The Potential for Transatlantic Cooperation on Intellectual Property in Asia†(1)

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I. Introduction

Asia is capitalism's latest frontier. Its newly industrializing economies have a hefty appetite for modern products but their table manners are not quite what the West expects from its partners. Intellectual property (IP) intensive companies, for one, see in Asia a rapidly growing market for entertainment products and high technologies. In China alone, the potential for growth of intellectual property industries is astronomical. Only 40% of the population in the PRC own a color television, 13% a stereo system, 12% a VCR, and 2% a personal computer.(2) As China develops, the market for American movies, English music recordings, German software, and Japanese video games are likely to explode. In addition, a wealthier PRC will spend more on technology intensive products such as electronics, pharmaceuticals, and agrochemical products. The commercial possibilities in Asia are exciting, but its intellectual property
infrastructure is still shaky. Many believe that for idea intensive industries to thrive there, Asia needs to enact and enforce modern intellectual property regimes which will encourage investments by foreign and domestic innovators.

Asia's reputation for intellectual property protection is not good. It remains home to some of the most inveterate copyright pirates of the developing world. China's record is particularly bad, with India, Indonesia, Thailand, and Hong Kong as other major trouble spots. While intellectual property protection has improved vastly under pressure from the US over the last decade, many Asian nations still think of themselves as developing countries and their primary concern is the rapid diffusion of commercially useful ideas, not the protection from unauthorized imitation. This attitude may be shifting, as governments become convinced that strong intellectual property rights are a marker investors use in their evaluation of foreign markets, and local interests in favor of stronger protection become more vocal. But the shift in attitude is happening only slowly compared to the rapidity with which Asia has become a vibrant trade center.

If developing intellectual property standards is a relatively low economic priority for Asian countries, stronger IP protection is high on the Asian trade agenda of the United States. Technology and information intensive industries are some of America's strongest export and growth industries. Creating an international environment in which they can compete effectively, and freely enter foreign markets has been a priority of every American administration since the mid-eighties. Under the wary eye of our trade partners, the United States has pursued and aggressive external IP policy in which we closely monitor IP rights abroad, negotiate bilateral agreements to raise protection, and occasionally threaten unilateral sanctions. The United States has also been an advocate of global rule making for intellectual property rights, successfully pushing IP onto the trade agenda of major multilateral organizations, including the WTO, APEC, and NAFTA.

Coordinating the US and European positions on the need to change IP standards of third countries should in principle be easy. Europe and the United States have long traditions of IP protection, they are home to industries who rely heavily on intellectual property protection, and they both see Asia as a critical market. If US and Europe combined their market power to push for stronger intellectual property in Asia, they would send a doubly strong message about the importance of this issue for first world investors and probably speed up enforcement efforts.

A joining of Western interests seems logical, but a common external IP policy will not be easy. It would require that the US and Europe have shared interests, power to wield, and the will to use it. Certainly Europe and the US share a similar desire for stronger IP regimes in Asia. Both regions have industries that rely heavily on innovation and information for their comparative advantage. Both
markets are important to Asian exports, giving the two regions a good deal of joint negotiating power. But Europe and the US trade ideologies are not identical. The fields in which they believe they can legitimately exert their influence, and the tools they have created to do so, are different. In demanding stronger IP protection abroad, Europeans are handicapped by their aversion to the aggressive trade tactics that are employed more frequently by the US and by their institutional structure.

Beliefs matter, and the fact that European trade policy is far less pro-active and externally oriented than the US has impeded the two region's ability to act in concert with one another in Asia or elsewhere. This does not preclude, however, the possibility of a complement between European and US intellectual property rights policy. While Americans carry the larger stick, Europeans have relatively deep pockets which they can dig into for technical aid in setting up new IP regimes abroad. A coordination of IP policies is also possible within the WTO's dispute settlement mechanism. One could even argue that outright cooperation would be counterproductive since it could put countries like the People's Republic of China on the defensive. To forge a deeper cooperation, however, one which can push forward the global intellectual property agenda, Europe and the US must overcome the differences in their trade ideologies. Trilateralizing each side's bilateral trade talks may prove unwieldy.

This chapter explores the barriers to cooperation between the US and Europe which persist despite the stakes involved in bringing Asian countries into agreement on IPRs. The objectives, tools, and drivers of US trade policy are compared to those of the European Union. Cases of conflict and cooperation in intellectual property rights between the two regions are numerous, and include negotiations with Korea, Thailand, and Indonesia in the mid eighties; the forging of the TRIPs Agreement from 1986-1994; the recent showdown with China; and the cases filed with the WTO's dispute settlement mechanism. These examples illustrate the problems which could plague a united front on IPRs, but also demonstrate how common interests will continue to make informal cooperation and negotiation for stronger protection bilaterally a necessity.

II. Piracy in Asia

Piracy is big business, and it will only grow more so as new technologies continue to simplify the act of infringement and the diffusion of the pirates' loot. As part of the US effort to reduce piracy internationally, each year a few dozen countries are cited by the US Trade Representative (USTR) for their lack of vigilance in intellectual property protection. Asian countries are usually well represented in the list. In this section we review the extent of piracy worldwide, and why eradicating piracy in Asia may prove difficult for Europe and the US, especially if they act alone.

A. The Market for Modern Pirates
American losses due to piracy—domestic and international—amount to several billion dollars per year. A 1993 USTR report suggested that US entrepreneurs lose up to $60 billion annually from infringement of their intellectual property but some estimates of American losses to piracy run as high as $200 billion. Actual damages are notoriously difficult to pin down because we are measuring what was not sold and the profits not made. Reliable piracy figures for each industry are rare, and the best ones are prepared by groups in the private sector who are not entirely impartial. A rough estimate, however, holds that 2 to 3% of all American manufacturing sales are lost to piracy.

When factories abroad churn out millions of illegal CDs, phony Polo shirts, generic drugs, and miscalculated car parts, the problem for American and European firms is not just the lost rents, but the fact that infringement makes entry into emerging markets by the original producers very difficult. Indeed, why would consumers abroad buy the real thing, when they can get something almost identical at a lower price? Pirate goods also cut into third country markets when they are exported from the original country of manufacture. In the mid nineties, for example, China had the capacity to make fifteen times more CDs, LDs, and CD-ROMs than its domestic market buys. Obviously, most products were destined for international markets. Bulgaria, to cite another example, had the capacity to produce 20,000 million CDs in 1996 even though it has almost no domestic CD market. To no-one's surprise, a large Bulgarian shipment was intercepted on its way into Western Europe in spring 1997. Stronger anti-piracy enforcement in foreign countries and border controls can help prevent such "double whammy" revenue erosion.

The two areas hit hardest by intellectual property infringement are the high technology sectors and the entertainment industry. Billion dollar losses occur in: pharmaceuticals, biotechnology, chemicals, and electronics which are protected primarily through patents; and the software, film, television, music, and print industries which rely on copyright protection. Though not usually mentioned in the same breath, these sectors share important characteristics. High initial investments are made to develop products whose rate of success in the market place is low and whose products are relatively easily copied. In films and pharmaceuticals, blockbusters are responsible for an important percentage of a company's revenue. Only seven out of ten movies or sound recordings generate a profit. One in thousands of drugs screened will be biologically active and pass rigorous clinical trials. But once a song or drug is in the public domain and its value proven, the investments necessary to reproduce it are minimal. The margins for piracy are large.

Infringement becomes all the more troubling as innovative firms no longer have a natural period of market exclusivity. The diffusion of ideas and products used to take time, but with the rapidity of modern travel and communications the
transfer of know-how from country to country is almost instantaneous. Copies of Windows 95 were on the streets of Moscow and Beijing before they ever hit New York. Films not yet released in the US appear on video abroad. Even pharmaceutical companies complain that generics are approved in some foreign markets before the original product. Pirates have capitalized on their ability to respond quickly to the emergence of new products. As they are frequently small firms with low overhead costs and capital requirements, they also frustrate eradication efforts because they can sprout up again quickly when shutdown. A CD production line requires only a roomful of equipment which costs under a million dollars. Cases have been reported in which the entire line is shipped across national borders to avoid confiscation by authorities.

Furthermore, modern technologies make the protection of intellectual property increasingly difficult. Affordable high-performance personal computers, copy machines, and VCRs are at most two decades old, and they have greatly facilitated access to and replication of new ideas and products thus blurring the ability of consumers to distinguish between the real and the fake. Compact disc piracy has far outstripped cassettes as the machinery to press CDs became affordable over the past half-decade. It is not surprising, therefore, that internet makes many content providers nervous. Digital technologies allow information to hop blithely and cheaply across the borders of nations with very different IP regimes and to challenge the ability of rights holders to control their creations. The modern world requires countries to rethink their IP regimes and the necessity of global cooperation, while it opens a world of new possibilities for pirates. Left unchecked, piracy rates would skyrocket.

B. The Problem of Piracy in Asia

Pirates are found in all corners of the globe, but Asia is of particular concern to the United States for several reasons. First, it is home to the most dynamic emerging markets, many of whom have technology intensive sectors which are, or will eventually be, in competition against US firms. Second, the piracy rates in Asia are on the whole high and infringement widespread. Over the course of the last ten years, the US has engaged in serious IP negotiations with all the major Asian nations, not the least of which the People's Republic of China. Third, Asia is of great concern because neither the US nor the European Union have sufficient leverage in the region to accelerate the liberalization of trade and the harmonization of IPRs, while Japan is uninterested in aggressively pushing IPRs as a trade issue. The challenge, therefore, is to create a mode of engagement with Asian countries which will put IP onto the trade agenda.

Asia is home to a number of big emerging markets (BEMs), whose populations and purchasing power are rapidly expanding and promise an ever richer consumer base for IP products. (See Table 1.) The importance of the Asian BEMs as present and future markets cannot be overstated. One quarter of US exports were to the BEM countries world wide in 1994. By the turn of the century, the International Trade
Commission projects they will absorb one half of US exports. (12) BEM growth rates are, on the whole, substantially higher than the world average of 2.9%, (13) with key Asian countries growing three times more rapidly. It is expected that BEM GDPS will double over the next twenty years, and that by 2020 six of the ten largest economies will be BEMs. (14) These countries have undertaken economic programs to increase growth, trade, and investment. In Asia especially, poverty rates are dropping, while exports and productivity are on the rise. Spending on health care and software, and entertainment is bound to rise also. The three largest BEMs in terms of population are located in Asia. Clearly, the advanced industrialized countries would like to bring this large segment of humanity into the fold of the international trade system.

### Table 1 Population, per capita GNP, and GDP growth rates in the 10 BEMs

<table>
<thead>
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<tr>
<td>Argentina</td>
<td>34</td>
<td>$8250</td>
</tr>
<tr>
<td>Brazil</td>
<td>157</td>
<td>$5370</td>
</tr>
<tr>
<td>China (PRC)</td>
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<td>$2300</td>
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<tr>
<td>India</td>
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<td>$1220</td>
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<tr>
<td>Indonesia</td>
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<td>$3150</td>
</tr>
<tr>
<td>Mexico</td>
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<td>$6810</td>
</tr>
<tr>
<td>Poland</td>
<td>38</td>
<td>$5000</td>
</tr>
<tr>
<td>South Africa</td>
<td>40</td>
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</tr>
<tr>
<td>South Korea</td>
<td>44</td>
<td>$9630</td>
</tr>
<tr>
<td>Thailand</td>
<td>58</td>
<td>$6260</td>
</tr>
<tr>
<td>Turkey</td>
<td>60</td>
<td>$5160</td>
</tr>
<tr>
<td><strong>United States</strong></td>
<td><strong>258</strong></td>
<td><strong>$24,740</strong></td>
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*US figures for comparison.

Not only do the BEMs represent future markets, but some are also producers of higher technology products, with a significant strata of scientists and the potential to spawn high technology industries. For example, South Korea is known for its semiconductor industry, India for its software companies and pharmaceutical production, Taiwan for its
personal computers, and China for increasingly sophisticated electronics. As Keith Maskus documents, trade in high technology goods which now accounts for over fifty percent of total merchandise trade for the developed countries, is growing even more rapidly in developing countries. In Korea 45% of merchandise trade was in high technology goods in 1993, while in China high technology accounts for 35% of merchandise trade. In both countries technology product trade has grown by 200% since 1985. An offshoot of this vigorous technological development, patent applications in Asia are also rapidly growing. From 1986 to 1995, applications for patents have increased by 2.5 times in China, and by more than 5 times in Korea, Taiwan, and the ASEAN countries.

Unfortunately in some of these sectors piracy rates in Asia are quite high. For example, the software industry estimates that it loses $8 billion to piracy worldwide, an amount equal to its total sales. Asian software piracy rates are between 80 to 95% of total sales, as compared to 30% in the US. The PRC has thus been dubbed a "one copy country" because software companies can expect to sell only one license in China. Semiconductor theft is also a mostly Asian phenomenon, costing the industry close to $8 billion a year. The Asian BEMs are also big entertainment markets. Piracy in the $40 billion world wide music industry is estimated to be over $2 billion. So while the music is a $10 billion market in Asia, it could be much larger. Three of the top five pirate territories are China, India, and Pakistan, with the Chinese losses amounting to $145 million. Over half of all Chinese CDs and cassettes are produced illegally. In India, 30% of sound recordings are pirated (a dramatic decrease since the 90% piracy rates of 1985), and in Pakistan the figure is greater than 90%. Asia is also the fastest growing market for film. India already has a $1 billion movie industry, which produces two times as many films as in the United States. Hollywood is interested in augmenting its Indian sales, especially as the 13,000 theaters expand in number and raise their 65 cent admission fees. (There is room to grow, as the United States with one third India's population has 29,000 screens.) However, the greatest growth market is China, which has only 3,000 official cinemas, and still regulates foreign film releases, but its production and export of pirate video compact discs makes entry difficult. Despite the difficulties, the music, film, and television industries are eager to tap into these fertile Asian markets.

Because of their technological ability and their relative affluence, the Asian emerging markets are home to some of the world's most virulent pirate good producers. In dollar losses due to copyright infringement, the emerging Asia markets account for 15% of the global total, a figure that is third only to the losses incurred in two advanced industrial regions. (See Table 2.)

Table 2 Estimated losses due to global copyright piracy, 1994
Piracy Losses (millions US $)  |  World Percentage
---|---
West Europe | 3809.2 | 25.50
United States and Canada | 3517.0 | 23.55
Developing Asia Pacific | 2296.2 | 15.37
Japan, H. K., Singapore | 1531.5 | 10.25
Russia and CIS, East Europe | 1462.0 | 9.79
South and Latin America | 1442.2 | 9.66
Middle East, Mediterranean | 773.5 | 5.18
Africa | 103.7 | 0.70
**Total** | **14,935.3** | **100.00%**


To portray problems of intellectual property protection as dominated by a bunch of swashbuckling thieves, however, would be inaccurate. Determining what is infringement and what is fair use can be very tricky, especially since the intellectual property regimes of countries define those terms differently. When an idea, a product, or a process is similar to, improves upon, or incorporates another patented or copyrighted product without the permission or remuneration of the rights holder, infringement can be hard to prove. The conditions under which such use even constitutes infringement are often contestable, and can lead to fierce domestic and international disputes.

While many developing country governments have indeed allowed blatant piracy to thrive within their borders, it is also true that weaker intellectual property regimes have been an integral part Asian innovation systems, and helped them to absorb and adapt technologies and build high value-added industries. That the shining stars of the developing world also have some of the highest piracy rates is no mere coincidence. Asian countries whose innovations systems are often premised on weaker intellectual property regimes, have viewed with some trepidation the promotion of higher standards by West. Most are theoretically willing to put an end to piracy, but many do not want to eradicate in the process the IP regimes which helped make them prosperous.

To imply that Asia is truly exceptional would be misleading. Asia’s intellectual property right practices are neither exemplary nor unique. Latin America, Eastern Europe, and the Middle East--not to mention the advanced world--have their fair share of IP infringement. What distinguishes Asia is its dynamism and its independence. The EU and the US want to enter Asian markets, and are searching for strategies to pry them open and influence trade rules, which increasingly includes putting pressure on countries to strengthen intellectual property protection.

III. US and European Objectives
The objective of the United States in Asia, as elsewhere, is to strengthen and harmonize intellectual property regimes so as to curb piracy rates, reinforce domestic and foreign incentives to innovate, and expand markets for export in a world of increasingly porous international boundaries. At such a general level, this American goal is indistinguishable from that of Europe. Where countries part company is in defining what specifically the appropriate breadth and length of the granted rights should be, how they should be administered, and to what products they should be applied. Transatlantic efforts to harmonize intellectual property regimes get mired in these technicalities. But our enormous common interest in ensuring the development of modern intellectual property systems in Asia should over-ride these relatively minor differences in desired regime structure.

In the last ten years, the level of intellectual property protection offered globally and the multilateral system which administers IP agreements have been completely overhauled. New multilateral agreements have harmonized national regimes. Bilateral agreements, negotiated by the United States and Europe, have raised IP protection in dozens of countries. Regional trade agreements increasingly include an intellectual property dimension. Even developing countries have become more receptive to the concept of IPRs. In this context of greatly improved protection abroad, the United States and Europe would like to expand IP agreements to new countries in Asia, to strengthen IP protection, and to support the behind-the-border implementation of commitments.

A. Accomplishments

The single greatest change in global IPRs was the ratification of the Trade Related Intellectual Property Rights (TRIPs) Agreement in the Uruguay Round of the GATT because it established minimum standards of protection for the 129 WTO members and a dispute settlement system. TRIPs is the baseline from which Europe and the US would like to build new IP agreements.

Multilateral IP agreements are nothing new. The very first international IP treaties date from the late nineteenth Century. These have been steadily added to and updated over the century. In 1967 the World Intellectual Property Organization (WIPO), was created under the aegis of the United Nations. Its mandate is to administer international IP treaties and promote the protection of intellectual property rights throughout the world. WIPO would have been the natural organization to harmonize disparate IP regimes but its efforts stalled due to North-South splits over the costs and benefits of stronger IP protection globally. Frustrated by a lack of progress at WIPO, the United States managed to put intellectual property protection on the GATT Uruguay Round’s trade agenda in the mid eighties. By this time, a nation’s IP regime was no longer understood as a sovereign choice about innovation strategy but as a potential barrier to trade. The advanced nations worked together to draft and ratify the TRIPs Agreement, eventually overcoming the rich nation-poor nation impasse which had sidelined WIPO. At Europe’s insistence all GATT signatories, and therefore all the World Trade Organization charter members, had to be party to the TRIPs side agreement.
As a result, a large number of developing countries are entering the global IP community, and joining the various multilateral conventions under WIPO for the first time.

The TRIPs Agreement represents a wholly new type of international IP agreement. One of its most important features is that each signatory country must implement minimum standards of protection affecting the availability, scope, and use of intellectual property rights in:

- patents
- copyrights and related rights
- trademarks
- geographical indications
- industrial designs
- layout designs of integrated circuits
- protection of undisclosed information (trade secrets)
- control of anti-competitive practices and contractual licenses.

To have this broad swath of intellectual property instruments included in a single agreement was novel in 1994. TRIPs also demands minimum standards of protection, breaking an old tradition in which diversity of IP systems was accepted as long as each country granted national treatment to foreigners. WTO members thus gave up a degree of freedom in setting domestic IP laws in exchange for greater international uniformity. At the US insistence, the minimum standards were in most cases equivalent to levels of protection found in the advanced countries. As part of the GATT system, TRIPs also provides that countries must extend most-favored-nation treatment to intellectual property rights, meaning that any advantage granted to one country has to be extended to all WTO countries. And finally, countries are made responsible for the enforcement of the new IP standards within their domestic markets and at their borders, so that de facto protection can be ensured.

The success of the TRIPs Agreement is greatly enhanced by the creation in the World Trade Organization of a Dispute Settlement Understanding (DSU) to adjudicate complaints among member nations. Previously, IP agreements lacked enforcement provisions. Now member states are required to appeal to a Dispute Settlement Board to resolve their intellectual property disputes, rather than resort to unilateral threats or sanctions. If the case merits, and if no agreement can be reached through bilateral discussions, an impartial panel is set up to judge whether the TRIPs Agreement has been
reasonably interpreted and carried out. Countries found not in compliance with the TRIPs Agreement will be required to comply with dispute settlement panel rulings, or the aggrieved party will be allowed to retaliate. Of the six cases initiated by the United States pertaining to IP disputes during 1996, four have been resolved bilaterally, and only two have resulted in requests for a Dispute Settlement Board. So far, the DSU has worked well in intellectual property disputes.

The ratification of TRIPs was a victory for American and European negotiators. It put in place a framework for the international management of intellectual property which comes very close to the standards of protection advocated by the advanced industrialized countries. By including intellectual property in the GATT Uruguay Round, IPRs morphed from a purely national policy about how to promote investments in ideas and technologies, into a mechanism for spreading the cost of research and development over all economies. TRIPs and regional IP agreements like NAFTA made intellectual property rights a multilateral trade issue. It would a mistake, however, to assume that IP battles are over.

B. New Goals

The new IP goals of the US and European negotiators fall into several categories. First, while a great success, TRIPs is nevertheless a compromise document whose loopholes and weaknesses the US and the EU would like to eliminate. The biggest loophole is the transition provisions which entitle developing countries up to 10 years to implement the agreement. Second, TRIPs is a product of the 1980s and as such does not take into account technologies and issues which are becoming more salient for commerce as we enter the twenty-first century. Intellectual property is a living concept, which requires international agreements to evolve with it. Third, not all countries are part of the WTO and therefore not all countries are bound by TRIPs obligations. The United States and Europe would like to bring these outliers, China in particular, into the international IP community. Fourth, the main challenge at hand is to make sure that existing agreements are fully implemented. The emphasis of advanced country policy, therefore, is shifting from surveillance of IP statutes abroad, to a results oriented scrutiny of behavior behind-the-borders. In many countries, the main obstacle to stronger protection abroad is infrastructural--a lack of administrative, judicial, or customs capacity to enforce new intellectual property regulations. Technical aid and assistance are necessary to help developing countries build the legal and social structures that underlie an effect IP regime. These new goals apply to all countries, but because Western leverage in Asia is not as strong as elsewhere, they become especially difficult to pursue there.

Transition Periods

From the United States perspective, the most objectionable aspect of TRIPs is the long transition periods granted to developing countries. Countries were allowed to self-select whether they were developed, developing, or least developed, and therefore decide at what pace they will institute changes to their IP regimes. The developed countries had to implement changes one year after the WTO's
inception (by January 1, 1996), while developing countries were granted a five year transition (by January 1, 2000), and the least developed a ten year transition period. Countries are also allowed to delay patent protection for pharmaceuticals and agro-chemicals even longer. The benefits of a strong global IP system will thus not be fully realized until after the millennium.

The United States had initially hoped to convince the more advanced developing countries to implement TRIPs ahead of the allotted grace period. A practical reason for doing so, is that a full review of TRIPs implementation is planned for the year 2000.\(^{(30)}\) To review one hundred developing countries simultaneously is a Herculean task, which would be alleviated if some of the countries would agree to be reviewed in advance. The US finds particularly galling that South Korea, an OECD member, refuses to consider the option. Singapore, Hong Kong, and Israel have also been singled out as potential early review countries. So far, all have demurred. While Europe has maintained that the transitions were a fair compromise reached with LDCs, it has also pushed Central and Eastern European countries to enact TRIPs consistent regimes as soon as possible.\(^{(31)}\) As the year 2000 approaches rapidly, TRIPs acceleration is becomes increasingly futile, and the both the US and Europe are urging developing countries to simply complete implementation by the deadline.

Countries which are now acceding to the WTO, however, are not allowed a transition period. Both the US and Europe agree that TRIPs compliance is a precondition for new members. Bulgaria and Ecuador, for example, though both developing had to have TRIPs consistent IP regimes before their entrance into the WTO. Ecuador's failure to live up to its promise has prompted the US to file a complaint with the DSB, probably as an example to other potential entrants. China and Russia will have to abide by the same prerequisite. In fact, in March 1997 China declared it would not seek a transition period were it to become a WTO member. If Europe and the United States agree, a similar strategy could be adopted for countries seeking OECD accession.\(^{(32)}\)

**New Technologies**

In addition to the transition period issue, the US would also like to see eliminated exceptions and derogations from the TRIPs standards of protection, such as the exclusion of recombinant technologies and some digital technologies. While TRIPs was being negotiated, these were new and controversial technologies. We are living through an era of rapid technological evolution which fundamentally influences how we understand products, processes, and ideas.\(^{(33)}\) Twenty years ago nobody thought of genotype as property; electrical signals were not the equivalent of paper copies; software was considered text not invention.\(^{(34)}\) Now countries and interest groups within countries fight over the definition of ownership in these slippery fields.\(^{(35)}\) The number of court cases dealing with software patents and biotechnology indicate that, even domestically, the United States has not fully resolved how to protect
the newest technologies. At the international level, where different values and traditions are added to the uncertainty over how to treat novel technologies, we can expect an even slower consensus formation.

Eventually the patentability of higher organisms and other biotechnological subject matter must be discussed internationally. The TRIPs Agreement, in fact, calls for a review of the patentability of certain biotechnological inventions in 1999. But given the moral and public health objections to patenting life forms of many countries, extending protection to new biotech product categories will be difficult. Even Europe which has real stakes in biotechnology has struggled to come up with a unified position on biotech patents. (A first draft Directive was shelved due to ethical controversies, and a second draft is expected to be ratified in 1998). Tropical developing countries, where greater than half of the world's genetic resources are found, are likely to ask for a quid pro quo if patent protection is extended to engineered higher organisms because they want to share in any wealth generated from their biological resources.\(^{(36)}\) India and Korea, in contrast, are arguing for a roll back of intellectual property protections for inventions that have environmental or bio-diversity applications.\(^{(37)}\) For these reasons, negotiations to extend IP protection to higher organisms are likely to be acrimonious--they will be impossible to broach at the WTO until Europe defines its position.

Protection for digital technologies is being addressed by WIPO.\(^{(38)}\) The 1996 WIPO Diplomatic Conference considered three treaties--the WIPO Copyright Treaty (WCT), the WIPO Performances and Phonograms Treaty (WPPT), and the WIPO Database Treaty.\(^{(39)}\) The WCT explicitly extended copyright protection and rental rights to software, and committed countries to provide adequate protection from the circumvention of devices which in the near future will protect authors from illegal copying their of works. A controversial issue left to the discretion of individual countries was how to protect transient or incidental copies made to view a work (e.g., on the internet). Content providers claimed that without strong reproduction rights, there would be no incentive to create and disseminate works on the internet, while users and on-line service providers feared that innocent activities would be branded as infringement. With time, this issue may very well be revisited. The WPPT updated the Rome treaty, but put off consideration of multimedia productions. Similarly the Database Treaty was tabled due to a lack of time, and concern about general inexperience with database protection.\(^{(40)}\) Each of these modernizations may eventually be folded into the TRIPs Agreement. Other issues, including the intersection of domain names and trademarks loom in the background. If TRIPs is to remain vital, it will have to accommodate new technologies, and Europe and the US will have to work together on resolving these issues.

Remaining Issues
Other problems and ambiguities in the TRIPs Agreement will eventually need to be resolved. Pharmaceutical companies, for one, were disappointed that TRIPs still permits some compulsory licensing. TRIPs also leaves unresolved such complicated issues as what constitutes international exhaustion of intellectual property rights, how "nullification and impairment" cases will be handled, and how well the dispute settlement understanding will work in general. These are important issues and they will eventually test the robustness of the TRIPs Agreement and force a reevaluation of the effectiveness our multilateral IP agreements.

C. Cooperation with Europe

European and Americans objectives for the global intellectual property system are almost identical. In Asia those goals are straightforward: (1) full implementation of the TRIPs Agreement; (2) the adoption of high levels of IP protection in Asian countries not party to the WTO; and (3) the adoption standards and enforcement mechanisms that go beyond those contained in TRIPs. Clear as they may be, achieving these goals is not trivial. The difficulty lies in the fact that eradicating piracy increasingly involves behind-the-border intervention in national policies, which is diplomatically delicate, and a long term commitment to fighting piracy in factories, at national borders, and in the courts. Governments need to have both the will and the resources to do so. Europe and the United States thus need to convince Asian governments that stronger IP rights are in their developmental interest, but the two regions have distinct approaches to the problem.

The obstacle to transatlantic cooperation in Asia is not so much identifying common goals, as agreeing on a mode of action and a definition of cooperation. From the US perspective, cooperation with Europe in intellectual property rights entails coordinating our approaches to third countries--Americans would like to trilateralize their bilateral discussions. European goals of better transatlantic IPR harmonization and a reduction in global costs of protection are secondary to combating the losses faced in third countries. The transatlantic relationship is indeed plagued by a number of intellectual property impasses--first to invent/first to file, moral rights, appellations of origin, costs of litigation, to name only a few. If the US and Europe can agree to separate third country issues from their transatlantic disputes, the next challenge is identifying a mutually satisfactory strategy for engaging Asian countries in discussions of IPRs. Since the United States is particularly interested in triangulating bilateral IP discussions, we need to ask: (1) Is this an effective mode of action in Asia? (2) Is the European Union capable of a pro-active external intellectual property rights policy which can complement the US policy?

IV. Modes of Engagement in Asia

The United States and the European Community have found that engaging Asian nations in the creation of international IP standards is proving rather difficult. The first reason is a leadership vacuum. Asia falls outside the immediate economic spheres of either the US or Europe. And Japan, true to its non-confrontational style of economic diplomacy, has not taken the lead in pressuring neighbor countries to upgrade their IP regimes. The second
reason is that Asian countries have not yet shown a home-grown enthusiasm for raising standards of protection. In contrast, contemporary Latin America has proven much more receptive to IPR revisions. The ratification of NAFTA and the possibility of its extension to other members, the new economic liberalism, and the increased sensitivity to the wants of foreign direct investors has put Latin American nations on a course of economic reform. And most indications are that Latin America is committed to establishing stronger IP regimes. Similarly, in Eastern Europe the carrot of accession to the European Union is savory enough for countries to autonomously bring their IP laws up to the standards set by Brussels. The Europe Agreements, whose ultimate goal is to facilitate accession, allow the EU to stipulate that IP regimes be harmonized to EC standards. Such carrots are in short supply on Asian markets and Asian countries have not greeted calls for stronger protection with much enthusiasm.

Without strong regional leadership, the onus for accelerating implementation of IP commitments in Asia by default falls on the US and Europe. How can we best leverage our combined influence? Essentially, there are four modes of action. 1) We can do nothing, and wait for Asian countries to autonomously change their IP policies as they become richer. 2) We can bring Asia IP concerns up in multilateral organizations--together or separately. 3) We can individually engage in bilateral discussions with Asian governments. Or, 4) we can trilateralize bilateral discussions.

Going it alone would be the simplest solution. Unfortunately, the US is not the natural economic leader for Asia, despite its vital role as a security guarantor and trade partner. The US can certainly use trade pressure with countries that have a high export dependence on its market, as it absorbs about one quarter of total Asian exports. (Imports from Asia totaled $323 billion in 1995). But it is unlikely that American pressure alone will radically change IP practices. In fact, US pressure will probably prove less and less effective as intra-Asian trade grows faster than trade with the US. The US would thus benefit from a forum, or at least a collaborator, to help reduce the high incentives to piracy that exist in Asia.

Enlisting Japan

Japan has not taken a prominent role in demanding stronger IP rights in Asia. Perhaps this is because Japan has no power equivalent to that of the US or Europe over its neighboring trade partners, since it is not at the helm of an all-Asian trade organization. Japan also appears sincerely uninterested in playing power politics in intellectual property rights. During the American showdown with China, for example, Japan maintained official neutrality, privately proffering that economic engagement--rather than threats of trade sanctions--is the best way to bring the PRC into the international system. Country specialists explain that Japan does not like to use confrontational tactics, and that its government
believes that economic development is the fastest route to reaching a strong IP regime.\(^\text{(50)}\)

Japan’s strategy in IPRs is to provide technical expertise and financial support to build new administrative and judicial branches in Asian developing countries.\(^\text{(51)}\) In 1996 Japan doubled its contribution to the WIPO Secretariat, and invested 90 million yen in technical training for Asia. It also cooperates bilaterally with Asian countries who request aid for human resource development, IPR administration, and information dissemination. In addition, Japan has encouraged the building regional information centers and pushed for a system of regional registrations for patents, copyrights, and trademarks.\(^\text{(52)}\) This Japanese strategy speaks of a very different attitude toward developing countries: where the US believes that enforcing IP rights is simply a matter of will, the Japanese believe it is futile to force countries to adopt strong IP regimes until they are economically developed.

Beyond philosophical differences, the government of Japan has interests which are not entirely parallel to those of the US. Japan is, and thinks of itself, as an exporting nation whereas the US is a deficit country, especially \textit{vis a vis} Asia. Japan has had export surpluses of greater than $100 billion per year through the nineties.\(^\text{(53)}\) In 1995 Japan's surplus with Asia alone totaled $70 billion. And although Japan is importing more from Asia than in the past, over the course of the nineties its surplus with Asia grew more than 20 percent per year. The products exported are primarily machinery and transportation equipment, while its imports have a lesser IP component (major import sectors include food, crude materials, fuels, manufactured goods, machinery and transport equipment).\(^\text{(54)}\) Because Japan imports few technically sophisticated products and has no problem exporting to its neighbors, the government is unconvinced of the value to be gained by putting pressure on trade partners for stronger IP protection. While individual Japanese companies do complain about piracy (e.g., Nintendo), the United States should not expect Japan to be an aggressive proponent of strong IP standards in Asia.\(^\text{(55)}\)

Since Japan is an unlikely ally, the US and Europe would be well served by regional trade agreements that could put higher IP standards onto the domestic agenda in Asia—much as NAFTA did in Latin America, and the Europe Agreements are doing in Central and Eastern Europe. Ostensibly, the Asia Pacific Economic Cooperation forum (APEC) for the US, and the Asia Europe Meetings (ASEM) for the EC, have the potential to provide carrots for enhanced IP protection. But Asian multinational agreements seem to not be ideal fora for raising IP protection.

\textbf{APEC}
APEC is the older and more established forum, whose eighteen members border the Pacific Ocean. Its goal is to completely liberalize trade in the Pacific by the year 2020. But so far progress has been slow. Although each country has set voluntary targets in their Action Plans, and the concessions needed to meet them, the effectiveness of APEC is mitigated by its unusual framework. There is neither formal cross-sector linkage (e.g., textile liberalization in exchange for stronger IP rights), nor given the principle of unilateral targets a dispute settlement mechanism which can determine the good faith or equitability of each Action Plan. Nevertheless, the APEC countries, under the chairmanship of the Japan Patent Office, have committed to accelerating the implementation of the Uruguay Round and to broadening and deepening its accomplishments. The intellectual property goals of APEC's 1996 Collective Action Agenda include agreements to: (1) meet more frequently to discuss IP issues of common concern; (2) compile a survey of national IP laws; (3) create IP contact and enforcement lists to facilitate communication; (4) explore enhanced protection for trademarks regionally; (5) discuss simplification and standardization of Asian-Pacific patent filing; (6) review enforcement problems; and (7) explore higher level, or TRIPs-plus, IP protection.

APEC is a discussion forum offering non-rule based, non-confrontational venue for venting trade concern, which is working slowly toward raising consciousness about the pitfalls of piracy. Most notably, APEC creates an institutional framework for building regional intellectual property regimes. Through APEC, the United States and Japan provide technical assistance to educate lawyers, judges, and government functionaries in the region who are to administrate national IP systems. But despite its potential benefits, APEC is not organizationally capable of a radical renegotiation of TRIPs commitments. No formal decisions on regional standards for IP protection have been taken to date, and if any are reached they are expected to be conservative improvements on TRIPs. The Asia Europe Meetings, Europe's answer to the APEC talks, are only in their second year, but they too share many of the same organizational drawbacks of APEC, and are not promising for near term agreements on IPRs. Like APEC, ASEM's power and interest appear too diffuse to yield important advances in IP protection.

Multilaterals

Other regional and multilateral organizations are shaping Asian IP regimes, including the Association of Southeast Asian Nations (ASEAN), the WIPO, and WTO itself. It would be unfair to dismiss their many accomplishments outright, but the relevant question is not whether they are influencing Asia's IP policies, but whether countries will advocate for stronger intellectual property protection through these multilaterals, and move beyond the level of protection found in the TRIPs Agreement.
Starting with the smallest group, the Association for South East Asian Nations (ASEAN) has begun discussions about the harmonizing and integrating the IP regimes of its member countries. The ASEAN members thus recognize the utility of a modern intellectual property regime for development. Yet while interest in building a regional IP regime is welcome, ASEAN is unlikely to push for the highest standards of protection simply because its nine members are developing countries with developing country concerns.

The World Trade Organization has incited a flurry of activity in Asian countries, as deadlines for the implementation of the TRIPs Agreement approach. Twenty-four of WTO's 129 signatories are Asian. In 1995 Korea reformed its Patent, Copyright, Trademark, and Computer Protection Laws in accordance with its TRIPs obligations. Thailand reformed its Copyright Law in 1995, and has submitted bills for patent, trade secret, and geographical indications. Malaysia has plans to reform its laws by 1998, and while tardy its efforts are considered serious because Prime Minister Mahatir is attempting to build a "Super Media Corridor" in Putrajaya to attract investment by foreign high technology firms. Singapore expects to be TRIPs consistent by 1999. Indonesia, on the other hand, has not given clear dates for full TRIPs adhesion, and its implementation is spotty. Observers also remain cautious about Hong Kong, whose IP regime may be altered after its reversion to China. Finally, China and Taiwan are not WTO members but have also implemented reforms in anticipation of joining. The PRC has pledged not to have its IP statutes fully TRIPs consistent before entry to the WTO. Taiwan's statutes need only minor adjustments, although enforcement could certainly be improved.

The WTO has been a positive force for IP improvement in Asia. But it is a small organization, without funds or personnel to monitor whether the new laws will be TRIPs consistent, or to make sure that the standards can be enforced. Nor can the WTO--as an organization--push for higher standards or faster implementation in Asia. In fact, momentum for IPRs in the WTO is waning. The goal of higher levels of protection or coverage of new subject matter was not addressed during the Singapore Ministerial Meeting of the WTO in 1996. The WTO is simply a forum. It is the member states--the United States, Europe, Japan, and Asian countries themselves--who must seek and push for further IPR improvements if standards of protection are to rise.

The US and Europe want to ensure that modern and effective IP regimes are established in Asia. In the absence of a strong regional leader, and in the absence of an effective trade organization which can make sure that IP system will evolve, the US and Europe find themselves in a difficult bargaining position. Each region, therefore, continues to resort to bilateral discussions with the nations whose IP practices are found to most damage domestic interests. Each region also resorts to a cocktail of market access threats and technology transfer
carrots to convince trade partners of the benefits of better IP enforcement. The temptation to engage in bilateral IP negotiations in Asia is high because the stakes are so important and the alternative fora for not promising. Trilateralizing the USOs and the ECOs bilateral is an attractive alternative when multilateral discussions founder. But while transatlantic cooperation would help, the question remains—is it possible?

V. Interests, Power, and Ideology in the US and Europe

For the US and Europe to have a common external IP policy, they need to have similar interests in strong international intellectual property protection. They need to have the power to influence their trade partners. And they need to share a similar ideology about how to influence third country behavior, and what constitutes legitimate exercise of power. On the surface, the US and Europe could not be more in sync. They both share an industrial base which relies on ideas and innovation—for example, Germany's chemical industry, Sweden's pharmaceutical companies, the U.K.'s records, and France's luxury items are all heavily IP dependent. The two regions have huge markets, which gives them bargaining power. The European Union represents 300 million rich consumers, making it the largest single market. Both have "tools" to make use of their market power. Like the United States, Europe has on the books laws for retaliation against "unfair" trade practices abroad. The European Union and the United States, therefore, have the capacity to work together should they so choose.

However, in practice a mismatch in trade ideologies and the divergent nature of the two region's decision making process make cooperation difficult. Trilateralizing bilateral discussions is particularly tricky as the Europe Commission frequently has not had the will to badger third countries outside the confines of multilateral institutions like the WTO. Europe's slow reaction time, combined with its ideological mistrust of the American trade tactics, and an unfortunate clash of personalities have hampered recent IP cooperation. The following section elaborates on the differences that exist in interest, power, and ideology.

A. United States

**Interests:** In the 1980s, American intellectual property policy evolved from ad hoc to a coordinated policy of forcing change in trading partners whose standards were considered below par. With the globalization of business, the yawning trade deficit, slow growth rates, and Asian competition in high technologies, the American position in the international political economy seemed precarious. Both the US Congress and the Reagan administration felt that the playing field was not even, that our trading partners--especially in Asia--were engaging in unfair practices. Open US markets were believed a mistake if foreign markets were less so or trade policies not symmetric. The eighties, therefore, gave birth to a protectionist backlash. Selective reciprocity, which is the belief that liberalization should only be offered on a tit-for-tat basis, came to characterize much of US trade policy, including intellectual property. It was during this era of economic turmoil that policy makers redefined lax global IPRs as a threat to
American economic strength, and created a multi-track strategy to combat piracy.

An aggressive global intellectual property policy was perceived as necessary to champion American jobs, exports, and growth. The idea was not to coddle weak industries; in fact, the industries in the IP limelight--software, entertainment, and pharmaceuticals--were already stars of the American economy. These are big, dynamic sectors, important to economic growth and job creation. Almost 5 percent of the US workforce is employed, directly or indirectly, in copyright dependent sectors, which includes software, as well as music, film, and print. And recently their growth rates have been twice that of the US GDP (5.6% vs. 2.7% between 1991 and 1993), with certain sectors being even more dynamic. Worldwide revenues for video entertainment--films, TV, and rentals--grew by 16% in 1993, and video games alone have become an impressive $12 billion industry with a 40% annual growth rate.

In addition, the intellectual property dependent industries are important because they export. Copyright industries exported $45.8 billion in 1993, second only to the automotive industry. Chemical products, which includes pharmaceuticals and other goods heavily reliant on patent protection, exported $45.1 billion that same year. High technology goods are increasingly important to trade, accounting in the United States for more than 52% of all merchandise trade, and growing 17% faster than trade in all goods (from 1985 to 1993). The US actually generates a substantial surplus in the trade of intellectual property itself through royalties and licensing fees. Exports of intellectual property in 1995 were valued at $27 billion, compared to $6.3 billion in imports, and accounted for a third of our services trade account.

Because the intellectual property sectors are important to the US economy and internationally competitive, complaints about piracy fall on receptive ears in the US government. Starting in the 1980s, both the executive and the legislative branches were keen on areas in which they could justifiably be "tough on trade," and IP was a perfect such issue. But it was the private sector which had the most pressing interest in global IP rights, and incited the US government to action.

Two sets of interests combined in the early to mid eighties to create a set of very powerful advocacy groups. First, the copyright industries pushed Congress to make piracy an actionable unfair trade practice, which ultimately led the USTR to its aggressive negotiation of IP agreements with developing countries. The copyright industry cleverly organized themselves to provide yearly estimates of the losses incurred in each sector. These numbers are routinely used by the US government in its annual Section 301 reviews. Meanwhile, the patent dependent sectors--pharmaceuticals and chemicals in particular--lobbied
intensively to put intellectual property on the upcoming Uruguay Round agenda. Their goal was to extend product protection globally through a multilateral agreement. Ultimately, patent and copyright industries joined forces under the leadership of the Pfizer and IBM chairmen to form the Intellectual Property Committee, whose original purpose was to coordinate the spectrum of positions on IP for its inclusion in the Uruguay Round. IPC not only lobbied in the US, but also drummed up support abroad through the Keidanren in Japan and UNICE in Europe. The report these groups jointly prepared in 1988 summarized the advanced country industrial objectives for TRIPs, and their combined lobbying efforts were vital for its ultimate ratification in 1994.

In the United States, affected industries have become very well organized for political action in intellectual property. The Motion Picture Association, the Pharmaceutical Manufacturers and Research Association, the Chemical Manufacturers Association, the Recording Industry Association of America, the Business Software Alliance, the Software Publisher's Association, among many others, lobby against piracy at home and abroad. They have also taken it upon themselves to educate developing countries by providing information and training about TRIPs compliance and explaining the benefits of doing so. Their efforts are important because through direct foreign investment, they can help transform illicit businesses into legal ones. For better or worse, these industry groups often set the terms of international IP policy debate within the US government.

As long as American comparative advantage lies in knowledge-intensive products, processes, and designs; as long as these are easily appropriated and disseminated abroad; and as long as the private sector keeps up its vigilance, the United States will have a significant stake in shaping the global management of intellectual property.

**Power:** The US has an extensive tool kit with which to tinker with the global IP regimes. Under the Reagan administration, the USTR articulated a "multitrack" approach to intellectual property, which included rule-creation in multilateral fora, negotiating stronger bilateral agreements, and occasionally wielding unilateral threats.

Multilaterally, the US pushed to transform IPRs into an international trade issue in the GATT Uruguay Round and in NAFTA. This tactic entailed a American shift away from the WIPO where discussions of IPR harmonization had stalled due to WIPO's single issue focus and proclivity to weigh heavily developing nation concerns. The US willingness to make IPRs a center piece of the Uruguay Round, and to risk not having an agreement at all if the IP component fell through, forced the issue on the table. The minimum standards and the ability to bring non-compliance complaints to the Dispute Settlement body has given the
US, and all other countries, a new tool in the case of disagreements with trade partners.

The trademark of US IP policy, however, is its willingness to use unilateral threats in order to get bilateral agreements on intellectual property. Amendments to the 1974 Trade Act 's Section 301 first defined inadequate protection of intellectual property as an actionable trade barrier in 1984 (the so-called Special 301), and then in 1988 required an annual review by the USTR of IP practices of trade partners, especially those which "have a history of violating existing laws and agreements dealing with intellectual property rights." The nations whose observance of intellectual property rights are sub-par are put on a "watch" list which opens bilateral discussions. The worst offenders --called priority foreign countries--can be subject to retaliatory sanctions if bilateral discussions do not lead to a change in practices. Much to the chagrin of other nations, Section 301 has been a powerful stick for shaping foreign IP practices, especially for those which rely heavily on exports to the American market. Of the countries named "priority foreign countries" only Brazil did not act to change IP practices to the US government's satisfaction, resulting in the imposition of trade sanctions. (See Table 1 for listing of all Priority Foreign Country cites and investigations under Section 302(b)(1) of the Trade Act.)

Table 3 Section 301 and 302 Intellectual Property Investigations

<table>
<thead>
<tr>
<th>Initiated in:</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Argentina</strong></td>
<td>1988 agreed to better pharmaceutical patent protection, case withdrawn</td>
</tr>
<tr>
<td><strong>Brazil</strong></td>
<td>1985 on informatics policy and related IP protection, case withdrawn</td>
</tr>
<tr>
<td></td>
<td>1987 legislation for software copyright protection proposed, case withdrawn</td>
</tr>
<tr>
<td></td>
<td>1987 sanctions imposed because of lack of pharmaceutical IP protection, sanctions lifted when agreed to product and process protection, 1990</td>
</tr>
<tr>
<td></td>
<td>1993 agreed to enact a new patent law, case withdrawn</td>
</tr>
<tr>
<td><strong>Chile</strong></td>
<td>1988 pharmaceutical patent complaint withdrawn by initiating party</td>
</tr>
<tr>
<td><strong>China</strong></td>
<td>1991 agreed to improve general IP protection, case withdrawn</td>
</tr>
<tr>
<td></td>
<td>1994 memorandum of understanding signed, case withdrawn</td>
</tr>
<tr>
<td></td>
<td>1996 negotiated enforcement, case withdrawn</td>
</tr>
<tr>
<td></td>
<td>1997 implementation under Section 302 observation</td>
</tr>
<tr>
<td><strong>India</strong></td>
<td>1991 for general intellectual property protection, case remains open</td>
</tr>
<tr>
<td><strong>S. Korea</strong></td>
<td>1985 agreement reached on stronger IP protection</td>
</tr>
<tr>
<td></td>
<td>1987 pharmaceutical patent complaint withdrawn by initiating party</td>
</tr>
</tbody>
</table>
1988 two pharmaceutical patent complaints withdrawn by initiating parties

**Taiwan** 1992 agreement reached on stronger IP protection, monitoring compliance

**Thailand** 1990-1991 agreed to amend and enforce copyright laws, monitoring compliance

Inadequate pharmaceutical patent protection, US delaying action

Source: USTR Website <http://www.ustr.gov>

Countries have proactively changed their behavior to avert sanctions, or simply to avoid being cited on the watch-list by the USTR. The threat of sanctions was a factor in changing the IP regimes of Korea, Brazil, Indonesia, and most recently China. In addition to instituting trade retaliation, the United States has also linked intellectual property to the Generalized System of Preferences (GSP) and other benefits for developing countries ranging from International Development Bank loans and to the funding of joint scientific projects. These "sticks" combined with the persistent prodding of state and private delegations forced the issue of stronger IP protection on US trade partners.

**Ideology:** The US has been willing to use the entire range of its IP tools to raise global standards and buttress the comparative advantage of American firms. The rationale for doing so is rooted in a rhetoric of unfair trade. The US believes that the playing field should be made more level through international norms. Americans have few qualms about using bilateral or unilateral means to achieve these results, even if that means involvement in behind the border arguments with their trade partners about the judicial system, police, or customs. The US position is, in fact, that effective intellectual property protection is a question of political will and pressure is necessary to make unpleasant measures politically palatable.

Were the US goal simply rent extraction, however, alternative incentive schemes might prove a more effective solution. But the US is intent on international rule-making as a mechanism of encouraging other countries to invest in industrial R&D. Part of the reason is to eliminate the free rider problem inherent in research investments. When piracy is rampant, industrial R&D becomes a non-excludable and non-rival good (i.e., companies at home and abroad are loath to invest in research since its fruits are easily available to all for free). A related objective is to expand the innovation pie for all countries. Enhancing the appropriability of knowledge, the US claims, should both help local innovators and also facilitate technology transfers, trade in technology goods, and foreign direct investment. Stronger property rights, according to the US, lead to greater access to technology. Nevertheless, many developing countries interpret the US policy more cynically as an attempt to freeze the present technological division of labor, and its advocacy of strong IP rights in LDCs as a form of advanced country protectionism.
For ten years, the US position has been that IP is a pressing foreign economic policy goal, and that stronger IP rights abroad should be pursued using all means available. Because the policy succeeded and the US remains unsatisfied with the level of protection TRIPs will ultimately afford, the temptation to resort to bilateral agreements remains strong. The most recent examples are the bilateral discussions held with countries not party to the WTO. The US and China have had multiple rounds of negotiations and threats of trade retaliation over intellectual property, which have yielded better enforcement of Chinese laws. In 1997, the US also signed a copyright agreement with Vietnam. The United States will continue to push countries beyond TRIPs commitments, using the panoply of tools at its disposal.

Nevertheless, we may be entering a new era. The WTO DSU system seems to be relatively effective, and it discourages the US from pursuing bilaterally issues already covered in TRIPs. Furthermore, if the statutes of developing countries become TRIPs consistent, but their implementation falters, the trade sanction approach may not work in behind the border disputes. So while the US retains the power and will to continue to pursue an aggressive bilateral strategy, in order to accomplish its goals in the new global IP environment, the multilateral system may be pressuring the US to change its tactics.

B. European Union

The situation in Europe differs in several key respects, first its interest structure is less in favor of the intellectual property dependent industries. Second, even in those industries in which Europe is strong, and which are politically organized, there is no clear single agency which is designed and inclined to respond to the needs of the IP industries. Finally, the European Union does not have an ideology which unselfconsciously justifies the use of trade pressure for IP disputes. As a result, the European Union is far more inclined to take up its IP complaints in a multilateral setting, and in the regional fora in which it has the power to set the rules, than it is to use confrontational bilateral tactics.

Interests: Even though Europe now trades more with Asia than with the US, Brussels is keen on expanding sales to Asia, and it knows stronger IP regimes would help achieve that goal. Europeans worry increasingly about their export performance, as the percentage of EU gross national product which accounts for merchandise trade has fallen to 18.6% in 1993 from 22.6% in 1983. Europe's traditional developing country export markets--Africa, east-central Europe, the Middle East--are slow growing, while Europe's penetration of the Asian markets is weak compared to the US and Japan. Asia's vibrancy has not gone unnoticed. The European Commission has made market access and export promotion to Asia a priority. The private sector has obliged, increasing direct investment in Asia by 516% over the early nineties, and rapidly expanding exports.
The overlap of private sector interests of US and Europe in the IP dependent industries is considerable. The US and Europe share world leadership in the pharmaceutical industry and the chemical industry. The Europeans have a substantial publishing industry, certain sectors of which (e.g., scientific texts) are pirated on international markets. The European recording industry is more important than that of the US. With about 40% of global sales, Europe is also the largest regional music market in the world. Three of the top five recording companies--BMG, EMI, and Polygram--are European. The copyright industries, as a whole, account for about 5% of the European GDP, a figure equivalent to that in the US.

In several key sectors, however, European firms may not be as concerned about international piracy as are Americans. Business software and the film industries leap to mind because in Europe both industries are relatively small and domestically oriented. Few European firms are internationally competitive in packaged software and video games, the two software sectors most vulnerable to piracy and illicit distribution. The European business software market is in fact 90% dominated by US firms. In contrast, Europe’s movie industry, which includes film, video, and television, is vibrant but compared to Hollywood relatively small and inward looking (foreign sales make up only 10% of total revenues). Since European have a lower profile abroad, piracy poses less of a problem. The semiconductor and electronics industries also have an interest in global intellectual property rights, and while Europe has a respectable electronics sector, it is almost absent from world semiconductor markets. These sectoral differences reveal that American and European IP interests are not entirely parallel. Therefore, pressure from the European film and software industries is not going to mean as much to an official in Brussels as similar complaints from US firms do to the Washington D.C. crowd.

Nor are European firms organized in the same manner as their American counterparts to lobby Brussels for an aggressive external IP policy. Individual European industry organizations certainly do solicit help in Brussels, but there is not at the level of each industry or of individual firms the type of constant and focused attention to intellectual property which makes global IPRs a priority in the US. The major exception is the recording industry which, under the International Federation of the Phonographic Industry, has managed to get the European Commission to act in Indonesia, Thailand, and Japan. IFPI has also set up a global anti-piracy network to combat the dramatic rise of pirate discs. However, there is no equivalent in Europe to dedicated groups like the Intellectual Property Commission and the International Intellectual Property Association which gather data and aggregate the private sector position on IP. Instead, European industry seems to rely on UNICE, the peak employer’s organizations, the International Chamber of Commerce, and the Transatlantic Business Dialogue to broker a consensus. While such broad groups can certainly
command the attention of the European Commission, they are concerned with the entire universe of European trade policies. They may impart a more balanced view of the relative importance of intellectual property issues, but they are less likely than the specialized American associations to be vigilant, single-minded IP watch dogs.

The public sector must also share some responsibility for the fuzzy definition of European interests in global IPRs. The European Community has mixed competence with member states in intellectual property rights, which means that the EC shares with individual European countries the authority to negotiate for and legislate IP agreements. During the Uruguay Round, the European Community was given a mandate to coordinate the positions of its members not the legal right to do so. Sharing competency can be a delicate balancing act. Early in the TRIPs negotiations, for example, the European Community hesitated in extending its support for an all inclusive IP agreement because some of its own countries--Portugal and Greece in particular--still had IP regimes more characteristic of developing countries and were opposed to the high standards the US was advocating. Since, Europeans have raised the level of protection found in member countries and begun to harmonize European laws and unify the application and registration systems for IP rights. Still, the variety in European IP regulations and in trade priorities can cause problems. For an international IP complaint to be considered by the EC, the problem must be defined as European--injuring "Community" industry and not just narrow British or German industries. If the European Community wants to bring an IP case to the WTO it needs to have the support of most member countries. Theoretically, a major member state could delay or block a WTO complaint if its other trade interests in the offending country were deemed more important than the alleged IP violations. This two-tiered structure of European decision making, therefore, introduces an additional level of bargaining and compromise which can cloud the identification of injury incurred, and slow consensus formation on the actions to take in external IP disputes.

In theory European interests in global intellectual property rights are quite similar to those of the US. The transatlantic entertainment and technology industries entirely agree that effective international intellectual property protection is necessary to encourage innovation and commerce. And Asian markets have become as important to European trade as to the United States. But in Europe the groups who lobby for IPRs are neither as omnipresent nor as vocal as in the US. Most importantly, there are no dedicated IP lobbying organizations who monitor and measure the losses incurred by European businesses, an important function if international IP is to have political salience. Moreover, the EC shares competency with member states, and must take into account broader European interests in deciding what actions to take in IPRs. The conditions under which
infringement becomes a European problem are therefore more stringent than in the US, and the opportunities to act more circumscribed.

**Power:** In order for the Europeans and Americans to cooperate, they need to not only have common interests in raising IP standards abroad but an ability to simultaneously engage the offending country. Once piracy in a third country is identified and acknowledged to injure European interests, what actions can the EC take? As the world’s largest trading block, the EU has considerable influence in making global trade rules. If it chose to, the European Community could be as pro-active in shaping IP practices abroad as the US. But its bilateral tools are far more circumscribed than those of the United States and it prefers to rely on multilateral mechanisms for IP dispute resolution.

Europe has the greatest influence on the IP regimes of Central and Eastern Europe. The carrot of accession to the European Union or the European Free Trade Association, however distant, serves as a powerful incentive. Since the minimum standards of accession to the European Union are already decided upon, there is little bargaining allowed by supplicants. Poland, for example, has upgraded its standards for intellectual property protection and its piracy rates have dropped considerably since the 1980s.

In Asia, however, Europeans are not able to dictate trade rules. While Europe’s imports from developing Asia are substantial, reaching $143 billion in 1995 (vs. US imports of $190 billion and Japanese imports of 124 billion), the EC infrequently uses its trade leverage overtly. Part of the problem is that Europe’s organizational trade ties to Asia are few. As a response to the dearth of lines of communication—and as a counterbalance to APEC—Asia and Europeans launched the Asia Europe Forum Meeting (ASEM) in 1996. Intellectual property was a topic of discussion, but political squabbles and disagreement over format have bogged down ASEM’s progress in all areas. Europeans must rely instead on multilateral organization—WTO and WIPO—or bilateral discussions to broach intellectual property infringement in Asia.

Bilaterally, Europe does have a couple tools at its disposal with impact in Asia. To begin with, the EC is in the process of renegotiating "Third Generation" framework cooperation agreements with developing countries, which include intellectual property clauses. The European Commission and Korea signed such an agreement in February 1996, and Korea pledged therein to implement TRIPs within the year. Nepal, Laos, Cambodia, and Vietnam have also concluded framework agreements with the EU. Pakistan, Bangladesh, and India are in the process of negotiating terms. Some agreements have timetables, but most only specify medium term targets, which are not necessarily binding. (Parties agree to arbitrate any disagreements.) In exchange for full implementation of TRIPs, accession to the major IP treaties, and in rare cases higher standards than TRIPs
demands, the EC provides technical assistance. While not exacting radical revisions, the Framework Agreements combine carrots with a vague threat of potential sticks, thereby articulate EuropeÕs concern about external intellectual property protection.

More powerful is the rarely used Commercial Policy Instrument, akin to Section 301 in the US, which does allow the European Community to take action against its trade partners. The old version is called the New Commercial Policy Instrument (NCPI, 1984) which was revised in 1994 as the Trade Barriers Regulation (TBR). Inspired by Section 301 of the 1972 Trade Act in the United States, the European Community decided in 1984 that it should be able to protect its international rights and retaliate against unfair trade practices. Amid some controversy, NCPI was passed, permitting the EC to ensure that it can fully exercise its rights abroad and remove injury resulting from illicit commercial practices of third countries. To initiate the process, a country or industry submits a complaint to the European Commission. After a rather complicated examination procedure, which requires input from the Council, the Commission, and member states, retaliatory measures may be used. However, from 1984 to 1994 only four examinations were opened and no measures were taken. There are several reasons for the sparse application of NCPI. First, several countries were wary of its possibly protectionist character, for the same reasons that Europeans often feel Section 301 is a protectionist unilateral instrument, and they were not keen on giving industries direct access to the EC. This attitude (that the EC is not meant to serve the private sector) is the mirror opposite of the US trade environment. Second, the requirements for admissibility were high. As mentioned above, the party had to show injury to a Community industry—not a firm, not a national industry—resulting from an illicit practice. In the US, the practice simply had to be unfair, and proof of injury to an entire industry was unnecessary. Third, the checks and balances within NCPI made for a slow process where member state objections had to be fully addressed. A member state with important ties to a third country which was under NCPI or TBR investigation, could slow or even put a halt to the process if it felt that its other trade or political interests hung in the balance.

Despite its weaknesses, however, NCPI exacted change in the IP behavior of third countries. In 1984 producers of Scotch whisky considered filing a case against Bulgaria for its misleading "Scotch Whisky" products. The Bulgarians dropped the use of the term Scotch before the case could be filed. Two of the four cases which reached the Commission dealt with piracy. In 1987 a case was initiated against Indonesia for its piracy in sound recordings, and in 1991 a similar case was opened against Thailand. Both countries agreed to change their practices in bilateral negotiations.
In 1994 NCPI was revised to work with the dispute resolution mechanism of the WTO. To be more effective, the admissibility requirements were lowered so that simple "obstacles to trade" are actionable, and industries need only show "adverse effects to trade" instead of the much more restrictive injury to the entire community industry *within* Europe. The Trade Barrier Regulation, therefore, is geared toward the problems encountered in entering third country markets, much like Section 301. The real question is whether European countries and industries are any more likely to use the Trade Barrier Regulation for intellectual property disputes. Will bilateral dispute resolution flourish in Europe? Probably not. The procedures remain complex in order to build consensus among all interested parties, and therefore the EC cannot react as quickly as the United States can to practices abroad. Secondly, there is no institutionalized annual review of IP practices in Europe.\(^{93}\) Much maligned by trade partners, the Special 301 annual review keeps intellectual property in the public eye and on the policy agenda in the United States. The downside is that keeping tabs on IP regimes globally is very time intensive, and requires lots of input from the private sector. The upside is that publication of country status works as an incentive in and of itself.

The European Commission is fully aware of the problem. Its new Market Access policy statements are reassuring to the US in that they state the need for full implementation of TRIPs and the desire to use bilateral mechanisms, including the withdrawal of benefits like GSP when third countries do not fulfill their trade obligations.\(^{94}\) Sir Leon Brittan has been open about the need for the EU to speak with one voice in trade matters. He has in fact lobbied to extend Article 113 of the Treaty of Rome—which gives the Commission authority in multilateral negotiations—to intellectual property rights among other issues. His reasons are simple: finalizing international negotiations take too much time because three unanimous approvals from the Council of Ministers are necessary; national legislatures then take two to three years to ratify trade agreements; unanimity means the EU must adopt the lowest common denominator bargaining positions, a fact exploited by other countries.\(^{95}\)

In the absence of a large stick, Europe has focused its bilateral efforts on technical cooperation. Hard data on amounts spent are elusive, although detailed descriptions of assistance programs are submitted by the advanced countries to the WTO in compliance with Article 67 of the TRIPs Agreements. Europe is one of the most important providers of technical assistance—both through the EC and through national programs—and will spend approximately 4.5 million ECU on the IPR Cooperation Programme for China over 5 years, and a similar amount for technical cooperation in ASEAN countries. Since the European Commission has the power to extend technical aid, and to file complaints with the WTO, it has relied primarily on positive incentives and on retaliation within multilaterally sanctioned bounds to change the practices of third countries.
Ideology: The major reason why Europe is unlikely to use bilateral instruments to further its IP interest is that it does not have the will to make those instruments effective and responsive to industry needs. In part this is due to the institutional tension of the European Commission and its relationship to the member states. But it is also due to a different interpretation of the need to press countries for ever high IP standards.

Europe is in the process of harmonizing its IP policies. As new directives are added, the European Commission increasingly gains legal competence in intellectual property. The authority split between the EC and member states has created a certain degree of tension, as countries are not always eager to give up sovereignty. Already, the Europeans have created a common registration system for trademarks, and there are plans for a unitary patent system. Internationally, the European Commission coordinates member state positions in IP negotiations, and is, itself, a party to the WTO. But it has to be very careful not to overstep its competence or promise something that member states could find objectionable. Indeed, there is even a boundary which must skillfully be negotiated between European and external IP policy formulation within the Commission. The tension over who has authority spills over into bilateral negotiations with third country. Most believe that the Commission cannot self-initiate a complaint against a third country, as the US government can and regularly does. Within the WTO, however, the EC clearly can bring a case to the dispute settlement board, and therefore it will probably prefer to do so than to engage in bilateral discussions which could be questioned by its own member states. The European Commission needs multilateral fora to sanction its involvement in IPR debates.

Industry complains of another impediment to the formulation of a pro-active European IP policy. The European Commission has not always been responsive to the complaints of the private sector especially if the problem is extra-European. The mission of the European Union has been primarily to create a better business environment for Europeans within Europe. There is no single body in the Commission with the ability and authority to flex European muscles in trade disputes. The USTR, by contrast, has had a business advisory board (the ACTPN) since the early 1970s whose purpose is to alert the government to business concerns abroad. USTR is subject to checks and balances, course, but it has significant authority to make decisions about trade policy. The European Commission concern about market access, the need for pro-active negotiation, and enforcement of trade rules is a relatively new orientation for Brussels.

Beyond these institutional factors, there has been a deep ideological divide between the US and Europe in their approach to third countries. Europeans believe that, while acceleration of TRIPs implementation is desirable, developing countries are entitled to the transitions periods stipulated in the Agreement.
They do not believe that pressuring developing countries beyond what they bargained for is legitimate. In fact during the TRIPs negotiations, the Europeans acted as the moderator that softened the extreme positions of the US on the one side and Brazil and India on the other. Transition periods were the *quid pro quo* for uniform minimum standards of protection.

Moreover, Europe has frequently registered its distaste of American unilateral pressure tactics, which are embodied in Section 301, even though many acknowledge privately the usefulness of this approach and publicly have mimicked it in the Trade Barrier Regulation. Americans argue that our aggressiveness has been a boon to European negotiators because they can enter the fray after the US has, thanks to the threat of retaliation, forged a bilateral agreement. The tactic looks suspiciously like free-riding, given that the Europeans did not waste any political clout to change the third country’s IP behavior. From the European perspective, however, Section 301 makes cooperation unfeasible. Since the European Union itself has frequently been the target of Section 301 investigations, it cannot lend support to a measure it decries as unfair and extra-legal when used against Europe. The preferred approach in the EC, therefore, change behavior behind the borders is through the donation of technical aid. Internationally sanctioned retaliation, however, is okay by Europe. It is therefore willing to file WTO complaints--as it did against Japan's sound recording copyright laws, and against India and Pakistan for the failure to set up a mailbox system for filing patent applications as stipulated in the TRIPs agreement.

For this reason, the WTO’s Dispute Settlement Board holds out the promise that Europe will become more proactive in its policies toward third countries, as it does not have ideological objections to using this multilaterally sanctioned forum. It is unlikely, however, that Europe will single out a WTO member for TRIPs-plus implementation because of its greater tolerance for the transition periods. There is a slightly greater, though still very slim possibility, that Europe might start a TBR case against a non-WTO member. Given the ideological divide, the US cannot expect Europe to be a kindred spirit in its use of bilateral trade pressure, especially not in Asia, where its influence is weak.

**C. Summary of EU and US Comparison**

A comparison of Transatlantic interests in Asian IPRs, the two region’s power to act, and will to do so is revealing. Asia is unequivocally a key market. But while the industry interest structures are similar, they are certainly not identical which suggests that European and Americans will choose to act under different circumstances. Indeed, the American negotiations with China in the early 90s were driven by concerns in the software, film, and recording industries. Europeans were only marginally interested in the first two sectors, and even their strong presence in recorded music did not spur them to visibly side with US negotiators. Transatlantic cooperation would require that Europeans
and Americans support one another, in a tit for tat strategy, even when domestic interests in a particular type of piracy are minimal.

Europe has shown that is has the power to act pro-actively--through its Trade Barrier Regulation and even its Third Generation Framework Agreements. Certainly the United States has more freedom to negotiate and retaliate because it is one country, with trade monitoring responsibilities vested in one agency--the USTR. However, Europe's trade arsenal mimics that of the United States enough to envision better cooperation between the two. In the end, it is the ideological divide over the appropriateness of unilateral pressure, which underlies the difference in approach to Asia.

For deeper cooperation to emerge, both sides of the Atlantic will have to shift positions slightly. On the one hand, the US must tone down its very vocal enthusiasm for the use of trade retaliation in intellectual property disputes, and focus more on positive incentives and multilateral mechanisms of dispute resolution. On the other hand, the Europeans must pick up the pace in formulating their external IP policy so as to become more pro-active. American impatience with European decision making has in the past turned the relationship sour. The trends on either shore are encouraging and suggest that trilateralism--including Europe and the United States in discussions with third countries--may be possible if a deeply engrained distrust of one another's motivations can be pacified.

VI. Conclusions

Transatlantic cooperation in intellectual property rights is possible. In fact, we already cooperate in a great number of ways. The TRIPs Agreement could not have materialized without close consultation among the advanced countries. The recent WIPO discussions of digital technologies demonstrate how similar are the US and European agendas. Similarly, Europe and the United States agreed that the violations by Japan, India, and Pakistan of the TRIPs Agreement warranted complaints to the WTO's Dispute Settlement Body. Communication between the US and the EC could be better, in order to exchange information and strategies. Efforts are underway by the Transatlantic Business Dialogue and by the governments themselves to smooth relations and achieve our common goals more efficiently.

The question is, will we see Transatlantic Cooperation or Transatlantic Coordination emerge? Coordination is the easier of the two options. In coordinating our strategies, the United States will continue its aggressive, unilateral tactics and the European Community will continue eschewing them. Instead of causing friction, the two regions acknowledge that such a division of labor is desirable. In other words, the US carries a big stick and the European Union digs into deep pockets in a joint effort to spur developing countries to raise their intellectual property standards. Coordination could include:

- A division of labor in WTO's review process of developing country IP regimes in the year 2000.
A coordinated approach to technical aid.

Coordinated monitoring of the enforcement of IP agreements.

Harmonization efforts through WIPO.

The incorporation of IP protection for new technologies in the WTO.

The resolution of transatlantic IP regime differences.

A coordinated strategy has advantages. It is less likely to evoke the anger of countries like China, because it does not create the impression that the first world is "ganging-up" on the developing world. The focus on coordinating incentives may in the end be more effective at changing piracy behavior patterns behind-the-border. But coordination is a second-best solution, because it is the result of a lack of will on the part of the US and Europe to change their own external IP strategies enough to allow deeper cooperation.

Cooperation, on the other hand, entails a deeper agreement about the goals and modes of action in third countries. Only in cooperation can one envision trilateralizing bilateral discussions. Yet it is more difficult to achieve because it demands that both Europe and the United States change their beliefs about the appropriate use of economic power to achieve trade results. Cooperation may emerge because the international system is pushing the policies of Europe and the United States toward one another. The United States seems to be more cautious in its naming of "priority countries" because it can lead toward retaliatory trade sanctions. Argentina, for example, was not named a priority foreign country even though it did carry through on its pledge to ratify a modern patent law. Why the tentativeness? Great pains are being taken to avoid losing a domestically important WTO dispute settlement case because that could rattle the American commitment to the WTO system. The US government is picking fights it can win, which is pushing it toward the more cautious, multilaterally inclined, European position. At the same time, Europe's new focus on market access suggests that the EC wants greater sway abroad. If, in addition, the EC is granted broader trade negotiating authority, then Europe will look more like the United States in its trade policies.

Cooperative bilateralism would give the US and the Europeans greater leverage in Asia, it would lead to more uniform trade practices across countries, it would help resolve some of TRIPs' weaknesses, and it might lead to new multilateral IP discussions. Even with deep cooperation the United States and Europe would still need to seriously address behind-the-border issues in order to create the necessary infrastructure and social commitment to higher IP standards in developing countries. Of course, Europe and the United States could continue to play good cop/bad cop. But this dynamic poisons the broader trade relationship and achieves far less, and far more slowly, than a coordinated or cooperative strategy. In Asia, both Europe and the US would gain enormously from lower piracy rates and more predictable IP regimes.
Endnotes

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3. In 1997 no "priority foreign countries" were identified; China is being monitored under Section 306; Argentina, Ecuador, Egypt, the European Union, Greece, India, Indonesia, Paraguay, Russia, and Turkey were named on the "priority watch list"; and 36 additional countries were named on the "watch list." In 1996 the United States placed China on the "priority foreign country" list. Argentina, the European Union, Greece, India, Indonesia, Japan, Korea and Turkey were on the "priority watch list." An additional two dozen countries were on the "watch list" for questionable IP practices.


5. In calculating losses one must assume how much of a country's market would have been captured in the absence of infringing products, and at what price. Frequently, companies must adjust their prices to the purchasing power of the developing world if they are to compete at all which means that one cannot use the price of the product in the home market, but must estimate how much it could sell for in the developing country and how large a market it could then command.

7. Bulgaria sold 40,000 legitimate CDs and 1,110,000 pirate CDs. International Federation of Recording Industries, "Pirate Sales 1995," May 1996. In developing country domestic sales are predominantly tapes, not compact discs.

8. The most blatant forms of infringement are counterfeiting and piracy. To counterfeit is to illegally copy brand-name products or use a trademark without the permission of its owner. Examples include counterfeit Levi's jeans, BMW spare parts, and copies of Bob Marley's "Legend" CD. Piracy, by contrast, is technically the illegal use a copyrighted or patented product or process. Retaining name recognition may not be central to profitability -- as with many pirate pharmaceutical and agrochemical products.

9. In China, computer disks blatantly containing up to $20,000 worth of stolen software can be bought for a few dollars, more than enough to cover the costs of the discs and their distribution. Most pharmaceuticals, which require hundreds of millions of dollars to research and develop, are trivial to synthesize once therapeutically interesting molecules are discovered. See Kate Murashige, op. cit. Knock-off drugs can then be sold in developing markets at one-tenth to one-fifth the cost charged when licensed from the original inventor. See Daniel Pearl, "Big drug makers push Egypt, other nations to end their piracy," The Wall Street Journal, December 13, 1996, p. A1.

10. IBM's first personal computer hit the market in 1981. Music CD's were launched in 1982. The Betamax videos came out in 1975, but it was not until 1982 that VHS became the home video standard. Copy machines date to the 1950s but only became common office equipment in the mid 1970s.

11. In IPRs the US is little concerned with lesser developed countries because they have minimal capacity to purchase or absorb new technologies. The least developed countries are incapable of even becoming pirate producers. At the other end of the spectrum, the advanced industrialized countries are already signatories to the important IP conventions and well-integrated into the international system. This is not to say that the US is not concerned with IP infringement domestically or in advanced countries. Advanced countries are reviewed by the USTR on an ongoing basis. The eight trading partners placed on the "priority watch list" in April 1996 included, for example, the European Union, Japan, and Greece. On the watch list were Italy, Canada, Japan, and Australia.


21. IFPI, op. cit.


24. While piracy is often portrayed as a North-South issue because piracy rates are much higher in developing nations, in fact the gross estimates of piracy losses are much larger for the industrialized countries because their purchasing power is so much greater. It is the rates of piracy, and the lack of prosecution or enforcement which makes infringement most problematic in the BEMs.

25. The first international agreement was the Paris Convention for the Protection of Industrial Property (1883). At around the same time, the Berne Convention for the Protection of Literary and Artistic Works (1886), and the Madrid Agreement for the Repression of False or Deceptive Indications of Source on Goods (1891) were ratified.
26. Though the TRIPs negotiations were rife with north-south splits, the ability to engage in cross-issue bargaining, the fact that all WTO members would have to be TRIPs signatories, the fact that the Dunkel Draft presented a take it or leave it compromise, and the fact that countries realized that without a multilateral agreement the US would continue its aggressive unilateral tactics made agreement possible.

27. See Richard Steinberg, AJL. See also Hugo Paeman and Alexandra Bensch, Du GATT a l'OMC -- la communauté européenne dans l'Uruguay Round, (From GATT to the WTO -- the European Community in the Uruguay Round), Leuven: Leuven University Press, 1995, p. 170.

28. In April 1997 the USTR announced its intention to file six more cases with the DSB.


30. A review of the more than 30 countries who had implemented TRIPs by January 1, 1996 occurred in 1996-1997. Included were all the advanced countries and most Central and Eastern European countries.

31. Hungary, the Czech Republic, Romania, Slovakia, Slovenia, and Poland have already been reviewed by the TRIPs Council.

32. This suggestion was made by Jacques Gorlin, Director of the Intellectual Property Committee in Testimony to the US House of Representatives, Subcommittee on Trade, Committee on Ways and Means, September 11, 1996.


34. Information technology is especially problematic. The Clinton administration's report on "Intellectual Property and the National Information Infrastructure," represents one attempt to create "a domestic and international norms for intellectual property protection" on the internet. How to define ownership on the internet and for databases is a highly contested national problem. In biology the patentability of gene fragments is a similarly contested topic. And while surgical and medical procedures are patentable, recent attempt to collect fees for such patented procedures have caused an uproar.
35. For a discussion of the difficulty of protection in pharmaceuticals see Harvey Bale, Jr., op. cit.; and in biotechnology see Kate Murashige, "Industrial Policy and Biotechnology--Can Intellectual Property Protection Systems Catch Up?", unpublished paper for the Council on Foreign Relations' study group, American IPR Policy after the TRIPs Agreement, March, 1996.

36. Equitable sharing of commercial benefits from genetic resources has been brought up in the UN Convention on Biological Diversity. In exchange for their support of biotechnology patents, developing countries may want to create a system whereby countries' could share in the commercial returns to any product developed using genomic material from a developing country.

37. Shorter patent terms, wider exclusions from patentability, and the ability to grant compulsory licenses more freely have been mentioned as revisions. See Gorlin, op. cit.


39. For a overview of the challenges that information technology poses for the international IP system, and the way in which this issue was dealt with at the December 1996 WIPO Diplomatic Conference see Pamela Samuelson, ÔThe US Digital Agenda at WIPO,Ô unpublished paper, UC Berkeley.

40. There is a new sui generis system of protection for databases in Europe, but no such protection in the US.

41. Geographic exhaustion refers to the ability of a title-holder to prevent the importation of a product that is based on his/her intellectual property. TRIPs leaves the decision of whether a title-holder has the ability to block importation to the individual nations. There has been great debate on this issue, even among the advanced industrialized countries.

42. There is a 5 year moratorium on "nullification and impairment" cases, in which a country that has abided by the letter of the law is nevertheless accused of nullifying or impeding the rights holder's ability to benefit from his intellectual property through behaviors not covered by the WTO.

43. For a discussion of problems the DSU may encounter in IP see Rochelle Cooper Dreyfuss and Andreas Lowenfeld, "Two Achievements of the Uruguay Round: Putting TRIPS and Dispute Settlement Together," paper presented to the Fifth Annual Conference on International Intellectual Property Law and Policy, Fordham University, New York, April 3-4, 1997.
44. The order of priorities has been an acrimonious topic in the Transatlantic Business Dialogue, with Americans interested in coordination of policies vis a vis third parties, and Europeans interested in tackling transatlantic IP disputes first.

45. Even regional trade groups include IP provisions. MERCOSUR -- Brazil, Argentina, Paraguay and Uruguay -- adopted a common protocol for trademark in 1995, and discussions on copyrights are underway. The Free Trade Area of the America's has a Working Group on Intellectual Property Rights.

46. Argentina is an interesting case. Despite earlier assurances and efforts on the part of the Argentine President, the Argentine legislature enacted a new patent law in 1995 which fell short of the protection required under the TRIPs Agreement. In the winter of 1997, the US withdrew 50% of Argentina's GSP benefits as a punitive sanction.

47. Figures for 1995. US exports to Asia were $192 billion. Total Asian exports were about $1.3 trillion. IMF, Direction of Trade Statistics Yearbook, 1996, pp. 2-4, and 445-447.

48. The United States has historically discouraged the formation of any such group. See Joseph M. Grieco, "Realism and Regionalism: American Power and German and Japanese Institutional Strategies During and After the Cold War," Paper presented at the annual meeting of the American Political Science Association, August 29 - September 1, 1996.


50. The Japanese and American system of IP protection are substantially different, and have been the cause of many trade disputes. The United States would probably object were Japan to take a heavy hand in forming the IP systems of other Asian countries. For a discussion of the major US-Japanese differences, see Koichi Hamada, "Protection of Intellectual Property Rights in Japan," unpublished paper presented at the Council on Foreign Relations, April 19, 1996.


52. Yoshida, op. cit.

53. In 1995 the Japanese trade surplus was $135 billion, and the American deficit was $158 billion.

54. Seventy percent of total exports from Japan were machinery and transportation equipment. The figures in this paragraph are from the Japanese

55. And given many disagreements with Japan over IP issues, the US may not welcome a forceful Japanese presence in international IP negotiations. For a good overview of disagreements about IP protection for software see Joel West, "Software Rights and Japan's Shift to an Information Society," Asian Survey Vol. 35, No. 12 (December 1995, pp. 1118-1139).

56. The APEC guiding principles do include comparability of action plans and comprehensive coverage of all sectors which may allow for some inter-sector discussions. But the idea is that individual countries identify the pace and particulars of change, which should eventually result in comparable levels of liberalization in all sectors.


58. Some of the smaller regional groupings, like ASEAN, hold greater promise of pushing Asia forward through their plans of coordinating patent and trademark laws and creating joint institutions.

59. The World Intellectual Property Organization (WIPO) is a UN organization which administers the major international IP conventions, such as the Berne Convention, the Rome Convention, the Geneva Convention, and the Paris Convention. It was created in 1967.

60. Asean members include Thailand, Malaysia, Indonesia, Philippines, Brunei Darusalam, Singapore, Vietnam, Laos, and Myanmar.


62. For example, the personal computer created a mass market for business software over the course of the 1980s estimated at $8 billion, and generated a boom in the employment of software engineers (the job category grew 156% over the decade). By comparison, the growth rate in jobs nationwide was a more modest 12% over the same time period. US Bureau of the Census, "Statistical Abstract of the United States: 1995" (115th edition) Washington, DC, 1995, p. 398.

64. For a total $23.7 billion. IIPA, op. cit.


66. From IIPA, op. cit.


70. The International Intellectual Property Alliance is the umbrella organization of the copyright industry, it was established in 1984.

71. IPC was formed in 1986. It has included at various points Pfizer, IBM, General Electric, Hewlett-Packard, Johnson and Johnson, Merck, Time Warner, Procter and Gamble, Rockwell International, Texas Instruments, Microsoft, DuPont, Warner Communications, Bristol Myers, FMC Corporation, GM, Monsanto.

72. Keidanren is the peak labor union organization in Japan, while UNICE is the Union of Industrial and Employers' Confederations of Europe.


74. Important as the interests of these industries may be, domestic debate about the larger trade policy context is necessary. On occasion, especially when there are questions about the appropriate format of domestic IP protection, internal debates are quite heated. Examples of issues still unresolved in the US include
the patenting of genetic sequences and the breadth of copyright protection to be extended to on-line information and databases. In the former the NIH and the National Academy of Sciences worry about overly broad patent assignations by the USPTO; while in the latter, the USPTO is pitted against the Library of Congress, the National Education Association, and the internet service providers. See Denise Caruso, "Global Debate Over Treaties on Copyright" The New York Times, December 16, 1996, p. D1.


76. Organizationally, WIPO's one-nation, one-vote organization favors the more numerous LDCs.


78. In 1987 Brazil was named priority foreign country for its lack of pharmaceutical patents. Retaliatory tariffs affected $39 million Brazilian exports per year remained in place for two years. For a general discussion of the success of the use of Section 301 see Alan O. Sykes, "Constructive Unilateral Threats in International Commercial Relations: The Limited Case for Section 301," in Law and Policy in International Business Vol. 23, No. 2 (1992), pp. 263-331.

79. The Generalized System of Preferences (GSP) are preferential market access measures for developing countries. The Caribbean Basin Initiative and the Andean Trade Preferences Act are also linked to intellectual property protection.


81. 11.9% of European exports are to Asia, 14.4% of US and 29.6% of Japanese exports are to Asia. Financial Times, op. cit.


83. Of the largest pharmaceutical firms in 1995, four were European and six were American. However, this distinction makes decreasingly little sense as mergers are bringing Euro-American firms under a single roof.

84. The other two majors are Time Warner (US) and Sony (Japan).

85. In other software sectors, European companies are very competitive. Europeans have successful accounting software developers, and in
manufacturing software Germany's SAP and the Netherlands Baan are world renowned. But because these software products are quite complicated, and require a great deal of customization and service support, they are not easy targets for large scale piracy.

86. According to the Financial Times Europe has only 1% of the global market share in semiconductors in 1995, Japan had 75.7% North America had 17.9%, and Asia 5.4%. Financial Times June 12, 1996, p. 7.

87. For example, Portugal and Greece did not offer product patents for pharmaceuticals. Paeman, op. cit.


89. Participants were the 15 European Union members, the ASEAN countries, and Japan, China, and Korea. ASEM's purpose is, vaguely, to promote trade liberalization, boost trade and investment, and foster private sector contacts.


91. This section based on Harri Beekmann, "The Revised commercial Policy Instrument of the European Union," World Competition, 1995, ???

92. These include withdrawal of concessions, raising of tariffs, or imposition of quantitative restrictions.

93. DG I at the Commission has set up a Market Access Database which keeps tabs on IPRs. It asks for input on problems from the private sector.


95. From Lionel Barber, "Brussels strives to call the tune on trade," Financial Times, March 1996.

97. The Commission was highly visible during the GATT TRIPs negotiations and at the WIPO New Instruments/Berne Protocol conference in December 1996.

98. DG1 is concerned with external policies and has a section on Intellectual Property and Investment, and DG XV is concerned with European Intellectual Policy harmonization issues.


100. This may in part be because Spain, Portugal, Greece, and Italy were reluctant to adopt some parts of the TRIPs Agreement themselves.