INTELLECTUAL PROPERTY IN THE URUGUAY ROUND — NEGOTIATING STRATEGIES OF THE WESTERN INDUSTRIALIZED COUNTRIES

*Frank Emmert**

I. INTRODUCTION

On June 16, 1989, the following commentary was published in a leading German newspaper:[1]

> Everyone a Benefactor
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> Is it not striking, how cheeky and bold Brussels and Washington sell their most questionable and protectionist measures as nothing but benevolence and loving care for a liberal world trading system? The United States, at least according to Carla Hills, never thinks of anything but the wealth and prosperity of the others. After all, its new trade instrument "Super 301" serves exclusively to open up markets, with the crowbar if it need be. And as Jacques Delors tried to sell in Washington recently, the European Community's restrictive local content rules — for example for cars made in the U.S. by Japanese manufacturers — are aiming only at improving employment and economic growth in the United States. Surely a similar altruistic claim by the Japanese in justification of their numerous trade restrictions is already waiting in the wings to complete this concert of bigotry. But in the face of all this charity, is it not incomprehensible why the multilateral GATT negotiations seem paralyzed and the larger newly industrialized and developing nations are so suspicious in international trade matters? For some reason nobody seems to believe all these benefactors.

Are the current negotiations on Trade Related Aspects of Intellectual Property Rights ("TRIPS") in the Uruguay Round of the General Agreement on Tariffs and Trade ("GATT") just another facet of the old North-South conflict? Or is there something new and different hiding behind the those magic letters, "TRIPS"? Negotiations in the Uruguay Round began in 1986 and the literature written on them by lawyers and economists already fills entire libraries. Intellectual property ("IP"), while only one of fifteen topics on the agenda, is one of the most intensively covered areas.

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* LL.M., University of Michigan, 1990.

1. Frankfurter Allgemeine Zeitung, June 19, 1989, at 13 (translation by the author).

Although "intellectual property" is not at all a new concept, it is still a strange and unfamiliar notion to most. In effect IP is a legal construct allowing a natural or legal person to "own" knowledge, with ownership being defined more or less in the terms of the German *Bürgerliches Gesetzbuch*: the owner of an asset is entitled to deal with it in any lawful way and to exclude others from using the asset.[2]

Unlimited ownership of the "classic" tangible assets is the most fundamental tenet of our society, even the "lawful use" of many things, particularly real property, is becoming increasingly regulated. Similarly, we have long become used to more modern tangible assets like promissory notes, checks and other commercial papers. By contrast, the existence and value of intangible assets, as exemplified by court awards of compensatory damages for infringement of the goodwill of an enterprise, will seem rather bizarre to most non-lawyers.

Knowledge, however, is even more unique. It has been called "the ultimate intangible asset."[3] While it is frequently costly to create knowledge, once in existence it can be multiplied and possesed by many at practically no additional cost. The creator can transfer it liberally and still retain full use of it. Additional inventiveness and creativity (and therefore knowledge) is encouraged when as many users as possible have access to the existing knowledge. This, and the fact that most existing knowledge was and is being created by the Western industrialized countries (WICS), explains why many developing countries demand that knowledge should be treated as a "common heritage of mankind" [4] and made available free of charge to all nations, partly but not only as an act of developmental aid.

However, the creator of a certain piece of knowledge usually must invest large amounts of time and money to generate this knowledge and develop it to the point of economic usefulness. In addition, there is never a guarantee that a particular inventive effort will be successful. Even if something new is discovered, only one out of ten inventions proves to be economically exploitable,[5] and of course nobody knows which in advance. Continuing inventive activity thus depends on the likelihood of recouping this start-up cost as well as earning a substantial profit to compensate for the risk and the failures.

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2. *See* BÜRGERLICHES GESETZBUCH [BGB] § 903, as amended.

3. Reidenberg, *Information Property: Some Intellectual Property Aspects of the Global Information Economy*, 10 INFORMATION AGE, Jan. 1988, at 3.

4. R. BENKO, PROTECTING INTELLECTUAL PROPERTY RIGHTS 28 (1987).

5. MacLaughlin, Richards & Kenny, *The Economic Significance of Piracy*, in INTELLECTUAL PROPERTY RIGHTS: GLOBAL CONSENSUS, GLOBAL CONFLICT? 89, 100-01 (R. Gadbaw and T. Richards eds. 1988)

There are three fundamentally different approaches to the problem of providing incentives for inventive activity. First, the inventor may be employed and/or paid by the state (the concept of the socialist non-market economies). Second, the problem may be left to the forces of the free market and self-protection. Here it is up to the innovator to protect his knowledge (by secrecy in trade) as long as possible and try its exploitation before imitators catch up. Once competitors obtain the knowledge, they are able to undersell the innovator because they will not have to incur the start-up costs of product research and market development. This free-market concept is embraced by some states for certain areas of commercial activities not otherwise protected by the state's legal regime. Finally, the inventor could be granted the exclusive right by the state to exploit the invention for a certain time in exchange for disclosing it to the public. This policy is adhered to by the Western industrialized countries ("WICS") for most areas of commercial activities, and by most developing nations for certain areas of commercial activities.

The WICs claim that their system is the most efficient and want the other states to introduce the same system of IP protection with comparable standards and procedures. This article will analyze why the WICs demand adoption of their system (Part II); how the WICs intend to expand their traditional IP rights to other nations (Part III); whether it would be beneficial to other countries to adopt this system (Part IV); and which incentives the WICs might provide to persuade other countries to introduce similar IP protection even though it might not be in their best interests to do so (Part V).

The purpose of this article is not simply to add just another opinion to the debate on international IP protection. Nor does it aim to rally blind support for the position of the Western industrialized countries. Rather, this report attempts to present an objective analysis of all the important arguments of the developed and developing countries, and to evaluate in like manner all major aspects of traditional IP protection and potential regulation in GATT.

I. The Problem of Intellectual Property Protection in World Trade

A. *Complaints of the Western Industrialized States About Inadequate Protection of IP*

1. *Pirating*

"Pirating" in its broadest sense is any unauthorized and uncompensated reproduction or use of someone else's creative intellectual

achievement.[6] In the field of protected processes, products or designs, pirating may include: unauthorized use of a patented process to manufacture one's own products; unauthorized production and sale of a patented product under one's own brand name; unauthorized use of a protected successful design to improve production and/or sales of one's own products; and unauthorized use of technology protected by trade secrecy. In these areas it is irrelevant whether the pirate has made the same invention or design and only failed to file it prior to the licensed owner or is actually using the knowledge of the inventor, obtained via the latter's patent registration or by other means such as examining of the inventor's products or hiring of her staff.

In the field of protected literary and artistic works, piracy may involve the unauthorized and uncompensated reproduction and/or sale of someone else's literary or musical work, performances, broadcasts, photographs, motion pictures, paintings and drawings, three-dimensional objects (sculptures, architectural works, etc.), software, and works of applied art (wallpapers, etc.) under the name of the original author; or, alternatively, the unauthorized use of such literary or artistic work or parts of it in recordings, publications or performances under the name of the pirate. Piracy also occurs in the field of protected trademarks and service marks. This involves the unauthorized and uncompensated production and/or sale of goods or services that imitate someone else's brand-name product or service to the last detail, including the name and logo of the originator ("counterfeiting").[7] In this essay all of these practices shall be addressed as "pirating," unless it is specifically necessary to distinguish the imitation of an original product or service. Only in the latter case will the expression "counterfeiting" be used.

When goods or services which are covered by IP rights in WICs are manufactured and sold or otherwise provided in Newly Industrialized Countries/Lesser Developed Countries (NICs/LDCs) without the knowledge and consent of the IP owner, the latter loses money in

6. Reichman, *Intellectual Property in International Trade: Opportunities and Risks of a GATT Connection*, 22 VAND. J. TRANSNAT'L L. 747, 775 (1989).

7. The U.S International Trade Commission (ITC) has applied a broader definition of counterfeiting, according to which it is sufficient if the imitation is "similar," i.e., the product, name and logo of the original do not have to be identical. *See* R. BENKO, *supra* note 4, at 33-34. Clearly one should not demand perfect duplication of size, form, color, name, function, etc.; however, similarity as such should not suffice in all cases. The functions of the trademark (*see infra* notes 66-67 and accompanying text) can serve to draw the line between illegal counterfeiting and smart business behavior. If the average customer is likely to be deceived into buying the imitation product without being aware of it, there is counterfeiting. If the average customer selects the imitation knowingly, but hoping that its qualities are similar while the price is lower, there is no counterfeiting.

several ways. At least part of the sales captured by the imitator would have gone to the IP owner absent the pirating. Even if the IP owner herself would not have entered some of the imitator's markets, she would have received royalties for the sales of the imitator absent the pirating. Moreover, if counterfeited goods are of inferior quality, the trademark owner's goodwill is endangered and she will most likely lose future sales.

In addition to these effects that directly hit the IP owner, there are a number of indirect effects on the economy of the WICs as a whole. If pirating is particularly widespread in certain industries (e.g., software), research and development ("R & D") and artistic creativity will be less profitable and therefore decrease; important inventions and creations may not be made at all or only at a later point in time. This reduction of R & D and loss of productivity will weaken employment in the industries affected, which will further burden the social systems of countries which may already be struggling with high unemployment.[8] And because less profitable industries will pay less taxes, governments will also have fewer resources to deal with their other tasks. Some of the pirated sales in third countries will displace export sales of the IP owners, and thus negatively affect the trade balance of the WICs. In addition, if counterfeited goods of inferior quality are sold to consumers in the WICs, they may cause damages to life, health or property.

Pirating, however, may also have beneficial effects: prices of pirated goods are usually lower than those of the protected original because the IP owner, as a quasi-monopolist, will charge above the market price as long as she does not have competition. Whether the lower prices of the pirated product are actually a benefit to consumers depends on the quality of the goods. Arguably there is no advantage to consumers if, while paying less, they receive only inferior quality goods. However, the mere existence of pirated products on the market will frequently force the IP owner to reduce her own prices to remain

8. A 1984 survey conducted by the ITC estimated that in the five sectors hardest hit in 1982 by counterfeiting and similar practices (apparel, chemicals, transportation equipment, records and tapes and sporting goods), about 131,000 jobs were lost due to reduced output. *See* THE EFFECTS OF FOREIGN PRODUCT COUNTERFEITING ON U.S. INDUSTRY, USITC Pub. 1479, Inv. No. 332-158 (Jan. 1984) [hereinafter 1984 ITC Survey]. A similar study by the European Parliament indicated that about 100,000 jobs were lost in Europe in 1986. *See* THE INTELLECTUAL PROPERTY COMMITTEE, KEIDANREN & UNION OF INDUSTRIAL AND EMPLOYERS' CONFEDERATIONS OF EUROPE, BASIC FRAMEWORK OF GATT PROVISIONS ON INTELLECTUAL PROPERTY 13 (1988) [hereinafter IPC/Keidanren/UNICE]. However, it should be noted that neither of these studies explains in sufficient detail the method by which the figures were computed, and both serve, *inter alia*, the political purpose of rallying support for stricter enforcement of existing IP protective legislation and/or the creation of stiffer new requirements. The criticism stated *infra* concerning the 1987 ITC Survey also applies to the 1984 ITC Survey.

competitive. As long as she does not simultaneously reduce her quality standards, the consumers actually get the high-quality products at a lower price (if they can distinguish them from the low-quality counterfeited imitations). In addition, if prices are lower, overall sales of the product will usually go up and increase the income of the dealers involved.[9] These beneficial effects take place in all markets around the world where the pirated goods are sold. Thus, while the western IP owners and their national economies have to bear the bulk of the cost of pirating, their consumers and economies receive only a fraction of the benefits.

The losses of Western IP owners due to pirating are not limited to those experienced in the Western countries. Pirated goods are competing with the originals in all world markets. Three types of markets can be distinguished. First, there is the home state of the pirate. If the IP owner is trying to sell to that market, the pirate not only has the advantages of no shipping costs and low wages, she is additionally able to undersell because she incurs no R & D and marketing costs. A second market is the home state of the IP owner (e.g. the U.S.). Here the IP owner would normally have the advantages of low transport expenses and thorough market knowledge. Theoretically the well-organized customs procedures and strict laws on IP protection, which may permit even exclusion or destruction of infringing products, should effectively keep out pirated goods and enable the IP owners to reap the benefit of their innovative activities. Yet many U.S. firms complain that they are being undersold and displaced even in their own backyard by pirated goods.[10] Obviously, the sheer volume of daily shipments of all kinds of goods reaching the U.S. from all parts of the world makes it hard if not impossible to search accurately for pirated goods and to prevent their entry. Finally, there are the markets of all other countries. These countries may or may not provide adequate protection of IP rights themselves. In any case, they are equally unable to exclude effectively goods from their markets that violate IP rights held in their own or other states.

2. *Measuring the Impact of Inadequate IP Protection*

Over the past few years there have been numerous attempts to estimate the financial losses suffered by western IP owners in the three

9. Sek, "U.S. Intellectual Property Rights and Trade," CONG. RESEARCH SERV. DOC. NO. 86-838 E (Aug. 22, 1986), at 3.

10. NATIONAL SECURITY & INT'L AFFAIRS DIV., GEN. ACCT. OFFICE, STRENGTHENING WORLDWIDE PROTECTION OF INTELLECTUAL PROPERTY RIGHTS 14 (1987) [hereinafter GAO REPORT].

above-mentioned markets (home market of pirate, home market of IP owner and other markets) due to "pirated" sales by manufacturers from NICs/LDCs where IP is "not adequately protected." In particular the more recent reports show estimated losses of up to $50 billion annually for U.S. industries alone.[11] All of these studies have been conducted in the WICs, however, and will have to undergo special scrutiny concerning the objectivity of their methodologies and results.

Counterfeiting of trademarks and related practices has been estimated to cost U.S. companies $20 billion annually.[12] Copyright pirates from the ten most notorious countries were found to have caused annual damages of up to $1.3 billion.[13] In the software sector the problem has grown to an equally dramatic magnitude. The U.S. software industry supposedly lost "only" $1.3 billion between 1981 and 1984, but lost close to $1 billion in 1985 alone.[14]

German software dealers have recently discovered that 1.6 times more personal computers than software packages are sold in Germany; i.e., even professional users frequently do not own a lawful copy of their operating software, let alone word processing and other application software.[15] Another German survey[16] found that copyrighted works and related areas (not including patents, trademarks and other IP rights) provide roughly 800,000 jobs in the Federal Republic of Germany, which amounts to 3.1% of the total work force.[17] Copyright industries also generate 2.9% of the GNP (approximately US$27 billion in 1987), or 3.1% if computer software is included.[18] Thus

11. FOREIGN PROTECTION OF INTELLECTUAL PROPERTY RIGHTS AND THE EFFECTS ON THE U.S. INDUSTRY AND TRADE, USITC Pub. 2065, Inv. No. 332-245 (Feb. 1988) [hereinafter 1987 ITC Survey].

12. Statement by Secretary of Commerce Malcolm Baldridge on "Proposed Intellectual Property Rights Improvement Act of 1986" (Apr. 7, 1986), at 1.

13. Recommendations of the Task Force on Intellectual Property to the Advisory Committee for Trade Negotiations (1985), at 2.

14. 3 BUSINESS SOFTWARE PIRACY: REPORT ON FEDERAL DATA SYSTEMS 4 (Apr. 1985).

15. Frankfurter Allgemeine Zeitung, Mar. 24, 1990, at 16.

16. INSTITUT FÜR WIRTSCHAFTSFORSCHUNG, MUNICH, WEST GERMANY, DIE VOLKSWIRTSCHAFTLICHE BEDEUTUNG DES URHEBERRECHTS 15 (1989) (study for the Ministry of Justice of the Federal Republic of Germany).

17. *Id.* at 22.

18. For other important countries, the study lists the following percentages of GNP generated by copyright industries:

—	Australia (1986):	3.1%
—	Austria (1986):	2.1%
—	Canada (1980):	3.5%
—	Finland (1985):	4.0%
—	Great Britain (1982):	2.9%
—	Netherlands (1982):	2.4%
—	Sweden (1978):	6.6%
—	United States (1982):	4.6%

The figures are taken from national statistics of these countries, however, and therefore are not

copyrights are particularly important for West Germany, which traditionally has many publishing houses and media firms. Between 1980 and 1986, these industries grew faster than the industry average, as to both employment and share of GNP. In the foreseeable future, this tendency will become even more remarkable,[19] and with it the problem of pirating in this sector.

In March 1987, the United States Trade Representative (USTR), directed by then President Reagan, asked the U.S. International Trade Commission ("ITC") to develop quantitative estimates of the distortions in U.S. trade associated with inadequate protection of trademarks, copyrights, patents, trade secrets, semiconductor chip designs, and other types of IP rights in foreign countries. In addition, the ITC was to identify the products, countries and protection deficiencies that represented the most serious problems for U.S. firms.[20] In February 1988, the ITC presented the first fully comprehensive study of the problem of inadequate IP protection for U.S. industries and trade.

For its survey, the ITC, *inter alia*, conducted public hearings and sent out questionnaires to U.S. firms involved in foreign trade. From the various data collected, it then computed an estimate for the aggregate losses to U.S. industries. This approach of collecting data by sending out questionnaires to the industries involved is surely not ideal because it relies on several debatable assumptions. To obtain reasonably accurate results, all firms that lose money due to pirating would essentially have to be identified and included in the survey. These firms would then have to cooperate by abiding by requests for the honest disclosure of sensitive data.[21] Moreover, the results will be influenced by the question of whether the firms are able to estimate realistically their individual losses at home and in their various export markets,[22] as well as separate the effect of inadequate IP protection from various other effects, most of which are equally hard to quantify.[23] The Survey did not take into account the above-mentioned problems, nor did it consider the possibility that firms might deliberately report inflated figures of losses, knowing that the ITC report would be used by politicians and economists in Washington when debating whether or not IP protection should become a major issue in

directly comparable due to differing criteria of what constitutes a "copyright industry." *Id.* at 25.

19. *Id.* at 23.

20. *See* 1987 ITC Survey, *supra* note 11, at i.

21. Such as the average royalty rates and profit margins for sales in the U.S. and abroad; *see* 1987 ITC Survey, *supra* note 11, app. D.

22. *Id.* at D-14.

23. *Id.* at H-2.

international trade negotiations.[24] Furthermore, the range of overall losses as reported by the ITC reflects the various shortcomings of the study. While the ITC presented a result of overall losses between $43-61 billion,[25] it had to admit that, depending on the rate of losses to sales of those firms that had not responded,[26] the possible range of losses could be as broad as between $24-102 billion.[27]

The report concludes that U.S. firms lost somewhere around $50 billion in 1986. This implicitly suggests to politicians and economists that U.S. industry would reap additional earnings of about $50 billions, if only IP protection were improved for the particularly sensitive products in the most notorious countries.

One could argue that it is rather irrelevant whether U.S. industries are losing 10 billion or 100 billion U.S. dollars annually: in both cases it is of paramount importance to negotiate better IP protection abroad. In addition, the ITC report has already achieved its major goals: not only has it convinced the various interest groups and governmental agencies active in this field in the U.S., it even helped to win over the strongest opponents of the inclusion of IP protection in the GATT system. The Uruguay Round delegations from India and Brazil (and other countries) were convinced that GATT should have jurisdiction over IP matters by the idea that piracy could cost a country in the magnitude of $43-61 billion per year.[28]

Getting IP protection into the Uruguay Round, however, is only the first step on the way to getting improved IP protection out of the Uruguay Round. The negotiations are continuing even while this paper is written, and it became obvious long ago that significant results will only be achieved if a trade-off can be found: i.e., the WICs will have to make concessions in other areas, such as agriculture or textiles, to obtain concessions on IP protection from the NICs/LDCs.

Obviously, it is thus important for the delegations of the WICs to know as precisely as possible the value of concessions obtained in TRIPS in order to gauge the price of concessions to be made else-

24. There are other incentives for an inflation of these figures, such as the fact that inadequate IP protection as an "external factor" may serve as a welcome scapegoat. Blaming losses on foreign piracy may be a comfortable way of distracting from past neglect by American corporate management of the need to adapt to international competition and structural changes.

25. *See* 1987 ITC Survey, *supra* note 11, Ch. 4.

26. Nobody knows how many legitimate manufacturers, fearing loss of consumer confidence, might be reluctant to disclose that their products are being counterfeited (GAO REPORT, *supra* note 10, at 14) and/or credit, for other competitive reasons (MacLaughlin, Richards & Kenny, *supra* note 5, at 95-96) or out of concern that their later efforts to do business in certain countries could be impeded as a result of their complaints and subsequent U.S. action (*Id.*).

27. *See* 1987 ITC Survey, *supra* note 11, at H-2.

28. Daily Report for Executives (BNA) 4 (Apr. 11, 1989).

where. If the ITC figures significantly overstate the possible gains, this could mislead the negotiators and the governments who will eventually have to consent to a trade-off agreement. In such a case, the ITC survey could backfire in the long run.

If the 1987 ITC Survey reports annual losses of $50 billion, it implies that U.S. industries could gain additional business of the same magnitude if IP protection were adequate in all countries. Any figures on possible gains from improved IP protection should be seen in relation to actual trade statistics. The total volume of worldwide sales of U.S. industries in 1986 was roughly $5.2 trillion.[29] An increase of $50 billion, as suggested by the ITC, would thus amount to about 0.9%, a figure that seems quite reasonable. However, it is unrealistic not to distinguish between sales in the U.S. and sales abroad. The domestic IP protection system of the U.S. is one of the most comprehensive in the world. Improvements in IP protection would thus have to happen primarily in the laws and enforcement practices of the major trading partners and will affect primarily the foreign trade of the U.S. Yet exports of U.S. industries in 1986 amounted to "only" $220 billion.[30] Clearly, improved IP protection abroad cannot bring a $50 billion (22%) boost in foreign trade.

Of course, pirated products from abroad do find their way to the U.S. domestic market and improved IP protection in the home countries of these products would also reduce this problem. However, this is an area of pirating in which U.S. consumers and distributors can benefit because more products would be sold at lower prices.[31] In addition, a solution to the problem of domestic sales of foreign-pirated products could be reached by national legislation and enforcement measures[32] and does not necessarily have to be "purchased" in the framework of GATT.

It should be noted that additional gains of $50 billion would require a transition to a situation of perfect IP protection where no pirating occurs. This step cannot be achieved in GATT or any other international framework. The bulk of U.S. trade is taking place with

29. *See* 1987 ITC Survey, *supra* note 11, at H-2.

30. Identical figures were published by the Organization for Economic Cooperation and Development (OECD), in MONTHLY STATISTICS OF FOREIGN TRADE, series A, July 1987 (as reproduced in STATISTICAL ABSTRACT OF THE UNITED STATES 820 (108th ed. 1988)), and by the Office of Industry and Trade Information, U.S. Comm. Dept. (as reproduced in WORLD ALMANAC AND BOOK OF FACTS, 183 (1989)).

31. *See supra* note 9 and accompanying text.

32. Perhaps customs procedures could be tightened for those products that have been identified as particularly affected by pirating, in order to exclude a larger percentage of infringing products.

other developed countries that already have a high level of IP protection (OECD members and other WICs).[33] As a matter of fact, the drafts for an IP agreement in the Uruguay Round presented so far[34] basically try to take the average level of IP protection of the WICs and extend it to the other trading countries. Thus, as concerns goods exchanged between the WICs and marketing opportunities lost in other WICs due to pirating by firms from these countries, even an optimal TRIPS agreement cannot achieve very much. Another problem with the hypothetical figure of $50 billion is that it presumes that once pirated products are banned from the respective markets, consumers will spend the same amount of money to purchase the original products. However, this is far from certain in those areas where the consumers have alternative choices (such as the purchase of directly or indirectly competing products or even saving the money altogether).

An example may illustrate this point. Sales of computer hardware and software are inseparably related. A buyer usually has to add both price tags before making a decision. However, both products have been particularly affected by pirating. Arguably, the phenomenal sales of PCs to private individuals in recent years depended largely on the availability of pirated software at little or no cost. On the other hand, the availability of inexpensive "clones" in U.S. hardware shops has helped to reach many undecided "honest" buyers who then also purchased copyrighted software. Absent pirated software and/or cloned PCs, both the market for "original" PCs and copyrighted software would be significantly smaller because many consumers would simply go without a private computer. This argument is used by Brazil to defend its policy of refusing patents on pharmaceuticals. If inexpensive pirated medicine is not available, the low-income population still will not buy the original. They cannot afford the prices of a monopolist (who has to charge more to cover her costs of R & D and market development) and will therefore have to go without such medicine.[35] Thus, even if the actual volume of pirated sales could be determined, this figure would not be an accurate indication of the sales to be gained by legitimate producers absent the pirating.[36]

A more scientific approach than that of the ITC to the problem of quantifying the aggregate losses due to pirating was taken by Gadbaw

33. STATISTICAL ABSTRACT OF THE U.S. 820 (108th ed. 1988).

34. *See* discussion *infra* notes 116-37 and accompanying text.

35. For a more detailed analysis, see *infra* notes 175-80 and accompanying text.

36. *See* GAO REPORT, *supra* note 10, at 14-15

and Richards.[37] First, they identified the seven most problematic countries with a combination of low levels of IP protection and large pirate industries (Argentina, Brazil, India, Mexico, Republic of Korea, Singapore and Taiwan). On an industry-by-industry basis, they subsequently collected information on the size of the domestic market, the level of domestic production, exports, pirate sales (domestic and export), price elasticity of demand for the product in question, projected price effects due to IP protection, current revenues of IP owners and the percentage of current revenue accounted for by U.S. companies. These figures were then used to compute possible increased revenues obtained through the elimination of piracy and actual present losses of revenues to U.S. industries.

While Gadbaw and Richards studied only the seven most notorious countries and only the industries most heavily affected by pirating,[38] their figure for 1986 of approximately $3.4 billion in revenues won by pirates in these countries[39] is so significantly lower than the figures provided in the 1987 ITC Survey that one questions the source of all the other losses estimated by the ITC.[40]

The figure of $43-61 billion in annual losses by U.S. industries due to inadequate IP protection thus seems rather inflated. It is possible that aggregate losses of all WICs due to sales of pirated and counterfeited products and services merely reach the lower end of that magnitude. The U.S. share would then probably amount to about $10 billion. In any case, it is completely unrealistic to expect billions of dollars in additional sales for U.S. industries immediately subsequent to a new GATT agreement on IP or any other multilateral treaty or any form of unilateral action. Improvement via improved laws and enforcement procedures in NICs/LDCs will only come gradually. Nevertheless, the inclusion and emphasis of IP in the Uruguay Round is justified because industries in the WICs will increasingly rely on goods with high IP content.[41]

3. *Insufficient Protection of New Technologies*

The problem of piracy will become more severe in the near future because recent commercial and technological developments — record-

37. *See* INTELLECTUAL PROPERTY RIGHTS: GLOBAL CONSENSUS, GLOBAL CONFLICT? 379-83 (R. Gadbaw & T. Richards eds. 1988) [hereinafter Gadbaw & Richards].

38. *Id.* at 379. The industries examined were pharmaceuticals, computers, audio, video, software, agricultural chemicals, semiconductors and publishing.

39. *Id.*

40. However, even Gadbaw and Richards have estimated that pirates of pharmaceuticals in India are gaining 920 million U.S. dollars annually from their activities. *Id.*

41. *See id.* at 4.

able compact disks, optical character recognition (OCR) scanners, digital audio tapes (DAT), computer networks and direct broadcasting satellites — have made or will make piracy easier and more lucrative. In addition, it is very doubtful whether certain new technologies such as computer software, semiconductor chips and biotechnology are protected at all by existing IP laws, despite the fact that some of these technologies are among the most important technological develop ments of this century. Benko asks with good reason whether the U.S. can expect the international community or individual countries to work out these problems when even the U.S. courts and Congress have not fully resolved them.[42]

a. *Computer Software*

Software is hard to develop but easy to copy. Original software is frequently quite expensive, but the consumer receives little in tangible assets for her money (some disks and a handbook). The combination of these factors has led to a situation where many otherwise honest consumers all over the world do not hesitate to buy or swap pirated software. The rapid diffusion of computers in the WICs has already led to huge losses for software creators. The prospects for gigantic future markets for PCs in former Eastern bloc countries and NICs demonstrate the need to improve protection for software.

However, software does not fit neatly into traditional categories of IP rights. Some countries[43] favor copyright protection for software. They have argued that software is simply a modern form of writing brought about by technological development. Thus, copyright protection should be extended to it, as was the case for sound recordings and motion pictures.

But software is not addressed to humans; operating systems, in particular, may never become perceptible for the user. Software is directed at the computer hardware and during its use actually becomes part of the machine. So called "firmware," semiconductor chips with their own encoded software, poses additional questions. Furthermore, copyrights protect only forms of expressions, not the underlying ideas themselves. If a software code could be slightly changed, such as in the order of the commands, it might no longer be protected by the copyright.[44]

For these reasons, other countries[45] prefer to cover software with

42. *See* R. BENKO, *supra* note 4, at 49.

43. E.g., the United States, West Germany and Great Britain.

44. *See* R. BENKO, *supra* note 4, at 39-42.

45. E.g., Japan and Brazil.

their industrial property laws. However, patent law does not fit neatly either. Since the technology and method of programming are well established and do not differ from program to program, it would be virtually impossible to prove the novelty and non-obviousness of a new word processor or other application software. Opponents of patent protection for software also argue that this approach would place software under the regime of the Paris Convention[46] on patents and make it subject to compulsory licensing provisions.[47]

These problems seem to support the idea of creating *sui generis* laws for the protection of software. However, the disadvantages of this approach are equally obvious: the draft national laws developed by a number of countries provide for shorter periods of protection and otherwise lower standards.[48] In addition, software would not be covered at all in those countries who refuse or delay the passing of national laws, as long as there is no international regime for protection like the Berne Convention on copyright law.[49]

b. *Semiconductor Chips*

Semiconductor chips pose problems similar to those of software. The development of a new chip may cost hundreds of millions of dollars, while constructing a plant to reproduce them can be done for a fraction of this sum.[50] The technology of creating chips via photographic reproduction of the various layers is well known and does not differ from chip to chip. Thus the novelty and non-obviousness required for patent protection cannot be demonstrated. The critical IP component of chips is the individual design of its layers, the "mask-work." Copyrights, on the other hand, can only protect the artistic design of a useful article if it is separable from the utilitarian qualities; the mask-work, however, has no intrinsic aesthetic purpose of its own.[51]

For these reasons, the 98th U.S. Congress decided to pass a *sui generis* law for the protection of semiconductor mask-works: the

46. Paris Convention for the Protection of Industrial Property, *as last revised*, July 14, 1967, 21 U.S.T. 1583, T.I.A.S. No. 6295, 828 U.N.T.S. 305 [hereinafter Paris Convention].

47. *See* R. BENKO, *supra* note 4, at 39-42.

48. *Id.* It is rather mysterious, however, why U.S. industries see a problem in protection periods of "only 15 years" under the draft of Japan, compared to 50 years under U.S. copyright law. At the current speed of technological development in this area, a program is hopelessly outdated after less than ten years anyway.

49. The 1971 revised text of the Convention is available from the World Intellectual Property Organizaton (WIPO); the English version of the text is WIPO Publication No. 287 (E).

50. *Id.* at 42.

51. *Id.*

Semiconductor Chip Protection Act ("SCPA") of 1984.[52] The European Community subsequently also issued a directive to its Member States compelling them to introduce a new form of IP protection for semiconductor chip designs by the end of 1987.[53] Japan and Sweden have adopted similar laws.[54] In all other countries, protection for mask-works is doubtful or nonexistent until clarified by the respective legislative organs either via national laws or the adoption and ratification of an international agreement.

The World Intellectual Property Organization ("WIPO"), a specialized agency of the United Nations,[55] has been impressively agile in this area. In three negotiating sessions between 1985 and 1987, delegations from over 35 states negotiated the Treaty on Intellectual Property in Respect of Integrated Circuits.[56] The treaty's text closely reflects the legal principles of the SCPA, which is one of the reasons why 18 NICs have announced their resistance to its adoption and ratification in the present form.[57] Even if the treaty should be adopted and ratified by a significant number of states in the near future, its impact will remain small. This is because it does not contain any provisions for enforcement of the rights it provides (such as whether or not injunctions, damages, etc. should be available to private parties), and it has no consultation or dispute settlement mechanisms.[58]

c. *Biotechnology*

Traditional biotechnological innovations are usually protected in the U.S. by patents or plant breeder laws. On the international level, WIPO administers the International Convention for the Protection of New Varieties of Plants.[59] The European Patent Convention[60] and various national laws of European (and other) countries generally do not allow the patenting of plants and animals if they are merely a combination of several naturally existing varieties. They only permit patenting (including process patenting) of microbiologically modified

52. Pub. L. No. 98-620, 98 Stat. 3347 (codified as 17 U.S.C. § 904 (1988)).

53. *Directive 87/54 of 16 December 1986*, 30 O.J. EUR. COMM. (No. L 24) 36 (1987).

54. *See* Gadbaw & Richards, *supra* note 37, at 1, 50 n.22.

55. For information about the World Intellectual Property Organization, see *infra* notes 73-96 and accompanying text.

56. Reproduced at 28 I.L.M. 1477 (1989).

57. Gadbaw & Gwynn, *Intellectual Property Rights in the New GATT Round*, in Gadbaw & Richards, *supra* note 37, at 50-52. In particular those countries that have large pirating industries in this sector (Brazil, India, Mexico, Republic of Korea, Singapore and Taiwan) seem to be opposed to its adoption.

58. *Id.*

59. Dec 2, 1961, 815 U.N.T.S. 89, *as revised* Oct. 23, 1978, T.I.A.S. No. 10199.

60. 13 I.L.M. 268 (1974)

plants and animals and of breedings not derived from naturally existing varieties.[61] The latter distinction is frequently unclear and creates significant problems for Americans. Patent application requires disclosure of culture samples. If patent eligibility is refused in Europe, this disclosure makes subsequent efforts to protect the innovation via trade secrets fruitless. U.S. firms are therefore reluctant to file patent applications even in the U.S. because their culture samples and descriptions might be copied by foreign firms for production and sale in unprotected markets.[62] The situation in Third World countries is even worse, and the only reason why biotechnology has not yet reached a critical level of pirating activity is the (decreasing) lack of know-how in many NICs.

d. *Recordable Compact Disks*

Recordable compact disks (CDs) and related support technologies are not unprotected and endangered themselves, but they are media for transport and storage of data, which may make pirating of copyrighted works easier and more lucrative. CDs are recorded with a laser beam at the factory after production of the plastic disks. The encoded information is then read by another laser beam in the CD player. In contrast to traditional records, the information is stored in digital rather than in analog form, which allows storage of much more data per disk. Furthermore, the reading via laser beam is completely friction-free so that CDs not only last much longer than records or tapes, but also allow perfect reproduction of their data without any background noise.

Initially CDs were available only in prerecorded form, usually containing music. During the last few years CD players (or "drives") have been constructed that allow use of CDs as computer storage media, containing, for example, dictionaries or encyclopedias. The latest improvements to this technology are disk drives that allow for home recordings and even re-recordings onto CDs by the users of music, video films or computer data (even programs like word processors, e.g.). In principle, such disks can then be used on any existing CD player, or alternatively in CD-drives for computers which can search huge amounts of data for key-words or otherwise process the recorded information. Shortly after their introduction, such machines were available at prices around $25,000. This is still out of reach for private users, but experience with PCs, VCRs and the like teaches that prices

61. H. HUBMANN, GEWERBLICHER RECHTSSCHUTZ 81 (5th ed. 1988).

62. *See* R. BENKO, *supra* note 4, at 44.

will drop quickly. In any case, even at $25,000, the machines are attractive to professional users who want to sell the recorded disks.

A blank CD (current price between $5-10, which will also decrease with growth in production) can be used not only to make a perfect copy of an original CD containing an hour of music, but an entire encyclopedia of 20 volumes can be recorded onto one or two of them. Thus third parties can make perfect copies of encyclopedias, which are now on sale on CDs for about $1000, at a cost of under $20. Especially if seen in conjunction with OCR scanners,[63] the potential for pirating becomes apparent.

e. *Optical Character Recognition Scanners*

OCR scanners serve to read printed information into computer memory. At least with low-end OCR scanners, the user first has to "train" the machine to understand a certain typeset. The actual scanning process is similar to photocopying. State-of-the-art scanners will read several pages per minute with error rates under one percent. Once in the computer memory, the data can be manipulated and copied like any text entered via keyboard and word processor. Texts which currently exist only in printed form can be scanned and made available for distribution via recordable CDs, ordinary magnetic disks or other databases. Thus, if a publisher is reluctant to place her encyclopedia or dictionaries on CDs for fear of pirating, someone else might do both jobs for her.

f. *Digital Audio Tapes*

DAT is a new technology for the storage of data on cassettes. It is most attractive for music. The data is transformed into a digital format, which eliminates all background noise. DAT allows the production of perfect copies on ordinary music cassettes. As long as CD players are not commonplace in a country and the price for CD recorders is in the magnitude of $25,000, this is the best alternative for anybody interested in making high quality copies of music. Not only can perfect copies of a CD be made on tape, but perfect copies from that tape also can subsequently be drawn, and so on.

Political lobbying efforts of American music producers and broadcasters have so far prevented the large scale market introduction of DAT machines in the U.S. Japanese hardware producers have agreed to negotiations regarding the concerns of American IP owners. Congress has refused to adopt a law that would have added a basic royalty

63. *See* discussion immediately following.

to all blank tapes sold in the U.S. because it did not want to define home copying on a non-commercial level as pirating,[64] since not all blank tapes are actually used for recordings of copyrighted music. The hardware manufacturers, on the other hand, have refused to install devices in their machines that would electronically prevent the recording of copyrighted music. Negotiations led to a compromise at the end of 1989, according to which the one-time recording of copyrighted music, even from CDs, will be technically possible and lawful. However, the further copying of that recording will be prohibited and technically impossible.[65] Whether this agreement will be honored by its parties remains to be seen.

g. *International Computer Networks*

The introduction of integrated services digital network ("ISDN") technology allows the transmission of digital signals (primarily computer data) via ordinary telephone lines. International service industries like banking, securities and insurance rely heavily on these services. Many multinational firms have installed computer networks that exchange data this way. Pirates may gain access to ISDN systems just like "hackers" have in the past. Once an illegal user has gained access, computer software, databases (e.g. LEXIS), computerized information services and even confidential private and military data can easily be transmitted across national boundaries without significant risk of criminal sanction.

h. *Direct Broadcasting Satellite Technology*

Direct broadcasting satellite technology involves the transmission of satellite signals directly to and from individual users. The signals can be radio and television programs, telephone calls or other data flows. A multinational firm might use this form of communication to exchange data between its various subsidiaries without having to go through (costly) ordinary telephone lines. The data could be ciphered and thus removed from any control by government authorities. The possibilities for abuse are obvious. At the moment, however, the cost of this technology is still prohibitive.

These are just some of the more important new technologies that will revolutionize the storage and transportation of data and other

64. In *Sony Corp. of America v. Universal City Studios*, the U.S. Supreme Court held that the public does have the right to make video recordings of copyrighted films for personal use, free of charge. 464 U.S. 417, 601 (1984). The rationale of this decision should equally apply to private recordings of copyrighted music.

65. Frankfurter Allgemeine Zeitung, Apr. 30, 1990 (Technik & Motor), at 1.

copyrighted works. On the one hand, they will help lawful owners and users of the data to save costs and improve their services. On the other hand, it should be obvious even from this brief introduction that unlawful users (pirates) can unjustly benefit from these innovations and will be able to cause even more damage to the owners of the IP.

4. *Threats to the Existing Worldwide System of IP Protection*

Large-scale pirating of patented products causes two effects to the global system of IP protection. First, inventors will be reluctant to patent their innovations. The requirement to disclose the invention is designed to inform the public that certain innovations have been achieved and are already protected. This reduces duplication of efforts and expenses. In addition, the information can be used as a basis for further innovation of the same or related product or process. However, disclosure also makes pirating easy if not prevented by adequate IP laws. Inventors will therefore prefer protection by trade secrecy. This in turn cuts off other researchers from valuable information.

Second, in all those areas where trade secrets cannot adequately protect the inventions (e.g., copyrighted works which can only be marketed by disclosure), industry will have increasing difficulty recovering the costs of innovation, product development and marketing. However, recovering these costs, along with a certain margin of profit to compensate for the risks involved, is imperative for the development of the next generation of products, processes and services.

Legal protection of trademarks represents an attempt to curb similar phenomena. Trademarks have two main functions. For the manufacturer, they offer the advantage of distinguishing her products from those of competitors. This guarantees a return on investments in higher quality and advertising. On the other hand, consumers have the advantage of recognizing the products of specific manufacturers. Thus they can rely on a known standard of quality and safety and, if the product is defective, can obtain a replacement and/or seek damages.

When counterfeiting becomes rampant, even if limited to certain industries, both of the trademark system's functions are impaired. Consumers lose their confidence in specific trademarks or the trademark system as a whole as an indicator of quality and the efforts of the trademark owner to develop the market and establish consumer goodwill are no longer rewarded by sufficient sales.[66] The trademark holder thus is forced to cut the costs of production to regain competi-

66. *See* GAO REPORT, *supra* note 10, at 14.

tiveness with the pirate. Similar reasons will force the trademark owner to reduce advertising and other marketing efforts which increase her overhead and only allow more free-riding by the pirate. Reductions in advertising will hurt consumers as it is one of the main sources of product-related information. As a consequence, of course, the advertising industry also suffers.

In addition to benefitting illegally from the advertising and market development efforts of the trademark owner, the IP pirate can also trade on the reputation of the quality of the owner's goods. Once the trademark owner detects counterfeiting and its source and starts legal proceedings to exclude the products from entering the country or the chain of distribution, the pirate has to look for a new field of activity. Large-scale counterfeiting of a particular product is therefore usually limited in time. Consequently, the pirate does not have the same incentives as the trademark owner to maintain high standards of quality, but is more interested in realizing a quick gain. In addition to being unconcerned about harming the trademark owner, many pirates do not have the same know-how and experience as the owner and are thus simply unable to meet the quality standards of the originals. This may result in substandard products which are unsafe for consumers.

Beyond the fact that consumers lose money if they buy poor quality for normal prices, their health and even lives are endangered if electric appliances, spare parts for cars, machines, airplanes, food and drugs are not safe. Substandard counterfeited goods can even be dangerous to an entire industry, as the example of the loss of 15% of the Kenyan coffee crop due to the use of an ineffective imitation of a fungicide showed.[67]

Intellectual property can be seen as a factor of production like labor, capital or raw materials. The distribution of production factors among the countries provides comparative advantages or disadvantages concerning the production of certain goods or services. Under the existing world economic order, WICs tend to have advantages such as skilled labor, well developed infrastructures, capital and IP. NICs/LDCs tend to have advantages such as inexpensive unskilled labor, raw materials and land. World trade that is beneficial to all sides requires fair use of one's own advantages and respect for those of others.

If the governments in NICs/LDCs tolerate pirating, their manufacturers do not have to pay royalties for use of the IP production factor, and thus gain an artifical competitive advantage in world trade.

67. *Id.* at 15.

Their design and R & D costs are minimal: since they only copy successful products, they do not incur the cost of developing products that turn out to be market failures. Finally, these companies free-ride on the advertising and market development efforts of the lawful manufacturers.[68] Non-protection of IP thus distorts trade much like other unfair governmental interventions, such as subsidies.

B. *Previous attempts to solve the problem*

Trademark protection dates back to ancient Greece and Rome. Patents appeared in the fourteenth century in the form of state-guaranteed monopolies called "privileges"; they were not granted as a reward for innovation or creativity, however, but rather as a political favor or simply to generate money for the authorities. A modern patent in the form of a ten-year monopoly was first granted in Venice in 1474 to inventors who registered novel and workable ideas.[69]

Although international trade was flourishing in the eighteenth and nineteenth centuries, governments for a long time granted IP rights only to their own citizens. In addition, all IP rights were limited in effect to the territory of the country granting them. Therefore, if the owner of a patent, trademark or copyrighted work wanted protection in several countries, she had to obtain it separately in each country under the respective (and sometimes discriminatory) national laws.

In 1873, the first international patent congress convened in Vienna. The delegates had planned to create a uniform IP law for all states. However, great differences in the various national laws and the reluctance of the nation states to reform their laws forced the conference to settle for considerably less: national treatment for all foreigners from other member states of the new international union for the protection of industrial property.[70] Thus, national treatment became the preeminent principle reflected in the international Paris Convention for the protection of patents signed in 1883,[71] as well as the Berne Convention for the protection of copyrights established in 1886.[72] Both were revised and amended several times. However, not all signatories have ratified all revisions, which can make it difficult to determine the exact obligations between two member states.

The World Intellectual Property Organization (WIPO) was cre-

68. *Id.* at 10.

69. *See* H. HUBMANN, *supra* note 61, at 10-14.

70. *Id.* at 31.

71. *See supra* note 46.

72. *See supra* note 49.

ated by the WIPO Convention[73] on July 14, 1967. It came into force in 1970 and became a specialized agency of the United Nations in 1974. WIPO "encourages the conclusion of new international treaties and the modernization of national legislations; it gives technical assistance to developing countries; it assembles and disseminates information; . . . and promotes other administrative cooperation among member States."[74] In addition, WIPO centralizes the administration of all but a few of the multilateral international covenants on the protection of IP.[75]

A substantial number of bilateral or regional treaties in the area of

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73. Convention Establishing the World Intellectual Property Organization, *opened for signature* July 14, 1967, 21 U.S.T. 1749, T.I.A.S. No. 6932, 828 U.N.T.S. 3. *See* WORLD INTELLECTUAL PROPERTY ORGANIZATION, GENERAL INFORMATION, WIPO Publication No. 401(E), at 14 n.1 (1988) [hereinafter WIPO GENERAL INFORMATION].

74. *See* WIPO GENERAL INFORMATION, *supra* note 73, at 6.

75. At the present time WIPO administers the following unions and treaties (The respective years of adoption and membership as of June 30, 1988, are noted in parenthesis. A "*" indicates U.S. membership.):

- Berne Union for the Protection of Literary and Artistic Work (1886, 77*). The United States joined after June 30, 1988, and became the 78th member. The Berne Implementation Act had passed the House and was ratified by the Senate on October 20, 1988. This act explictly provides that the convention will not be self-executing so as to avoid collisions with moral rights. This had been the reason why the U.S. had always hesitated to join the Union. *See* Joos & Moufang, *Report on the Second Ringberg Symposium*, in GATT OR WIPO? NEW WAYS IN THE INTERNATIONAL PROTECTION OF INTELLECTUAL PROPERTY 12 n.1 (F. Beier & G. Schricker eds. 1989) [hereinafter Joos & Moufang].
- Brussels Convention Relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite (1974, 11*);
- Budapest Union for the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure (1977, 22*);
- Geneva Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of Their Phonograms (1971, 41*);
- Hague Union for the International Deposit of Industrial Designs (1925, 21);
- International Union for the Protection of New Varieties of Plants (UPOV) (1961, 17*);
- Lisbon Union for the Protection of Appellations of Origin and their International Registration (1958, 16);
- Locarno Union for the Establishment of an International Classification for Industrial Designs (1968, 15);
- Madrid Agreement for the Repression of False or Deceptive Indications of Source on Goods (1891, 32);
- Madrid Union for the International Registration of Marks (1891, 27);
- Nairobi Treaty on the Protection of the Olympic Symbol (1981, 32);
- Nice Union for the International Classification of Goods and Services for the Purposes of the Registration of Marks (1957, 33*);
- Paris Union for the Protection of Industrial Property (1883, 98*);
- Patent Cooperation Treaty for Cooperation in the Filing, Searching, and Examination of International Applications for the Protection of Inventions Where Such Protection is Sought in Several Countries (1970, 40*);
- Strasbourg Union for the Establishment of Worldwide Uniformity of Patent Classification (1971, 27*);
- Trademark Registration Treaty for the Filing of International Applications for the Registration of Trademarks Where Protection is Sought in Several Countries (1973, 5);

IP protection exist outside the framework of WIPO.[76] Furthermore, two important worldwide multilateral treaties are not administered by WIPO: the Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (Neighboring Rights)[77] and the Universal Copyright Convention.[78]

A GATT Agreement on Measures to Discourage the Importation of Counterfeit Goods[79] ["Anti-Counterfeiting Code"] was suggested by the U.S. at the end of the Tokyo Round in 1978. By late 1982, the U.S., the EC, Japan and Canada had reached agreement on a draft proposal. Opposition from the developing countries, however, prevented adoption of such a code. At the time of the Punta del Este Declaration[80] in 1986, several Western delegations still wanted to consider this suggestion and bring the negotiations to a successful end within the Uruguay Round, leaving more comprehensive suggestions covering other aspects of IP rights to later negotiating rounds. This strategy has now been abandoned for fear that a successful Anti-Counterfeiting Code might take the momentum out of the negotiations for a broader, all-inclusive code.

C. *Complaints about WIPO*

Of the WIPO treaties, only the Paris and Berne Unions have a widespread membership, and even there it is far from "universal." In particular, a few of the most problematic countries are not members

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— Vienna Union for the Establishment of an International Classification of the Figurative Elements of Marks (1973, 5).

Several new treaties have been adopted but are not yet in effect:

— Geneva Treaty on the International Recording of Scientific Discoveries (1978);
— Madrid Multilateral Convention on Double Taxation of Copyright Royalties (1979);
— Vienna Agreement on the Protection of Type Faces and their International Deposit (1973).

WIPO GENERAL INFORMATION, *supra* note 73, at 14 n.1; a brief introduction to the more important of these treaties is included in R. BENKO, *supra* note 4, at 51-56.

76. Significant regional examples include:
— African Regional Industrial Property Organisation (1976, 14);
— Buenos Aires Convention on Literary and Artistic Copyright (1910, 20 members*, 9 ratifications*);
— Council for Mutual Economic Assistance Agreement (1976, 10);
— European Patent Convention (1973, 13);
— Inter-American Convention on the Rights of the Author in Literary, Scientific, and Artistic Work (1946, 21 members*, 15 ratifications);
— Mexico City Convention on Literary and Artistic Copyright (1910, 16 members*, 7 ratifications*).

WIPO GENERAL INFORMATION, *supra* note 73, at 14 n.1; R. BENKO, *supra* note 4, at 51-56.

77. (1961, 32*); administered jointly by WIPO, UNESCO and ILO.

78. (1952, 75*); administered by UNESCO.

79. *See* R. BENKO, *supra* note 4, at 10.

80. GATT Press Release No. 1396, (Sept. 25, 1986).

and therefore not subject to the rules: India, Singapore and Taiwan are not signatories to the Paris Union and the Republic of Korea, Singapore and Taiwan are not signatories to the Berne Union.[81] Thus, they are not even obligated to follow the low minimum standards of these treaties.

The main thrust of all WIPO treaties is the principle of national treatment and the right of priority. National treatment requires each contracting state to treat nationals from other states as it does its own nationals concerning all national laws and procedures in the field of IP protection. Foreigners from other contracting states can thus file patent applications, for example, on the same terms as nationals, and will receive the same periods and conditions of protection if they fulfill the requirements.

The right of priority means that a patent, trademark or industrial design application filed in one contracting state will establish the applicant's priority to apply for protection in any of the other contracting states within a specified period of time (twelve months for patents, six months for trademarks). These other applications will be regarded as having been filed at the same time as the original. This prevents interlopers from copying patents and trademarks applied for or issued in one state and claiming them as their own in another, before the legitimate owner has time to file in his own right.[82]

The conventions usually establish minimum standards of protection that must be recognized by all signatories in their national laws. Minimum periods of protection are frequent (e.g., fifty years for copyrights according to the Berne Convention) and so are certain common rules such as limits to compulsory licensing and forfeiture of IP rights. Finally, a number of treaties aim at a certain harmonization of the formalities involved in the application for protection under an IP right,[83] making parallel applications in different countries easier for an innovator.

Apart from these minimum standards, however, the contracting states have broad discretion to legislate as they wish in matters of protection of IP. Certain fields of technology can be excluded from patentability (e.g. pharmaceuticals, biotechnology, agricultural chemicals) or copyrightability (e.g. educational materials). The signatories may stipulate whether a patent or other IP right should be granted with or without examination of novelty and non-obviousness.

81. *See* WIPO GENERAL INFORMATION, *supra* note 73, at 15, 44.

82. *See* GAO REPORT, *supra* note 10, at 25 n.2.

83. *See, e.g.*, Paris Convention, art. IV; Berne Convention, art. 5; Universal Copyright Convention, Sept. 6, 1952, art. III, 216 U.N.T.S. 132, 136-38.

They can fix the duration of patent terms (such as only seven years for chemicals if used in the production or preservation of food). And patentability can be limited to the process of production and refused as to the end product. Lastly, the details of procedure and administration are also fixed by each state individually.[84]

With this margin of discretion, the treaties are inviting abuse of IP rights. For example, the principle of national treatment is useless for foreigners if a state does not provide adequate treatment for its *own* nationals. NICs/LDCs may choose to exclude all those technological areas where their pirating industry is larger than their innovative industry, in particular high-tech areas like semiconductor chips, software, pharmaceuticals and chemicals. Some states may provide for very short patent terms in all those areas where importers are dominant, and long periods for all those where domestic industries have an edge.[85]

In the field of chemicals, some states limit patents to the process of manufacture and refuse product patents. This allows their domestic producers to vary the process slightly, thus creating a new and unprotected process. Exclusion orders against products made from such new processes are unlikely because the patentee will find it difficult to satisfy her burden of proving the infringement. In addition, even if an exclusion order is issued for products made in a certain process, an infringement of the process patent is "invisible" to the customs officials because the product is identical. All this is done without violation of the letter or even the spirit of the overbroad provisions in the conventions.

Minimum standards for protection are of limited effect if a state indirectly discriminates against foreigners. Compulsory licensing or even forfeiture of a patent is permitted, for example, when a patent is not worked domestically within a certain period of time by the owner. Without violating its international obligations a state could require domestic working within relatively short periods of time. In addition, Western IP owners may be confronted with laws and regulations on investment and transfer of IP rights that make it nearly impossible to work the patent before expiration of the deadline. Once a state applies its compulsory licensing laws, it may not only require licensing to domestic firms at below-market compensation, it can even require exclusive licenses. This amounts to expropriation (in that country) because

84. *See* WIPO GENERAL INFORMATION, *supra* note 73, at 20.

85. *See* R. BENKO, *supra* note 4, at 30 (citing the example of Costa Rica which is said to offer a patent term of only one year on food, agrochemicals and drugs).

the owner can neither work the patent herself nor transfer it to somebody else.

There are other problems inherent in existing IP treaties. Procedural requirements can be used to discriminate against foreigners. For example, a government might establish very complicated procedures, which could include very short "grace periods" between first publication and filing of the patent.[86] Frequently, there are problems with the enforcement of IP laws. Even if a state has adequate laws on the books, its enforcement practices may be so lax that the laws become ineffective, even though this may not be in violation of its international obligations.[87] In addition, certain new technologies[88] are either not protected at all or not sufficiently embraced by the existing system of conventions. The agreements have simply failed to keep pace with technological advances.[89]

The various WIPO conventions authorize but do not require the exclusion or seizure of counterfeit products at national borders. For example, article 9 of the Paris Union provides that counterfeit goods must either be seized at the border, prevented from entry or seized inside the country. However, the provision continues by stating that in case these remedies are not available under the domestic laws of the country in question, they must be replaced by such remedies as are available.[90]

In general, IP protection is atomized into too many treaties with varying membership and is preoccupied with technical details without regard to the larger picture.[91] A study has shown, for example, that less than half of all signatories of the Berne Union actually have adequate copyright protection, although existing laws usually are fully in accordance with the convention.[92] Thus the content (rules and standards) of the WIPO conventions is really not sufficiently clear and strict to provide adequate protection of IP in all contracting parties.

Article 28 of the Paris Convention, added in 1967, provides a procedure for dispute settlement on the international level. According to this rule, one member state can sue another for violating its obligations under the convention. Jurisdiction is vested in the International Court

86. *See* R. BENKO, *supra* note 4, at 31 (listing examples).

87. *See* Reichman, *supra* note 6, at 4.

88. For example, biotechnology, semiconductor chips and software.

89. Benko, *Intellectual Property Rights and the Uruguay Round*, 11 WORLD ECON. 217, 221 (1988).

90. *See* GAO REPORT, *supra* note 10, at 35-36.

91. *See* Gadbaw & Richards, *supra* note 37, at 29.

92. *See* Joos & Moufang, *supra* note 75, at 903.

of Justice (ICJ) at The Hague. Fundamental difficulties within this procedure exist, however. First of all, while its judges have an excellent reputation as independent, nonpartisan international lawyers, the ICJ has no expertise in matters of IP. Secondly, the majority of the member states of the convention never accepted the compulsory jurisdiction of the ICJ in IP matters, and thus cannot be sued before it against their will. Last but not least, even those states that do accept its jurisdiction have never sued one another before the ICJ. There has not been a single proceeding since 1967[93] because patent disputes were considered to be too trivial to bring before the ICJ. Moreover, such a suit would be considered an unfriendly act against the defendant state. As long as these problems are not addressed by WIPO, the dispute settlement system is effectively worthless.

The WICs have complained about U.N.-style voting blocs in WIPO, i.e., the developing countries (Group of 77), the WICs (Group B) and the socialist countries which used to be organized in the Council for Mutual Economic Assistance (CMEA), have almost always voted as a group, even if the result does not adequately reflect the interests of some members. This system is particularly annoying for the WICs because the NICs/LDCs, due to their sheer number, can vote for or against anything and will always be the majority; or, alternatively, the three blocs can "block" each other and stalemate any progress.

At the Conference to Revise the Paris Convention (1980-1984), the WICs hoped to strengthen existing minimum standards of protection for patents and trademarks and to commit the NICs/LDCs to improve their legislative and administrative practices. The latter countries, however, entered into the negotiations with the goal of legitimizing their prior derogations[94] from the rules of the Paris Convention and lowering certain standards, or even obtaining a general regime of preferential treatment.[95] As these positions are diametrically opposed, a consensus was impossible and the entire conference failed after five years of preparatory meetings and four diplomatic conference sessions.

Over more than a decade, the WICs have unsuccessfully attempted to strengthen IP protection within WIPO. In effect, they have not

93. *Id.* at 896 (citing Kunz-Hallstein).

94. A particularly disputed aspect was the authority to grant *exclusive* compulsory licenses, which would in effect remove the patent from the owner's control as far as that country is concerned, i.e. a state could grant the right to a domestic firm at below market compensation and prohibit the original owner from using the right domestically or importing competing goods. *See* GAO REPORT, *supra* note 10, at 26.

95. *See* Reichman, *supra* note 6, at 18.

even managed to maintain the previous levels of minimum standards, as numerous derogations by the NICs/LDCs in their laws and administrative practices show. In fact, suggestions for softening existing IP conventions even further are now pending in various WIPO fora. Given the additional problems posed by important new technologies, it cannot be surprising, then, that the WICs are looking for different avenues for protecting their interests.[96]

III. THE PROPOSED GATT CODE ON INTELLECTUAL PROPERTY

A. *Advantages of GATT*

Over the last decade or two, technology and IP have increasingly become issues affecting international trade. On the one hand, industry representatives perceive the lack of IP protection as a barrier to trade. They are reluctant to exchange goods or services with certain countries for fear of pirating or, in extreme cases, they do not want to export sensitive technologies at all because the danger of disclosure to third-country pirates is greater even in developed countries with otherwise adequate IP protection. On the other hand, new legislation reflects the growing interdependency of trade and IP protection: section 301, "Super 301," "Special 301" and section 337 of the Tariff Act of 1930, as amended by the Omnibus Trade And Competitiveness Act of 1988,[97] all permit or even require retaliation with trade measures for inadequate protection of IP by foreign countries.[98]

GATT is the only multilateral instrument that lays down agreed rules for the conduct of international trade. Consequently, the business community will want to turn to GATT in an attempt to overcome the new barriers to trade, and legislators will have to look to GATT because their laws may be found to violate its provisions. GATT is not only the principal set of rules for international trade, it is also the primary global body concerned with further negotiations of additional or improved rules for international trade and further reductions of trade barriers. This double function—of code of rules and forum for negotiations[99]—seems to be the ideal answer for the problems encountered by exporters and importers regarding the lack of IP protection in some countries, and the unilateral trade-restrictive measures of others. Furthermore, GATT has a reputation of being "an institution capable

96. *See* R. BENKO, *supra* note 4, at 9.

97. Pub.L. 100-418, 102 Stat. 1164 (codified as 19 U.S.C. 2411 (Supp. I 1989)).

98. For a brief analysis of the legality of these national laws under general GATT and WIPO obligations of the United States, see *supra* notes 253-57 and accompanying text.

99. S. GOLT, THE GATT NEGOTIATIONS 1986-90: ORIGINS, ISSUES AND PROSPECTS 2 (1988).

of bringing together conflicting interests, obtaining agreements, and then administering those agreements."[100]

GATT has a number of advantages which WIPO lacks. GATT offers a new start for IP protection. For several reasons, it may be easier to write a completely new treaty covering all aspects of IP protection than to renegotiate and amend several existing treaties which all cover only certain aspects. For example, the existing treaties leave too much room for interpretation which will be used by parties with contradicting interests in differing ways. It will be difficult to find a consensus on what the law *is*, before negotiations on what the law should *become* can even begin. The existing treaties are also limited to specific aspects of IP. Certain new aspects and technologies may fall into the gaps in these treaties. It will be hard to decide which type of IP protection should apply, for example, for software, and that traditional type most likely will not even fit well.

Membership in the existing treaties may be so widespread and the parties' interests may be so contradicting that a consensus on specific improvements cannot be found. In a GATT code, by contrast, those countries finding it impossible to agree could abstain from membership. Initially, the code could be limited to those countries with parallel interests and those ready to accept a package deal. Others can join later when they find it beneficial to do so. Experience with previous side-codes has shown that no individual country likes to be exposed as the one preventing conclusion of a new code. Thus it seems likely that even tough opponents, such as India, will be ready to adopt the code by consensus and will then simply refuse to become contracting parties.[101]

GATT offers broad coverage of many aspects related to trade, while WIPO deals exclusively with IP matters. Thus GATT offers the possibility of creating a package deal of give-and-take that is satisfactory for many sides.[102] NICs and LDCs that make concessions by improving their protection of IP can be offered concessions in areas of interest to them, such as agriculture and textiles. The disadvantages perceived by many NICs/LDCs as a result of strengthened IP protection—the fear of higher royalty transfers to IP owners in WICs and less access to modern technology due to a lack of resources to acquire what has previously been pirated—can thus be compensated.[103]

Voting in GATT is perceived as less problematic than voting in

100. *See* Gadbaw & Gwynn, *supra* note 57, at 93.

101. *See* Benko, *supra* note 89, at 222.

102. *See* Joos & Moufang, *supra* note 75, at 898, 902.

103. *See infra* notes 236-56, and accompanying text.

WIPO organs. The contracting parties of GATT have not formed UN-style voting blocs;[104] i.e., there is not the problem that G-77, Group B and CMEA countries always vote together for political reasons even if it is against their own interests in the given case. This voting behavior is not very likely to begin in the foreseeable future either, because the economic interests within the three blocs vary considerably, and the importance of economic prosperity and competitiveness in world trade results in a healthy political pragmatism. The ongoing reforms in the Eastern European countries also support the conclusion that rational economic interests will continue to dominate over ideological rhetoric in GATT, even if several of these countries should ultimately become members.

GATT dispute settlement procedures are not seen as ideal by the WICs. In fact their improvement is one of the other issues on the agenda of the Uruguay Round. Nevertheless, GATT allows the resolution of disputes brought by one country against another by rulings of independent "expert panels," and although the panel rulings are not binding like court decisions, in the 40-year history of complaints, nearly all disputes addressed through this process have been eventually settled. Developing countries have participated as complainants, respondents and panel members from the very beginning.[105]

However, several concerns have been expressed against the GATT system of dispute settlement. Ballreich has argued that the contracting parties of GATT are judges in their own cause because their representatives sit on the panels and the panel reports can only be adopted by consensus, so that the defendant can effectively block adoption of a ruling.[106] The system is also said to be ill-suited for the enforcement of IP protection because GATT article XXIII(2) allows only "appropriate" sanctions. This may require difficult financial determinations to find out the precise amount of economic damage done by the pirating.[107]

These arguments have little merit. Not only will the currently-discussed improvements of the GATT dispute settlement take care of Ballreich's and similar concerns; more importantly, a new IP code would not become a verbatim copy of existing GATT articles. The existing drafts include their own provisions on dispute settlement.

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104. *See* GAO REPORT, *supra* note 10, at 26.

105. *See* Gadbaw & Gwynn, *supra* note 57, at 43 n.8.

106. Ballreich, *Enthält das GATT den Weg aus dem Dilemma der steckengebliebenen PVÜ-Revision?*, 1987 GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT: ZEITSCHRIFT DER DEUTSCHEN VEREINIGUNG FÜR GEWERBLICHEN RECHTSSCHUTZ UND URHEBERRECHT, INTERNATIONALER TEIL 747, 755.

107. *See* Joos & Moufang, *supra* note 75, at 902.

While they are modeled after the GATT, they are also adapted to the special problems of IP protection.

Another question which has been raised is why a GATT code should allow sanctions against a government, given the fact that the infringements of IP laws are committed by private individuals neither employed nor encouraged by their home state.[108] This objection overlooks the fact that the home state of the pirate is not "punished" for the pirating, but for its failure to provide adequate protection for foreign IP in its laws and administrative procedures.

If the Uruguay Round succeeds in adopting a new code on the protection of IP, the situation of IP owners in all countries will improve.[109] First, they would be required to seek civil remedies under the domestic laws of the exporting and/or importing state, as in the past. However, these domestic laws will become more effective in all those states whose laws were not adequate up to now and would no longer be in conformity with international obligations under the new code. Additionally, IP owners could seek remedies such as exclusion or seizure and destruction under domestic trade laws of the exporting and/or importing state. Contracting parties to the new code would again be required to bring their administrative, judicial and customs procedures up to the newly-required level of enforceability.

If the above steps do not suffice or are not effectuated by a signatory, other contracting states could use the GATT dispute settlement procedures to obtain a panel ruling, and, if necessary, enforce it via GATT-authorized trade sanctions.

B. *Possibilities for the Uruguay Round Negotiations*

Whether a new GATT code on IP will effectively reduce pirating and the losses to Western IP owners depends on two factors of equal importance: membership and content. A code with perfect standards, procedural requirements and effective dispute settlement provisions will be of little use if it is signed only by member states of the Organization for Economic Cooperation and Development (OECD), which already have a high level of IP protection. Such a code would miss the aim of the Uruguay Round negotiations.[110] On the other hand, a code

108. Primo Braga, *The Economics of Intellectual Property Rights and the GATT: A View from the South*, 22 VAND. J. TRANSNAT'L L. 243 (1989).

109. Baldwin & Richardson, *Issues in the Uruguay Round*, NATIONAL BUREAU OF ECONOMIC RESEARCH CONFERENCE REPORT 69 (1987).

110. The 1987 ITC Survey, *supra* note 11, is again misleading in this respect: its Appendix G contains statistical data on the number of firms that have complained about inadequate IP protection, listed for the various countries. As one would expect, the figures are the highest for countries like Brazil, Taiwan and the other "major target countries." However, contrary to what

with low standards, a kind of least common denominator, may be acceptable to many countries but would only duplicate existing ineffective WIPO conventions.

1. *The "Maximum Standards for the Few" Approach*

If the new GATT code on IP sets very high standards that approximately correspond with the national laws of the EC, the U.S. and Japan, it will be very hard to get the major pirating countries to sign it. The ability of the Western governments to attract NICs/LDCs with concessions in other areas is naturally limited by such factors as the U.S. balance of trade deficit and protectionist domestic pressures. Thus the emphasis would probably come to lie on coercive measures, in particular the threat and application of trade sanctions, as provided for in sections 301 and 337.[111] This might persuade a few countries, but would not be sufficient with respect to key opponents such as India and Brazil. It would certainly poison the international climate for some time to come and would also reduce the credibility of the U.S. in GATT, because some of these measures would violate the spirit if not the letter of the general agreement.[112]

2. *The "Minimum Standards for All" Approach*

The other obvious alternative for the new code is to negotiate rather low standards of protection which as many countries as possible can underwrite. A least common denominator would produce standards that might be a little higher than the current laws of many NICs/LDCs but would be significantly lower than Western standards. Such a code would miss the aim of the Uruguay Round just as would an OECD-exclusive one. The inefficacy of low standards with wide participation has been demonstrated by WIPO during the last decades. The code would not only be useless, it would also render future improvements difficult. The WIPO experience has taught that subsequent upgrading can be tedious to impossible. Moreover, because

one might expect, countries like Italy, France and West Germany are also listed with several complaints. They rank higher than countries like Iran, Spain or even Panama. The reason is that the survey lists only the number of complaints without taking into account the actual trade volume. If 10,000 U.S. firms engage in trade with West Germany and five report inadequacies, this equals 0.5 per thousand. However, if 100 firms trade with Panama and two report inadequacies, this equals five percent. The report thus simply compares the figures of five and two, without showing the larger picture. Table 4-10 on pp. 4-16 to 4-17 of the 1987 ITC Survey is better suited to demonstrate the potential benefit that can be expected from improved IP protection in other OECD countries, because it lists the estimated losses per country and thus does take into account the volume of trade.

111. *See supra* note 97.

112. *See infra* notes 263-73 and accompanying text.

GATT members would be busy negotiating the minimum code, they would be unable to focus on drafting provisions for more substantial IP protection. Finally, such a code would take the present momentum out of international IP negotiations, and a new approach could not be launched until a few years of experience with the low-standard GATT code would have proved its uselessness.

3. *The Two-tiered Approach*

A combination of both of the above strategies might look like the logical outcome. However, it should be obvious that a two-tiered approach cannot combine the advantages of broad membership and highest standards. It would bind only the OECD countries to the high standards and would codify and consolidate the claims of the NICs/LDCs to special and differential treatment, thus becoming an important precedent for derogation from the most favored nation (MFN) principle. Furthermore, there are hardly any possibilities to induce a country to elect the more restrictive track.[113].

Automatic graduation clauses might be a solution, but if they are sufficiently strict they may not be accepted by the NICs/LDCs. Moreover, different treatment for different developing countries is usually perceived as discriminatory. On the other hand, a general graduation clause, such as one that would require all signatories to bring their IP laws into conformance with a higher standard within 15 years, is not much more than a legalization of present practices with an agreement to talk again later.

4. *The "High Standards for the Many" Approach*

The best available compromise seems to be to draft a code with high standards but not as high as existing Western levels of protection. In particular, with respect to shorter protection periods, the WICs should be able to make some concessions. For example, if software is going to be protected by way of copyright, it would be no problem to reduce the protection period from 50 to 20 years. Given the present speed of development in this market, a program ceases to be economi-

113. Reichman, *supra* note 6, at 27, suggests that the countries in the lower track should not have the rights to export to the markets of the high-track countries and the international markets. Only graduation to full membership in the high-track should permit exportation as a matter of right. While this would be an inducement to change tracks, it is unrealistic for obvious reasons. The denial of the right to export on the basis of inadequate IP protection would violate the existing principles of national treatment and MFN of the GATT and the WIPO conventions. It could thus not be enforced against non-signatories of the new code and would actually depend on some form of voluntary restraint agreement by low-track countries, laid down in the new code. However, countries like Brazil and India, which are currently exporting their pirated goods all over the world, will not sign a code prohibiting such exportation in the future.

cally exploitable after less than 20 years anyway, but it can still serve educational purposes and provide a basis for R & D. In addition, any agreement should address the concerns of the NICs/LDCs regarding compulsory licensing and forfeiture in cases of non-working and other abuse by copyright holders.

Such a code should be attractive on its own to a significant number of countries because it certifies that their present practices are conforming or can be easily upgraded to the internationally-required level. Certain concessions and some carefully applied threats or sanctions should be able to persuade quite a few more countries to join.

5. *Existing Proposals Concerning Material and Procedural Provisions*

A number of proposals have been made by OECD governments and industry organizations. Two elements should be distinguished: (1) formal rules about the protectable subject matter, domestic means of enforcement, domestic procedural requirements, international dispute settlement, etc., and (2) substantial rules such as those concerning minimum periods of protection or minimum penalties for pirates. All proposals made so far differ slightly in their material provisions. As far as formal rules are concerned, differences are more substantial. For the purposes of this article, it will be sufficient to suggest provisions that should ideally be contained in the code and indicate which governments or industry groups have already expressed their support.

First of all, the code should cover all IP rights and form a framework or checklist for the national laws to be adopted or modified subsequently. It should explicitly regulate the patentability of process *and* product for pharmaceuticals, chemicals and pesticides.[114] Equally desirable is the patentability of plants, microorganisms, and biotechnological and microbiological processes.[115] Copyright should explicitly be extended to software,[116] unless a *sui generis* protection is provided. Furthermore, semiconductor maskworks should be regulated.[117] Min-

114. This is supported by the U.S. Government. *See* Kastenmeier & Beier, *International Trade and Intellectual Property: Promise, Risks and Reality*, 22 VAND. J. TRANSNAT'L L. 285 (1989). The EC also supports this position, *see EC Negotiating Position on Intellectual Property Questions within the Uruguay Round Framework*, Europe Documents No. 1522, at 5 (July 29, 1988), as do business organizations in the United States, EC and Japan, *see* IPC/Keidanren/UNICE, *supra* note 8, at 32.

115. This is supported by the U.S. *See* Kunz-Hallstein, *The United States Proposal for a GATT Agreement on Intellectual Property and the Paris Convention for the Protection of Industrial Property*, 22 VAND. J. TRANSNAT'L L. 265 (1989). It is opposed, however, by the EC Commission, see Europe Documents No. 1522, at 5 (July 29, 1988).

116. *See* Kunz-Hallstein, *supra* note 115.

117. This is supported by the U.S. government (*see* Kunz-Hallstein, *supra* note 115); the EC

imum standards should be laid down for all forms of IP rights, including neighboring rights, appellations of origin and protection against acts which are contrary to honest business practices (protection of trade secrets).

Secondly, the code should be "open"; i.e., it should be a living document that automatically covers new forms of technology or creativity.[118] The alternative to instant coverage of new forms of innovation would be a "review clause"[119] providing for frequent review and renegotiation. The latter solution would create the continuous problem of convincing unwilling countries whenever protection is sought for a new technological innovation.

Thirdly, the code should prescribe minimum standards for administrative and judicial protection of IP owners on the domestic level. All countries should be obligated to provide four forms of domestic protection: (1) internal measures against pirates based in that country; (2) border measures against products being exported by pirates from that country; (3) border measures against products being imported into that country; and (4) internal measures against imported products already processed by customs and placed on the markets.

These standards must begin by listing the parties that should have a right of action (IP owner, licensee, importer, *ex officio*, etc.). They have to include the relevant forms of infringement that give a right of action (i.e., a definition of pirating). Provisions for preliminary injunctions should follow, based on the likelihood of success, the immediate need, and the balancing of the interests of applicant and defendant.[120]

General rules for administrative procedures should provide for timely, non-discriminatory, fair procedures, respecting fundamental due process rules (such as right to be heard, fair and effective opportunities to present evidence and arguments,[121] the right to legal counsel, etc.) and resulting in reasoned determinations against which judicial remedies are possible.

During the entire period of determination and judicial examina-

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Commission (*see* Europe Documents No. 1522, at 3 (July 29, 1988)) and the western industry organizations (*see* IPC/Keidanren/UNICE, *supra* note 8, at 70).

118. 4 Int'l Trade Rep. (BNA) 1372 (Nov. 4, 1987).

119. This was suggested by the EC Commission. *See* Europe Documents No. 1522, at 3 (July 29, 1988).

120. This is demanded by IP industries. *See* IPC/Keidanren/UNICE, *supra* note 8, at 94. The EC Commission proposal correctly demands the deposit of security in these cases to prevent the abuse of such procedural rights and to guarantee damages for the defendant in case of unjustified complaints. *See* Europe Documents No. 1482, at 3 (Dec. 4, 1987).

121. A problem results from the U.S. demand that compulsory discovery procedures should be included because this concept is foreign to the legal traditions of many European countries. *See* 4 Int'l Trade Rep. (BNA) 1372 (Nov. 4, 1987).

tion, the entry or sale of the products should be suspended. If the final determination finds violations of IP rights, the products should be forfeited and destroyed or otherwise prevented from entering the business cycle.[122] If past violations are found, the IP owner should have an enforceable right to damages. In addition, civil and criminal sanctions comparable to those for cases of theft or fraud (large fines or prison sentences) should be introduced as deterrents.[123]

All signatories of the new code should be obligated to publish all domestic IP laws and regulations, and to provide additional information if requested by other signatories in order to demonstrate their observation of the code requirements. In addition, it has been suggested that a multinational surveillance body should be created, comparable to the Customs Cooperation Council.[124] This organization would be charged with the task of collecting, publishing and supervising national laws and practices and should have the right to demand information from signatories and even to initiate GATT-level proceedings in case of violations. To avoid the creation of yet another international organization struggling for competence and jurisdiction in this area, the surveillance body should function like a conference comprising GATT and WIPO experts.

As far as international enforcement is concerned, the code should first of all provide a mechanism for consultations and dispute settlement if one signatory feels that its IP owners are not adequately protected in another member state. This mechanism should be available in case of violations of IP rights, or nullification and impairment of benefits accruing to a signatory, or impediment of the objectives of the code.[125] If consultations do not lead to a rapid settlement of the dispute, the party should have a right to a panel under rules similar to the Tokyo Round side-codes and the GATT, as improved in the ongoing Uruguay Round.[126] Private parties should have the right to petition their own governments for relief, but otherwise the code would not be

122. This is being demanded by IP industries. *See* IPC/Keidanren/UNICE, *supra* note 8, at 93.

123. Supported, e.g., by Australia and the Nordic countries. News of the Uruguay Round, GATT Publication No. 90-0029 (Jan, 11, 1990), at 15.

124. E.g., by the West German Government. *See* Kretschmer, *GATT und gewerblicher Rechtsschutz*, 1988 GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT: ZEITSCHRIFT DER DEUTSCHEN VEREINIGUNG FÜR GEWERBLICHEN RECHTSSCHUTZ UND URHEBERRECHT, INTERNATIONALER TEIL 186, 187.

125. This is being demanded by the U.S. Government. *See* 4 Int'l Trade Rep. (BNA) 1371 (Nov. 4, 1987).

126. This is supported by all sides.

directly applicable.[127] Panels should consist of independent experts rather than government representatives.

On the general level it has been demanded that the code should provide a substantial link to the GATT and thus clarify that violations of the code may justify withdrawal of GATT concessions.[128] The guiding principles of GATT, in particular the MFN clause and the principle of national treatment, should equally apply under the code. Finally, it has been suggested that the code should make ratification of the Paris and Berne Conventions in their latest revisions mandatory.[129] Such a provision would be a friendly gesture towards WIPO, but it is not necessary from the point of view of minimum standards of protection, because the GATT code would contain higher standards.

A "strategy of the NICs/LDCs" as such does not exist. The interests of the countries in this large group vary considerably. However, several states have expressed strong opposition to: (1) the start of a new Multilateral Trade Negotiation (MTN);[130] (2) the inclusion of such topics as services and intellectual property in the new Round;[131] and (3) the drafting of mandatory minimum standards for IP.

The most important "opposition leaders" are India and Brazil. Both countries are relatively content with the situation as it is. On the one hand, they have the largest pirating industries in the world and very low levels of IP protection, especially for foreigners.[132] On the other hand, most of their import tariffs are not yet under any international bindings. Both countries seem to fear that a new MTN could only be to their disadvantage.

The major proposals from the developing countries can be summarized as follows: The more advanced countries agree that the general principles of the GATT, namely transparency, national treatment, most-favored-nation treatment and international cooperation, should apply to the new code. Their proposals by now include rules on internal measures and border measures, principles of multinational dispute

127. This is supported by the EC Commission. *See* Europe Documents No. 1522, at 3 (July 29, 1988).

128. *See* 4 Int'l Trade Rep. (BNA) 1372 (Nov. 4, 1987); *see also* Gadbaw & Gwynn, *supra* note 57, at 40. Switzerland has gone so far as to suggest that the IP code should be integrated as a part V of the GATT itself. News of the Uruguay Round, GATT Publication No. 90-0751 (June 1, 1990), at 8.

129. The EC Commission has stated this. *See* Europe Documents No. 1522, at 4 (July 28, 1988).

130. *See* S. GOLT, *supra* note 99, at 13.

131. *Id.* at 14, 45.

132. India is not even a member of the Paris Union. *See* WIPO GENERAL INFORMATION, *supra* note 73, at 15.

settlement, and reasonable standards for the IP rights to be provided. Their claims to transitionals arrangements for bringing laws into line with the general standards, technical assistance programs and the grant of financial resources for the introduction of better IP protection have become realistic and reasonable. However, they still insist that developing countries should enjoy (permanent) special and more favorable treatment, such as a reduction in the duration of patents and flexibility in the levels of the standards themselves. A draft proposal by fourteen developing countries[133] specifically demands that the signatories of the new code should retain the sovereign right to determine the level and scope of protection of IP rights, "in particular in sectors of special public concern such as health, nutrition, agriculture and national security."[134] On the other hand, provisions prohibiting unilateral measures in retaliation for infringements of the new code and a rapid and effective dispute settlement procedure have also been demanded.[135] These concerns of the NICs/LICs must be kept in mind by Western negotiators when offering "bait" and package-deal-type proposals to obtain support for their more stringent IP-code drafts from as many countries as possible.

If the negotiators agree on a package deal (i.e., a multilateral obligation for several countries to make certain concessions in exchange for different concessions by other countries) this will probably be done in the form of an international agreement obligating its signatories to enter simultaneously into a whole new set of side-codes for IP, textiles, agriculture and other matters.

IV. WICs vs. NICs/LDCs — A Discussion of the Arguments

Since IP became a major issue in international trade relations a few years ago, supporters of the position taken by the NICs/LDCs have presented a considerable number of arguments against Western efforts to extend traditional western concepts for the protection of IP to the rest of the world. Western politicians and economists have challenged and refuted some but not all of these arguments. Four areas of controversy shall be examined herein: the sovereign right of a state to decide not to protect IP; economic disadvantages of introducing a system of

133. Argentina, Brazil, Chile, China, Colombia, Cuba, Egypt, India, Nigeria, Pakistan, Peru, Tanzania, Uruguay and Zimbabwe.

134. *See* News of Uruguay Round, GATT Publication No. 90-0751 (June 1, 1990), at 9.

135. *Id. See also* the report on a proposal from Mexico in News of the Uruguay Round, GATT Publcation No. 90-0248 (Feb. 23, 1990), at 5; Focus, GATT Newsletter No. 69 (Mar. 1990), at 5.

IP protection; political arguments against the introduction of such a system; and arguments against GATT as a forum for IP protection.

A. *Protection of Intellectual Property: A Question of Sovereignty*

The Declaration on Principles of International Law Concerning Friendly Relations and Co-operation Among States in Accordance with the Charter of the United Nations, which is considered to be an authoritative and binding interpretation[136] of the Charter of the United Nations, declares the following "Principle of Equal Rights And Self-Determination of Peoples":

> By virtue of the principle of equal rights and self-determination of peoples enshrined in the Charter of the United Nations, all peoples have the right freely to determine, without external interference, their political status and to pursue their economic, social and cultural development, and every State has the duty to respect this right in accordance with the provisions of the Charter.[137]

On the basis of a general practice, supported by an *opinio juris* as reflected in the Friendly Relations Declaration, it has become generally accepted that every state is entitled under international law to freely select its economic order.[138] This is explicitly affirmed by article 1 of the non-binding Charter of Economic Rights and Duties of States:

> Every State has the sovereign and inalienable right to chose its economic system as well as its political, social and cultural systems in accordance with the will of its people, without outside interference, coercion or threat in any form whatsoever.[139]

It has been argued that the present efforts by the WICs, particularly the U.S., are just attempts to maintain their international economic leadership by translating their domestic provisions on IP protection into international standards, and that this negates the freedom of the NICs/LDCs to select their political and economic systems by sovereign decisions.[140]

The NICs/LDCs claim the right to value the interests of society as a whole and their vast masses of impoverished consumers over the interests of a handful of wealthy IP owners. One of the roots of this attitude can be seen in attempts of the United Nations Conference on

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136. *Declaration on Principles of International Law Concerning Friendly Relations and Co-operation Among States in Accordance with the Charter of the United Nations*, G.A. Res. 2625, 25 U.N. GAOR Supp. (No. 28) at 121, U.N. Doc. A/8028 (1971) [hereinafter Friendly Relations Declarations]; *see also* A. VERDROSS & B. SIMMA, UNIVERSELLES VÖLKERRECHT 274 n.4 (3d ed. 1984).

137. *See* Friendly Relations Declarations, *supra* note 136.

138. *See* A. VERDROSS & B. SIMMA, *supra* note 136, at 812.

139. G.A. Res. 3281, 29 U.N. GAOR Supp. (No. 31) at 52, U.N. Doc. A/9631 (1975).

140. *See* Primo Braga, *supra* note 108.

Trade and Development (UNCTAD), beginning in the mid-1970s, to prescribe a Code of Conduct for the International Transfer of Technology.[141] Although this code was opposed by most Western countries and never got beyond the negotiating table, it has served as a model for domestic laws of a number of NICs/LDCs.[142] Their primary goal today is to place IP from developed countries in the public domain and reduce control and restrictions on the use of technological information.[143]

The NICs/LDCs rely in part on the fact that norms of general international law permit even deliberate expropriation and nationalization of property of aliens, if this is in the public interest, non-discriminatory and adequately compensated.[144] They claim that since pirating is done by private individuals who are neither authorized nor encouraged by the state, the latter cannot be held responsible in any way. Compensation or damages cannot be demanded and trade sanctions may not be taken just because a NIC/LDC refuses to copy the laws of the most highly industrialized nations in the world. In any case, non-protection of IP, as long as it is done in a nondiscriminatory fashion, does not violate existing WIPO treaties, which only demand the granting of national treatment to foreigners.

Another argument of the NICs/LDCs is their need to gain a fair share of the world economy before new technologies, in particular robotics, allow the WICs to make up for the present comparative advantage of cheaper labor in the NICs/LDCs and impose structural adjustment costs on them even in traditionally labor intensive areas such as textiles.[145]

In response to the Western argument that non-protection of IP creates competitive advantages and distorts trade, NICs/LDCs have cited other governmental interventions which distort trade to the same or even higher degrees: provision of educational systems to train a highly-skilled work force; construction of roads, railroads, ports and other transport facilities; supply of subsidized energy (e.g. from nuclear power plants); tax breaks for "infant industries"; toleration of

141. 19 I.L.M. 773 (1980).

142. E.g., India substantially reduced its protection of patents in 1970. *See* Gadbaw & Kenny, *India*, in Gadbaw & Richards, *supra* note 37, at 200 n.25 [hereinafter Gadbaw & Kenny].

143. *See* Reidenberg, *supra* note 3, at 8.

144. *See* A. VERDROSS & B. SIMMA, *supra* note 136, at 805-07, 812-13; the "Hull Formula" is reproduced on 807 n.6: "We recognize the right of any country to expropriate property . . . so long as the taking is nondiscriminatory, for a public purpose and accompanied by prompt, adequate and effective compensation. In our view these are the minimum standards under international law." The Hull Formula can be considered to be a generally accepted rule of international law. *Id.*

145. *See* Primo Braga, *supra* note 108.

mergers and monopolization; low levels of income and sales taxes etc. The NICs/LDCs claim that these interventions are not considered unfair by the WICs, only because the latter have always engaged in these practices themselves and want to continue using them.

At bottom, the question is whether IP is really a Western concept, foreign to the culture of many NICs/LDCs, which has simply been forced upon them by the WICs for egotistic economic motives.

Western authors have claimed that IP is a right just like normal property rights,[146] or even a human right in a narrow sense. They have relied on provisions such as article 27(2) of the Universal Declaration of Human Rights ("Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary, or artistic production of which he is the author"[147]) as well as article 15 of the International Covenant on Economic, Social and Cultural Rights, which states:

> 1. The States Parties to the present Convention recognize the right of everyone: . . . (c) To benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author."[148]

However, the Universal Declaration, like most General Assembly declarations, does not have binding effect as such. Secondly, the wording of these documents does not require that all areas of IP rights be protected all over the world. NICs/LDCs could claim that limited exceptions, such as nonpatentability of pharmaceuticals, can be justified by superior public interests. Finally, it can be argued that the two documents were adopted at a time when most members of the United Nations were WICs and most of what are now NICs and LDCs were still colonies of the WICs. It was thus not surprising that the cultural concepts of the WICs are embodied in these documents.

Supporters of the NICs/LDCs can further argue that in the meantime international law may have changed. A more contemporary point of view may be reflected in the Charter of Economic Rights and Duties of States (especially in articles 2(I), 8, 13, 14, 18, 19, and 24),[149] which was adopted in 1975, at a time when most former colo-

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146. *See* Reichman, *supra* note 6, at 10-15.

147. G.A. Res. 217, U.N. Doc. A/810, at 41 (1948).

148. *Adopted* Dec. 19, 1966, *entered into force* Jan. 3, 1976, G.A.Res 2200, 21 U.N. GAOR Supp. (No. 16) 49, U.N. Doc. A/6316 (1966).

149. Article 13(2) is the provision most clearly applicable to the present issue:

All States should promote international scientific and technological co-operation and the transfer of technology, with proper regard for all legitimate interests including, *inter alia*, the rights and duties of holders, suppliers and recipients of technology. In particular, the States should facilitate the access of developing countries to the achievements of modern

nies had achieved independence. This Charter may better reflect the different cultural values of the NICs/LDCs.

However, a forceful argument for the WICs is the fact that all "major target countries" recognize some forms of IP and are protecting it at least if it is deemed beneficial to their own industries.[150] It may well be that the governments in the NICs/LDCs merely engage in a balancing test: are the benefits that piracy brings to their national economies outweighed by the potential benefits associated with the provision of IP protection?[151] More recently, they have begun to include in their balancing test the avoidance of potential losses due to termination of GSP status[152] and other trade sanctions.

On the other hand, Oddi claims that all countries, developing as well as developed, exclude certain classes of inventions from patent protection[153] and thus engage in the same balancing test. Reichman declares that "[t]he literature describing the failure of the industrialized countries to live up to their own intellectual property standards would fill a sizeable library"[154] and adds examples of inadequate protection in Europe, Japan, the Soviet Union and primarily the U.S.[155] This purportedly shows that the claim of many authors in support of the Western position—that IP as such is a "natural right" like tangible property ownership—is simply not true.

B. *Economic Arguments*

Quite a number of arguments have been made concerning the question of whether it is economically profitable for a country to introduce a system of IP protection. The answer depends strongly on the individual situation of the country, considering such factors as: popula-

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science and technology, the transfer of technology and the creation of indigenous technology for the benefit of the developing countries . . . .

See supra note 141.

150. *See* Gadbaw & Richards, *supra* note 37, at 17-18.

151. *Id.*

152. GSP refers to the General System of Preferences under which WICs unilaterally permit customs duty free access of most products coming from NICs/LDCs. *See* J. JACKSON, THE WORLD TRADING SYSTEM: LAW AND POLICY OF INTERNATIONAL ECONOMIC RELATIONS 278 (1989).

153. Oddi, *The International Patent System and Third World Development: Reality or Myth?* 1987 DUKE L.J. 831, 856-57.

154. *See* Reichman, *supra* note 6, at 36.

155. *Id.* at 36-37; Reichman's examples of problems with U.S. laws are (1) protection of moral rights as required since the United States joined the Berne Convention; (2) discriminatory border measures against foreign patentees under section 337; (3) dilution of rights of priority in violation of the Paris Convention; (4) refusal to provide *sui generis* design protection, despite an implicit duty under the Berne Convention; (5) no public performance right available for sound recordings.

tion; rates of unemployment and underemployment; per capita income; existing infrastructure; size and type of domestic industries; size of pirating industries; major exports and export markets; dependence on foreign IP; prospects of losing GSP status or being subjected to other trade sanctions; presence of subsidiaries of multinational corporations; potential for further foreign direct investment; and other issues.

However, a few considerations are true for all NICs/LDCs. First, I shall examine the question of whether, purely from a cost perspective, developing countries should protect IP at all. Secondly, I will address the argument that granting monopoly rights is neither the only nor the best way to encourage R & D and creativity. Finally, the potential benefits of IP protection will be considered.

1. *The Cost of IP Protection for Developing Countries*

It has been argued that efficient IP registration and enforcement offices are unavailable to NICs/LDCs because of the high cost and the lack of required expertise.[156] These countries are faced with the choice of either requiring their own examinations of novelty, non-obviousness, etc. for all patent, trademark and related applications, or mandating this only for domestic applicants while granting it to foreigners on the basis of their home country IP rights. In the former instance, the NIC/LDC may be faced with unmanageable costs and a lack of professionalism. Vaitsos cites the example of Brazil, which required prior examinations and had a backlog of 400,000 pending patent applications (not counting other IP rights) in 1970.[157]

If NICs/LDCs do not require additional examinations, the problems with cost and expertise may not be so urgent. However, they would then depend heavily on the decisions regarding novelty, etc. made elsewhere. This would place the NICs/LDCs in a new form of quasi-colonial dependency and may lead to a considerable degree of "economic arbitrariness."[158] Vaitsos claims that the majority of patents are declared invalid in U.S. courts if challenged by competitors; this is intended to show how arbitrary the initial decision to grant the patent was.[159] However, Vaitsos' figure of an 89% invalidation rate between 1941 and 1945 is not only outdated, it is based only on decisions of Courts of Appeals and the U.S. Supreme Court (i.e., on appel-

156. Vaitsos, *Patents Revisited: Their Function in Developing Countries*, 1972 J. DEV. STUD. 71, 89.

157. *Id.*

158. *Id.*

159. *Id.*

late decisions). It certainly does not adequately reflect the situation in courts of first instance.

One reply concerning the lack of expertise is that NICs/LDCs will never gain expertise in the field if they do not start with adequate protection of IP rights. Furthermore, several WICs, in particular the U.S., have already started programs of training and education for foreign customs and other government officials to increase awareness of the advantages of IP protection. At the same time, these programs will transfer know-how for the preparation and implementation of adequate and effective laws and administrative mechanisms.[160] This type of support can certainly be increased and does not entail costs for the NICs/LDCs.[161]

As to the costs of introducing a system of IP protection, the WICs have again offered their help. Governments of NICs/LDCs should also be aware of the income generated from patent fees. As far as applications from foreign firms and individuals are concerned, these fees can be collected in precious foreign exchange. Once the system is established and the start-up costs are paid, application fees may even generate a net profit for the government.

The monopoly position granted by the IP rights to the innovator allows her to charge consumers monopoly prices well above competitive market rates. This "cost on society"[162] is generally viewed as undesirable but necessary to create incentives for R & D and creativity. These provide societal benefits which supposedly outweigh consumer costs, at least in the long run. This theory of cost and benefit of IP protection has been criticized because it does not take into account the separation of societies by political boundaries. NICs/LDCs claim that a worldwide test may well find net benefits; however, costs and benefits are not evenly distributed among the political entities. They say that their consumers have to bear the same or even a larger share of the cost, while their industries and individual innovators, due to the lower level of development and specialization, cannot sufficiently transform the incentives into increased R & D and creativity.[163] In particular, it has been claimed that multinational firms have repeatedly abused the monopoly rights granted by NICs/LDCs by exorbitant overpricing of up to 6500% over prices offered by various producers around the

160. *See* GAO REPORT, *supra* note 10, at 45-46.

161. *See infra* notes 219-25 and accompanying text.

162. *See* MacLaughlin, Richards & Kenny, *supra* note 5, at 101.

163. Concerning the question of increased domestic R&D in NICs/LDCs after introduction of adequate IP protection, see *infra* notes 166-76 and accompanying text.

world not covered by patents.[164]

Two responses to these accusations shall be made. First, relatively high monopoly profits are frequently necessary for the innovator to compensate for her risks. In the area of patents, it is estimated that, on the average, less than 10% of all innovative efforts result in commercially exploitable inventions. Since there is no way to identify the successful projects in advance, future market conditions are always uncertain, and R & D costs are skyrocketing in particular in high-tech areas, considerable incentives are required.[165]

Second, there are less burdensome measures to protect consumers against exploitation and ruthless overpricing by IP owners. Many countries have introduced price controls for sensitive products such as pharmaceuticals, agro-chemicals and food. Overpricing beyond a certain percentage could be regarded as abuse of the IP right and be sanctioned by compulsory licensing of competitors or even forfeiture of the patent. Complete refusal of patent protection is thus not only unnecessary and disproportionate, it also entails significant disadvantages concerning technology transfer and incentives for domestic R & D and creativity.[166]

The introduction of adequate protection of IP in NICs/LDCs will entail a number of immediate and mid-range effects on the domestic pirating industries. First of all, they will either have to close down or obtain licenses for the IP they are using. Small and/or inefficient firms are more likely to give up. This will result in increased unemployment. Larger and/or more efficient firms can probably adjust and continue in their line of business.[167] However, their factor costs will rise due to the obligation to pay royalties to the IP owner. More likely, the ex-pirates can swallow part of these increased costs by accepting lower margins of profit. The rest will have to be passed on to the customers. This will make it harder for the firms to compete in all three types of markets (domestic, home country of the IP owner and third countries) and sales will be lost domestically and abroad. This will affect the export earnings of the country.

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164. *See* Vaitsos, *supra* note 156, at 85-86, reproducing an official study published by the Instituto de Comercio Exterior of the Colombian Government; data is based on 1968 prices of protected American intermediate pharmaceutical products when imported by Colombia. Preliminary research supposedly produced similar results for imports by Peru and Chile. According to the author, these studies resulted in a modification of U.S. Government rules for the pricing of pharmaceutical products purchased through Agency for International Development loans in Latin America.

165. *See* MacLaughlin, Richards & Kenny, *supra* note 5, at 100-01.

166. *See infra* notes 179-87 and accompanying text.

167. *See* in particular the suggestion *infra* note 224, and accompanying text.

Thirdly, most of the newly-protected IP rights will be held by IP owners in WICs. Therefore, the country is faced with increased royalty transfers to WICs, which will have to be paid in convertible currency. This is particularly difficult for countries with soft currencies and heavy international debts, which are already struggling with their international obligations to service their loans.

In the mid- to long-run these costs may be outweighed by the benefits to be obtained from enhanced IP protection. However, some NICs, and to a lesser degree certain LDCs, depend heavily on pirating industries at present, and their economic situation is so fragile that the WICs will have to allow phase-in periods and provide financial help if serious economic and political difficulties are to be avoided.

2. *The Cost of Possible Trade Sanctions*

There are "costs" of inadequate IP protection which were not taken into account by most older studies: trade sanctions by the WICs against products and services from the NICs/LDCs may place heavy financial burdens on the latter.[168] The danger of protectionism is particularly urgent in the U.S. Although in 1989 the annual trade deficit of the U.S. declined in comparison to previous years,[169] pessimists have already predicted a deficit of up to $200 billion for 1990.[170] Until the late 1970s, surplusses in the U.S. balance of service transactions of up to $30 billion or more had served to compensate for the deficit in trade of goods. Although the balance of service transactions still produced a surplus of $1.5 billion in the first quarter of 1989, the balance in the second quarter was negative for the first time in thirty years.[171] The foreign debt of the U.S. has grown to over $500 billion.[172] With these figures published in the newspapers and the $50 billion estimate of the 1987 ITC Survey on the table, protectionist pressure in Congress could do significant harm to world trade if the Uruguay Round

168. *See* Primo Braga, *supra* note 108, who cites the examples of recent U.S. actions against Korea, Taiwan and Brazil, and EC actions against Indonesia.

169. Frankfurter Allgemeine Zeitung, Feb. 19, 1990, at 15, reports the figures of the Bureau of the Census/U.S. Commerce Department: 1987: 152.1 billion U.S. dollars; 1988: 118.6 billion U.S. dollars; 1989 108.6 billion U.S. dollars. The latest figures available to the author were published by THE ECONOMIST, July 28, 1990, at 104. In the twelve-month period from July 1989 to June 1990, the trade deficit has declined to $105.3 billion. This slow decline is likely to continue for a number of reasons, most importantly the current weakness of the U.S. dollar in international money markets as compared to other major currencies (Yen, Deutsche Mark, ECU, etc.), which makes imports from these countries more expensive for U.S. consumers.

170. Frankfurter Allgemeine Zeitung, Sept, 15, 1989, at 18; *see also* Frankfurter Allegemeine Zeitung, Dec. 16, 1989, at 13; Frankfurter Allegemeine Zeitung, Jan. 18, 1990, at 11, where the rising deficit of the last quarter of 1989 is noted.

171. *Id.* The deficit was reported at $176 million.

172. *Id.*

and other measures taken by the U.S. government do not bring fast and noteworthy changes in worldwide protection of U.S.-owned IP.

3. *Antitrust Concerns Against Monopoly Rights*

Patents and other IP rights are a lawful way of acquiring a monopoly position. However, authors supporting the position of the NICs/LDCs have argued that if these countries decide to protect IP at all, they should select a different system which does not entail the economic inefficiencies of monopoly rights.

The extent of monopoly power in a given case depends on several factors. The availability of substitute products which are not protected by IP rights or protected for competitors, along with the elasticity of demand, will determine whether customers can evade overpriced goods. Certain aspects of IP laws beyond the mere length of protection affect the value of laws to the innovator. For example, if licensing of surrounding patents is easy, a firm might completely "fence in" a technology by securing enough patents in one line of business.[173] Similarly, if licensing of improvement patents is encouraged, the life of a patent can be extended by continually improving a technology and obtaining patents for these innovations.

The power inherent in monopoly positions may induce profit-maximizing practices by the monopolist, which entail significant economic inefficiencies in addition to the problem of higher consumer prices discussed above. In extreme cases, the problems associated with powerful monopolies and cartels may outweigh the benefits of more innovation and direct investment.[174] These problems include price fixing, predatory and discriminatory pricing, refusals to deal (exclusive dealing, territorial and customer restraints, boycotts), market division, tying arrangements, use restriction and coercion of public authorities.[175]

The availability and efficiency of antitrust proceedings and remedies to consumers, competitors and government agencies—compulsory licensing or forfeiture of the IP right, criminal penalties against the innovator/licensee, civil remedies allowing treble damages, cease and desist orders, break-ups of too-powerful conglomerates—are

173. *See, e.g.,* the "United Shoe" decision (United States v. United Shoe Mach. Corp., 110 F.Supp. 295 (D.Mass. 1953), *aff'd per curiam*, 347 U.S. 521 (1954)) where three manufacturers of different shoe making machines had merged and subsequently improved their machines to the point where they held over 2000 patents. This gave them a secured market share of between 75 and 95%.

174. A thorough analysis of antitrust problems is beyond the scope of this paper. For explanations, examples and cases see P. AREEDA & D. TURNER, ANTITRUST LAW (1978).

175. *See also* Vaitsos, *supra* note 156, at 84-85.

therefore inseparably linked with the question of how much IP protection should be granted.

As the monopoly profits of the innovator and the dead-weight losses caused by the abuse of monopoly power have to be borne by society (consumers and competitors), it would be ideal if the IP protection was just long and strong enough to allow the innovator to regain her expenses and a reasonable profit. For several reasons, however, it is not feasible to assign individualized protection periods and conditions to each and every IP application.

First of all, the administrative effort and costs in determining the applicable period and conditions for hundreds of thousands of applications per year would be tremendous. In addition, there is no reliable data to establish the just return of an innovation. If the period of protection depends on the expenses borne by the inventor/creator, she has little incentive to keep her costs low; i.e., inventive activity will be less economical (the "Lear-Jet Syndrome") and/or inventors will claim exaggerated expenses. Third, the risks involved in inventive/creative activity varies from branch to branch, even from product line to product line, and of course from year to year. It is impossible to determine the "reasonable" profit necessary to compensate for the risks of each individual innovation.

The existing IP laws therefore apply standardized periods and conditions of protection. Patents are generally protected for 15 to 20 years (depending on the national laws); trademarks are usually protected for 5 to 10 years, although re-registration is possible; copyrights normally last for the life of the author plus 50 years, or just 50 years in the case of legal persons. As far as conditions of protection are concerned, the right is usually exclusive and allows all forms of economic exploitation including: working by the innovator, licensing to several users (in the same or in different geographic areas), exclusive licensing, conditional licensing (with requirements like exclusive or non-exclusive "grant-back" of any improvement patents). Obviously these standardized rules cannot deal with the particular problems of monopoly power associated with specific products, firms, industries, and geographic areas.

The two alternatives to the provision of monopoly rights are the free market system of trade secrecy and the socialist model of state-financed R & D. They have different but equally significant disadvantages in their pure forms. However, it seems possible to combine trade secrecy, state-financed R & D, and IP monopoly rights in a way that eliminates most disadvantages while preserving a high level of incentives for innovators.

A great many inventions would occur under the free market system without any IP protection, as long as certain "ground rules" of a healthy economy are present. The time lags in imitation, i.e., the ability of the innovator to protect her creation by trade secrecy, will in many cases suffice for the originator to recoup her costs plus a profit. Even if an invention is not or cannot be kept secret, competitors will often lack the know-how, production facilities, managerial experience, and distribution channels necessary to effectively threaten the position of the innovator in the short run. Furthermore, at least in highly concentrated industries where only a few firms are competing, the imitators might follow a profit-maximizing pricing strategy that allows all market participants to make a profit. Moreover, numerous advantages in innovative leadership will encourage creativity, such as marketing advantages to being "first," company image, and the importance of getting the initial market share.

In certain situations, however, these incentives will not suffice. In a perfectly competitive market, where imitation is easy and many firms are competing, creativity will not pay without protection.[176] The same is true for products and branches where the costs of development are very high and profits are known to be low.[177] Absent protection, small firms and individual innovators will always find it hard to compete with the market-dominating firms. Finally, high-risk developments, in particular radically new technologies with uncertain chances of success, require additional incentives.[178] A combination of IP protection and government sponsorship of innovative activities could theoretically provide such incentives in these areas.

On the other hand, such a combined approach is not without flaws. First of all, the interdependence in world trade and every state's interest to participate in it leaves it quite doubtful that one state or a small group could decide not to protect certain forms of IP and instead leave the incentives for innovation to free market forces. These states would become a safe haven for pirating industries, and subsequently trade sanctions and threats would be applied by the other countries. This may eventually be the answer to the question of whether IP protection should be a matter of sovereignty and left to the individual decision of each state: growing economic interdependency is a factor that limits each state's sovereignty in many respects and in many areas, including IP protection. Second, the combined approach would still entail some of the disadvantages of each of the pure forms. Trade secrecy causes

176. *E.g.*, the music and publishing industry, software and industrial designs.

177. *E.g.* drugs and medical technology for rare diseases.

178. *E.g.*, deep-sea mining, astronautics and chemotherapy.

inefficiencies and does not prevent monopolization. Protection of some branches and products but not others may be discriminatory and arbitrary.

Antitrust laws should prohibit price fixing for products not covered by IP rights and provide remedies for competitors faced with predatory or discriminatory pricing of protected products. Territorial- or customer-specific refusals to deal should be prohibited unless justified by overriding interests. Tying arrangements, i.e., the sale of a patented and thus monopolized product only in combination with an unprotected product, should be generally outlawed. When patent accumulation occurs to the degree that an entire technology is fenced in, compulsory licensing or even a break-up of the monopolistic firm should be possible.

In all these cases, procedures should be available not only to government surveillance bodies, but also to competitors and consumer organizations, to make sure that unlawful practices are detected and taken care of. Remedies should not be limited to compulsory licensing or forfeiture of the IP right. Primary remedies should be civil damages, which are usually sufficient as deterrents and also provide incentives for competitors and consumers to initiate proceedings if violations become known.

This checklist may sound self-evident to lawyers in Western industrialized countries because the existing laws there fulfil most of these demands. In the NICs/LDCs, however, the situation is very different. The legal systems of these countries are a long way from the economically ideal model of a combination of trade secrecy, state-subsidized R & D, limited IP monopolies, and antitrust checks and balances. Sufficient awareness both in the WICs and NICs/LDCs and a willingness to cooperate (including financial help) could nevertheless overcome this problem, and allow the developing countries to share more of the benefits of economic growth and prosperity.

4. *Benefits of IP Protection*

a. *Increased Domestic R & D and Creativity*

Protection of IP is an essential tool to encourage domestic R & D and creativity. This may not be so apparent for the least developed countries, but inventors from NICs like India and Brazil are producing important innovations at least in certain lines of business. Furthermore, IP is more than patents. Trademark protection is necessary to encourage domestic producers to establish their own high-quality brands and to give consumers the security of obtaining good value for

their money along with safe products. Last but not least, copyrights are important tools, especially in developing countries, for ensuring a financial base for domestic performing artists, writers, musicians, sculptors, and designers. Absent such a protection, artists have an incentive to leave their home countries and try to make money abroad, as soon as they have obtained a certain reputation. IP protection can thus protect the traditional arts and culture from Westernization and "brain-drain." Of course, the "brain-drain" effect applies equally to researchers and inventors.

Proponents of the developing countries' position have argued that the protection of IP alone will not produce R & D and creativity in the NICs/LDCs, as long as these countries are struggling with the provision of such fundamental infrastructural assets as reliable energy and water supplies, transport facilities (streets, railroads, ports), capital, research facilities, and schools and training centers to educate a skilled work force.[179] In addition, it has been argued that other economic policy measures, such as tax incentives, import policy, tariffs, and rules on employment of foreign experts (double taxation conventions, work permits, transfer of income, etc.) affect R & D and creativity more than the protection of IP does.[180]

However, the necessity to undertake additional measures should not serve as an excuse to deny protection of IP rights. It is true the above are cumulative requirements, but apart from a few least developed countries, most developing nations do have the infrastructure for a certain level of R & D and creativity, and they will not fully utilize their economic potential as long as IP is inadequately protected.

Next, it has been claimed that R & D has quite a different structure in developing countries. While the bulk of R & D efforts is made by private individuals and firms in the WICs that depend on the incentives of monopoly profits, this is not true for NICs/LDCs. In developing countries innovative research, if achieved at all, is done to a much larger degree in laboratories and research institutions owned and/or financed by the government. These institutions do not depend on monopoly incentives.

Several replies can be given to this argument. First of all, it is not surprising that R & D efforts are not made to a larger degree by private individuals, because there is no incentive to do so absent adequate protection of IP. In addition, such an R & D structure may be underutilizing the countries' potential and may be inefficient. Better protec-

179. *See* MacLaughlin, Richards & Kenny, *supra* note 5, at 97; R. BENKO, *supra* note 4, at 28.

180. *See* Vaitsos, *supra* note 156, at 75.

tion of IP can improve the present situation. And of course, better IP protection will also contribute to more domestic R & D efforts by subsidiaries of multinational firms.[181]

Another line of reasoning of the NICs/LDCs is the concern that a newly introduced system of IP protection will almost exclusively benefit foreign multinational firms and their subsidiaries.[182] Patent applications will be filed by foreign firms for inventions already made elsewhere. Trademarks will be registered by foreign firms or importers but not by domestic producers. Copyrights will be claimed first and foremost by Western authors and musicians. The WICs are said to be so much more advanced technologically and experienced in the marketing and distribution of their products that competitors from developing countries have little chance of beating them in the innovation race. If local inventors gain patents and the like, these innovations are frequently of little economic impact, either because the inventors lack the know-how, capital, and infrastructure needed to exploit their inventions,[183] or because the inventions themselves are less advanced, labor-intensive products and processes that cannot compete internationally.[184] In addition, it is claimed that foreign-owned patents and IP rights lead to foreign-owned industries.[185] The supporters of these arguments admit, however, that the situation is already different in the more advanced NICs, such as India, Brazil, and Taiwan.[186] And they have neglected the advantages of foreign direct investment and the presence of foreign subsidiaries in the form of jobs, taxes, training, and other economic benefits.

Finally, Oddi cites a study by the U.S. Senate Subcommittee on Patents, Trademarks and Copyrights in which domestic holdings of foreign patents are viewed as claims to future royalties and thus assets of a country. The study concludes that foreign holdings of domestic patents would have to be counted among the liabilities of a country and, therefore, as deductions from national wealth.[187] This demon-

181. Vaitsos has claimed additional R&D by subsidiaries of multinational firms in the NICs/LDCs to be negative, but he overlooks the fact that these firms provide jobs, train people, pay taxes and contribute to the export earnings of the country in question. *See* Vaitsos, *supra* note 158, at 73.

182. *See* R. BENKO, *supra* note 4, at 28; Benko, *supra* note 89, at 225; Primo Braga, *supra* note 108, at 8.

183. *See* Vaitsos, *supra* note 156, at 73-74.

184. *See* R. BENKO, *supra* note 4, at 28.

185. *Id.* at 79.

186. *Id.*

187. *See* STAFF OF SENATE SUBCOMM. ON PATENTS, TRADEMARKS AND COPYRIGHTS, 85TH CONG., 2D SESS., AN ECONOMIC REVIEW OF THE PATENT SYSTEM, STUDY NO. 15 (Comm. Print 1958) (F. Machulp auth.).

strates the problem of increasing royalty transfers, whose solution may require the WICs to compensate the NICs/LDCs in some fashion, at least in the transitional period until the latter begin to reap sufficient benefits from increasing domestic R & D and creativity.

b. *Increased Worldwide R & D and Creativity*

Western economic models show that worldwide R & D and creativity increases if additional countries protect IP and thus make innovation more profitable. However, the question is whether small countries with insignificant market shares in world trade can really make a difference for the cost/benefit ratio of Western IP rights. Vaitsos sums up this argument:

> [I]t is reasonable to assume that the granting of patents by Peru, Turkey or Indonesia or even by the whole Third World taken together has insignificant effects on the R & D plans of transnational corporations like Du Pont, Phillips or Mitsubishi, or on governmental spending on science and technology in, say, the United States or France. Consequently, instead of considering the effects of patents granted by developing countries on inventive activity per se, we should rather concern ourselves with such questions as whether they promote or deter foreign investment, whether they enhance or restrict technology transfer or whether they affect the terms of trade.[188]

It is true that decisionmakers in large multinational corporations will not waste their time on computations of possible additional profits due to improved IP protection in certain least developed countries. However, the Third World as a whole, and particularly the NICs, are substantial markets for western products today. Roughly 35-40% of all U.S. exports go to developing and newly industrialized countries.[189] The bulk of these exports are industrial products which benefit from IP protection. No one would seriously dispute that 40% of one's exports do influence R & D and investment decisions.

In addition, it should not be forgotten that Third World countries are particularly important markets for certain types of products. The market share of the Third World is far above 40% of U.S. exports for products such as drugs for treatment of tropical diseases and agrochemicals for the typical needs of farmers in tropical climates. If these products do not receive IP protection in the countries for which they are produced, worldwide R & D efforts will certainly be inhibited.

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188. *See* Vaitsos, *supra* note 156, at 75.

189. Data from THE WORLD ALMANAC AND BOOK OF FACTS 1989 and STATISTICAL ABSTRACT OF THE U.S. (108th ed. 1988) and THE EUROPA YEAR BOOK 1988.

c. *Increased Foreign Direct Investment*

Adequate protection of IP is becoming increasingly important in investment decisions of multinational firms, especially in high-tech industries that depend heavily on IP. It is true that investment will also depend on factors such as tax incentives, labor laws, and rules on profit repatriation, but these factors alone will not be sufficient anymore.

It has been argued that patents may have the effect of blocking investment, both foreign and national, in developing countries. By giving a monopoly of production and/or importation to one firm, these countries effectively discourage all competitors from entering the market, stopping competition at its source.[190]

This view is erroneous, however. As long as a firm has not succeeded in "fencing in an entire technology," competitors will always attempt to invent around a patent or find alternative solutions. Otherwise there could only be one firm per product in the developed countries, and this is clearly not so. Even if one assumes that competitors might not be so interested in the market of a developing country that they take on the additional efforts and costs related to inventing around an IP right, the NIC/LDC would still have the benefit of at least one producer for each product, whereas absent IP protection perhaps no one would start a line of production in that country. Of course, it can be argued that the IP owner does not have to start producing in the developing country, but can supply the market from her home-base and thus reap monopoly profits without additional investment. But in that case, there are remedies such as compulsory licensing or even forfeiture of a patent, if the owner does not work or license it domestically within reasonable time.

d. *Improved Access to State-of-the-Art Technology*

If IP is not protected adequately, the innovators will attempt to protect themselves by trade secrecy. Even if a country has effective laws against industrial espionage and other acts contrary to honest business practices, a firm will not risk the loss of certain trade secrets due to production and distribution of its goods unless the market is very promising. NICs/LDCs, however, are traditionally less attractive markets due to infrastructural problems, political instability and low domestic purchasing power. Western IP owners, therefore, tend to be reluctant to disclose their latest innovations in these countries and prefer to produce and supply outdated technology, which may

190. *See* Vaitsos, *supra* note 156, at 77.

still suffice for less developed markets but is no longer competitive in world trade.[191] According to the theory of correlation between technological revolution and economic prosperity,[192] the NICs/LDCs are thus placing themselves in an economically disadvantageous position by not protecting state-of-the-art technology.

It has been argued that there is no guarantee that Western IP owners will make available their latest technologies even if IP protection is upgraded in the NICs/LDCs. But once again, if an IP owner does not work or license her patent or other IP right within a reasonable time where potential licensees are interested, the country in question could take recourse through compulsory licensing or similar means.

e. *Summary of the Economic Prospects*

The introduction of IP protection that deserves its name will this impose significant short-term economic costs on the NICs/LDCs.[193] However, the WICs have offered their assistance, in the form of transitional periods which give those countries enough time to draft adequate laws and set up enforcement mechanisms, while allowing the pirating industries to adjust to the new situation. In any case, the long-term benefits of IP protection will outweigh the short-term costs at least in those countries with a certain minimum level of economic activity. As far as the least developed nations are concerned, their prospects for long-term benefits are slim, and the WICs might consider exempting them from an IP code, possibly with a graduation clause connected to per capita income.

C. *Political Arguments*

Under certain conditions, a Third World government will not be ready to introduce IP protection even though it is convinced of its economic desirability. First, the benefits of IP protection would evolve gradually and would affect society as a whole, such as through higher rates of economic growth and the availability of more and better consumer goods. The costs, on the other hand, would be focused on those that are presently pirating, and would be felt immediately. Pirates, due to their urgent interest in preventing the introduction of IP pro-

191. *See* Primo Braga, *supra* note 108; MacLaughlin, Richards & Kenny, *supra* note 5, at 106.

192. S. HAFFNER, VON BISMARCK ZU HITLER 84 (1987)

193. *See* MacLaughlin, Richards & Kenny, *supra* note 5, at 90-91, 106-07; Chin & Grossman, Intellectual Property Rights and North-South Trade 22 (Nov. 1988) (Discussion Papers in Economics No. 143, Woodrow Wilson School, Princeton University); R. BENKO, *supra* note 4, at 28; Primo Braga, *supra* note 108, at 11.

tection, would lobby forcefully against it, while the beneficiaries are a diffuse and unorganized mass with little immediate political clout.[194] Secondly, no government likes to be perceived as giving in to foreign threats,[195] and some countries are particularly sensitive to pressure by the U.S.

If one or both of these concerns is very strong in a given country, it may amount to political suicide for its government to introduce IP protection subsequent to Western pressure in the Uruguay Round. This problem should therefore be taken into consideration by Western negotiators. If substantial offers in related areas are made to the NICs/LDCs, their governments will find it easier to sell the agreement at home. In addition, transitional periods are necessary to ease adjustment problems. Several additional possibilities for compromise shall be introduced in part V, such as the sale of licenses to ex-pirates on preferential terms.

D. *Arguments for and against GATT as a Forum for the Protection of Intellectual Property*

1. *Competence of GATT*

Several arguments have been made to support the claim that GATT does not have the competence to take up matters of IP protection, but there are also important counter-arguments. Authors supporting the developing countries have argued that if IP should be protected at all, WIPO is the only appropriate forum. To avoid competition between different international organizations, international law has developed a principle of speciality.[196] WIPO conventions are *leges speciales*, as they deal specifically with IP. GATT, on the other hand, is a general agreement on world trade law and is designed to reduce all kinds of trade barriers. In addition, article 18 of the Paris Convention shows that this treaty is designed for continous development and thus requires that its signatories seek improvement of IP protection first and foremost within the Convention.[197]

However, rules of IP protection, or the lack thereof, can become non-tariff barriers by which countries circumvent their obligations to

194. *See* Primo Braga, *supra* note 108; Gadbaw & Richards have examined the grade of organization and likely lobbying impact of private sector groups opposing and supporting increased IP protection in key developing countries. *See supra* note 37, at 112-19 (Argentina), 152-60 (Brazil), 189-94 (India), 238-44 (Mexico), 276-84 (Korea), 314-19 (Singapore), and 342-47 (Taiwan).

195. *See* Primo Braga, *supra* note 108.

196. *See* Kunz-Hallstein, *supra* note 115, at 6.

197. *See* Joos & Moufang, *supra* note 75, at 896 (citing Kunz-Hallstein).

reduce tariffs and abolish other protectionist measures. In addition, many developing countries view IP as part of their general economic policy,[198] and indeed, IP rules can hardly be separated from industrial production and trade. There is thus a direct link to the concerns of the GATT.

Moreover, the *lex specialis* character of an international agreement can change over time, particularly if a modifying *lex posterior* is adopted by more or less the same group of states. Article 19 of the Paris Convention explicitly permits the member states to conclude separate agreements, as long as these do not contradict the Convention. Such agreements have been concluded in great numbers outside of WIPO, indicating that WIPO never was intended to be an exclusive forum for the protection of IP.

It has been claimed that the GATT itself mentions matters of IP only tangentially and as an external factor, for example in article XX(d). The original GATT thus would not provide a mandate for the inclusion of IP. Equally, the Punta del Este Declaration is said to provide a legal mandate only as far as negotiations on *counterfeiting* are concerned.[199]

Yet, the fact that GATT itself does not regulate IP to a greater extent can be explained. First, at the time when the GATT was drafted, the International Trade Organization (ITO) was supposed to deal comprehensively with IP in international trade.[200] However, the ITO never materialized, because between 1948-50, the U.S. Congress repeatedly refused its consent to the charter establishing the ITO. Secondly, it was not apparent in 1947 that the existing conventions, later to be administered by WIPO, would not be able to keep up with technological development and could instead provide only inadequate protection.

GATT is essentially a contract, and like every contract it can be modified by a later agreement of its parties. Under international law, there is no rule preventing a contract from extending into new areas if the members so choose. Thus, at least since the Punta del Este and Montreal Declarations, GATT does have competence to deal with IP.

The claim that the Punta del Este Declaration does not go beyond counterfeiting is equally wrong. The original text refers to "trade-related aspects of intellectual property rights, *including* trade in counterfeit goods" (emphasis added). Furthermore, the negotiations of a

198. Gadbaw, *Intellectual Property and International Trade: Merger or Marriage of Convenience*, 22 VAND. J. TRANSNAT'L L. 223, 224 (1988).

199. *See* Primo Braga, *supra* note 108, at 6.

200. *See* Joos & Moufang, *supra* note 75, at 28 (citing Fikentscher).

draft counterfeiting code during the Tokyo Round can be seen as a precedent for IP protection within GATT.[201] In addition, several other instruments negotiated under GATT auspices and using GATT procedures and practices deal with IP rights: the 1958 recommendation on marks of origin, the Customs Valuation Code, and the Standards Code of the Tokyo Round.[202] In any case, consultations between the GATT Director General and the Director General of WIPO have led to an agreement that there are no jurisdictional reasons not to proceed with IP in GATT.[203] Finally, it has been argued that IP was as much a matter of culture, politics and development policy, as it was a matter of trade. As the GATT could deal only with "trade-related" issues of IP protection, it was thus blind to many of the interests of the developing countries in protecting their independent cultures against "Westernization" and enhancing their development interests by protectionist measures.

Nevertheless, leading NICs/LDCs have meanwhile accepted that GATT does have jurisdiction in the field, and that the TRIPs group may negotiate a comprehensive code of all trade-related aspects of IP rights. This became very clear at the Geneva meeting in April 1989, where the delegations adopted the following declaration:

> 4. Ministers agree that negotiations on this subject shall continue in the Uruguay Round and shall encompass the following issues:
>
> (a) the applicability of the basic principles of the GATT and of relevant international intellectual property agreements or conventions;
>
> (b) the provision of *adequate standards* and principles concerning the availability, scope and use of trade-related intellectual property rights;
>
> (c) the provision of effective and appropriate means for the *enforcement* of trade-related intellectual property rights, taking into account differences in national legal systems;
>
> (d) the provision of effective and expeditous procedures for the multilateral *prevention and settlement of disputes* between governments, including the applicability of GATT procedures;
>
> (e) transitional arrangements aiming at the fullest participation in the results of the negotiations. . . .
>
> 7. The negotiations shall *also* comprise the development of a multilateral framework of principles, rules and disciplines dealing with international trade in counterfeit goods.[204]

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201. *See* Gadbaw & Gwynn, *supra* note 57, at 43 n.10.

202. *See* Primo Braga, *supra* note 108.

203. REPORT OF THE ATLANTIC COUNCIL'S ADVISORY TRADE PANEL, THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS: POLICY PROPOSALS ON TRADE AND SERVICES 63 (Leddy & Reinstein auths. 1987).

204. Daily Report for Executives (BNA), Apr. 11 1989, at 12-13 (emphasis added).

One problem should not be neglected by the WICs, however. The inclusion of IP in the GATT would be a considerable expansion of the competence of GATT. Such an expansion would also set a precedent in international law. These same arguments might one day be used against the interests of the WICs, should the developing countries, with their majority in nearly all international fora, decide to expand the scope of some other international organization in a direction favorable to them.

2. *Compatibility of a GATT Code with Existing WIPO Conventions*

According to the draft proposals, the standards of a new GATT code would be higher than those in existing WIPO conventions. A collision between the two systems in this respect is thus unlikely. However, certain Western proposals contain a principle of reciprocity, i.e., a provision stating that IP protection is only granted to a foreigner if her home state equally protects nationals of the host state. This type of provision has been attacked as incompatible with the fundamental principle of national treatment embodied in major WIPO conventions.

It is true that under international law, subsequent treaties between some but not all members of an earlier treaty cannot interfere with the rights of those states which are parties only to the earlier treaty.[205] With respect to the principle of national treatment, this rule requires, for example, that a state which introduces special procedural rights for IP owners subsequent to the adoption of a new GATT code must grant these rights equally to all applicants from states adhering to the Paris Convention. If these guidelines are observed, conflict between the WIPO conventions and a GATT code can be avoided.[206] In any case, the possibility of such conflict does not negate the right to negotiate such a code.

3. *Duplication of WIPO Efforts*

Some authors have claimed that it would be inefficient to repeat in GATT what has already been done in WIPO.[207] Proponents of GATT have answered that it is probably more efficient to achieve adequate IP protection in GATT than it would be to improve WIPO. The advantages of GATT over WIPO and the possibility of tying up a package deal in the Uruguay Round make the latter proposition worth attempting. In any event, GATT would not have to repeat all the

205. Vienna Convention on the Law of Treaties, Article 30(4), U.N. Doc. A/CONF. 39/27 (1969), *reprinted* at 8 I.L.M. 679 (1969).

206. *See* Joos & Moufang, *supra* note 75, at 29 (citing Fikentscher).

207. *Id.* at 32.

work WIPO has done over decades because it can build on those WIPO results that are generally accepted. Conversely, WIPO can not only serve as an advisory body to the new GATT protection system, it can also benefit from those agreements achieved in GATT.

4. *Lack of Expertise*

It has been argued that GATT will not improve but only balkanize protection of IP, because it lacks any expertise in the field. WIPO has been dealing with all aspects of IP protection for more than 22 years. It employs a permanent staff of some 300 persons from over 52 different countries, dealing exclusively with matters of IP. Its international bureau centralizes all kinds of information related to the protection of IP, serves as a depository of most of the treaties administered by WIPO, and maintains four international registration services for patents, trademarks, industrial designs and appellations of origin.[208] GATT, by contrast, has never addressed matters of IP.

Existing organs like WIPO and the United Nations Educational, Scientific and Cultural Organization (UNESCO) are naturally reluctant to accept changes that downplay their roles in the field of protection of IP. However, it is quite unnecessary to view GATT and WIPO as being in competition with each other. As far as providing adequate protection of IP as a means of encouraging innovation and creativity, both organizations will have parallel interests. The ideal solution would be for the two entities to cooperate in as many fields as possible. Some combination of WIPO and GATT would be a considerable expansion of the competence of GATT. Many countries have already indicated that they intend to send the same delegates to the negotiating tables of GATT that have previously participated in WIPO deliberations.[209] If GATT provides the mechanisms for effective dispute settlement and enforcement, WIPO could offer technical and administrative services. In dispute settlement under GATT, questions like the existence or infringement of an IP right should be answered by WIPO specialists. Independent WIPO experts could even sit on GATT panels. Thus, although a "marriage of love" between the two organizations is unlikely, a "marriage of convenience" could significantly further the common cause of protecting IP in world trade. The task could be split between the two fora, and in accordance with the old proverb, "cobbler, stick to your last," each part should do what it does well.

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208. *See* WIPO GENERAL INFORMATION, *supra* note 73, at 5, 59.

209. *See* Joos & Moufang, *supra* note 75, at 897 (citing U.S. Trade Representative Emery Simon).

5. *Enforcement*

The rules of GATT are not self-executing in the national legal orders of the contracting parties, i.e., they do not give rights and duties to private individuals but only to the member states.[210] The same principle is planned for rights under a new IP code.[211] Existing IP rights, on the other hand, are created under national laws and are vested in the individual applicant or juridical entity.[212] Traditionally, the enforcement of IP rights is also done by the private owner, either in her home country or in the country where the pirate is located. GATT would add a third alternative: enforcement on the international level through GATT dispute settlement procedures.

This may sound better than it actually is. If an importing state does not adequately protect foreign IP and does not give sifficient procedural rights to foreign IP owners, the only way of enforcing the rights would be for the home state of the IP exporter to take up the matter in GATT. However, private individuals could not force their home state to do so, and the state might be reluctant to act for political, de minimis, or other reasons. In this event, the new GATT code would be of no help.

An additional problem under GATT would appear when goods are pirated that have connections to more than one state. An invention could be made in country A, produced in B, sold in C, and pirated in X. As private individuals do not have rights under the GATT, which state should be allowed to take up the matter?[213] Arguably, the best solution would be to allow each state in which the IP is protected to file the complaint.

6. *Domination by Wealthy Industrialized States*

Certain developing countries have traditionally mistrusted GATT and called it a "rich man's club where the interests of the developed countries generally carry the day."[214] Even before GATT was created, developing countries pushed for special and differential treatment in the ITO negotiations.[215] At first they were not very successful with these efforts, as the rather limited scope of article XVIII of the GATT regarding preferences for developing countries shows.

210. *See e.g.*, International Fruit Company NV v. Produktschap voor Groenten en Fruit, 1972 E.C.R. 1219.

211. *See* EEC Negotiating Position, Europe Documents No. 1522, at 3 (July 29, 1988).

212. Kastenmeier & Beier, *supra* note 114, at 20 n.32.

213. *Id.*

214. Gadbaw & Gwynn, *supra* note 57, at 47.

215. J. JACKSON & W. DAVEY, INTERNATIONAL ECONOMIC RELATIONS 114 (2d ed. 1986).

Equally, the results of the Kennedy Round did not satisfy the developing countries on this problem, because little had been done to non-tariff barriers of which they had complained, and tariff cuts were mainly on goods of little interest to them.[216] Although the Tokyo Round negotiations brought about the adoption of the so-called "Enabling Clause," this was at least partly counterbalanced by the "Graduation Clause."[217]

More important, however, is the fact that over the years the various multilateral trade negotiation ("MTN") rounds have led to a general reduction of all tariffs, significantly reducing the value of special treatment under Generalized Systems of Preferences (GSP) programs. Additionally, the MTN rounds have brought about a situation in which raw materials are typically subject to low tariff rates in WICs, simpler manufactured goods (textiles, clothing, etc.) are subject to high tariff rates, and high-tech goods, as exchanged only between the WICs, are again subject to low tariff rates. The LDCs cannot at present supply sophisticated manufactured goods, and they may never be able to do so as long as their efforts to build up an industrialized infrastructure and to generate foreign currency by producing and selling simpler manufactured goods are rendered futile by the high protective tariffs of the WICs. Thus, the current design of the tariff schedules effectively forces developing countries to remain cheap suppliers of cheap raw materials, by negating their comparative advantage (due to cheap labor and other factors) in the manufacturing of simple goods.[218] It should not be surprising, therefore, that GATT has been accused of being a tool of the WICs in their effort to maintain and entrench their domination over world trade and less developed nations.

E. *West vs. South: Conclusions*

The economic prosperity of NICs/LDCs that introduce IP protection is in the best interest of the WICs for several reasons.

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216. *Id.* at 1144; *see* UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, THE KENNEDY ROUND ESTIMATED EFFECTS ON TARIFF BARRIERS, U.N. Doc., TD/6/Rev.1 (1968).

217. UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, REPORT BY THE SECRETARY-GENERAL OF UNCTAD, ASSESSMENT OF THE RESULTS OF THE MULTILATERAL TRADE NEGOTIATIONS, sec. 178, 30 U.N. Doc. TD/B/778/Rev.1 (1982). The "Enabling Clause" allows deviations from the most favored nation principle in favor of developing countries, but, as the name suggests, it does not require the developed states to introduce these preferences. The "Graduation Clause," by contrast, introduces a (very vague) limit in time and economic performance, from which point onward a developing country is no longer eligible to receive the preferential treatment under the "Enabling Clause."

218. *See* J. JACKSON & W. DAVEY, *supra* note 215, at 1139.

First, this would set a precedent for other countries considering their own introduction of IP protection. Second, many NICs are already important export markets for the WICs, and the introduction of IP protection, with its long-term incentives for investment, creativity and growth, could make them even more attractive. However, this would be considerably reduced by a recessionary development subsequent to improvement of IP protection. Third, Western IP owners cannot expect many additional royalties if the NICs/LDCs plunge into a deep recession. Fourth, many NICs/LDCs are important suppliers of raw materials and simpler manufactured goods, and a bad recession and/or bankruptcy of important firms in one or more sectors could cut off these supplies to the WICs. Finally, serious economic difficulties frequently cause political repercussions, which are undesirable for world–political and strategic reasons.

For these and other reasons, the WICs should be interested not only in luring or coercing as many NICs/LDCs as possible into signing a future GATT code on IP, they should be just as interested in a smooth and successful transition. Part V, dealing with the question of how NICs/LDCs can be persuaded to become parties to a GATT code, will thus focus on meaningful concessions and assistance that could be offered to NICs/LDCs by the WICs.

V. Possibilities for Compromise

A. *Concessions by Western Industrialized Countries*

1. *Information and Assistance*

A look at international trade statistics may encourage the view that all the WICs have to do to force most of the NICs/LDCs into concessions on IP is to threaten restrictions in market access for the products of these countries. However, the economic advantages of liberal access to Western markets are not the only concern of the governments in NICs/LDCs. In the eyes of their domestic constituents, "Group of 77" governments frequently meet with more approval if they resist U.S. and Western pressure, however economically irrational this may be. With this fact in mind, the WICs will achieve more in the Uruguay Round negotiations if they make substantial and profitable offers which the NIC/LDC leaders can take home with them in exchange for agreement on IP protection. Such concessions would help them to save face in the domestic arena. This strategy will ultimately prove more effective than threats.

On the other hand, the price of each concession should be carefully analyzed, taking into account in particular its long-term effects. The

optimum level of IP protection for each state depends on its level of development. When domestic industrial development is only just beginning, a state will usually fare better if it allows liberal access to foreign IP and does not prohibit or sanction piracy. As domestic industries grow, they will generate more and more IP of their own—improvements of foreign IP at first, independent developments later on—and they will increasingly lobby for protection. Eventually the state will reach the point where protection of IP becomes more beneficial to it than non-protection, and it will start to protect IP out of its own self-interest. Arguably, several important NICs, in particular Taiwan, Brazil and India, are presently very close to this point. Others, such as Hong Kong and Singapore, have passed it and have introduced IP protection.

The question for the WICs is thus how many concessions should be offered for something the "major target countries" would do anyway in a matter of years. Two considerations support the idea that a GATT IP code is an important step in the right direction and worth a certain price. First, the more advanced developing countries that will eventually change sides to become exporters and protectors of IP will for a long time be replaced by other countries which are a few steps lower on the ladder of economic development, and which still find it beneficial to reap easy profits from piracy. A GATT code could place obligations on these countries before they even begin large-scale pirating.

Second, IP is not a homogeneous concept. Even if NICs like Brazil and India adopt IP safeguards, they can still leave certain forms of IP unprotected for a much longer time. This would most likely concern those domestic industries which have not yet achieved significant improvements and innovations and remain totally dependent on imports of foreign IP. The new technologies discussed in Part I are likely examples for this tendency. Consistent with this theory, there will always be areas and technologies which are newly developed in the most advanced countries, do not fit clearly under existing laws, and which the other countries' industries would like to obtain as fast and cheaply as possible. This is why a general code is necessary and worthwhile. It should not only place obligations on as many countries as possible, but also be open to new technologies that are not even part of our imagination today. Otherwise, it might eventually suffer the fate of the WIPO conventions.

The U.S. is faced with an additional dilemma: within the Western camp it is the strongest proponent in favor of an IP code. The EC and Japan might try to "free-ride" on the matter and let the U.S. make the

bulk of the concessions to be paid in exchange for NIC/LDC consent.[219]

If the arguments in favor of better IP protection are as good as claimed by the WICs, it should be possible to convince a substantial number of countries simply by explaining all the costs and benefits to them. Of course, this would have to be done in a credible way; i.e., by neutral experts applying a country-specific analysis. One possibility might be to engage large management consulting firms with expertise in the area to prepare reports, such as on what the ideal IP protection for the Brazilian pharmaceutical industry should look like.

Developing countries should be offered transition periods in exchange for ratification of an IP code. These periods of gradual upgrading of IP protection would permit them to bring their national laws into conformity with the new rules and would ease economic dislocation effects.[220] Reasonable but limited time periods have clear advantages over the combination of special and differential treatment with a graduation clause: the time is fixed, there is no further discussion as to when and how graduation takes place, and obligations can be staggered to require gradual implementation.

Technical and financial assistance for the creation or improvement of an IP enforcement infrastructure is one of the main concessions that can be offered without causing problems for other industrial sectors in the WICs. Three levels of assistance should be considered.[221] On the international level, GATT and WIPO should cooperate in assisting the NICs/LDCs. They could provide neutral model laws, training for lawyers and government officials, and advice for the establishment of registration offices and courts. On the national level, the governments of the WICs could support the measures of GATT and WIPO by providing additional training programs and supplying the financial means to cover part of the costs of the establishment of the necessary governmental infrastructure.

On the private level, western IP owners could provide industry-specific aid by facilitating the sale of licenses to the NICs/LDCs, offering special rebates for "infant industries" and providing assistance with the worldwide registration of improvement patents of the NICs/LDCs. After all, since the private IP owners in the WICs are going to be the main beneficiaries of a new GATT code, they should contribute their share in concessions, instead of allowing the burden to be borne

219. Gadbaw & Richards, *supra* note 37, at 29.

220. IPC/Keidanren/UNICE, *supra* note 8, at 27.

221. *Id.*

solely by such industries as farming and textiles, which will be affected by other concessions required as part of a successful compromise in the Uruguay Round.

The issue of technology transfer should be of particular interest to the NICs/LDCs because increased foreign direct investment not only provides the developing nations with foreign exchange (through the investment itself and subsequent increased export earnings), but it also creates jobs and an industrialized infrastructure.

For years the WICs have been reluctant to agree to any "mandatory technology transfer below cost" programs, be they in the framework of the Paris Convention Revision Conference[222] or the debate on a "New Economic World Order" in the UN General Assembly. Realistically, they will not enter into such mandatory programs now simply because the NICs/LDCs undertake to upgrade their IP protection. However, there are possible alternatives that should be considered in the present context. On the governmental level, the WICs could facilitate private technology transfer by shortening the COCOM list[223] or by providing tax incentives and loan guarantees. On the private level, the Western IP owners, particularly multinational firms, could accept concrete undertakings to increase investment and technology transfer, provided a country protects IP adequately and has otherwise suitable "ground rules" (stable political situation, rule of law, repatriation of profits, etc.). U.S. firms could even commit themselves to invest a certain percentage of the additional profits they gain from the elimination of piracy.[224]

A very ingenious idea was put forth by Gadbaw and Richards, who suggest that the Western IP owners could actually commit themselves to selling licenses to their former enemies, the pirates, at fair market rates. The WIC governments and possibly even GATT and/or WIPO could assist in the negotiation of such agreements. Not only would pirating by these firms effectively be ended, they could still continue in the same line of business, using their existing know-how, experience and marketing channels. In addition, the problem of increasing unemployment subsequent to the introduction of IP protection could be contained.

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222. Kunz-Hallstein, *supra* note 115, at 2.

223. The Coordination Committee for Multilateral Export Controls (COCOM) was established by the WICs in order to control the exportation of strategically sensitive goods to ideologically problematic countries, primarily in the former Eastern Bloc. In order to reduce the possibilities for these countries to buy the goods via third parties, a list of goods was established that may not be exported to any non-Western countries. Thus, the developing countries are equally denied access to certain technologies.

224. Gadbaw & Richards, *supra* note 37, at 27.

As shown above, the NICs/LDCs will probably suffer net losses from the introduction of IP protection in the first few years because the increased royalty transfers will not immediately be outweighed by the advantages of increased domestic R & D and creativity. This problem is magnified by the fact that most developing countries already have problems with foreign exchange and heavy international debt.

Key opponents of an IP code, such as Brazil, could possibly be enticed by offers of some kind of a "Brady Plan for IP protection," conditioned, of course, on accession to the code. Another alternative would be increased lending programs for those countries that improve their IP protection. It is up to the WICs to provide easier access to World Bank loans for certain countries.[225] Arguably, the WICs would also experience a net gain by writing off some ailing debts in exchange for an unconditional and enforceable commitment to improved IP protection.

2. *Special and Differential Treatment in Key Areas*

The words "special and differential treatment" carry a negative connotation in the WICs because this is what the NICs/LDCs have always demanded: obligations for the WICs only, and special privileges for the developing countries as a means of development aid. Clearly a two-tiered approach is not appropriate for the GATT code. After all, this is just what has *de facto* prevailed under the WIPO conventions, to the detriment of IP rights.

However, "special and differential treatment" can be understood in a different sense and may prove an attractive lure for the developing countries. In previous negotiations on IP, the NICs/LDCs have repeatedly expressed concern for three particular groups of consumers: farmers, who require access to cheap seeds, fertilizers and agro-chemicals; ill people, who need reasonably-priced pharmaceuticals; and students, who rely on access to cheap educational supplies so that even low-income people can obtain an education.[226] If the WICs target these three areas and provide reasonable solutions, they can create considerable incentives for the NICs/LDCs to join a code on IP. Examples of such solutions may be the provision on special terms of IP rights covering educational supplies or the encouragement of direct investment by manufacturers of agro-chemicals and pharmaceuticals in these countries, focusing on their particular needs (e.g. anti-malaria

225. *See* Kastenmeier & Beier, *supra* note 114, at 34 n.57.

226. *See, e.g.*, Gadbaw & Richards, *supra* note 37, at 15.

drugs). Another possibility would be the transfer of technology and know-how to help manufacturers in the NICs/LDCs produce generic drugs and other non-protected goods. This kind of special and differential treatment could be so limited in scope that it does little harm in the WICs but helps a great deal in the NICs/LDCs. If necessary, graduation clauses could place time limits on the provisions.

3. *Code of Conduct for Multinational Enterprises*

In 1976, the OECD declared Guidelines for Multinational Enterprises, which are designed to govern the general behavior of multinational enterprises in different countries, and in particular, to prevent the abuse of concentrations of economic power.[227] The Guidelines require said enterprises to respect the economic and social policies of the host state, to abstain from improper involvement in political activities there, to refrain from anticompetitive and predatory behavior against competitors, to respect tax laws and refrain from evasive practices such as transfer pricing, and to observe fair and non-discriminatory employment relations. However, these rules are not binding on the multinational enterprises, and cannot be enforced against them.

The WICs could build on the OECD Guidelines and draft an improved code with certain mandatory rules, to be offered as a concession in the Uruguay Round in exchange for adequate IP protection by NICs/LDCs. Because the multinational enterprises would be the major beneficiaries of a GATT code on IP, it would only be fair to require them to contribute their share in concessions. Refusal to accept binding obligations as to certain minimum standards would shed a dubious light on these firms.

In addition to the standards included in the present non-binding code, multinational enterprises could be obliged to respect the antitrust laws of their home state in all their worldwide business activities. They should not exploit the fact that antitrust enforcement is not yet developed to the same degree in Third World countries. Furthermore, the firms should reduce the "brain-drain" effect by refraining from transferring trained workers and specialists from the subsidiaries in the NICs/LDCs to their headquarters in their home states. Finally, the code could also require multinational enterprises to increase R & D in the developing countries for certain endemic problems, such as family planning, city planning, agricultural production in tropical climates, and disease control.

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227. *Guidelines for Multinational Enterprises*, REPORT BY THE SECRETARY-GENERAL: ACTIVITIES OF OECD IN 1976 (Org. for Econ. Co-operation and Dev.) 99.

4. *Exceptions for the Poorest Countries*

Quite a number of the poorest countries could probably be induced to sign and ratify an IP code by offering them far-reaching or total exemption from the obligations of that same code. Their exemption would be conditioned on their signing of the code and could be staggered to attract quick ratification (e.g. 15 years exemption if ratified in the first year, 10 years if ratified in the second year, and 7 years in the third year).

This would be a small price for the WICs to pay because the poorest and least developed countries do not have the potential to do much harm to foreign IP. The benefits to be gained would be two-tiered. In the short run, the code would quickly receive a substantial number of ratifications. In the longer run, these countries would be subject to code obligations, and the WICs could start helping them with the installation of "IP-protecting" infrastructures well before the exemptions run out.

5. *Package-Deal with Other Uruguay Round Negotiating Topics*

A code on IP cannot be viewed in isolation, without regard to the other topics of the Uruguay Round, because the leading WICs certainly have much to gain from it, while most NICs and some LDCs will suffer at least short-term disadvantages. It is only natural that the NICs/LDCs are pushing for compensation in the form of Western concessions on other negotiating topics, such as better import access for certain developing country products. This expected "package deal effect" of the Uruguay Round (i.e., the give and take of concessions in unrelated negotiating topics) seems to be the single greatest source of hope for all proponents of better IP protection in a GATT side-code. However, two factors severely limit possible actions by the U.S. government[228] in this respect: the powerful lobbies of the farming, the textile, and clothing industries, and the U.S. current account deficit.

It has been demanded that the GATT negotiations should be balanced within each negotiating topic. Any agreement on agriculture, services, IP, etc. should be able to stand on its own.[229] This approach would not only relinquish the package deal advantage; if it is shared by a majority in Congress and not taken into account sufficiently by the U.S. negotiators, it could happen that the entire carefully negotiated set of agreements would not be accepted. Valuable improvements

228. Very similar problems arise in the EC and Japan, as to the existence of powerful protectionism in favor of domestic agricultural producers. *See* S. GOLT, *supra* note 99, at 33.

229. *See* Kastenmeier & Beier, *supra* note 114, at 38.

in services, GATT articles, Trade Related Investment Measures (TRIMS), etc., would then be lost as well,[230] not to mention the damage to the reputation and credibility of the United States in the international arena.

As mentioned above, the current account deficit of the U.S. has grown to frightening dimensions, and strong political forces are pushing for protectionist measures as a means of containing the deficit. A congressional majority in favor of further trade liberalization by granting better access to developing countries' textiles and agricultural products will thus be rather unlikely, even amongst those who do not tradtionally support the concerns of farmers and clothing manufacturers.

However, trade policy is falsely blamed for the current account deficit. It is true that the balance of trade has been negative for quite some time,[231] but the overall deficit is caused primarily by the immense transfers of interest payments, which by far exceed the revenue generated by U.S. investment abroad.[232] The cause of the $500 billion U.S. foreign debt[233] which requires these interest payments is clearly not found in trade policy alone. Its main source lies in the continuous decline of private domestic savings in the U.S., which forces the government to seek foreign capital to finance the budget deficit. There is thus a missing link in the argumentation of protectionists: no matter how protectionist trade policy becomes, it cannot remedy the lack of domestic savings.

Concerning the liberalization of world *agricultural trade*, five different positions have been taken by the various negotiators. First, the U.S. has proposed the gradual elimination of all subsidies[234] and all

230. *Id.* at 27.

231. Frankfurter Allgemeine Zeitung, Sept. 15, 1989, at 18. The deficit in the balance of trade had been 27.7 billion dollars in the first quarter of 1989. *See also supra* notes 169-71.

232. *Id.*

233. *Id.*

234. GATT art. XVI(3) is an exception to the general prohibition of export subsidies in favor of "primary products [as long as they are not] applied in a manner which results in that contracting party having more than an equitable share of world export trade in that product . . . ." General Agreement on Tariffs and Trade, *opened for signature* Oct. 30, 1947, 61 Stat. A3, T.I.A.S. No. 1700, 55 U.N.T.S. 187. A GATT panel has defined "primary products" as products of farm, forest or fishery "in its natural form or which has undergone [only] such processing as is customarily required to prepare it for marketing . . . in international trade." (The Pasta Case, GATT Doc. SCM/43, *reprinted in* J. JACKSON & W. DAVEY, *supra* note 215, at 740). The concept of "equitable share of world export trade" is even harder to define. Eight panels have dealt with complaints against EC production and export subsidies which have contributed to transform the Community from a net importer to one of the world's largest exporters. Four panels adopted reports and none of them found a causal link between the subsidies and the increase in the share of world export trade. Guth & Hartwig, *Agrarhandelspolitik im GATT-Erfahrungen im Hinblick auf die Uruguay Runde*, 43 EUROPA-ARCHIV 533, 535 (1988).

other measures which encourage production within ten years. After this period, only production-neutral income support schemes should be permissible.[235] This proposal not only far exceeds the negotiating mandate of the Ministerial Declaration of September 1986,[236] it would hardly find the necessary support when presented to the Senate. In truth, the proposal is part of a negotiating strategy of demanding so much that a compromise between this extreme and the opposite approach of leaving things unchanged would still be viewed as a significant liberalization.

Second, the EC proposal is almost diametrically in opposition. In short, the EC has proposed to maintain the present system of domestic and export subsidization, merely putting a ceiling on the level of permitted production-encouraging subsidies.[237] On the one hand, the gigantic overproduction of numerous agricultural products in recent years, which is all bought by the EC from farmers at intervention prices and put into storage, has created financial difficulties that have begun to threaten the functioning of the entire Common Market. This suggests that the EC proposal, like that of the U.S., is just being used as a tactic. On the other hand, EC farmers are on average so much smaller and less efficient than their American, Canadian, and Australian competitors that the American proposal will remain totally unacceptable. A certain readiness to start a gradual replacement of the current production support by income support can be found, however.[238]

Third, in August 1986, delegations from 14 countries[239] met in Cairns, Australia, and formed the "Fair Traders in Agriculture" or "Cairns Group." These countries are united by the fact that they all have large agricultural production capacities and small domestic markets, and thus are net exporters of practically all their agricultural products.[240] The Cairns Group has made a proposal in the Uruguay Round similar to that of the U.S. (elimination of all import barriers

235. *See* Guth & Hartwig, *supra* note 234, at 540; S. GOLT, *supra* note 99, at 30.

236. *The Punta del Este Declaration* (GATT Press Release No. 1396, Sept. 25, 1986, *reprinted in* S. GOLT, *supra* note 99, at 65,) does not include harmonization of health and phytosanitary regulations, for example.

237. *See* Guth & Hartwig, *supra* note 234, at 541.

238. *See* S. GOLT, *supra* note 99, at 32. After the Houston Summit and the Geneva GATT Conference of last July, the EC has finally tabled concrete figures. According to Commissioner MacSharry, the EC is willing to reduce its overall subsidization of agricultural production by 30% in the ten-year period of 1986-1996. Frankfurter Allgemeine Zeitung, August 1, 1990, at 10.

239. Argentina, Australia, Brazil, Canada, Chile, Colombia, Fiji, Hungary, Indonesia, Malaysia, the Philippines, New Zealand, Thailand and Uruguay.

240. *E.g.*, Australia exports 60% of its wheat, 50% of its beef and 90% of its sugar production. Guth & Hartwig, *supra* note 234, at 540.

and all direct or indirect export subsidies by the year 2000), but with a few important exceptions in favor of structural adjustment programs and various production-neutral programs.[241] This proposal is interesting for two reasons: first, it seems to be a realistic compromise between the U.S. and the EC proposals; and second, several countries in the Cairns Group are among the "major target countries" of the IP negotiations. The U.S. and the EC could approach the proposal of the Cairns Group from different sides and condition their "giving-in" or support in the question of IP by certain members of the Cairns Group, particularly Brazil and Argentina.

Fourth, several industrialized countries are net importers of practically all agricultural products.[242] In contrast to the above groups, they have no exporting ambitions and are in effect benefitting from the worldwide subsidized surplus production. Their proposals do not aim at significant liberalization in world trade, but rather at maintenance of their systems of import barriers which protect their small domestic production.[243] These protectionist goals are thinly veiled, such as by claiming a need for national self-sufficiency for security reasons (Japan).[244]

Fifth, Jamaica attempted to unite the remaining developing countries,[245] but failed to do so.[246] The interests in this large group of countries are too diverse to allow for a united position. Most of these countries are not very large exporters of agricultural goods; some are pushing more for an agreement on tropical products; others benefit from GSP status for their few export products.

Textiles are matters of central interest to most of those developing countries that are not in the Cairns Group. In order to draw them into a comprehensive package deal including an adequate IP code, this issue will have to be addressed. However, Gadbaw and Gwynn claim that the textile lobby in the U.S. is even better organized and more politically powerful than the proponents of IP, which means that concessions in the textile sector to buy an agreement on IP may endanger the ratification of the entire package deal, once it is placed before Congress.[247]

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241. *Id.* at 541.

242. Austria, Finland, Iceland, Japan, Norway, Sweden and Switzerland.

243. *See* Guth & Hartwig, *supra* note 234, at 541.

244. *See* S. GOLT, *supra* note 99, at 31. The Japanese opposition to rice imports, the economic size of the rice market there and the first signs for an opening of the market were recently described in THE ECONOMIST, July 28, 1990, at 70.

245. Several NICs are in this group, most notably India.

246. Guth & Hartwig, *supra* note 234, at 540.

247. Gadbaw & Gwynn, *supra* note 57, at 67.

Textiles and clothing are not subject to GATT rules. They are covered by the so-called "Multifibre Agreement" (MFA), a combination of quotas and voluntary export restraint agreements. These measures limit market access of textile manufacturers in developing countries when selling to WICs. The Punta del Este Declaration calls for negotiations to permit the eventual integration of this sector into the GATT. The present MFA expires in 1991; however, the EC and the U.S. have already indicated that they are seeking liberalization "within existing agreements"—i.e., they will attempt to renegotiate the MFA after its expiration.[248] This would not only perpetuate inefficient industrial structures in the WICs, it would give away an important bargaining chip of the IP negotiators, and it would continue a system under which the NICs/LDCs have little chance of increasing their export earnings, broadening their industrial base, and eventually improving their overall economic situation.

Negotiations on *further tariff cuts* should focus on the complaint that the tariff structures of the WICs are entrenching the present situation in which the NICs/LDCs are not much more than suppliers of cheap raw materials. The Punta del Este Declaration placed an emphasis on the extension of tariff bindings to currently unbound products. However, most WICs already have very comprehensive tariff schedules, while countries like Brazil and South Korea still have virtually uncontrolled tariff regimes. Not pushing this issue too much could thus be used to induce Brazil to agree to concessions on IP.

In addition, tariff cuts will frequently not be in the best interest of the developing countries because they erode the advantages of the GSP. Therefore, the WICs should not seek tariff reductions on typical GSP products, extend GSP to more products, and implement significant tariff cuts on non-GSP products to elicit agreement from the developing countries on IP protection.

The Punta del Este Declaration directs the Uruguay Round negotiations to seek the fullest liberalization of *trade in tropical products*, in both their processed and semiprocessed forms, covering tariffs and non-tariff barriers.[249] By the time of the midterm review at the ministerial level (December 1988 at Montreal, Canada), an agreement on tropical products was ready for signature. However, the U.S. conditioned its consent to reduce tariffs on 49 tropical products by 25% upon successful negotiations in other major sectors, primarily agriculture and IP. A large number of tropical products are agricultural in

248. S. GOLT, *supra* note 99, at 40.

249. S. GOLT, *supra* note 99, at 39.

nature, which provides a link between these topics. Moreover, an "early harvest" in tropical products would have given away part of the negotiating strength of the WICs.[250]

Safeguards are measures of special protection for industries seriously injured or threatened by increasing lawful imports. This may be the only area where India has expressed a strong interest in obtaining certain concessions from the WICs. At the midterm review, India and a few other developing countries demanded that safeguard actions should be limited in duration, adopted on a non-discriminatory MFN basis, and applied only in the form of increased tariffs and then only after determination of persistent serious injury by an international surveillance body. "Gray area" measures that could circumvent these rules should be proscribed.[251] With the possible exception of the international surveillance body, all these demands are realistic and probably acceptable to the WICs if the NICs/LDCs make concessions in IP and other areas in exchange.

Dispute settlement is not only an area where all countries agree that improvements should be made, it is also a testing ground for the fairness and sincerity of the WICs. While powerful trading nations like the U.S., the EC, or Japan can enforce their rights by applying trade sanctions against other countries, smaller economic powers lack the clout and the economic and diplomatic skills to do so. They have to rely on mechanisms like the GATT dispute settlement procedure if their rights are violated. Surprisingly, they have not yet made dispute settlement one of their priorities.

At the midterm review, consensus was reached on certain measures to improve the dispute settlement system.[252] Time limits should be applied at all stages of the process to avoid delay tactics by the accused party. A flexible arbitration mechanism should be offered as an alternative to the normal dispute settlement process. All contracting parties should have an automatic right to a panel, unless the Council reaches a consensus to act otherwise. Standardized terms of reference should be drafted for the selection of the panelists and the settlement procedure. Finally, there should be a fifteen-month deadline for the completion of dispute settlement.

The implementation of adopted panel reports should be more strictly enforced. Up to now the only way for the successful complain-

250. U.S. DEPARTMENT OF COMMERCE, URUGUAY ROUND UPDATE 5 (Jan. 1989). The decisions adopted at the mid-term review of the Uruguay Round are reproduced at 28 I.L.M. 1023 (1989).

251. S. GOLT, *supra* note 99, at 34-36.

252. U.S. DEPARMENT OF COMMERCE, *supra* note 250, at 5.

ant to enforce a panel report was to cancel some of its own concessions on a non-MFN basis, i.e., impose restrictions on imports from the other country. This system works when two equal partners like the EC and the U.S. threaten each other with meaningful sanctions, but the threat is not likely to be taken seriously when made by a developing country against an economic giant.[253]

Obviously, the WICs could offer more in this area; at a minimum, the Canadian suggestion that voting on panel reports should be done by "consensus minus two" should be formally adopted.[254] The final goal for one of the next multinational trade rounds should be the introduction of automatically binding panel reports, modeled after the rules of the U.S.-Canadian Free Trade Agreement.

Although these numerous possibilities for concessions are but examples from some of the fifteen negotiating groups, it becomes clear that the Uruguay Round offers substantial opportunities for compromise. The trade interests of each major opponent of improved IP protection should be carefully analyzed. As this brief sketch demonstrates, all opponents have some stake in some of the other trade matters. Well-aimed offers to these countries, conditioned upon cooperation in IP, could secure sufficient support and isolate the hardliners according the principle of *divide et impera*.

However, the less is done in the U.S. to fix the current account deficit and the trade deficit, the less that can be offered in the Uruguay Round in trade liberalization. If the price to be paid for a package deal is too high to pass through Congress, the Executive Branch can still reach the goal of increased protection of IP by putting more emphasis on the other "baits" discussed above, not all of which require the "advice and consent of the Senate."

B. *Threats by Western Industrialized Countries*

Besides concessions, the WICs also have a number of coercive measures and threats at their disposal to persuade the NICs/LDCs to accept improved IP protection.

1. *Problems with Sanctions in General*

One concern regarding the use of threats has already been mentioned: they can be totally ineffective if a government simply refuses to be perceived as giving in to Western pressure even against its own best

253. J. JACKSON & W. DAVEY, *supra* note 215, at 1153-54.

254. The EC and Japan have strongly opposed this, stressing compromise and conciliation in contrast to a more rule-based procedure. S. GOLT, *supra* note 99, at 48-49.

interest. In such a case, the world trading system might suffer under sanctions that have no beneficial effect whatsoever.

Another general problem with sanctions is that they usually hit the wrong people. The modest and fragile economic prosperity of a country may be destroyed and development retarded by years, causing losses and suffering for all consumers, while the pirating industries continue their covert production and sale in the world markets. The political leaders responsible for the refusal to provide IP protection will always be the last to suffer personally from a recession.

Military and geopolitical considerations may prohibit sanctions against certain major pirating countries. For example, Taiwan and Hong Kong, as neighbors of the People's Republic of China, may find it politically difficult to apply sanctions against the latter for violations of IP laws.

If sanctions violate obligations under GATT or the WIPO treaties, they will weaken these international systems and sabotage the U.S.' credibility and reputation in world politics. This might have immediate impact with respect to other Uruguay Round negotiating topics. In addition, it will be hard to achieve concerted action by all OECD members or at least the U.S., the EC and Japan, which would make the use of sanctions much less viable. Unilateral measures by the U.S. will only be effective in those areas where other countries like the EC and Japan cannot fill the gaps left by U.S. withdrawal.

2. *Sanctions that Do Not Violate the GATT*

The GSP system was implemented in the period between the Kennedy and the Tokyo Round in 1971. It is based on the "Enabling Clause," essentially a waiver to article I of the GATT, and grants duty-free access to goods from developing countries. Certain countries and goods can be excluded. Roughly twenty OECD countries are participating in the program.[255] As the term "enabling clause" suggests, there is no obligation to grant GSP status; thus, the WICs are not prohibited from terminating or reducing it. In particular, Taiwan, Korea, Hong Kong, Mexico, and Brazil benefit considerably from U.S. GSP.[256] India gains more from Japanese and EC GSP schemes.[257] If the OECD countries could agree on substantial reductions,[258] this

255. *See* J. JACKSON & W. DAVEY, *supra* note 215, at 1156 and J.JACKSON, *supra* note 152.

256. *See* J. JACKSON & W. DAVEY, *supra* note 215, at 1158; Gadbaw & Richards, *supra* note 37, at 24.

257. *See* J. JACKSON & W. DAVEY, *supra* note 215, at 1158.

258. The U.S. government has the authority to condition GSP treatment on adequate protection of IP since the 1984 amendment of the Tariff Act of 1930; the EC Commission can do the same under its New Commercial Instrument. *See infra* note 266.

would be a very powerful incentive for the NICs/LDCs to improve their IP protection.

The WICs could also implement laws to prevent direct investment by high-tech industries in any of the "major target countries." Chances for a concerted action by substantially all OECD countries would be small, however. In addition, such a measure might conflict with an agreement to be achieved in the TRIMS negotiations.

As a supplementary means, the WICs could promote divestment by high-tech industries from the most notorious of the pirating countries. However, this might cause major political repercussions and poison the international climate for some time to come. In any event, chances for obtaining the support of the EC and Japan are slim because the governments of these countries often oppose the conditioning of development aid and investment upon political goodwill.

Encouraging multinational enterprises to invest strategically in those NICs/LDCs where IP is comparably well-protected would be an alternative that is less politically volatile and equally effective. The WICs could agree to terminate export credit guarantees, tax breaks and the like for investments in any of the "major target countries." It is very unlikely, however, that measures of this kind would have any immediate effects. Investment decisions are not taken ad hoc, and for long-term planning of entrepreneurs other location factors may be overriding. Nevertheless, a general policy of this kind, as long as compatable with the future TRIMS agreement, could send a message to the countries concerned.

Although import quotas are generally prohibited under article XIII of the GATT, an exception could be justified by the general exception of article XX(d) ("necessary to secure compliance with [domestic] laws or regulations which are not inconsistent with the provisions of [the GATT]"). However, there would be a problem in enforcing these measures, because customs is already unable to identify all or most infringing products. The exclusion of all products from a country would be disproportionate, i.e., not "necessary" within the meaning of article XX(d). Moreover, it could be circumvented by transshipping through other countries.

National laws in the WICs could be amended to include stiffer penalties for those domestic enterprises that knowingly and deliberately deal in pirated products, in an effort to dry up the domestic distribution channels of these products. However, it will remain difficult to identify these dealers and prove their knowledge of the infringement.

Under article XXXV of GATT, the WICs could opt out of membership with every new applicant if the country does not ratify the new IP code at the same time as the application to GATT membership becomes effective. Since the beginning of the Uruguay Round, several countries have applied for membership,[259] and if this trend continues, the WICs might have an effective means of bringing new members in line with IP obligations. A membership in GATT without relations with the U.S., the EC, Japan, and the rest of the OECD countries should be of little interest to the applicants.

Instead of violating the GATT by unilateral action, the U.S. could bring the problem before a GATT panel, claiming that failure to protect IP has the effect of nullifying or impairing benefits accruing to the U.S. from previous trade liberalization and demand rebalancing of concessions.[260] Especially in the case of India, the U.S. might be successful with such a tactic, because India substantially reduced its protection of patents in 1970.[261] This could well be seen as an act of deliberate nullification and impairment within the meaning of article XXIII of the GATT.

Since 1967, it is possible to sue another state before the International Court of Justice for violating the Paris Convention. However, as stated earlier, there have as yet been no such cases.[262] Countries seem to consider IP rights to be too trivial and regard a suit brought to the ICJ an unfriendly act against the defendant. However, a verdict by the ICJ would certainly contribute in convincing certain opposing countries of the fact that IP is a right of the innovator that deserves protection. The U.S. could pick a particularly notorious pirating country and bring such a suit before the ICJ, provided the country has accepted the compulsory jurisdiction of the Court.

Two problems exist, however. First, there is no precedent to such a case and thus the result would be uncertain. There is a chance that the Court would hold that there is no infringement if a country has very low standards of IP protection, as long as it observes the principle of national treatment embodied in the Paris Convention. Second, given the manner in which it dealt with the Nicaragua case, the U.S. is still faced with a tarnished reputation at The Hague.

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259. Costa Rica, Paraguay, El Salvador, Venezuela and Bolivia. Frankfurter Allgemeine Zeitung, Aug. 7, 1989, at 9.

260. *See* Gadbaw & Richards, *supra* note 37, at 30.

261. *See supra* note 142.

262. *See supra* note 93 and accompanying text.

3. *Sanctions that Violate the Letter and/or the Spirit of GATT*

The Tariff Act of 1930, as amended by the Omnibus Trade and Competitiveness Act of 1988,[263] contains four provisions by which the U.S. can enforce trade sanctions against violators of IP: section 301, "Special 301,"[264] "Super 301"[265] and section 337. Under these provisions, the U.S. government is given the authority to withdraw any trade agreement concessions, impose tariffs and non-tariff barriers on goods and services, negotiate understandings with the foreign country, exclude goods from entry into the U.S., and issue cease and desist orders that can be enforced by fines. The EC Commission has similar powers under the "New Commercial Instrument."[266]

Clearly, the withdrawal of trade agreement concessions would violate these agreements unless they provide for an exception. The imposition of higher tariffs and of non-tariff barriers would violate the GATT, as would the exclusion of goods if these goods themselves are not infringing IP rights. Thus, the legality of all of the above measures is at least very doubtful. However, United States Trade Representative Carla Hills has indicated that the U.S. is prepared, if necessary, to face and disregard a possible GATT panel ruling on the matter.[267]

This "gunboat diplomacy" approach could do substantial damage to the entire GATT system, and in particular it could destroy the goodwill towards new MTN agreements in the Uruguay Round. If the U.S. so flagrantly disregards its existing obligations, it cannot expect different behavior from other countries. And it cannot expect other nations to believe that in the future a GATT dispute settlement procedure (in general and in the IP code) would be unbiased, protect weaker members against illegal coercive measures by the economic superpowers, and result in rulings enforceable even against the U.S.

Another strategy of the U.S. is the introduction of reciprocity clauses in its national IP protection laws. These clauses result in the refusal of IP protection to applicants if their home countries do not protect U.S. applicants. This strategy was first used in the SCPA[268]

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263. *See supra* note 97.

264. Special 301 will be an annual process to identify countries with particular problems in the protection of IP, which come under Sec. 301 and affect just one specific industry or firm.

265. Super 301 will take place only in 1989 and 1990. It is a procedure to identify countries with generally unfair trade practices, which might come under Sec. 301 and affect all kinds of industries.

266. *Council Regulation (EEC) No. 2641/84 of 17 September 1984*, 27 O.J. EUR. COMM. (No. L 252) 1 (1984).

267. *Oversight of the Trade Act of 1988: Hearing Before the Senate Comm. on Finance*, 101st Cong., 1st Sess. 37-38 (1989) (Statement of Carla A. Hills, U.S. Trade Representative).

268. *See supra* note 52.

with considerable success. Not only have Japan and the member states of the EC subsequently enacted semiconductor protection laws, but quite a number of countries also have immediately upgraded their protection and applied for reciprocity.[269]

As semiconductors were not covered by any WIPO conventions, the SCPA reciprocity clause does not violate U.S. obligations of granting national treatment under WIPO.[270] Attempts by the U.S. to apply the same strategy in other areas of IP rights should take into account that the reciprocity principle conflicts with the WIPO conventions' obligation to apply national treatment if the technology is covered by them.[271] Moreover, GATT requires general national treatment by all national laws and regulations in article III. It seems rather doubtful whether article XX(d) could be claimed as an exception for reciprocity clauses. After all, it reads "laws . . . *not inconsistent* with this Agreement," of which most favored nation and national treatment are the guiding principles.

While reciprocity clauses may seem justified and their quick success in the case of the SCPA invites further use, the conflict with existing obligations would undermine the effectiveness and credibility of these existing systems. And as this article has demonstrated, there are other means of obtaining the goal of improved protection for western IP which do not have these undesirable side effects.

A number of measures could be thought of in areas not directly related to IP and trade. For example, the WICs could discourage tourism to "major target countries,"[272] restrict access for their airlines, or restrict trade in services, such as for Southeast Asian construction firms. The impact of these measures may be small, however. In addition, they once again hit the wrong people in the target country and negatively affect the consumers in the WICs.

As a last resort, it has been suggested that the WICs could create a "Super GATT of like-minded trading nations."[273] Abandonment of the GATT and formation of a completely new treaty would not only tie up all the existing side codes in one document, but would also clarify the organizational uncertainties of the existing GATT, thus effecting something like a rebirth of the ITO. The drafting would require substantial time and effort, but in the long run it might be worthwhile.

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269. *See* Gadbaw & Gwynn, *supra* note 57, at 50.

270. However, WIPO adopted the Treaty on the Protection of Intellectual Property in Respect of Integrated Circuits on May 26, 1989. *See* 28 I.L.M. 1477 (1989).

271. *See* Kunz-Hallstein, *supra* note 115, at 11.

272. This would particularly hit Mexico and, to a lesser degree, India.

273. R. BENKO, *supra* note 4, at 48.

A carefully drafted treaty could eliminate the problems currently plaguing the GATT and could vest more powers in the dispute settlement panels, including the power of progressive interpretation of the treaty as possessed by the European Court of Justice.

Initially, membership in such an organization would probably be limited to the major OECD countries. The other GATT member states would likely cling to the old GATT, but without the financial support and participation of the WICs, it would soon deteriorate to the level of UNCTAD and similar organizations. After some time, the more advanced of the non-OECD members would probably lead the way in applying for membership in the new organization.

Although the suggestion sounds very tempting, serious problems should not be overlooked. The WICs are far from agreement in many important areas of the present trading system. Even if NICs/LDCs are excluded from the negotiating table, disagreement between the WICs could suffice to prevent substantial improvement in a new code. Should the lowest common denominator again require empty compromise formulas, the whole enterprise would not be worth the effort.

In addition, the possible transitional effects on the world economy are not entirely foreseeable. For example, a serious worldwide recession could be triggered. Worse still, the use of force would not be entirely impossible, if economic problems threw countries into turmoil. It should not be forgotten that one of the major goals of the founding fathers of the GATT was to reduce tensions in international relations by providing a fair and open trading system under which each state could achieve the goals of a high level of employment, balance-of-payments equilibrium and lasting economic prosperity. Abandonment of the GATT in favor of an uncertain future agreement should, therefore, remain the very last resort, if used at all. As a threat to the developing countries, it is not very credible for the same reasons.

Finally, it is interesting to note, during the preparations of the Uruguay Round, to the general surprise of all participants, the Soviet Union expressed an interest in taking part in the negotiations and possibly even membership in the GATT. At that time, the overture met with a cool response by the EC and the U.S.[274] Things have since begun to change in the Soviet Union, however. If the process of reform towards a more market-oriented economy continues, the Soviet Union may eventually become an interesting candidate for GATT

274. S. GOLT, *supra* note 99, at 16.

membership.[275] The WICs could use this development in their effort to obtain improved protection of IP by demanding that the USSR first join the new code on IP. This would not be easy for the Soviet Union, given its still-communist model of ownership, but it might agree in order to remove an obstacle on the way towards eventual full membership. If successful, ratification by the Soviets would be a powerful signal to all countries which presently claim that IP is a purely Western imperialist concept and foreign to their culture.

VI. CONCLUSION

The protection of IP is essentially a balancing of interests. Several contradictory goals have to be taken into account. First, there is no better way of encouraging innovation and creativity than to allow the innovator the exclusive exploitation of her product, process or service for a limited time. All other approaches fail to generate the highest possible degree of just the right innovations. Governmentally financed R & D (the socialist model) will often generate innovations that are either not sufficiently useful or obtained at a price which the market would not have paid for them. It is just not possible to centrally plan ahead the inventions and creations to be made within the next five-year plan. Pure market forces, on the other hand, are equally ineffective. Protection via trade secrets misses the advantages of disclosure. In addition they favor large and powerful companies over small businesses and individual inventors. Second, there are the interests of the consumers. If inventors have unlimited monopoly power, they will extract much higher returns from their innovations than necessary and justified.

To reconcile these goals, existing IP laws do not grant unlimited monopolies. Limitations exist within the IP laws in respect of time. Provisions for compulsory licensing or even forfeiture of a right protect against abuse by the owner and compitition laws curb the power of the largest firms. If and only if this fragile balance of interests is carefully and even-handedly managed, will the potential for creativity and innovation in each individual country be fully utilized.

However, the important WIPO conventions date back to the 19th century and although they have been revised occasionally, they have failed to meet the challenges posed by the increasingly interdependent First and Third World with their conflicting interests and to keep up with the development of radically different technologies. After futile

275. The GATT Council agreed on an observer status for the USSR on May 16, 1990. Frankfurter Allgemeine Zeitung, May 17, 1990, at 16.

attempts to negotiate improvements within WIPO and faced by rapidly increasing financial losses of western IP owners, the WICs are now disillusioned with WIPO and have turned to the GATT.

As long as the West owns the bulk of all IP rights, it can only gain from a binding GATT code with stricter standards. At the same time, there can be no doubt that on a short- to medium-term basis NICs and LDCs can profit from pirating. As long as their industries do not create significant amounts of IP (in comparison with the foreign IP they are using) and the world economy and trading system as such does not break down or is hurled into a bad recession, the benefit derived from cheap access to modern technology outweighs the losses in own creativity and innovation. World welfare may be reduced, but the individual country can profit for a certain time until its economic development has achieved a level where it becomes more beneficial to protect IP than to pirate it.

Politicians from the developed nations may call this pirating, selfish, or theft, but in a world of sovereign nations it has to remain up to each state to define its policies. However, the WICs do have means to influence the decision-making process in the NICs/LDCs: Protectionism and other threats and/or financial offers and other "bait" can change a state's attitude as to what is beneficial to it.

Further results of this research are the fact that concessions will be more effective than threats. Secondly, as IP protection will be beneficial to all more advanced and newly industrialized countries in the mid- to long run, in many cases adequate and unbiased information should suffice to win a country for the GATT code. This would be coercion-free, GATT-conforming and almost cost-neutral. Of course, protectionist trade embargos or punitive tariffs are easier in application and more populistic in the local media and constituency, but who said that the easiest way is always the best?