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A Code of Conduct Regulating International Technology Transfer: Panacea or Pitfall?

By MARCUS B. FINNEGAN


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I. INTRODUCTION

MOST OF THE valuable, useful, and transferable technology in the world lies in the hands of the industrialized or developed countries.¹ These developed countries form two major political-economic groups. In the terminology of the United Nations, these two groups are (1) the developed market-economy countries, or the so-called Group B countries, and (2) the socialist countries, or the so-called Group D countries. In the Group D countries, technology, as a form of property, is owned by the governments of those countries. The Group B countries, however, possess the major share of the world's valuable technology, and almost all of this technology is owned by private companies, not by the governments of these countries.² There is some government-owned technology in the Group B countries, but virtually all of this technology is untried, unproven, and unused. It tends to


constitute the fruits of basic research or research which has not yet reached the stage of practical application which is characteristic of applied research. In the Group B countries, the private companies that own the practical technology must operate at a profit for their shareholders on a long term basis. If these companies do not generate a profit, they will eventually go bankrupt. Accordingly, a basic premise in the management of private companies is that the company must look forward to an acceptable return on investment (ROI). If management cannot foresee an acceptable ROI from the projects that are proposed to it, management will instead devote the company's energy and resources to projects for which the ROI is more promising.?

A basic difficulty or misunderstanding that has arisen between the transnational enterprises ("transnationals") and the developing countries seems to stem from a failure on each side to understand the basic premises underlying the philosophic and economic principles under which the other side operates. The developing, or "Group of 77," countries are naturally desirous of obtaining technology from the industrialized (Group B and Group D) countries under the most favorable possible circumstances. It is implicit that the primary mechanism for effecting the bulk of this transfer is through the discretionary activities of the transnationals.

One thesis that has been advanced is that once technology exists, it has already been paid for, and, therefore, it costs virtually nothing for the transnationals to transfer it to developing country enterprises. The experience of the transnationals, however, is that useful, practical technology can be created only through the expenditure of tremendous funds for research and development (R&D). Most R&D programs now are incredibly expensive, and seldom rewarding, undertakings. For


4. In United Nations terminology, the developing countries, sometimes referred to as the "nonaligned countries," are denoted as the "Group of 77." It is believed this shorthand terminology for the developing countries, within United Nations circles, was first used in 1968 at a time when the total number of developing countries in the U.N. did, in fact, constitute 77 countries. At this time the number of United Nations member countries who are now included in the Group of 77 has risen to approximately 110 countries. This substantial augmentation in the short space of eight years reflects a rapid increase in the number of independent developing countries that has been taking place.

every successful piece of technology generated from R&D a hundred other ideas are typically pursued which lead only to blind alleys. Support of a successful R&D program thus requires not only a large initial investment of capital, but also demands that the profits from successful technology be plowed back into further R&D to generate successful new technology. It thus often appears that a high ROI is being obtained by a transnational on a successful piece of technology. But it is not clearly understood that a high ROI is needed to fund the R&D to support the creation of successful new technology because at the same time this ROI supports the hundreds of blind alleys which are also pursued, and for which the ROI is zero. Thus, royalties on successful technology are used to produce more successful technology and to support the research on other ideas that never bear fruit, but which may, nevertheless, require the investment of large sums before researchers can establish that the ideas will be still-born.

Another difference in viewpoint between the developed and developing countries is that the industrialized countries and the transnationals look upon successful technology as a commodity, whereas the developing countries apparently look upon successful technology as having a unique status that amounts to something other than, or more than, a commodity. Realistically viewed, however, successful technology is a commodity just like oil, coffee, wheat, tin, bauxite, or any of thousands of other commodities. It has a value—and that value can be measured in terms of a price. The transnationals, operating under the profit incentive and depending in part on profits from technology sales to fund R&D programs, are thus extremely reluctant to sell successful technology at a price that represents less than its real value as a commodity. Accordingly, there is a conflict between the methods pursued by the transnationals for generating technology, which have been the most successful methods yet devised, and the ideas of the developing countries on what should be done to promote more efficient and less expensive transfer of technology. These are points of disagreement which must be resolved in a way that not only will not undermine and dry up the present technology transfer process, but that will make it even more efficient, productive, and helpful than it has been in the past.


The achievement of this objective will require mutual respect between the developed countries and the developing countries for one another’s problems. New initiatives must be explored for improving transfer. One of these initiatives is the Pugwash Code of Conduct on Transfer of Technology8 submitted in the report of the Working Group at a Pugwash conference held in Geneva, Switzerland in April 1974, about which more will be said later. But a code of conduct must not be too rigid or inflexible, or it may have the reverse effect of what is intended.

The single most critical operative premise of any approach to the development of a code of conduct is that technology will be transferred only when both the owner of the technology is willing to transfer it and the transferee is willing to receive it. The starting point must, therefore, be an appreciation of those concerns and interests of the parties to a prospective transfer which are in conflict or competition, whether real or imagined. The dialogue in recent years between spokesmen for the views of the transnationals based in the developed or industrialized countries and spokesmen for the views of enterprises situated in the developing countries has contributed immeasurably to an understanding of the concerns and interests of these two important groups of transferors and transferees of technology.9

Although the need for technology transfer into the developing countries has been recognized, incentives must exist for the owners of technology to engage and cooperate willingly in the transfer. The broadest policy objectives of a code of conduct should be conceived with an appreciation of the legitimate concerns of enterprises located in the developing countries, while preserving a climate in which transferors will willingly and enthusiastically continue to participate in the transfer process. This is especially true where any adopted code of conduct may serve as the basis for compulsory national legislation in a host developing country, rather than merely a format for guidelines to technology transfer.10

10. The experiences of the members of the Andean Group under its Common Regime of Treatment of Foreign Capital and of Trademarks, Patents, Licenses, and Royalties (Decision No. 24, adopted Dec. 31, 1970 by the Commission of the Cartagena Agreement, as amended), 11 I.L.M. 126 (1972), are instructive in this regard. Recent reports indicate that several members of the Andean Group believe the restrictions on foreign investment and technology transfer have damaged their economies beyond any tangible
The criticisms of the developing country enterprises with respect to technology transfer arrangements in the past have been voiced in various forums. The proposed Pugwash Code of Conduct resulting from the Geneva Pugwash Conference attempts to define clauses and practices which should be prohibited, and guarantees which should be made, to ensure equity in the transfer of technology to the developing countries. Similarly, the arguments of the transferors based in the developed and industrialized countries have been presented. These arguments stress the need for the absence of restraints to permit an environment in which technology transfer can flourish in an atmosphere of flexibility. Both postures have merit, yet both must be compromised to reach an acceptable consensus. Owners of technology are moved to enter into agreements for its transfer more by the promise of a profitable ROI than by the opportunity to assist social improvement in the developing countries. Transferees are motivated to allocate capital resources in consideration for technology by the need for such technology rather than by a desire to enhance the profit opportunities of technology owners. Within this broad framework of differing objectives, the traditional pattern of contract negotiation in private enterprise economies can operate. In the end, agreement and cooperation will be achieved only if each party has realized its broad objective. The extent to which the objective of a party is satisfied depends upon its relative bargaining strength and flexibility. Any form


of external restraint on the ability of each party to reach its goal necessarily affects the relative bargaining postures of the parties. The desirability of such external restraints in the area of technology transfer, therefore, must be assessed by weighing the overall benefits to be gained by technology transfer against the impact of the restraints on the ability of the negotiating parties to arrive at an acceptable agreement to transfer technology.\textsuperscript{15}

It is suggested that, as a general policy, any code of conduct for technology transfer should be drafted with a view towards three objectives: (1) preserving an environment in which technology transfer is potentially profitable for the transferor; (2) improving the bargaining strength of a developing country enterprise by defining reasonable external restraints to be placed on the transferor; and (3) retaining sufficient flexibility for both the transferor and transferee to permit negotiation in any given situation on an acceptable consensus which is tailored to the needs of that situation.

Notwithstanding the protests of some representatives of the viewpoint of the technology owners, technology transfer can be effected profitably in an atmosphere of external restraint. Transferors are accustomed, for example, to entering into technology transfer agreements within the constraints of the antitrust laws of the United States,\textsuperscript{16} the European Economic Community\textsuperscript{17} (EEC) and Japan.\textsuperscript{18} Indeed, many of the objectives sought to be achieved by the developing country enterprises are the same as, or analogous to, those at which the antitrust laws are aimed. While the transnationals may disagree with particular prohibitions under those laws as interpreted, adaptation of licensing practices can and has been made.

\textsuperscript{15} Otherwise, the diminution of technology flow resulting from such restraints may impact adversely on economic development. See note 10 supra. See also Green, Emerging Restrictions on Transfer of Technology, 15 IDEA 274, 275 (1971).


\textsuperscript{18} Antitrust impact on technology transfer agreements in Japan is provided by the Antimonopoly Act Guidelines for International Licensing Agreements promulgated by the Fair Trade Commission on May 24, 1968 and reprinted in H. IYOH ANTIMONOPOLY
The disincentive to engage in technology transfer which accompanies each restraint must be considered, however, and the aggregate effect weighed. If the balance is tipped heavily against the transferor, the beneficial effects of technology transfer may be subject to serious risk. A particular restraint may be advantageous, but of insufficient benefit to warrant jeopardy of technology transfer. In this context, the fact that the restraint is embodied in antitrust laws of industrialized countries may not be controlling, if the anticompetitive effects sought to be avoided by those laws are of a different magnitude or quality than the undesirable effects experienced by the transferees of technology in developing countries. For example, various types of exclusive dealing arrangements which have been found to violate the antitrust laws of the United States and the EEC might, in the context of a developing country enterprise, prove to be a necessary and desirable means of obtaining access to international markets.

II. THE PROPOSED CODES OF CONDUCT ON THE TRANSFER OF TECHNOLOGY

A. Background

The first and most widely publicized of the proposed draft codes of conduct was submitted as a report of "The Working Group on Code of Conduct on Transfer of Technology of the Pugwash Conferences"...
on Science and World Affairs" at a meeting in Geneva, Switzerland conducted during April 1-5, 1974. This proposed code of conduct has come to be known as the "Pugwash Code." It was published and circulated by the United Nations Conference on Trade and Development (UNCTAD) on July 15, 1974 at the request of the Permanent Representative of Algeria, made in his capacity as Chairman of the Group of 77 at a session of the UNCTAD Intergovernmental Group on Transfer of Technology.22 A code of conduct on transfer of technology has not yet been developed by UNCTAD itself. Efforts to draft such a code were begun by an intergovernmental group of experts under the auspices of UNCTAD in May of 1975. These efforts were continued at a meeting of the UNCTAD Intergovernmental Committee on Transfer of Technology which was held in Geneva from November 24 through December 5, 1975.

At the May 1975 UNCTAD meeting, the expert from Brazil submitted a revised draft outline for a code of conduct on behalf of the Group of 77.23 The Group of 77 draft is, to a large extent, based on the Pugwash draft. Although the mandate of the May 1975 meeting was only to draft an outline of a proposed code of conduct, the Group of 77 proposal was a fully developed draft.24 In response to this initiative by the Group of 77, the Group B countries developed still another proposed outline of a draft code in Paris on October 27-29, 1975, under the auspices of the Organization for Economic Cooperation and Development. A refined version of this draft was submitted by the expert from Japan on behalf of the experts from Group B as a "Revised Draft Outline for the Preparation of an International Code of Conduct on Transfer of Technology" at the UNCTAD Committee on Transfer of Technology meeting in Geneva on November 24, 1975.25

At the UNCTAD IV Conference held in Nairobi in May 1976, discussions on a code of conduct were overshadowed by intensive deliberations on world commodity pricing, distribution, and allocation.

22. Pugwash Code, note 8 supra.
However, it was agreed that an intergovernmental group of experts would be established within UNCTAD, open to the participation of all member countries, to prepare a draft international code of conduct for the transfer of technology. The group is to hold one meeting in 1976 and as many additional meetings as may be required in 1977 to draft, and hopefully reach agreement on, a proposed code by the end of 1977. The group of experts is to be free to formulate draft provisions ranging from mandatory to optional, without prejudice to the final decision on the legal character of the code.

As a part of the resolution adopted by the conference in Nairobi, UNCTAD recommended that a United Nations conference under its auspices be held by the end of 1977 and that the conference should negotiate the draft elaborated by the group of experts and take all decisions necessary for the adoption of a final document embodying the code, including the decision on its legal character. The United States has agreed to participate in the meetings of the intergovernmental group of experts. The first meeting of the group of experts took place in November 1976 at UNCTAD's headquarters in Geneva.

The heart of each of these three draft codes is the chapter on restrictive business practices. The Pugwash Code enumerates 20 different clauses as restrictive business practices and identifies five clauses which "shall not be utilized" in technology transfer agreements involving the use of trademarks in Chapter III. Chapter IV of the Group 77 Code has doubled this list of clauses forbidden as restrictive business practices. In contrast, the Group B Code denominates in more general terms only eight categories of restrictive business prac-

27. Id.
28. Id.
29. Id. para. 3.
30. Pugwash Code, ch. IV, para. 4(i)-(xx) and ch. III, para. 5(i)-(v). While the text of the code prohibits the use of all twenty-five clauses, certain exceptions are recognized with regard to the five clauses involving the use of trademarks. Chapter III of the Pugwash Code is entitled "Relations Between Suppliers and Recipients of Technology."
31. Group 77 Code, ch. IV, para. 4.2(i)-(xl). Chapter IV of the Group 77 Code, entitled "Restrictive Business Practices in Transfer of Technology Transactions," includes a general catch-all provision prohibiting any clauses or practices in the technology transfer agreements which "directly or indirectly have or may have adverse effects on the national economy of the recipient country," Id. ch. IV, para. 4.1. It also provides for exemptions to the prohibitions of Chapter IV when required by the public interest. Id. ch. IV, para. 4.3. Furthermore, it should be noted that the Group 77 Code prohibits restrictive business practices "whether part of written arrangements or not . . . ." Id. ch. IV, para. 4.2. Certain cartel activities are also treated in Chapter IV. See note 33 infra and accompanying text.
tices in Chapter V. Additionally, using almost identical language, both the Pugwash and Group 77 Codes provide that the following horizontal cartel activities "shall not be utilized:" (1) import cartels; (2) rebate cartels and other price fixing arrangements; (3) national export cartels; (4) international cartels which allocate markets or control exports or imports; (5) private and semi-official agreements on certain standards in developing countries; and (6) specialization and rationalization cartels.

Significantly, both the Group 77 Code and the Pugwash Code visualize that any code should be an internationally legally binding instrument. As stated in the Pugwash Code:

The Code of Conduct for Transfer of Technology should be the object of a multilateral legal instrument to be internationally negotiated and agreed upon, and to become binding on signatories once the conditions for its entry into force, to be established in the legal instrument itself, are fully met.

Presumably, once sufficient informal support has been generated for a code of conduct, an attempt will be made to convene a diplomatic conference at which the terms of the proposed code will be hammered into the format of an international treaty to be ratified by the countries subscribing to the document drawn up by the diplomatic conference. Such a mode of proceeding would be similar to that which was adopted, for example, with the Patent Cooperation Treaty, to which the participating governments subscribed at a diplomatic conference held in Washington, D.C. in June 1970.
Not surprisingly, the Group B countries take the position that any international code of conduct on technology transfer should be restricted to mutually acceptable and voluntary guidelines, rather than a legally binding code.\(^{36}\) It is also interesting that the Group D countries have stated their general support for the preparation of a code of conduct, but they feel that such a code should be optional and allow for flexibility in the application of its provisions.\(^{37}\)

B. Restrictive Business Practices in Technology Transfer Agreements\(^{35}\)

The prohibition or requirement of certain clauses in a contract for the transfer of technology, and particularly a license agreement, will have a direct impact on the transfer process. Therefore this article will discuss the economic impact of the restrictive business practices portions of the proposed codes on international cooperation in the transfer of technology. With the foregoing general observations in mind, attention is directed to specific clauses which might be prohibited, permitted, or required by a code of conduct. For convenience, the Pugwash Code will be used as a base against which provisions for any proposed code of conduct may be evaluated and considered. Accordingly, the remainder of this paper concerns itself with certain specific provisions taken from the Pugwash Code. Reference will be made by footnotes to corresponding provisions in the Group 77 and Group B Codes where such comparison may provide illumination or contrast. Because the Pugwash Code will undoubtedly be the parent of any proposed code put forward by the Group of 77 countries, and, of course, will also influence any voluntary code proposed by the Group B countries, this method of analysis seems appropriate. The quotations to which comparative reference is made below have thus been taken from the Pugwash Code. The practices and clauses discussed are those which have been identified as restrictive business practices in the Pugwash Code, and, accordingly, prohibited.

1. Tie-in Clauses.

Tie-in clauses are "clauses and/or practices restricting the sources of supply of raw materials, spare parts, intermediate products and

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36. Group B Code, ch. I, para. 1.2; Id. ch. VIII, para. 8.2.
A clause which requires the licensee to acquire raw materials, spare parts, intermediate products, or capital goods for use with the licensed technology only from the licensor or its designee generally should not be included in a licensing agreement. Such tie-in of unprotected goods is usually illegal under the United States antitrust laws,40 and has been criticized by representatives of developing country enterprises. It is likely that transferors will be amenable to such a prohibition in a code of conduct, if the prohibition is not totally inflexible. The benefit to the developing countries would be substantial.

There may be instances in which a licensor can justifiably refuse to guarantee the suitability or adequacy of the technology transferred, unless the supplies or capital goods acquired meet specifications set out in the agreement. The reasonableness of a licensor's justification for a tie-in must be viewed in light of the technology, the necessity of supplies or capital goods of particular specifications, and the availability of compatible supplies or capital goods from other sources.

An absolute prohibition against tie-ins without any qualifications, as proposed in the Pugwash Code, might in some instances actually hinder the transfer of technology. For example, to maintain quality control it might be necessary for a transferor to insist that certain materials, spare parts, or components used in the exploitation of the technology be obtained from designated sources - at least for a limited period of time. Although such restrictions might be justifiable in only a very limited number of situations, such situations do exist and could render the prohibition impractical as worded.41

39. Pugwash Code, ch. III, para. 4(ii). A footnote to this provision indicates that it is to be read in conjunction with ch. V, para. 8(vii) which provides that where no other sources exist, the prices of the materials shall be consonant with international price levels. See note 85 infra and accompanying text. See also Andean Group's Decision No. 24, 11 I.L.M. 126, 133 (1972) Art. 20(a); Mexico's Law for the Registration of the Transfer of Technology and the Use and Exploitation of Patents and Trade-Marks, adopted December 28, 1972, Article 7 (VI) [hereinafter cited as Mexican Law], and reprinted in U.N. Doc. TD/B/AC.11/13 (1973); and Japan, FTC Guidelines, Article I, para. (4). Both the Pugwash and Group 77 Codes address tie-ins of trademarked products in a separate provision. Pugwash Code, ch. III, para. 5(ii); Group 77 Code, ch. IV, para. 4.2(xvi). The only difference between the two codes in this regard is that the Pugwash Code does not denominate such clauses as restrictive business practices, while the Group 77 Code does.

40. See e.g., International Salt Co. v. United States, 332 U.S. 392 (1947).

41. The Group 77 Code contains a virtually identical provision. Group 77 Code, ch. IV, para. 4.2(iii). The Group B Code identifies “tied sales” as a restrictive business practice and defines the practice as coercing the licensee “[T]o accept unwanted and unneeded licenses, or purchase unwanted and unneeded goods or services from the licensor or his designated source.” Group B Code, ch. V, para. 5.1(iii). It should also
2. Package Licensing.

Package licensing has been defined as "clauses and/or practices requiring the acceptance of additional technology not desired by the recipient, as a condition for obtaining the technology in question, and requiring the remuneration for such additional technology, e.g. package licensing . . . ." The prohibition against tying may be extended to a requirement that the licensee accept additional, unnecessary, and unwanted technology as a condition for the transfer of the desired technology. It is the coercive or mandatory aspect of the arrangement which should be avoided.

This prohibition should not prevent package licensing when the elements of the package can be shown to be necessary, desirable, and unavailable elsewhere. Thus, in some instances, a particular technology, although not required for the desired technology to be complete, is known by the licensor to be necessary or highly desirable for best results. In such a situation, the burden of showing the desirability of accompanying technology should be on the licensor. If it is determined that the same technology is not available locally or from another source, the licensee can decide whether the benefits of the accompanying technology are indeed worth the additional cost.

The disaggregation or "unbundling" of packaged technology and the consideration of each element of a package are not unreasonable restraints on licensing. Such an approach permits the developing country enterprise to bargain for and ensure that it receives only that technology which is necessary to achieve the desired result. Permitting disaggregation may cause particular apprehension on the part of a transnational desiring to have a signed contract before disclosing its trade secrets or know-how. Furthermore, the transnationals may doubt the ability of those in the developing countries to properly evaluate the need for certain elements of the package to achieve the desired result. These shortcomings of disaggregation should not adversely affect the transfer of technology if the developing country enterprises

be noted that the Group 77 Code includes a separate prohibition of tie-ins with respect to trademarked products. Group 77 Code, ch. IV, para. 4.2(xvi). See also, Id. ch. IV, para. 4.2(xxi) concerning tying of imports to specific source for purpose of charging higher than normal prices.

42. Pugwash Code, ch. III para. 4(iv).

make a positive effort to assure the transferors that their technology will be competently and confidentially evaluated.  

3. Tie-out Clauses.

Tie-out clauses are "restrictions in obtaining competing or complementary technology through patents and know-how from other licensors with regard to the sale or manufacture of competing products . . . ." Clauses which restrict the transferee from obtaining competing or complementary technology from other licensors or the public domain should be prohibited. Such clauses are illegal "tie-out" provisions under United States antitrust law. Tie-out clauses adversely affect the sense of autonomy of developing country enterprises. Transferors of technology will understand the important interest in preserving the identity and self-determination characteristics of developing country enterprises. In turn, the transferees should recognize the legitimacy of the technology owners' desire to secure a good ROI and an adequate reward for release of their property rights.

4. Price Fixing.

Price fixing involves "clauses and/or practices whereby the supplier of technology reserves the right to fix the selling or resale price of the products manufactured . . . ." Transferors should be prohibited from attempting to fix the price at which the licensee may sell or resell licensed products or products made by using licensed technology. Al-

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44. All three proposed codes apparently agree that disaggregation will have a salutary effect on the transfer process. See Group B Code, ch. IV, para. 4.1(iii); Group 77 Code, ch. IV, para. 4.2(xx). See also Andean Group's Decision No. 24, 11 I.L.M. 126, 133 (1973) Art. 19.

45. Pugwash Code, ch. III, para. 4(vi). The Group 77 Code contains an identical provision in ch. IV, para. 4.2(ii). In addition, both the Pugwash and Group 77 Codes contain a similar prohibition on tie-outs with respect to products involving trademarks. Id. ch. IV, para. 4.2(x); Pugwash Code, ch. III, para. 5(v). See also Andean Group's Decision No. 24, 11 I.L.M. 126, 133 (1972) Art. 20(d); Mexican Law, Article 7 (VIII); and Japan, FTC Guidelines, Article I, para. (3). It is also to be noted that the Group B and Group 77 Codes identify restrictions on the transferee's freedom to enter into sales or representation agreements related to similar or competing technologies as a restrictive business practice. Group B Code, ch. V, para. 5.1(iv) (only unreasonable restrictions); Group 77 Code, ch. IV, para. 4.2(xii). See note 60 infra and accompanying text.


47. Pugwash Code, ch. III, para. 4(viii). The Group 77 Code contains a similar provision, Group 77 Code, ch. IV, para. 4.2(xiv), while the Group B Code fails altogether to treat the issue of price fixing. See also Andean Group's Decision No. 24, 11 I.L.M. 126, 133 (1972) Art. 20(b); Mexican Law, Article 7(XI); and Japan, FTC Guidelines, Article I, para. (2).
though the licensor may affect the sale price by the royalty rate it sets, it should not attempt to fix the price. Such action has been held to be illegal under the United States and EEC antitrust laws.48

5. Production Volume Restraints.

Production volume restraints are "clauses and/or practices restricting the recipient's volume, scope and range of production or field of activity . . ."49 Clauses which restrict the volume of production of a licensed process may be prohibited as outside the reasonable scope of the property rights of the licensor in the licensed technology.50 However, clauses which restrict the volume of the licensed product, such as a patented product, should not be absolutely barred.51

Treating volume restriction clauses in any code of conduct requires a careful balancing of factors. Any restraint on volume has a clear limiting effect on the licensee's potential competitive posture in world markets. Moreover, it comprises an indirect influence on the developing country enterprise's self-guidance by the transnational licensor. These are negative consequences of legitimate concern to the developing country. However, the adversity of these restraints may be more illusory than real. Even without production restraints, developing country companies are not likely to be able to compete in international markets as quickly or effectively as they desire. Moreover, the ability to barter for more favorable terms in other negotiable aspects of the transfer agreement should assuage any sense of infringement on autonomy imposed by production restraints. This is not to say that production restraints should be permitted where, absent the restraint, a developing country enterprise would be able to effectively compete in international markets. Rather, the suggestion is that, as a matter of bargaining strategy, such restraints would be a significant "chip" in a developing

48. Although price fixing is still theoretically legal in the United States where a manufacturing licensor licenses only one manufacturing licensee under a product patent (United States v. General Electric Co., 272 U.S. 476 (1926)), as a practical matter, price fixing in license agreements in the United States is a thing of the past. The antitrust principles evolving in the EEC are similarly hostile to any attempt to fix prices. Article 85 of the Treaty of Rome, note 17 supra, prohibits any direct or indirect attempt to fix purchase or selling prices. See Re Deutsch Philips GmbH, 12 Comm. Mkt. L. R. D241 (1973).

49. Pugwash Code, ch. III, para. 4(vii). See Group 77 Code, ch. IV, para. 4.2(1) which is the same. See also Andean Group's Decision No. 24, 11 I.L.M. 126, 133 (1972) Art. 20(c); Mexican Law, Article 7(XI); and Japan, FTC Guidelines, Article I, para. (2).


country enterprise's hand. Obviously, an outright prohibition of these restraints takes away that "chip."

Volume restrictions are usually included to preserve the competitive positions of the licensor and his other licensees. Where the licensor holds a product patent, the argument that it thereby has the legitimate power to control competition in the licensed product has some force. If each of the parties to a production license recognizes a reasonable correlation between the scope of the transferor's property rights and the restriction on production, the negotiating climate will be improved.

The developing country enterprise can still trade off any concession respecting production in exchange for concessions on other negotiable conditions of the agreement. The transnationals will appreciate that their legitimate interests have been considered in the adoption or rejection of a prohibition on production restraints in the code of conduct.

Where the licensor's property rights reside in a process for making a product, clauses which restrict product volume are far less defensible. An ancillary right to control the product market cannot be reasonably asserted because such a claim clearly exceeds the scope of the licensor's property right. Not only does the basis for the transferor's justification for the restriction weaken, but the adversity of the impact on the transferee heightens. Thus, the interference with a developing country enterprise's autonomy becomes more serious as the relationship between the restriction and the reasonable scope of the transferor's property rights is more tenuous. Also, where the protected technology covers manufacturing rather than the product itself, the transferee's ability to compete effectively in world markets with the acquired technology may actually be impeded by product volume restrictions.

This treatment of volume restrictions illustrates the balancing approach to decision-making with respect to code of conduct provisions which should be followed. This approach gives vent to the substantial arguments on both sides and reaches a demonstrably fair and considered decision. In this case where the strengths of the arguments for and against product volume restrictions are dependent upon whether the protected technology is the product itself or only the process for making the product, a more selective prohibition of production restrictions (i.e., where it is the process that is licensed) is a reasonable, justifiable decision in drafting the code of conduct.


Export restrictions include "clauses and/or practices prohibiting or limiting in any way the export of products manufactured on the
basis of the technology in question including restrictions on exports to certain markets, permission to export only to certain markets; and requirement of prior approval of the licensor for exports... clauses and/or practices requiring higher technology payments on goods produced for exports vis-a-vis goods for the domestic market... The code of conduct treatment of clauses which restrict export of the products resulting from the licensed technology should be based on a balancing of factors similar to those weighed in connection with volume restrictions.

Export restrictions should be prohibited where unreasonable. What constitutes reasonableness with respect to any export restriction will depend on the nature of the licensed technology, the licensor's reasons for imposing the restriction, and the scope and duration of the restriction. There can be sound reasons for export restrictions. For example, a licensor will often have an exclusive licensee in each of one or more territories, and may wish to protect one licensee's market from competition by goods imported by another licensee. Developing

52. Pugwash Code, ch. III, para. 4(i) & (v). A footnote to the first clause addressing export restrictions recognizes that in "certain appropriate circumstances export restrictions might be justified." The Group B and Group 77 Codes likewise identify export restrictions as restrictive business practices. The Group B Code, however, addresses only those restrictions which "unreasonably prevent the export of unpatented products or components, or which unreasonably restrict exports to countries where the product made pursuant to the licensed technology is not patented." Group B Code, ch. V, para. 5.1(1). In contrast, the Group 77 Code contains outright prohibitions on any type of export restrictions, recognizing no circumstance where such restrictions are permissible. Group 77 Code, ch. IV, para. 4.2(xi) & (xv). It does, however, permit differential rates of payment for export output vis-a-vis domestic output where such rates are "in the interest of the recipient country." Id. ch. IV, para. 4.2(xviii). It is interesting to note that this is one of the few instances where the Group 77 Code adopts a more flexible position than the Pugwash Code which simply prohibits differential technology payments. Both the Pugwash and Group 77 Codes also address export restrictions in the context of cartel activities among technology suppliers. See note 33 supra and accompanying text. See also Andean Group's Decision No. 24, 11 I.L.M. 126, 133-35 (1972) Arts. 20 and 25(n) and Mexican Law, Article 7(VII). The Japanese FTC Guidelines quite sensibly provide that, although it will be considered an unfair business practice for a licensor to restrict the area to which his licensee may export licensed products, there are three exceptions under which an export restriction will not be considered an unfair business practice. These are: (1) where the licensor has patent rights in a territory to which the licensee is restricted from exporting; (2) where the licensor is already selling licensed product in the restricted area under his normal business practice; and (3) where the licensor has already granted an exclusive license to a third party to sell in the restricted area. Japan, FTC Guidelines, Art. I, para. (1).

country licensees frequently prefer exclusive licenses for their territories because of the limited host country market which often exists.\textsuperscript{54} Thus, the absolute prohibition of export restrictions can be detrimental to all concerned under certain circumstances.

However, the recipient usually hopes to be able to export eventually. A restriction on export should therefore be limited in scope and duration to that which is reasonable. A break-in period during which the licensor can establish its position in its own market, or during which other licensees can develop strength in their home territories, is a reasonable time. The length of the break-in period will depend upon the relative complexity of the technology.

Transnationals are accustomed to the availability of territorial restrictions reasonable in scope and duration under the antitrust laws of the United States.\textsuperscript{55} An inflexible prohibition of such restrictions would be difficult for technology owners to accept, and should be considered too severe an external restraint on the transfer negotiation process. It would be sufficiently protective of the developing country interests to prohibit only export restrictions which are clearly unjustifiable or unreasonable.

Export restrictions, no matter how reasonable, can only be imposed on the licensee. It is outside the scope of property rights in the technology for a licensor to attempt to restrict a customer of the licensee. Clauses which purport to do so can be prohibited.\textsuperscript{56} A clause which requires higher royalty payments for items produced for export than for domestic items is a form of export restriction which should be treated in the same manner as other export restrictions.

7. Field of Use Restrictions.

Field of use restrictions are "clauses and/or practices restricting

\textsuperscript{54} The problem of limited domestic markets in developing countries and the impetus that provides for protection of local industries is explored in the Latin American context in The Process of Industrialization in Latin America, INTER-AMERICAN DEVELOPMENT BANK at 77-90 (1969). See generally R. PREBISCH, CHANGE AND DEVELOPMENT — LATIN AMERICA'S GREAT TASK at 236-39 (1971); C. FURTADO, ECONOMIC DEVELOPMENT OF LATIN AMERICA — A SURVEY FROM COLONIAL TIMES TO THE CUBAN REVOLUTION at 197-204 (1970).


the recipient's volume, scope and range of production or field of activity . . . ." 57 Much of the technological property available from transnationals can be used in diverse fields of activity or to produce diverse products. Under principles of U.S. antitrust law, it is not unreasonable to permit the licensor of multifaceted technology to license various uses of the technology separately. 58

To require the licensor to license the technology without any restrictions on use could force the licensor to charge higher royalties to the licensee, even though the licensee desires only a limited use of the technology. Reasonable field of use restrictions are deemed legal under the U.S. antitrust laws, so long as such restrictions are not used as a subterfuge to divide markets or allocate customers between competitors. 59


Unilateral grant-back provisions establish "a unilateral flow of technical information and improvements from the technology recipient without reciprocal obligations from the technology supplier. All new technologies, patents and improvements developed by the technology recipient as a result of the agreement shall be the property of the technology recipient . . . ." 60 An inflexible prohibition against any unilateral grant-back provision should not be incorporated into a code of conduct. However, in recognition of the transferee's rights in self-generated improvement technology, a mandatory requirement for a grant-back of title or an exclusive license should not be included in transfer agreements. A grant-back of a non-exclusive license permitting the licensor to use improvement technology developed by the licensee,

57. Pugwash Code, ch. III, para. 4(vii). See Group 77 Code, ch. IV, para. 4.2(1) which is the same. The Group 77 Code contains a second and somewhat redundant provision prohibiting field of use restrictions. Id. ch. IV, para. 4.2(xxxvi).


59. Id.

60. Pugwash Code, ch. III, para. 4(xi). The Group B Code takes the position that an exclusive grant-back, where the effect of the same is "to abuse a dominant position of the licensor," is a restrictive business practice. Group B Code, ch. V, para. 5.1(viii). The Group 77 takes a slightly more lenient position than the Pugwash Code. It prohibits exclusive grant-backs unless there is a reciprocal obligation on the technology supplier. Group 77 Code, ch. IV, para. 4.2(xxvii). See also Id. ch. IV, para. 4.2(xxx) which prohibits compelling recipient to obtain improvements from supplier and para. 4.2(xxi) which prohibits limitation on recipient's access to improvements. See also Andean Group's Decision No. 24, 11 I.L.M. 126, 133 (Art. 20(f)); Mexican Law, Article 7(IV); and Japan, FTC Guidelines, Article 1, para. (7).
whether or not royalty-bearing should not be prohibited, even absent a reciprocal grant-back provision running to the transferee.\textsuperscript{61}

The licensor has a legitimate interest in improvements of its own technology. Where the technology owner is without assurance that improvements spawned through the transfer will be available to it at least on a nonexclusive basis, the transfer itself would be discouraged. Moreover, the grant-back of a nonexclusive license is not an undue imposition on the interests of the developing country enterprises. Such provisions could frequently lead to royalty income for the transferee. In addition, a grant-back constitutes a reasonable concession by which the transferee may be able to secure more favorable terms under other provisions of the agreement during the negotiation process.

The transferor should additionally not be prevented from acquiring through a grant-back a nonexclusive license which includes the right to sublicense. Such a clause may serve to reassure the licensor, and enable the transferee to reduce royalties or secure other terms more favorable than it could otherwise negotiate. By licensing improvements to the transferor, the developing country enterprise may be able to reach a greater share of the world market for the particular technology and receive a greater return on its improvements.

9. Limitations On Transferee with Respect to Research and Development.

These clauses involve "limitations on the research and development (R&D) policy and activities of the recipient company . . . ."\textsuperscript{62} License agreements should not include limitations on the policy or activities

\textsuperscript{61} In Transparent-Wrap Mach. Corp. v. Stokes & Smith Co., 329 U.S. 637 (1947) (5-4 decision), it was held that an assignment grant-back was not a per se antitrust violation and could be legal under the Rule of Reason. But the U.S. Department of Justice currently views any grant-back provision other than a non-exclusive license. See also Re Kebelmetal's Agreement, 16 Comm. Mkt. L. R. D40 (1975); Raymond-Nagoya, CCH Comm. Mkt. Rep. ¶9513 (1973). Both of these cases uphold nonexclusive grant-backs under EEC antitrust law.

\textsuperscript{62} Pugwash Code, ch. III, para. 4(x). The Group 77 Code includes a similar provision, Group 77 Code, ch. IV, para. 4.2(xxvi), as well as a provision prohibiting restrictions on the recipient's ability to adapt the imported technology to local "appropriate circumstances." Id. The Group B and Group 77 Codes contain similar provisions. Group B Code, ch. V, para. 5.1(vii) (only when unjustifiable); Group 77 Code, ch. IV, para. 4.2(xiii) (giving due regard to subcontracting arrangements). Similarly, the Group B and Group 77 Codes identify restrictions on the technology recipient's freedom to enter into sales or representation agreements regarding similar or competing technologies as a restrictive business practice. The Pugwash conditions. Id. ch. IV, para. 4.2(xxii). See also Mexican Law, Article 7(V). The Group B Code takes a conciliatory posture in urging source enterprises to "[c]o-operate to the extent practicable and appropriate, in the development of the scientific and technological resources of recipient enterprises . . . ." Group B Code, ch. IV, para. 4.1(iv).
of the developing country licensee with respect to R&D. Such a restriction is outside the scope of the transferor’s rights and unduly interferes with the transferee’s autonomous conduct of its own affairs. Developing country enterprises should not be prevented from achieving competitive technologies through their own independent efforts.

In prohibiting such activities by a licensor, however, the provision should not be drafted so broadly as to condemn any clause which might arguably have the indirect effect of limiting the transferee’s research activity under some strained or extended construction of the terms of the provision. For example, as indicated above, nonexclusive grant-back provisions should be permitted under certain circumstances. A loosely worded policy statement could give rise to the contention that any grant-back provision constitutes a “limitation” on developing country research activity. A prohibition in any code of conduct should address clauses which purport to directly affect the R&D policy and activities of the transferee which are not ancillary to the rights of the technology owner. This is a reasonably specific and justifiable restraint on the transfer negotiation process.

10. Quality Control Clauses.

Quality control clauses are “clauses and/or practices using quality controls or product standards by the supplier as a means of introducing unwarranted requirements on the technology recipients . . . “63 Quality control and product standards may be very important for technology which is closely tied to the reputation of the licensor, such as when an associated trademark or service mark is also licensed, or when a poor quality product might be injurious to health. In such instances the imposition of quality control inspections or rigid product standards through clauses in the license agreement can be justified. Clauses imposing such requirements which are not reasonably necessary should be excluded from transfer agreements. The Pugwash Code apparently recognizes this distinction by prohibiting such clauses only where they are used to impose “unwarranted requirements” on the technology recipient.

11. Exclusive Sales or Representation Agreements.

Exclusive sales or representation agreements are “clauses and/or practices requiring the recipient of technology to enter into exclusive sales or representation agreements with the supplier of technology

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63. Pugwash Code, ch. IV, para. 4(iii). The Group 77 Code, ch. IV, para. 4.2(iv) is the same.
Clauses under which the licensee agrees to enter into exclusive sales or representation agreements with the licensor should not be prohibited without exception. For example, where the protected technology resides in a product which requires continuous monitoring and servicing in the hands of the consumer, such as automobiles, exclusive representation agreements with the licensor may be desirable and advantageous. However, where such clauses are imposed involuntarily on the transferee as a condition of the technology transfer, they are properly prohibited. If the licensee voluntarily agrees to enter into such exclusive arrangement, the clause should be permitted.

12. Royalty Payments in Form Other than Currency.

Royalty payments in form other than currency are “clauses and/or practices obliging the recipient to convert technology payments into capital stock . . . .” Clauses in licensing agreements which require the payment of royalties in a form other than currency, for example, stock in the licensee, should not be prohibited unless the form of payment is involuntarily imposed upon the licensee or is contrary to the policies of the host country. If the transferee is coerced to convert payments into stock as a condition for license, the clause should be prohibited. In such a case, it becomes essentially the type of tie-in that is almost universally regarded as illegal.

13. Clauses Requiring Licensor Participation in Management.

The clauses are “requirements by the supplier in licensing arrangements, except management contracts, to participate in the management decisions of the recipient enterprise . . . [or] requirements to use the staff designated by the technology supplier . . . .” Involuntarily imposed clauses which require licensor participation in licensee management or management decisions, or which mandate the use of staff designated by the licensor, should not be included in agreements.

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64. Pugwash Code, ch. III, para. 4(ix). The Pugwash Code does, however, note that such agreements might be justified in some circumstances but the Group 77 Code is silent on this matter. Group B Code, ch. V, para. 5.1(iv) (unreasonable restrictions only); Group 77 Code, ch. IV, para. 4.2(xii). See also Mexican Law, Article 7(IX) & (XII), and Japan, FTC Guidelines, Article I, para. (5).

65. Pugwash Code, ch. III, para. 4(xii). See Group 77 Code, ch. IV, para. 4.2(xvii) which is the same. The Andean Group's Decision No. 24 11 I.L.M. 126, 134 (1972) Art. 21, contains a similar provision.

66. See note 39 supra and accompanying text.

67. Pugwash Code, ch. III, para. 4(xiii) & (xiv). See Group 77 Code, ch. IV, para. 4.2(xvix) & (xxviii) (parallel provisions). See also Mexican Law, Article 7 (III) & (X). The Group 77 Code also includes a provision prohibiting restrictions on or requiring prior approval by the technology supplier of the recipient's publicity or advertisement policies. Id. ch. IV, para. 4.2(xvii).
However, the licensor may justifiably refuse to guarantee production levels or other aspects of the license agreement unless it is permitted to participate to some extent in key decision-making processes of the licensee. 68


These clauses include "licensee's undertaking not to contest the validity of the supplier's patents . . . restricting the use of the subject matter of a patent and any unpatented know-how license which relates to the working of the patent once the patent has expired . . . the charging of royalties on patents after their expiry . . . ."69 Attempts to insure continuation of the license even though the property rights no longer exist are not justifiable. Such clauses are unenforceable under United States law.70 Thus, a license agreement should not include clauses which prohibit the developing country licensee from challenging the validity of the licensor's property rights or which require payments to continue after the property rights have expired or been extinguished. Clauses by which the licensee agrees not to challenge the validity of the licensor's patents should be prohibited.71 Payments extending beyond the life of the patent or after technical trade secrets or know-how have entered the public domain, other than through breach of a confidentiality agreement by the licensee, should likewise be barred.

68. See note 49 supra and accompanying text.
70. To require payment of royalties on use of a patented invention after the patent has expired is per se unlawful in the United States. Brulotte v. Thys Co., 379 U.S. 29 (1964). The EEC Commission has taken the same view under Art. 85 of the Treaty of Rome. See A.O.I.P. v. Beyrard, 17 Comm. Mkt. L. R. D14 (1975). All three codes are in complete agreement that royalty payments on expired patents should be barred. Group B Code, ch. V, para. 5.1(v); Group 77 Code, ch. IV, para. 4.2(xxxviii). The Group B Code is in accord with the Pugwash Code in also barring any restrictions on the exploitation of a licensed product or process after the expiry of the patent, Group B Code, ch. V, para. 5.1(v), while the Group 77 Code, somewhat surprisingly, makes no specific mention of this practice. It does, however, contain an additional provision which prohibits the royalty payments on patents and other industrial property rights not registered in the recipient's country. Group 77 Code, ch. IV, para. 4.2(xxxvii).
71. See Lear, Inc. v. Adkins, 395 U.S. 653 (1969). See also American Sterilizer Co. v. Sybron Corp., 526 F.2d 542 (3rd Cir. 1975); Re Kabelmetal's Agreement, 16 Comm. Mkt. L. R. D40 (1975); Davidson Rubber, 11 Comm. Mkt. L. R. D52. The last two cases hold that non-attack clauses are prohibited under EEC antitrust law. The Group 77 Code treats non-attack or no-contest clauses in the same manner as the Pugwash Code. Group 77 Code, ch. IV, para. 4.2(xxxiv). In contrast, the Group B Code prohibits only "unreasonable" restrictions prohibiting the licensee from challenging the validity of a patent, and further provides that the licensor may terminate the license when the patent is challenged by the licensee. Group B Code, ch. V, para. 5.1(vi).
15. Restrictions On Use After Expiration of the Agreement.

These clauses concern "requirements that the recipient pay royalties during the entire duration of manufacture of a product or the application of the process involved and, therefore, without any specification of time . . . clauses and/or practices prohibiting or restricting the use of the technology after the termination or expiry of the contract in question . . .". It has been suggested that clauses which restrict the use of transferred technology after the expiration of the transfer agreement should be prohibited. This would not be an advisable code provision. A distinction must be drawn between restraints on use or royalty payments after expiration of property rights and similar restraints after expiration of the agreement. In the absence of valid property rights, the transferor has no legitimate claim to royalties or control on use. In the absence of an agreement, however, it is the transferee which lacks a right to use technology protected by valid property rights. Clauses which restrict use of unexpired property rights after agreement expiration are therefore proper.

It is understandable that a developing country recipient of technology would want to be assured, once it undertakes production using the licensed technology, that it will not be required to cease production while the technology continues to have commercial feasibility. However, this is a consideration which should be resolved by proper planning and negotiation of the terms of the agreement. Where the agreements involve the transfer of valuable trade secrets or know-how, a clause restricting the licensee's disclosures of the secret information after the expiration of the agreement is a valid exercise of the transferor's property rights. When a licensor transfers technology in the form of trade secrets and know-how, it must be assumed that the technology will be held in strict confidence by the licensee.

72. Pugwash Code, ch. III, para. 4(xv) & (xvi). The Group B Code does not contain any comparable provisions. The Group 77 Code includes two parallel provisions, Group 77 Code, ch. IV, para. 4.2(vi) & (vii) as well as a third rather vague provision prohibiting contractual agreements of "unduly long duration." Id. ch. IV, para. 4.2(xxxv).

73. The right of a trade secret owner to protect his trade secrets against their unauthorized use by one to whom they had been disclosed in confidence was recently upheld by the United States Supreme Court in Kewanee Oil Co. v. Bicron Corp., 410 U.S. 470 (1974). See Re Kabelmetal's Agreement, 16 Comm. Mkt. L. R. D40 (1975) which reached the same result under EEC antitrust law.

Normally, the agreement will endure for the predicted commercial life of the technology. Indeed, it is in the interest of both the transferee and transferor to fix the period of the agreement to correspond to the expected commercial life of the technology. A clause providing for renegotiation of the agreement after a certain period of time may help to provide some assurances of the transferee's continued ability to use the technology if the commercial life should prove longer than originally expected.


Unused technology clauses require “continuation of payments for unused or unexploited technology . . . .” The licensee should not be coerced into accepting a license for technology which it cannot use. This principle is directly analogous to the objection to mandatory package licensing, previously discussed. However, if a licensee has demanded, bargained for, and received technology which it later discovers it cannot use, a royalty schedule which is based to some extent on the unused technology should not be considered per se unreasonable. The proper selection of royalty base can minimize the problem of payments for unused technology. Developing country enterprisers should seek a basis for running royalty payments which will produce royalty figures that bear a direct relation to their actual extent of use of technology. The license agreement could also include a provision for renegotiation should it become apparent to the parties that, contrary to their original expectations, some portion or field of the technology transferred cannot be used by the licensee.

C. Guarantees

Both the Pugwash and Group 77 Codes include separate chapters on guarantees. A minor exception notwithstanding, the Group B


76. See notes 42-43 supra and accompanying text.

77. Under U.S. law, a licensor cannot condition the granting of a license on the licensee's agreeing to pay royalties on total sales of a class of products where all the products of the class are not covered by the transferred technology, unless the licensee voluntarily agrees to such an arrangement for convenience of bookkeeping and accounting or the like. Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100 (1969); accord, Davidson Rubber, 11 Comm. Mkt. L. R. D52.

78. Pugwash Code, Ch. V; Group 77 Code, ch. V.

79. This exception provides that source enterprises shall guarantee: “(a) [T]he technology meets the description contained in the technology transfer agreement; (b) the technology, properly used, is suitable for the use specifically set forth in the technology transfer agreement.” Group B Code, ch. IV, para. 4.1(vi).
Code fails entirely to address the matter of guarantees. The Pugwash Code lists nine guarantees which the supplier of technology is required to make, and five guarantees which the recipient of technology must make. The Group 77 Code contains a slightly different list of guarantees for both suppliers and recipients of technology, omitting one of the recipient's guarantees contained in the Pugwash Code. Moreover, the Group 77 Code goes on to list eight optional guarantees, evidently to be imposed on both parties to a transfer agreement, which may be required by the governments of technology-receiving countries. The following discussion will focus on several of the more important guarantees in terms of impact on the technology transfer process, required by the Pugwash Code.

1. Guarantees of Suitability.

The Pugwash Code has several provisions addressing guarantees of suitability:

[T]he technology acquired is in itself suitable for the manufacture of products covered by the agreement; the content of the technology transferred is in itself full and complete for the purposes of the agreement; the technology obtained will in itself be capable of achieving a predetermined level of production under the conditions specified in the agreement . . . [T]he acquired technology will be used as specified in the contract . . .

The licensor should reasonably be required to guarantee that the transferred technology is suitable for the purposes intended under the agreement, if the technology is used in accordance with conditions specified in the agreement. For such a guarantee to be meaningful, the agreement should specifically define the intended products or goals of the agreement, as well as conditions necessary to achieve them. This

80. The recipient guarantee omitted from the Group 77 Code would require the recipient to guarantee that the socio-economic conditions and needs of the recipient country have been taken into account in the transfer agreement. Pugwash Code, ch. V, para. 9(v). It should be noted, however, that this omission in the Group 77 Code may not be very significant in view of the fact that several related guarantee obligations may be imposed on both parties to the transfer agreement at the option of the government of a recipient country under the terms of the Group 77 Code's chapter on guarantees adverted to in the text. Group 77 Code, ch. V, para. 5.3. The Pugwash Code does not contain any optional guarantee provisions.

81. Group 77 Code, ch. V, para. 5.3.

82. Pugwash Code, ch. V, para. 8(i), (ii) & (iii). See Group 77 Code, ch. V, para. 5.1(i), (ii) & (iii) which is the same. See also Group B Code, note 79 supra and accompanying text.

83. Pugwash Code, ch. V, para. 9(i). See Group 77 Code, ch. V, para. 5.2(i). It should be apparent that this last guarantee is to be made by the technology recipient, while the first three guarantees, note 79 supra, are to be made by the technology supplier.
would include specifications for particular raw materials if appropriate. Requirements for success should not be a sham, however, and the transferor should establish a sound basis for concluding that a given condition is essential to the realization of the desired results.

In general, the licensor should not be expected to warrant the suitability of technology without some assurance that the licensee will use it properly. A code of conduct should be sufficiently flexible in its prohibitions of clauses to allow the parties to include clauses which may appear to be restrictive in return for a valuable guarantee. Clauses guaranteeing that the transferred technology is complete, or that a predetermined level of production can be achieved, stand in the same posture as a guarantee of suitability. A licensee should be willing to tolerate, at least to some extent, the stipulation of specific conditions of production or use which are reasonably related to the achievement of the desired results in return for either type of guarantee. A code of conduct must be flexible enough to allow the parties to decide for themselves wherein lies the most suitable trade-off of clauses, yet definitive enough to provide the transferee with leverage to permit it to participate significantly in reaching that decision.

2. Guarantee to Train Recipient Country Personnel.

This type of guarantee requires "national personnel shall be adequately trained in the operation of the technology to be acquired and in the management of the enterprises . . . ." A code may contain a provision requiring a clause under which the licensor agrees to train management and labor in the proper use of the transferred technology. Such a provision is generally acceptable to the licensor as a means of insuring the success and profitability of the license.

Difficulties arise where the guarantee is to train such personnel adequately. A licensor cannot reasonably be expected to warrant the quality, motivation, and learning ability of trainees over whom it has no direct control. It is fair to require a licensor to provide adequate training capacity. For the licensor to do less would be counterproductive to its own interests. However, the ultimate responsibility for providing qualified trainees should be on the licensee and the recipient country.

Unfortunately, the determination of whether the licensor has provided the capability to train recipient country personnel and whether the licensee has provided qualified trainees is so largely subjective,

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84. Pugwash Code, ch. V, para. 8(iv). See Group 77 Code, ch. V, para. 5.1(iv) which is the same.
that attempts to enforce a training guarantee can lead to undesirable disputes not easily resolved. Disagreements over the quality of the training provided the personnel could threaten the harmonious relationship between the transferor and transferee and should be avoided.

3. Guarantee of Comparable Prices.

These guarantees require the prices of the articles be consonant with current international price levels "where the recipient of the technology has no other technological alternative than acquiring capital goods, intermediate inputs and/or raw materials from, or selling his output to, the technology supplier or any source designated by him . . ."85 If it is necessary for the licensee to acquire materials or capital goods from the licensor or its designee, a requirement that the licensor guarantee that the prices of such materials or capital goods will be comparable to the international market price is entirely reasonable. Problems may arise where no comparable international market price exists for a particular item, as is frequently the case with intermediate inputs, e.g., the frame for an automobile. This problem could be overcome by establishing a standard accounting practice which specifies a formula for pricing such items.

4. Licensor-Originated Improvements.

These guarantees provide "the recipient shall be informed and supplied with all improvements on the techniques in question during the lifetime of the agreement . . ."86 Generally, a requirement that the licensee be supplied with all licensor-originated improvements to the licensed technology for the term of the agreement will not be acceptable to the licensor. However, the licensee should be informed of the improvements and be offered the opportunity to acquire a license to them on reasonable terms.

Improvements to technology are expensive to develop and have the effect of extending the market life of the technology. Unlike licensee-originated improvements derived from the use of the licensed technology,87 the licensee has no particular claim of interest in licensor-originated improvements. The imposition of such a clause could require the licensor to contract away an unknown improvement which might

85. Pugwash Code, ch. V, para. 8(vii). See Group 77 Code, ch. V, para. 5.1(vi) which is the same.
87. See note 39 supra and accompanying text.
well be worth more than the original technology. Such a result would be unreasonable and could jeopardize transfer agreements. For example, if a licensor transferred technology for making rayon synthetic fibers and then later discovered and developed the technology for making nylon, it would be unreasonable to require the licensor to turn over the new nylon technology to the licensee without additional consideration.

5. **Spare Parts at No Further Cost.**

This type of guarantee provides "for certain period of time the supplier shall guarantee to provide spare parts, components, and servicing of the technology without additional charges . . . ."\(^8\) A clause requiring the licensor to supply, without additional charge, all necessary spare parts, components and servicing for a specified period of time may be difficult to enforce in practice. That is, the licensee may pay for the guarantee by being unable to persuade the licensor to agree to a lower royalty rate than would be attainable without the guarantee.

The licensee may be better off to negotiate an individually-priced guarantee of spare parts, components and servicing, and thus preclude an unearned windfall for the licensor should the licensor's necessarily speculative prediction of parts and servicing cost be higher than the actual cost. A code of conduct requirement for such a no-additional-cost guarantee may therefore have the effect of introducing inflexibility into the negotiations rather than improving the transferee's bargaining posture.

6. **"Most Favored Licensee" Clauses.**

"[A]ll transfer of technology arrangements should include a provision by which if licensor grants more favorable terms to a second licensee these terms will be automatically extended to the first licensee . . . ."\(^9\) A most favored licensee clause should not be required by a code of conduct. Such clauses could frustrate many technology transfer negotiations and cause considerable difficulty in the interpretation and enforcement of agreements in which the clause has been included.

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88. Pugwash Code, ch. V, para. 8(viii). See Group 77 Code, ch. V, para. 5.1(viii) which is the same.

89. Pugwash Code, ch. V, para. 8(ix). The Group 77 Code's most favored licensee guarantee differs from that of the Pugwash Code in two significant ways. First, it is included in the list of optional guarantees which may be required by governments of technology-receiving countries. Moreover, it requires most favored licensee treatment to be extended only to "subsequent recipients in similar positions within the same country." Group 77 Code, ch. V, para. 5.3(iv).
A major problem is the correct valuation of the license. To determine whether a subsequent licensee has obtained more favorable terms, the two licenses must be compared with respect to the value of the technology licensed, the variety of methods of compensation used in each license, and the value or detriment of the restrictions placed on the licensee and licensor in each license. It is extremely difficult to compare the value of two licenses if the technology is not precisely the same in both licenses. This is frequently the case with respect to transfers where the transferred technology is individually tailored for each recipient enterprise. For example, where only a patent is licensed to one recipient and another receives a license for the same patent with know-how, trade secrets, or management assistance, a comparison of the values of the respective licenses is an uncertain effort. If a later license transferring more technology than an earlier license contains a most favored licensee clause, the later licensee might expect the same royalty rate as the earlier licensee, despite the fact that the later licensee receives more technology. Such a situation would be unacceptable to the licensor.

Many licenses have more than one form of payment. One license may have only a royalty provision, while a second license may have a lower royalty due to inclusion of a grant-back clause or exclusion of certain guarantees. The value of the inclusion or exclusion of various clauses is speculative, making a comparison based strictly on royalty rate unfair and inequitable. In addition, where one license incorporates restrictions on the licensee's exports or use of the technology on termination of the agreement, it cannot be compared with another license which does not include those restrictions. Each clause in a license has some value to each of the parties. This value depends on all the other clauses, on the priorities of the parties, and on the possible benefits or detriments each clause offers to each party. There is no way to compare such inchoate, speculative values fairly.

The most favored licensee clause also presents a special problem arising out of the national regulations of many developing countries. Some countries have established a relatively low maximum royalty rate. In those countries, the licensor may be able to license at that

90. Despite the protestations of the developing countries that the technology they receive from the developed countries is ill-suited to their needs, e.g., too capital intensive, developed country transferors frequently must make significant modifications to their technology when it is destined for use in a developing country. Moreover, certain kinds of technology are inherently capital intensive, e.g., telecommunications. The "appropriateness" of the technology transferred to developing countries is explored in W. CHUDSON & L. WELLS, The Acquisition of Technology from Multinational Corporations by Developing Countries, U.N. Doc. ST/ESA/12 at 3-22 (1974).
mandatory rate by receiving favorable terms on other aspects of the agreement. Some countries impose a maximum time period during which a license may remain in effect. The term of a license can be a basis for setting the payment level. A five-year licensee may justifiably pay royalties at a rate different from that of a ten-year licensee. These are examples of recipient country regulations which render the most favored licensee clause particularly unacceptable to transnationals transferring technology into the developing countries.

The essence of the deficiencies of most favored licensee clauses is the nature of the transfer negotiation process itself. Each license is ideally the product of individual negotiations, and, unless exactly the same, no two licenses can be compared to determine which one has more favorable terms. To reduce transfer agreements to simplistic terms for purposes of comparative valuation would destroy the unique nuances and intricacies inherent in every agreement arrived at through a process of negotiation.

D. Other Issues Raised by the Proposed Codes of Conduct

While the foregoing analysis has been confined to the chapters of the proposed codes which address restrictive business practices and guarantees in the technology transfer process, several more general issues emerge from other chapters of the proposed codes which are likely to generate considerable discussion and controversy. Therefore, it would be useful to summarize briefly the most significant of these issues, for they will establish the overall context from which a code of conduct on the transfer of technology will emerge.


As previously indicated, the Group B and Group D countries have taken the position that any code of conduct should be voluntary and not legally binding. Both the Pugwash and Group 77 Codes envisage a multilateral international accord, binding on its signatories.

Inextricably related to the determination of the mandatory/voluntary, legal/nonlegal nature of the code is the issue of its coverage or scope of application. Again, the difference in approach between the

91. See notes 36-37 supra and accompanying text.
92. See Group B Code, ch. VIII, para. 8.2.
Pugwash and Group 77 Codes, on the one hand, and the Group B Code on the other, is striking. The Pugwash Code, after broadly defining the term "technology transfer,"94 provides that the code will "[a]pply to all transactions covering the transfer of technology regardless of the parties involved whether private capital, state or regional or international institutions."95 The Group 77 Code employs similarly sweeping language in describing the scope of the Code's application, and goes beyond the Pugwash provision by explicitly providing that the Code "[s]hall be universally applicable to all States . . . ."96 Predictably, the Group B Code contains a much narrower definition of the term "international transfer of technology,"97 and provides that the guidelines are "addressed" only to "parties" to a technology transfer transaction, i.e., the source and recipient enterprises98 and their governments. The difference in meaning between "apply" and "applicable" as used in the Pugwash and Group 77 Codes and "addressed" used in the Group B Code is significant. The former intend the Code to be legally binding while the latter intends the Code to be advisory or exhortatory in nature.

The resolution of these disparate positions on the nature and scope of a code of conduct underpins the entire discussion of a code of conduct on the transfer of technology, and will significantly flavor the language, prohibitions, and guarantees to be included in the final version of such a code. It is here that the debates between the developed and developing countries will be most intense. For these reasons, the Group of 77 could well abort the entire effort by adamantly insisting on a universally applicable code, binding sovereign states and private parties alike. The Group B governments will not countenance such an agreement, and they will further point out that the Pugwash and Group 77 proposals totally fail to recognize the actual limits on the ability of the government of a developed country to regulate its private enterprises.

2. Special Treatment of Developing Countries.

All three codes agree that some provision should be made for special treatment of the developing countries.99 As with the scope of

95. Id. ch. II, para. 3.
96. Group 77 Code, ch. II, para. 2.2.
97. Group B Code, ch. II, paras. 2.4-2.5.
98. Group B Code, ch. II, paras. 2.1-2.3 and 2.7.
99. Pugwash Code, ch. IX; Group B Code, ch. VI, paras. 6.2 & 6.3; Group 77 Code, ch. VI.
the code, the nub of contention here is that both the Pugwash and Group 77 Codes purport to impose obligations on developed country governments to take certain steps, e.g., grant preferential tax treatment and develop local R&D capacity. Insisting on the imposition of such obligations on developed country governments would significantly lessen the possibility of attaining an agreement on any code of conduct. The developing countries should exhibit the same kind of sensitivity to encroachments on the sovereignty and autonomy of developed country governments as they do to like encroachments by the transnationals on their own sovereignty.

3. Applicable Law in Technology Transfer Agreements.

Both the Pugwash and Group 77 Codes provide that the jurisdiction and interpretation of technology transfer agreements shall rest with the technology-receiving country.¹⁰⁰ The Group B Code provides that the parties should be free to negotiate the applicable law and in the absence of an effective choice of law by the parties, the law of the State which has the most significant relationship to the parties and the transaction should govern.¹⁰¹ Since all three codes would permit arbitration by procedures specified by the parties, the applicable law provisions of the three codes appear sufficiently flexible to arrive at a meaningful compromise.¹⁰²


While the term "collective bargaining" does not appear as such in any of the three proposed codes, the concept entered into the discussion of a code of conduct on international transfer of technology at the Fourth Session of UNCTAD held in Nairobi in May 1976. There are, however, certain provisions in the Group 77 Code which can be viewed as antecedents of the concept that surfaced at the Nairobi meeting. Specifically, the Group 77 Code includes a provision which requires developed country governments to extend or strengthen "[A]ssistance for the establishment of national, regional and/or international institutions, including technology transfer centres, to help the developing countries to obtain their technological requirements

¹⁰². Pugwash Code, ch. VII, para. 12(iii) & (iv); Group 77 Code, ch. VIII, para. 8.3; Group B Code, ch. VII, para. 7.4. Both the Pugwash and Group 77 Code would permit recourse to arbitration only where the applicable law does not preclude the same. The Group B Code also urges the use of the International Centre for the Settlement of Investment Disputes. Id. ch. VII, para. 7.5(1).
for the establishment, construction and operation of plants under the
most favorable terms and conditions."\textsuperscript{103}

The notion of collective bargaining, \textit{i.e.}, joint planning and nego-
tiation by developing countries with respect to the transnational tech-
nology supplier, was explicitly endorsed by the Fourth Session of
UNCTAD as a means of enhancing the bargaining position of develop-
ing country technology recipients.\textsuperscript{104} While the concept of collective
bargaining among sovereign states has been explored in other con-
texts,\textsuperscript{105} \textit{e.g.}, commodity producers and consumers, it is a novelty in
the technology transfer area. Because the UNCTAD resolution en-
dorsing collective bargaining by the developing countries was couched
in very general and abstract terms, meaningful discussion and analysis
of this concept must await a more specific elaboration of how the
principle of collective bargaining will operate in the technology transfer
area.

Suffice it to say that should the collective bargaining tactic which is
now being advocated by the developing countries lead to the legiti-
mization of cartel activities under the guise of collective bargaining,
the developed countries will strongly resist such a development. On
the other hand, should the operational content of the collective bar-
gaining concept indicate a good faith effort by the developing countries
to promote the ideal situation of an "arm's length" negotiation between
two evenly matched parties, the developed countries would likely be
receptive to such an approach.

\section*{III. CONCLUSION}

Individual negotiation and compromise are paramount values of
any system affecting technology transfer agreements. These values
should be preserved and encouraged, and throughout this analysis of
clauses which might be prohibited, permitted, or required by a code
of conduct, those have been key goals.

Any code of conduct promulgated and sponsored by UNCTAD
in the future should strive to favor neither the transnational supplier

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\textsuperscript{103} Group 77 Code, ch. VI, para. 6.1(vi). The Group 77 Code contains one other
provision which adverts to the idea of collective bargaining on a regional basis. \textit{Id.} ch.
VII, para. 7.2.

\textsuperscript{104} UNCTAD Resolution 87(IV), U.N. Doc. TD/RES/87 (IV) at 3 (1970).

\textsuperscript{105} See, \textit{e.g.}, Hager, \textit{Commodity Agreements and the Developing Countries: — A
Collective Bargaining Approach}, 7 \textit{Int'l. Law} 309 (1973); T. Franeck and E. Chesler,
"At Arms' Length": \textit{The Coming Law of Collective Bargaining in International Relations
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nor developing country recipient viewpoint, but rather the ideal of arm's-length negotiation between a commodity seller and a commodity buyer of comparable bargaining strengths. Ultimately, the transfer of technology into developing countries will prosper where individualized negotiations can be as effectively conducted as technology exchange between transnationals themselves now prospers.

Code provisions should effectively improve the developing country enterprises' bargaining positions, while retaining sufficient flexibility for meaningful negotiation. By preserving flexibility and recognizing those instances in which prohibitions and requirements may too severely restrain the transnationals at the bargaining table, a considered code of conduct can be a source of optimism for a new relationship between transnational technology owners and developing country recipients based on fair and hard negotiation of individually and socially desirable technology transfer agreements.

Finally, the movement toward an international code of conduct on the transfer of technology is but a reflection of larger, exceedingly complex political problems which have been engendered by an international society undergoing profound changes. Demands for a new international economic order, international regulation of transnational enterprises and the like form the backdrop for UNCTAD's activities in the technology transfer area. These broader demands raise the possibility that the work now being carried on by UNCTAD in moving toward a code of conduct for the transfer of technology will be subsumed by the development of a more comprehensive code of conduct for transnational enterprises by the U.N. Commission on Transnational Corporations.


108. An interesting analysis of the political coming of age of the developing countries, the reasons therefor, and a suggested response by the U.S. is found in Senator Moynihan's recent article The United States in Opposition, COMMENTARY, March 1975 at 31.

Whether or not a code of conduct on the transfer of technology eventually becomes a reality, the discussion and interchange between the developed and developing countries which the concept itself has brought about has value in itself. Given the central role of the transnationals in this controversy, the suggestion that they are indeed engines of world peace — insofar as their activities present problems which require solutions involving cooperative action between the developed and developing world — acquires a certain validity.

In the realities of today's world it would seem that before any code of conduct can come into practical effect there will have to be at least a partial voluntary adoption and approval of its terms by both the transnationals and their home governments. Before this can occur there will have to be much give and take on the part of both the transnationals and the developing countries.

The initial efforts to draft codes favorable to the developing countries, as represented by the Pugwash and Group 77 proposals, are too inflexible and go beyond anything that the transnationals would be willing to voluntarily accept. A meaningful, workable, practical, and flexible code will require large doses of compromise on both sides. Accustomed as the transnationals are to operating in an environment where external restraints, such as antitrust laws, are imposed, they should be willing to agree to some form of code containing voluntary provisions, as well as some legally binding provisions. The acceptability of such a compromise would be particularly viable if the legally binding prohibitions were directed against restrictive provisions that have been generally recognized as illegal under United States, EEC, and Japanese antitrust principles, such as price fixing and tie-out provisions.

It is interesting to observe that since Pugwash was first put forward, the Group B countries have moved from outright opposition to any form of code regulating international technology transfer to their own proposal, the Group B Code. The dialogue has thus begun. Where it will lead is unpredictable, but its future path and eventual outcome will be stimulating to follow.

The resolution of the debate over the code is unquestionably one of the most vital components needed to bring about a resolution of the broader North-South conflict, and the peaceful resolution of that conflict is the most important issue facing the world today.