major groups that comprise that organization: The Group of 77, Group B and Group D. These groups represent, respectively, the interests of the Third World nations, of developed Western nations and Japan, and of the Socialist countries. The proposals that these three groups have offered differ in major respects.

The general goals of the proposed code have been agreed upon by the committees of experts and by the Group 77, Group B and Group D, all of which have accepted the desirability of promoting the extension of modern technology to all countries, of harmonizing national legislation, and of adapting technologies to fit various countries' development objectives. 218/ However, when specific solutions to these problems are discussed, there is a wide divergence of views among the Groups. For instance, some of the most important current topics of debate on the proposed code involve:

1. The characterization of the nature of technology;
2. The legally-binding nature of the proposed Code of Conduct;
3. Choice of law and forum by the parties to an agreement;
4. Rules of arbitration and the applicable law;
5. Definitions of restrictive business practices;
6. The scope of guarantees by suppliers of technology;
7. Pricing and costs of technology;
8. Special preferences in acquiring technology to be granted to developing countries; and
9. The establishment of international machinery to enforce or oversee the Code.
An examination of the differences between the Group B countries and the group of 77 reflect the differences in outlooks and attitudes towards the future world economic system held by the members of these two groups.

The fundamental difference in the two groups is demonstrated by the view of the Group of 77 that "...technology is part of universal human heritage and that all countries have the right to access to technology..." This statement reflects in part the concept that resources of the seabed are the common heritage of mankind. The position that technology, in the Group 77 view, belongs to all nations in general has met with little positive response from the Group B countries, who stress mutual respect for all parties to the transfer, and stress that technology developing countries seek has been developed at great expense by private companies in the developed countries. On the other hand, the phrase "right of access" could be interpreted to mean less than a transfer of that technology free of cost. This concept of technology is very important, since it lies at the base of many of the Group of 77 demands which are discussed in topics 2 through 8 above.

The Group of 77 also desires a Code which will be legally binding and universal in scope and applicability, while Group B insists that any broad-based code must be more in the nature of voluntary guidelines, and has continued in the negotiations of the Code with this fundamental position in mind.

The position of the Group B countries on questions regarding choice of law and choice of forum for dispute settlement flows from their belief that such choice should be decided by the parties to a contract, so long as the forum or law chosen is not unduly burdensome to one of the parties and there is a reasonable basis for the selection. On the other hand, the group of 77 proposal would give the technology-receiving country exclusive jurisdiction over dispute settlement.

Certain restrictive business practices in the transfer of technology would also be limited by the proposed Code. The Group of 77's definition of restrictive business practices is much broader than the definition used by Group B. Group B proposals generally follow traditional antitrust laws and principles, as developed in the United States and Western Europe, and would prohibit practices such as tying arrangements, price fixing, and cartelization. The Group of 77, by contrast, currently seeks to define restrictive practices in a much broader way; contractual restrictions setting limitations on volume or scope of production, certain requirements for quality controls, and other practices would be banned by the Group of 77.

However, it should be noted that the Group of 77 proposals provide an exception under which a restrictive business practice could be overlooked if national authorities decide that "it is in the public interest and that on balance the effect on its national economy will not be adverse and it has not substantial adverse effects in other countries."
Another major element of the proposed Code is a section on certain "guarantees" which supplier enterprises make to recipients of technology. In American commercial law such guarantees would be called "warranties." The Group of 77 and the Group B nations are in general agreement as to the desirability of provisions guaranteeing that information supplied to the recipients be full and complete, that the technology be fit and suitable for the purpose for which it was intended, and that the technology be manufactured in accordance with the terms of contract. 226/ The Group of 77 would like to see extension of such guarantees to assure recipients of technology that information on improvements in technology will be received from the supplier enterprises (perhaps free of charge) and to provide the recipients of technology with assurances that spare parts will be provided to them in the future. In addition, the group of 77 hopes to include guarantee terms which would require introduction of local inputs and granting most favorable terms to earlier recipients of technology. 227/ The Group of 77 believes that these provisions will allow developing countries to integrate new technology into their national development plans with more facility.

The Group of 77 and Group B agree that guarantee provisions are needed to safeguard the confidentiality of certain trade secrets. Confidentiality provisions being considered would cover both rights of recipients to make use of secret processes and duties of acquiring parties concerning disclosures to third parties. 228/

The level of the prices paid by developing countries to obtain technology are of major concern to the Group of 77. Accordingly, the group of 77 is engaged in an effort to promote the "unpackaging of technology and to encourage the itemization of the cost elements in the transactions." 229/ These proposals for the "unpackaging" or "unbundling" of technology are designed to assure that developing countries receive only the technology which they need for development and that they receive it at a "fair" price. The group of 77 has also proposed the setting up of transfer centers, to be administered on a multilateral basis to encourage the transfer of technology. 230/

The developing countries have stressed the necessity for machinery to oversee the Code provisions. The United States foresees this as a forum in which the developing countries may attempt to impose controls over transfers of technology, through licenses or otherwise, to their nationals from abroad as well as some type of enforcement procedures. The United States position therefore is to state that the questions of institutions cannot be settled until an answer is reached on the binding nature of the Code, and questions whether there is a necessity for further institutions governing technology transfers that are not now met by the arrangements within the World Intellectual Property Organization. 231/ These differences of views have resulted in a series of separate texts from each country Group, and a tentative composite draft text which is replete with unagreed upon language placed in brackets. 232/
B. Proposals to Revise the Paris Convention Within the World Intellectual Property Organization.

The Paris Convention on industrial property discussed earlier differs from the effort now ongoing within UNCTAD in one major way. The major distinction existing between the two is that the Paris Convention sets out substantive (or establishment) rights for foreigners holding or applying for patent (and trademark) protection. This is reflected in, for example, the article 2 national treatment standard of the Paris Convention. The UNCTAD exercise, on the other hand, for the most part is concerned with what might be termed the operational aspects of technology. Thus, for example, the UNCTAD document seeks to govern the conditions which a patent holder may impose upon a licensee.

Before we discuss the current proposals to revise the Paris Convention, a brief discussion of the World Intellectual Property Organization (WIPO) is appropriate. WIPO is an intergovernmental organization; it became one of the specialized agencies in the United Nations system in 1974. As the name denotes, the organization is concerned with intellectual property, which is composed of industrial property (patents, trademarks, certificates of invention), and copyrights. Established formally in 1967, WIPO has its organizational origins in 1883, when the Paris Convention was established. At that time, an "International Bureau" or secretariat was set up, which later became the United International Bureau for the Protection of Intellectual Property (BIRPI). In present practice, however, BIRPI is indistinguishable from WIPO.

WIPO has two basic objectives: (1) To promote the protection of intellectual property through the cooperation of member States; and (2) to insure administrative cooperation among the various intellectual property organizations, like the Paris Union and the Patent Cooperation Treaty. In order to achieve the first objective, WIPO seeks to form new treaties on the subject and to harmonize national laws on intellectual property. Of particular significance for the purposes of this study, WIPO seeks to give legal and technical assistance to developing countries. In 1973 WIPO established a program for the requisition of technology related to industrial property by developing countries. This program has the following components: (1) Publications and seminars for developing countries on the negotiation of terms in licenses for industrial property; (2) the drafting of model laws on patents, trademarks, and know-how; (3) the establishment of collections of foreign patent documents which contain information on recent inventions; (4) training programs for persons in developing countries to work in national intellectual property offices; (5) assistance in establishing national governmental agencies responsible for governing the country's intellectual property laws and regulations; (6) fellowships for nationals of developing countries to work in intellectual property offices in developed countries; and (7) sending of developed country experts to developing countries to establish or modernize patent systems in those countries.
The developing countries maintain that the present international patent system, composed of the Paris Convention and the national patent laws, limits their access to, and increases the cost of, the technology they believe is necessary for their development. Many of the sentiments of the developing countries are reflected in a June 1977 UNCTAD document, "The International Patent System: The Revision of the Paris Convention for the Protection of Industrial Property." This document represents the belief of the developing countries that various revisions of the Paris Convention have steadily tended to strengthen the position of patentees, presumably to the detriment of the national economies of the developing countries. The developing countries contend that this supposed weighting in favor of foreign patentees (from developed countries) does not reflect the influence the developing countries should have on the industrial property system since they constitute a majority of the membership of the Paris Convention. The developing countries believe that the Paris Convention has had a profound influence on national legislation in the developing countries, and has promoted a situation which acts as a reverse system of preferences granted by developing countries to foreign patent holders. Thus, they believe the international patent system has had a negative impact on the developing countries, which calls for a revision of the entire patent system.

As a remedy, the developing countries seek to restructure the system by lowering the levels of protection contained in the Paris Convention and by amending their national laws to reduce the protection of patent rights. Generally, the thrust of these efforts is to force foreign patent owners in developing countries to work their patents either on their own or through compulsory licensing to third parties. Such compulsory utilization and other limitations on patent rights would, in the view of the developing countries, result in improved access to foreign technology on more equitable terms.

Specifically, the changes sought are the following:

(a) The granting of preferential treatment to applicants from developing countries by all Paris Convention countries. This would be accomplished by requiring the authorities to reduce by one-half the application fees and maintenance fees for patents and trademarks for applicants who are nationals of developing countries.

(b) In derogation of the national treatment standard and priority periods established by articles 2 and 4, respectively, of the Paris Convention, the lengthening by one-half of the priority periods for applicants from developing countries without reciprocity (thus lengthening the priority period for patents from 12 to 18 months for applicants from developing countries).

(c) A revision of article 5 of the Paris Convention, by which the time periods which must elapse before a compulsory license may be granted (see discussion above) is shortened for developing countries.
(d) A revision of the Paris Convention to derogate from the principle of the independence of patents and trademarks, 237/ under which the granting of or refusal to grant a patent or trademark in one country would not affect its status in another. The developing countries wish to be allowed to reject a patent or trademark application because of its rejection, for whatever reason, in another country.

(e) The introduction of a provision in the Paris Convention itself of a requirement to provide technical assistance to developing countries in the establishment of training programs, and licensing and model patent and trademark laws. 238/

(f) The adoption of a model law on inventions and know-how for developing countries. 239/

It is worth noting that at its midyear meeting in New Orleans in February 1978, the American Bar Association, House of Delegates, adopted two resolutions opposing any revision of the Paris Convention which would oblige a member country to derogate from the national treatment standard of that convention or any revision the objectives of which are politically, socially, and economically unrelated or inappropriate to the protection of industrial property which is the purpose of the Paris Convention. 240/

Generally, the U.S. view is that fair and adequate protection of industrial property rights in developing countries is essential to the continuation and acceleration of the transfer of technology. Effective industrial property protection is an important factor in a country's overall investment climate. It provides an orderly mechanism for technology licensing, and benefits developing countries by promoting inflows of technology and providing incentives for research and innovation. The United States does support, however, work now underway in WIPO to undertake revisions which would recognize the legitimate needs of the developing countries for access to technology. However, the United States will continue to insist on the maintenance of adequate safeguards and compensation for the rights of patent owners.
V. CONCLUSIONS

A. The Present Status of the U.S. Law on Technology Transfer

An earlier section of this study presented the view that the U.S. position on the technology transfer question is basically neutral. We should now attempt to determine whether, in fact, the current situation does reflect this neutrality policy. What is called a policy of neutrality may actually evidence the lack of a policy at all. Indeed this has been the contention of some business groups. 241/

There appear to be both incentives and disincentives to transfer technology. For example, in the area of taxation, although certain incentives do exist to invest abroad or transfer technology abroad, many more incentives exist to invest in the United States. Prominent among the latter are the investment tax credit, 242/ the DISC, 243/ and the accelerated depreciation range. 244/ These tax devices were estimated to account for more than $11 billion in tax revenue losses in 1976. 245/ By contrast, one supposedly important tax incentive to invest abroad—tax deferral, has been estimated to cost $365 million in forgone tax revenues. 246/ Adding to this the removal of all tax devices to induce investments in developing countries and the lack of an effective tax treaty program with developing countries, it may be said that the overall effect of our present tax system certainly does not favor investment abroad, and may be argued to go beyond neutrality to favor investment at home. 247/ Neither do the U.S. controls on exports follow the general neutrality principle, in that they are specifically designed to restrict the export of certain goods and technical data to Communist countries.

In the antitrust area, legal principles have been developed over time which attempt to balance the interests of the owners of patents and other proprietary technology with the interest of maintaining a system of free competition. Owners of both patented and unpatented technology may impose ancillary restraints on those to whom they transfer their technology; these restraints follow from the grant or protection of that technology by the operation of law. Certain restraints, however, which have been discussed in section II, have been found by the courts to be beyond the scope of the exception from the antitrust laws for proprietary technology granted. Some of those restraints are illegal per se under our antitrust laws.

The U.S. patent laws grant inventors a 17-year monopoly by which they may exclude others from making, using, or selling their patented technology. The patent laws of the United States, which derive from a grant in the U.S. Constitution, seek to reward inventors for public disclosure of their inventions with a limited monopoly, on the basis that the disclosure will ultimately benefit the society as a whole. This concept is based on the theory that, if this limited monopoly were not granted, inventors, individual or corporate, would retain their technological inventions as trade secrets,
the consequence of which would not be to the ultimate benefit of the progress of technological innovation and transfer within the society. Also, in order to promote the worldwide transfer of technology, treaties have been entered into, the most notable of which is the Paris Convention, which grant certain rights to foreign inventors (embodied in the national treatment and right-of-priority articles of the Paris Convention) when applying for patents and trademarks under the laws of other parties to the Paris Convention.

Very recently, and again for the purpose of facilitating the transfer of technology worldwide, another treaty, the Patent Cooperation Treaty, has come into force. This treaty, although not affecting the substantive provisions of the member States' national laws, lessens some of the administrative and clerical problems attendant to filing patent applications in many foreign countries.

The Europeans have entered into two treaties: one is presently operative (the European Patent Convention) and one may become operative in the future (the Luxembourg Convention on the Community Patent). Those conventions go beyond the provisions of the Patent Cooperation Treaty, and seek to unify the grant of substantive patent rights within Europe.

Recognizing that differing product standards worldwide may act as barriers to the transfer of technology, efforts are now under way in the Tokyo round of multilateral trade negotiations to reduce those barriers to technology transfer which are due to differing product or testing standards worldwide.

Just as the United States has laws to govern technology flows, other countries, as discussed above, have sought to control and condition the inflow of technology from abroad. Mexico, Brazil, Japan, and such regional groups as ANCOM and the European Community have established legal norms for the transfer of technology into those countries or groups of countries. These laws define what conditions a foreign transferor of technology may impose on a national transferee, and in some cases establish rules which set limits on how much the foreign transferor may charge.

Largely at the insistence of the developing countries, which see technology as the necessary instrument with which to foster their development, negotiations are continuing, under the auspices of UNCTAD and WIPO, to establish international legally binding norms to govern the transfer of technology. In both these areas, conflict exists between the developed countries, whose companies are the owners of the bulk of technology, and the developing countries which desire that technology. The United States position is that this technology is legally the property of its nationals who developed and paid for it, and that it should not be transferred without adequate remuneration to its owners.
B. Possible Future Legal Means by Which Technology Transfer Abroad May Be Facilitated or Retarded.

There are two main groups or factions which seek to change the present legal regime—these are United States business groups and organized labor. U.S. business views technology transfers as a means by which greater business production facilities and consumer markets may be exploited and by which important flows of technology into the United States may not be stymied. Business contends that technology transfers abroad are helping the recipients of that technology by increasing employment in those countries and in the United States and by transferring skills and technology to recipients abroad. They also stress that this technology has been developed at great expense, that it is owned by these private concerns, and that any transfer should be accompanied by adequate remuneration. Organized labor has stressed that the transfer of technology abroad is an important, if not the most important, device for the maintenance by the United States of a competitive position in the world market place. Labor contends that present technology transfers are causing a loss of employment within the domestic market because the transferors of technology can, in time, master that technology and themselves become producers of products from that technology and compete with U.S. exports as well as with the domestic product within the U.S. market. Nevertheless, we have attempted to discuss those legal measures which might be taken to increase or retard the transfer of technology abroad.

1. Selected Changes To Increase Technology Flows Abroad

The United States may initiate a program to create a more conducive environment for the transfer of technology abroad and to increase the innovation of new technologies within the United States. On the first point, the United States could continue to stress to other countries, either bilaterally or in international forums (such as the GATT, UNCTAD, and WIPO), the importance of a free-trade system to facilitate the transfer of technology and skills. Second, the United States may amend its domestic laws to facilitate the transfer of technology abroad. This could be done by restoring those tax benefits which favor investment in the developing countries. Also, tax treaties granting preferences for the transfer of technology could be negotiated with developing countries. Similarly, an investment tax credit much the same as now exists for domestic investment might be afforded for investments in developing countries. Another approach favorable to technology transfer might be the enactment of legislation exempting transfer of technology presently taxed as ordinary income under the tax code 248/ where the transferor can demonstrate that the transfer was not motivated by tax-avoidance purposes.

Also, amplification of present programs under the Overseas Private Investment Corporation and the Export-Import Bank of the United States for technology licensing contracts may be contemplated. The United States may also consider lessening the strictures of the antitrust laws for international licensing, joint ventures, investment, and trading.
On the domestic side, in order to ensure a continuing supply of innovative technology, the United States might enact legislation to encourage increased amounts of research and development, or innovations, or revise current Treasury regulations requiring allocation of research and development expenses to foreign subsidiaries in view of their potential impact on the transfer of technology abroad.

2. Selected Changes to Retard Technology Flows Abroad

Past efforts to reduce the flow of investment and technology abroad are perhaps best exemplified in the Burke-Hartke bill, which would have changed many areas in U.S. law affecting the operations of U.S. companies abroad. Of particular interest in the technology transfer area, the bill would have authorized the President to prohibit any holder of a United States patent from manufacturing the patented product or using the patented product, or from licensing others to manufacture the patented product or using the patented product, outside the territory of the United States, when in the judgment of the President such prohibition will contribute to increased employment in the United States," (emphasis added). The penalty for violation of this section would have been loss of patent protection. Although the Burke-Hartke bill was never enacted, there are prospects for reintroduction of a similar bill.

Another suggestion is to raise taxes for foreign income derived from or related to the transfer of technology abroad. Certain security-sensitive exports are already restricted by the United States. The regulations apply to transfers to Communist nations and to free-world countries where the data is strategic. In the latter case, the U.S. Department of Commerce requires the person receiving the data give certain assurances with respect to the transfer of the data or its product to Communist countries. It has been suggested that the licensing procedures on exports of U.S.-origin data be extended to all U.S. exports by adding the criteria of effects on U.S. employment and U.S. competitiveness to the present national security concerns.
NOTES


2/ The United States system of exporting licensing is treated in section III of this review.

3/ Although they are not specifically discussed in this review, it should be noted that many other legal and regulatory regimes, including immigration laws, food and drug regulations, and environmental legislation, also affect the technology transfer process.

4/ European Economic Community.

5/ Andean Common Market.

6/ "COCOM" is the common abbreviation for the Consultative Group Coordinating Committee, a voluntary organization based upon the agreement of member States to coordinate their export controls with those of other Members. COCOM consists of the United states, and its NATO allies, minus Iceland plus Japan.


8/ The definition adopted here is substantially similar to that proposed by the "Group B" (developed) countries to the Intergovernmental Group of Experts on a Code of Conduct on Transfer of Technology at UNCTAD, Geneva. See, e.g. UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, Revised draft outline for the preparation of an international code of conduct on transfer of technology submitted by the expert from Japan on behalf of the experts from Group B, at pages 3-4, U.N. Doc. No. TD/B/C. 6/AC. 1/L.5. See also UNCTAD, Draft outline for the preparation of an international code of conduct on transfer of technology, submitted by Brazil on behalf of the "Group of 77," at page 2, U.N. Doc. No. TD/B/C. 6/AC. 1/L. 1/Rev. 11 (1975) for the definition proposed by the "Group of 77" (developing) countries.

9/ Id.

10/ A brief bibliography on licensing is annexed to this review.


(footnote continued)


29/ 50 U.S.C. App. 2402(2), The adjective "abnormal" before the term "foreign demand" in clause (a) was removed in 1974 by Pub. L. 93-500, section 2, October 29, 1974, 88 Stat. 1552.

30/ 50 U.S.C. App. 2402(3).


34/ Id. 50 U.S.C. App. 2402(7).

35/ Id. 50 U.S.C. App. 2402(8).


37/ 50 U.S.C. App. 2403(c).

38/ 50 U.S.C. App. 2403(b)(1)

39/ Id.


41/ Id.

42/ 50 U.S.C. App. 2403(e).
44/ Id.
51/ See, e.g., 15 C.F.R. 368.1(b) (Treasury and State).
52/ 15 C.F.R. Part 374.
53/ 15 C.F.R. 370.3.
55/ 15 C.F.R. 385.1, 385.3.
56/ 15 C.F.R. 385.2.
57/ Id.
58/ 15 C.F.R. 385.4.
59/ 15 C.F.R. 370.2(a)(8).
60/ 15 C.F.R. 370.2(a)(9).
61/ 15 C.F.R. 370.2(a)(13).
63/ 15 C.F.R. 370.1(a)(1), (2), (3).
64/ 15 C.F.R. 370.1(b)(i)-(vi).
65/ 15 C.F.R. Part 379.
67/ 15 C.F.R. 379.1(b).
68/ 15 C.F.R. 379.1(b).
69/ 15 C.F.R. 379.3 and 379.4 (general licenses) and 379.5 (validated licenses), respectively.
70/ Id.
71/ 15 C.F.R. 379.8(a).
72/ 15 C.F.R. 379.8(b).
73/ 15 C.F.R. 379.9.
75/ 15 C.F.R. 379.8(d).
77/ Hereinafter cited as Antitrust Guide.
78/ Department of Justice, Report of the Attorney General's National Committee to Study the Antitrust Laws (Washington, D.C. (1955)).
81/ Steiner and Vagts, op cit.
82/ Antitrust Guide, op cit. 4-5.
section 18 (American Law Institute 1965). Sect. 18 provides that a State has
jurisdiction to prescribe a rule of law attributing legal consequences to
conduct which takes place outside its territory where that conduct causes an
effect within its territory only where:

(b)(i) the conduct and its effect are constituent elements of
activity to which the rule applies; (ii) the effect within the
territory is substantial; (iii) it occurs as a direct and foreseeable
result of the conduct outside the territory; and (iv) the rule is not
inconsistent with the principles of justice generally recognized by
states that have reasonably developed legal systems.

85/ Antitrust Guide, op. cit. p. 6
86/ Id., p. 7.
87/ See, Hearings Pursuant to S. Res. 191 on Int'l Aspects of Antitrust
Before the Subcomm. on Antitrust and Monopoly of the Sen. Comm. on the
89/ "U.S.-German Antitrust Cooperation Accord Signed," Antitrust & Trade
90/ See, e.g., the treaty with Italy (effective July 26, 1949). TIAS No.
1965.
91/ Basic Instruments and Selected Documents p. 28 (9th suppl. 1961).
462-63.
94/ Standard Oil Co. of New Jersey v. United States, 221 U.S. 1 (1911).
95/ United States v. Addyston Pipe & Steel Co., 85 F. 271 (6th Cir. 1898),
modified and affirmed, 175 U.S. 211 (1899).
96/ Antitrust Guide, pp. 3-4.
101/ 19 U.S.C. 1337 (patent infringement, unfair competition), 19 U.S.C.
1337a (process patents).
103/ See, Bowman, Patent and Antitrust Law: A Legal and Economic Appraisal
104/ Kintner and Lahr, op cit., pp. 97-98.
105/ The following restrictions are discussed more thoroughly with complete
citations to relevant case law in Fugate, op cit.
108/ Finnegan, "How the Rules of Competition Affect Licensing in the
111/ The leading case, Transparent-Wrap Machine Corp. v. Stokes & Smith Co., 329 U.S. 637 (1947), held that such grant-backs were not illegal per se.
113/ Fugate, op cit., pp. 277-78.
114/ Kintner and Lahr, op cit., p. 113.
115/ Finnegan, op cit., p. H-47.
118/ See, note 45 below and subject text.
119/ See, e.g., Adams v. Burke, 84 U.S. (17 Wall) 453 (1873)
120/ 410 U.S. 52 (1973).
123/ 137 F.2d 255 (3d Cir. 1943). See also McCullough v. Kammerer Corp., 166 F.2d 759 (9th Cir. 148), cert. denied, 355 U.S. 813 (1948).
125/ See, Fugate, op cit., pp. 281-82.
128/ See, notes 49-51 above and subject text.
129/ Finnegan, op cit., p. H-42.
130/ Id., H-54.
133/ Id., H. 46-47.
134/ See, American Equipment Co. v. Tuthill Building Material Co., 69 F.2d 406 (7th Cir. 1934).
135/ 336 F.2d 117 (1966). The decision was severely criticized on the basis of the factual background of the case. See, Bowman, op cit., pp. 105-111. The doctrine appears to be viable however.
137/ Kirkpatrick and Mahinka, op cit., p. 728.
139/ See, Kintner and Lahr, op cit., p. 214.
140/ Antitrust Guide, pp. 33-34.
141/ Oppenheim and Weston, op cit., pp. 742-745, and literature cited therein.
142/ Id., pp. 3, 30.
143/ Id., pp. 31, 34, 41.


The characterization of Stedman's article in the text draws heavily from that in Oppenheim and Weston, op cit., p. 742.

See, R. Anthoine, Tax Systems of Major Capital Exporting Countries: An Examination of Incentives for Private Investment at Home and in Developing Countries, 32 Tax L.R. 323, 349 (1977); (hereinafter cited as Anthoine).

Anthoine, supra, at 349, 350
I.R.C. Section 1221(1).
I.R.C. Section 1235.
I.R.C. Section 1235-2.
38 F.R. 15840.
I.R.C. Section 1.861-8.
I.R.C. Sections 901-906
I.R.C. Section 904.
See, U.S. Dept. of Commerce "The Outlook for U.S. Research and Development In Response To Changed IRS Tax Treatment" (May 1977).
I.R.C. section 174.
I.R.C. Section 351.
I.R.C. Section 367.
I.R.C. Section 46.
I.R.C. Section 167.
I.R.C. Section 991.
See, the American Chicle case, 316 U.S. 540 (1942).
I.R.C. Section 955(c)(1).
Hearing on H.R. 10650 before the Senate Comm. on Finance, 87th Cong., 2d sess. 100 (1962).
See, Anthoine, supra note 1, at 351-357.
180/ Id., 624-625.
182/ The ISO and IEC are both private, nontreaty organizations whose memberships consist of the national standardization organizations of participating countries. IEC standards formulation is limited to the electrotechnical field. The United States is represented on ISO and IEC committees by the American National Standards Institute, a private coordinating group whose membership consists of technical, trade, and professional associations and individual companies.
183/ See, supra, note 4 at 624.
188/ Davis, op. cit. at 428.
189/ 11 Int. Legal Mat. 126 (1972).
190/ 13 Int. Legal Mat. 1478 and 1489 (1974).
192/ Id. at 289.
194/ Id. at 75.
195/ Finnegan, The New Mexican Law on Registration and Transfer of Technology from the Licensor's Point of View in the Law and Business of Licensing 458.
198/ 35 U.S.C. Sections 100-103.
200/ U.S. Const. Art. 1, Sec. 8.
205/ Paris Convention, supra, Article 2.
206/ Paris Convention, supra, Article 4.
207/ See, ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT, RESTRICTIVE BUSINESS PRACTICE RELATING TO PATENTS AND LICENSES 6, 10 (1973).
213/ Baillie, supra, at 169.
215/ Baillie, supra, note 15, at 170.
223/ Id., p. 5.

225/ Id. at 7.


229/ See, UNCTAD Resolution 39 (III), UNCTAD Resolution 87 (IV), and G.A. Res. 3507 (1975).


231/ See, Discussion of ongoing negotiations within the World Intellectual Property Organization, infra.


233/ The International Convention for the Protection of Industrial Property, TIAS No. 4931.


240/ The public is grateful to J. Phillip Anderegg, Esq., Chairperson, Committee on International Patent, Copyright and Trademark Relations, Section of International Law, American Bar Association, for much of the information on revisions to the Paris Convention, capably assembled in letters to the Committee dated October 18, 1977, March 17, 1978, and March 28, 1978.


242/ I.R.C. section 46.

243/ I.R.C. section 991.

244/ I.R.C. section 167.


246/ Anthoine, supra, note 33.

247/ Anthoine, supra, at 348-357.

248/ I.R.C. Section 1249.


250/ Id., section 602(a).

251/ Id. section 602(b).

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