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CRS Report for Congress

Intellectual Property Rights and The Uruguay Round of Multilateral Trade Talks: Economic Effects

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INTELLECTUAL PROPERTY RIGHTS AND THE URUGUAY ROUND OF MULTILATERAL TRADE TALKS: ECONOMIC EFFECTS

SUMMARY

On April 15, 1994, the United States and over 100 other countries signed trade agreements reached during the Uruguay Round of multilateral trade negotiations. The negotiations were conducted under the auspices of the General Agreement on Tariffs and Trade (GATT). Congress may consider legislation to implement the trade agreements.

One of the areas covered by the agreements is trade-related intellectual property rights (IPR). These rights are generally embodied in copyrights, trademarks, patents and related provisions. Protection of these rights was a key objective of the United States. The United States and other industrialized countries wanted stronger IPR standards and enforcement. U.S. officials believe that the United States has an advantage in high technology industries and that unauthorized use of new technologies costs U.S. firms billions of dollars in lost sales. On the other hand, some developing countries resisted stronger rules covering IPR and they supported greater sharing of technology.

The rights of innovators are expected to be strengthened under the Uruguay Round package. For the first time, countries have agreed to worldwide rules for trade-related IPR. The agreement sets clearer, more comprehensive standards for protection of IPR; strengthens enforcement of those standards; and ties trade-related IPR issues to the multilateral dispute mechanism. Interests of the developing countries are also represented, notably in the longer transition times for the developing countries to apply the new rules.

U.S. private industry generally supports the IPR agreement. Businesses are pleased that countries must accept the IPR agreement if they want to sign on to the whole trade agreement package. They approve of several new and extended protections. They are disappointed, however, with the long periods before which some countries would be required to observe the new rules. They also were dissatisfied that the European Union did not agree to change certain entertainment-related practices.

More important than the issue of IPR protection and sales in the short-term is the issue of how IPR monopoly rights affect long-term returns on investment in research and development (R&D). When a government gives exclusive rights to innovators, it encourages a higher rate of return on R&D and thus encourages technological innovation. It does so, however, at the expense of competition and lower prices to consumers.

There are several legislative issues related to the IPR agreement. First, changes to U.S. patent, trademark, copyright and related laws will be part of a bill to implement the Uruguay Round results. Second, commitments under the agreement might influence how the United States uses current domestic laws to address inadequate foreign protection of IPR. Lastly, the Administration and Congress might consider whether and how IPR negotiations should continue.

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INTELLECTUAL PROPERTY RIGHTS AND THE URUGUAY ROUND OF MULTILATERAL TRADE TALKS: ECONOMIC EFFECTS

On April 15, 1994, the United States and over 100 other countries signed world trade agreements concluding more than seven years of negotiations. Those negotiations, known as the Uruguay Round, were conducted under the auspices of the General Agreement on Tariffs and Trade (GATT), the international organization that oversees worldwide trade rules.

When the countries signed the agreement, they communicated that they would seek implementation of the agreements by January 1, 1995. In the United States, implementation will require congressional passage of legislation. That legislation would make domestic law consistent with the trade agreements. It might also include related trade provisions.

If implemented, the Uruguay Round agreements will significantly revise and augment the current rules that govern world trade. They will lower tariffs, tighten existing rules, strengthen dispute procedures, establish a new overall administrative structure, and expand coverage to new areas. One of the new areas is trade-related intellectual property rights. (See box below.) This paper examines intellectual property rights in the context of the Uruguay Round talks. It provides background on the talks, discusses the IPR provisions of the trade agreement, and examines the economic considerations of intellectual property rights protection.

WHAT ARE INTELLECTUAL PROPERTY RIGHTS?

Governments attempt to encourage creative output by ensuring creators certain rights that limit or control the use of the innovation by others. These intellectual property rights are commonly accorded through copyrights, patents, trademarks, mask works (for circuit designs), trade secrets, and other protections.

Copyrights protect literary expressions, which include books, movies, recordings, and computer programs. Patents protect industrial and other technical inventions. Trademarks prohibit unauthorized use of a mark or symbol that identifies a specific product. A mask work guards against unauthorized reproduction, importation, or distribution of a semiconductor chip design.

BACKGROUND

In the mid-1980s, when the agenda for a new round of multilateral talks was being framed, protection of intellectual property rights (IPR) was a key objective in U.S. trade policy. There were several reasons why protection of IPR was so important to the United States: (1) the worldwide proliferation of unauthorized copies of items protected by IPR; (2) the growing importance of high technology products; and (3) the expansion of technology into new areas where old forms of protection did not apply.[1]

Discussion of IPR protection had begun during the preceding round (the "Tokyo Round") of multilateral trade talks (1973 to 1979). In the final year of that round, the United States and the European Community reached agreement on a text on the importation of counterfeit goods, and Japan and Canada later accepted the text in principle.[2] Those negotiations introduced IPR as a topic for multilateral talks, but the scope of the talks was limited to trade in counterfeit goods (goods produced in violation of a trademark). They did not address the different levels of protection offered by the nations.

The United States and other industrialized countries wanted to continue this earlier work in the new multilateral round of talks, the Uruguay Round. Then-U.S. Trade Representative Clayton Yeutter stated before the Round began: "Internationally, one of our priorities is completing work on the GATT anti-counterfeiting code."[3] The United States also sought to expand on that work to include other IPR areas such as copyrights and patents and wanted to address standards and enforcement. A chief concern of the United States and other industrialized countries was market loss that resulted from unauthorized reproduction of creative output. The United States also was concerned about IPR protection and long-term economic growth and competitiveness.

Many developing countries, led by Brazil and India, resisted the industrialized countries' position. They wanted the issue of IPR addressed in another forum: the World Intellectual Property Organization, a separate, United Nations-affiliated body that set general standards for IPR protection but had no enforcement power. These countries stated that the benefits of creativity should be shared and that technology should be transferred between countries without impediment. They wanted to ensure that their populations had access to low-priced products that incorporated modern technologies, for example

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[1] The Atlantic Council of the United States. *The Uruguay Round of Multilateral Trade Negotiations Under GATT: Policy Proposals on Trade and Services.* Report of the Atlantic Council's Advisory Trade Panel. Washington, D.C. November 1987. p. 61.

[2] Ibid, p. 62.

[3] U.S. Senate. Committee on Finance. *Possible New Round of Multilateral Trade Negotiations.* Hearing on S. 1860, S. 1837 and S. 1865, May 14, 1986. Washington, U.S. Govt. Print. Off., 1986. p. 39.

medicines and other pharmaceutical products. Infringers in these countries also had an interest in unregulated access to new ideas, processes, works of entertainment, and other products.

When the agenda for the Round was finally agreed upon in September 1986, it included a section on trade-related IPR that reflected both of the above positions. The Ministerial Declaration that set the agenda said that in order to reduce trade distortions and provide effective IPR protection, and to ensure that IPR enforcement did not itself become a barrier to trade, the negotiations should "...aim to clarify GATT provisions and elaborate as appropriate new rules and disciplines." It said that negotiations should aim to develop a multilateral framework of rules dealing with international trade in counterfeit goods. It also said, however, that the negotiations would not preclude other initiatives in the World Intellectual Property Organization and elsewhere. Thus, the Uruguay Round agenda sought to encourage creative efforts by calling for multilateral rules for protection while considering the reservations of developing countries.

THE URUGUAY ROUND AGREEMENT

The Uruguay Round established a new institutional structure, the World Trade Organization (WTO), with responsibility for administering the agreements concluded during the Round. One of the agreements that the WTO will administer is the Agreement on Trade-Related Aspects of Intellectual Property Rights.[4] This agreement will, for the first time, require countries to observe a worldwide set of rules that tie trade and intellectual property rights. Although many U.S. interests are satisfied with the agreement, some are disappointed with certain provisions.[5]

PROVISIONS OF THE AGREEMENT

Negotiators reached an IPR agreement that sets clearer, more comprehensive standards for protection of IPR; strengthens enforcement of that protection; and ties trade-related IPR issues to the multilateral dispute

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[4] Multilateral Trade Negotiations. The Uruguay Round. Trade Negotiations Committee. *Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations.* Agreement Establishing the World Trade Organization; Annex 1C. Marrakesh, April 15, 1994.

[5] For further information on the intellectual property rights agreement, see CRS Report 94-228 A, *Enforcement of Intellectual Property Rights Under the GATT 1994 TRIPS Agreement*, by Dorothy Schrader, March 3, 1994; CRS Report 94-302 A, *Intellectual Property Provisions of the GATT 1994: "The TRIPS Agreement"*, by Dorothy Schrader, March 16, 1994; and General Accounting Office Report GAO/GGD-94-83b, *The General Agreement on Tariffs and Trade: Uruguay Round Final Act Should Produce Overall U.S. Economic Gains*, July 1994 (pages 84-104).

mechanism. The agreement accommodates the interests of developing countries in several ways, such as by allowing a longer transition to apply the new rules.

Principles

The IPR agreement imposes the principles of national treatment (equal treatment for foreign and domestic businesses and products) and most-favored-nation treatment (nondiscrimination among foreign businesses), with certain exceptions. It encourages consideration of both technological innovation and the transfer of technology. It allows countries to take measures, consistent with the agreement, to protect public health and to prevent the abuse of rights by rights holders.

Standards

The text directs countries to use **copyright** standards from the Berne Convention, which is the principal international copyright treaty. It gives copyright protection to computer programs and data files. It extends the right to authorize or prohibit commercial rental to authors of computer programs and films. It ensures the right of sound artists, recording companies, and broadcast organizations to prohibit recordings, unauthorized copies, and broadcasts. It sets the term for copyrights at a minimum 50 years, with exceptions for certain categories.

The agreement specifies conditions under which use of a **trademark** may be a qualification for application or registration. It says that Parties must publish trademarks either before or just after registration and there must be an opportunity for petitions to cancel the registration. It gives the owner of a trademark the exclusive right to prevent others from using identical or similar signs if such use would lead to confusion. It prohibits compulsory licensing[6] of trademarks, although it allows countries to set conditions for the licensing and assignment of trademarks. It sets the term for trademarks at 7 years minimum, renewable indefinitely.

The IPR accord specifies that **patents** shall be available for products and processes, regardless of place of invention or production or of field of technology. It allows countries to exclude inventions from patentability in order to protect human, animal or plant life or health or the environment. Countries may exclude from patentability: diagnostic, therapeutic and surgical methods; and plants and animals other than microorganisms, and biological processes for the production of plants or animals with some exceptions. Compulsory licensing is limited but not prohibited. The term of a patent will be 20 years from the filing date.

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[6] Compulsory licensing is the practice of government permission of parties to reproduce or otherwise use a product or process covered by a patent, copyright, trademark, or other protection without the owner's authorization.

The agreement provides that it will be unlawful to sell, import, or otherwise distribute **circuits with protected layout-designs** without authorization. The Agreement provides, however, if a person did not know and had no reasonable ground to know that the layout-design was unlawfully used, then it is not unlawful, but the person must pay royalties to the holder of the rights. The term of protection for layout-designs will be 10 years minimum from date of filing for registration or from the date of first commercial exploitation where no registration is required.

Geographical indications identify a good as originating in a territory where a given quality is attributable to its geographic origin. The agreement specifies that countries shall provide the means to prevent the use of misleading geographical designations. It directs that negotiations take place regarding the geographical indications to be protected and that many geographical indications be grandfathered.

The text directs countries to provide protection for **industrial designs** and makes the term of industrial design protection at least 10 years. It instructs countries to protect **trade secrets**, with special protection for pharmaceutical or agricultural chemical products where the member requires submission of undisclosed data in order to approve new products. It states that parties shall consult on anticompetitive licensing practices that possibly violate IPR.

Enforcement

The agreement specifies that Parties must meet general obligations such as fair, equitable, and timely enforcement procedures; written and timely decisions; and judicial review.

For persons or businesses seeking remedy for or cessation of intellectual property usurpation, enforcement is largely by civil suit privately brought under the laws of the country with jurisdiction. If the persons or businesses seeking remedy are not satisfied with how the country of jurisdiction applies enforcement measures, they can approach their own government for possible action under the multilateral dispute process.

It has several sections on civil and administrative procedures and remedies. Some sections pertain to access to judicial procedures; procedures regarding notice, appearances and evidence; and authority to order a party to desist from an infringement, pay compensatory damages, and dispose of infringing goods. These sections will be interpreted and applied in the individual national systems of commercial law and intellectual property right law. The ability of governments to depart from the terms of the agreement, however, are limited by the country's obligations as a signatory.

There are special requirements that relate to border measures. These pertain to release of goods by customs officials, application for suspension of release by the holder of an intellectual property right, security to cover the

defendant, inspection of goods, and order for the destruction of infringing goods. The text requires that Parties provide for criminal procedures.

Dispute Settlement

The agreement provides that the dispute settlement procedures of the new trade regime will apply to IPR disputes, although it delays their application in so-called "nonviolation" cases for five years. These are cases where another party's measure is alleged to have an adverse trade effect, but is not claimed to violate an agreement.

The dispute procedures permit so-called cross-retaliation; that is, the use of trade restrictions in one area (goods, services, IPR) to address the violation of commitments in another. Cross-retaliation was an important U.S. objective, since U.S. officials believed that they could put greater pressure on countries to protect IPR if the threat of higher tariffs on their goods could legally be used.

The agreement also includes several requirements that ensure open information: IPR-related laws and regulations must be published; Parties must notify the Council on Trade-Related Aspects of Intellectual Property Rights (the IPR Council, a newly established body under the IPR agreement) of their laws and regulations, unless waived; and Parties shall provide information if requested by another Party.

Transition

Parties shall have one year after entry into force to apply the provisions of the agreement. However, certain groups will have additional time for transition: developing countries and countries in transformation from a centrally planned economy to a market economy get an additional 4 years for most rules (total of 5); developing countries get an additional 5 years for product patents in certain circumstances; and least developed countries get an additional 10 years (total of 11) for most but not all provisions. The text directs developed countries to encourage technology transfer to the least developed countries and to help other countries to establish systems for IPR protection.

PRIVATE SECTOR RESPONSE

The private sector Advisory Committee for Trade Policy and Negotiations approved of the IPR agreement overall. It was pleased that countries had to accept the IPR agreement in order to be party to all the other Uruguay Round agreements. It cited with approval some specific terms of the agreement: new protection for databases and computer programs; extended protection for sound recordings and semiconductor layout designs; improved patent protection,

especially for pharmaceuticals and agrichemicals; and better security for trade secrets.[7]

Industry advisors, however, considered some protections unsatisfactory. They were disappointed that developing countries and countries in transition from centrally planned economies were granted extended periods before they had to implement the new standards and enforcement measures. For example, pharmaceutical companies are very unhappy about the 10-year delay in recognition of their patents and estimate that they will lose billions of dollars per year during the transition. Some businesses also were dissatisfied that the national treatment provisions of the copyright sections did not clearly prohibit European Union discrimination related to levies on audio and video tapes.

ECONOMIC CONSIDERATIONS OF INTELLECTUAL PROPERTY RIGHTS PROTECTION

Virtually every industry uses creative ideas or products that are covered by intellectual property rights; however, IPR protection is more important to some than others. In a 1988 study, the International Trade Commission (ITC) found that 62 percent of respondents to a survey of U.S. firms said that intellectual property was of "more than nominal importance."[8] About 20 percent of these firms were involved in computers, electronics and computer software; about 12 percent were involved in printing and publishing; and 10 percent were involved in entertainment and broadcasting. Of those that reported IPR was of less, or "only nominal," importance most were in businesses related to primary commodities and basic services.

Some industries are dependent upon *certain kinds* of intellectual property. According to the ITC study, "Copyrights are most important in industries such as printing and publishing, broadcasting, computer software, entertainment, including motion pictures, music, and all audio and video recordings...." It said that trademark violation was most prevalent in industries where "...a significant percent of the retail price is supported by a well-known trademark, such as fashion and sporting wearing apparel and footwear, cosmetics, watches, jewelry, sporting goods, aftermarket automobile parts, liquors, tobacco products, and blank tapes." Patents are most important, the study said, "in technologically innovative industries...in the aerospace, pharmaceuticals, agricultural chemicals, computers and electronics, industrial equipment, processing and control

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[7] The Advisory Committee for Trade Policy and Negotiations (ACTPN). *A Report to the President, the Congress, and the United States Trade Representative Concerning the Uruguay Round of Negotiations on the General Agreement on Tariffs and Trade.* January 15, 1994. p. 3

[8] U.S. International Trade Commission. *Foreign Protection of Intellectual Property Rights and the Effect on U.S. Industry and Trade.* USITC Publication 2065. February 1988. p. 2-1.

equipment, motor vehicles and parts, photographic equipment, scientific and medical equipment, and communications industries."[9]

These industries claim that they lose billions of dollars in revenues because of unauthorized foreign copies of products covered by intellectual property rights, though estimates of losses vary significantly. The ITC report said that survey respondents estimated they lost $23.8 billion in foreign sales in 1986 because of inadequate IPR protection. The International Intellectual Property Alliance, which represents associations concerned about copyright protection, estimated that lost sales because of copyright piracy in 32 offending countries was over $6.2 billion in 1993.[10]

Some experts, however, suggest that some industry estimates imply inflated losses. The ITC acknowledged that estimates from its survey of businesses that suffer from inadequate IPR protection might be self-serving. Those focussing on world welfare outcomes argue that short-term losses for businesses should be considered against gains for consumers and infringers. One study found that profit losses of the legitimate business may be *greater* than the static gains by consumers or the gains by infringers alone, but that the business losses might be *smaller* than the gains by consumers and infringers combined.[11]

The loss of sales by legitimate businesses was the argument heard most often in the debate about whether there should be an IPR agreement in the Uruguay Round. These short-term losses, however, are only part of the picture. A broader perspective is the monopoly right that IPR bestows on holders of the intellectual property, and the effect of that monopoly right on prices and long-term returns on investment in research and development (R&D).

Copyrights, patents, and trademarks confer on the holder of these rights exclusive control of the innovation (copyrights, patents) or mark of quality (trademark). If a government does not grant exclusive rights to the innovator, other producers can reproduce the innovation. A larger number of producers would promote competition and low prices in the short-term. But this practice reduces the rate of return on the original R&D and discourages R&D projects in the long-term. Under a strong set of property rights and a strong system of enforcement, however, reproduction would be more difficult and costly and take longer. The effect would be greater return to the producer who had invested

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[9] Ibid.

[10] International Intellectual Property Alliance. *People's Republic of China Tops IIPA's Special 301 Target List with Almost $830 Million in Estimated Losses Due to Piracy.* February 18, 1994. p. 1

[11] Feinberg, Robert M. and Donald J. Rousslang. The Economics Effects of Intellectual Property Rights Infringements. *Journal of Business*, 1990, vol 63, no. 1, part 1. pgs. 79-90. See also, Helpman, Elhanan. *Innovation, Imitation, and Intellectual Property Rights.* Harvard Institute of Economic Research. Discussion Paper no. 1597. May 1992.

originally in the R&D. Theory holds and experience generally supports that the greater the return, the greater the incentive to invest in future R&D projects.[12] Strong IP rights for innovators reduces short-term welfare benefits, especially for consumers, but governments grant those rights in pursuit of the long-term benefits to the economy that come about through technological innovation.

If the level of protection for technological innovation affects R&D investment, then the Uruguay Round IPR provisions could have a long-term, stimulative effect on worldwide R&D investment because the agreement establishes stronger international standards and enforcement. R&D investment among countries also might be affected. Industrial countries now have stronger IPR laws and depend on technologically advanced industries more than developing countries do. As developing countries strengthen their domestic laws protecting IPR, they may well be worse off for some time because of higher prices for products that incorporate advanced technologies. But their stronger standards and enforcement might substantially increase R&D investment over time, to the general benefit.

POLICY IMPLICATIONS

There are several policy implications related to the IPR provisions of the Uruguay Round. First, and perhaps foremost, the United States can now deal with other countries concerning their IPR policies under a recognized set of international rules. Without such rules, countries have no obligation to observe certain standards, prevent violation of other countries' IPR protections, or take any action whatsoever. Up to now, the United States has acted unilaterally to address other countries' practices. Unilateral action may well be effective in some cases but is not necessarily consistent with existing commercial agreements. Now, there are negotiated rules that would cover all signatories.

Second, commitments under the Uruguay Round agreement might influence how the United States uses domestic laws intended to address inadequate foreign protection of IPR. One such law is so-called Special 301 (19 USC 2242). This law allows the U.S. Trade Representative (USTR) to impose trade sanctions if another country does not improve IPR protection that the USTR determines to be inadequate. In general, U.S. businesses have advocated the use of Special 301 and urge continued use. However, now that a new IPR agreement has been reached and dispute settlement procedures apply, the United States will be expected to observe the IPR rules and follow the dispute procedures. It is possible that the United States might use Special 301 less often or use it in a different way.

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[12] For further discussion, see Butler, Alison. The Trade-Related Aspects of Intellectual Property Rights: What is at Stake? *Federal Reserve Bank of St. Louis Review.* November/December 1990. p. 39-40. For a selection of articles on the economics of technology change, see Mansfield, Edwin and Elizabeth Mansfield. *The Economics of Technical Change.* Edward Elgar Publishing Company. Brookfield, Vermont, 1993. 485 p.

Third, how might the agreement affect U.S. patent, trademark, copyright and related laws? The bill to implement the Uruguay Round agreements would change U.S. laws to bring them into line with the international commitments. These changes are not expected to cause major shifts in IPR-related policies overall, since U.S. laws already provide the basic protections contained in the agreements. The legislative changes are expected to be more in the nature of refinements, corrections, or modifications. To give an example, the implementing bill probably will change the start of a patent's term from the date of grant (issuance of patent) to the date of filing.

Fourth, the Government might consider whether negotiations should continue on specific IPR issues. The Administration might consider future talks on changes to keep pace with technological advances. Such discussions on whether multilateral rules are keeping up with innovation might be held within the IPR Council. Also, the Administration might consider problems that were not solved in the Uruguay Round, for example whether to undertake talks with the European Union on audio and video tape levies.

The Congress might consider several questions on intellectual property rights and trade. What role should IPR protection play in national R&D policy? What part should trade laws and policies have in providing protection of intellectual property rights in the United States and overseas? What is the proper balance between protection of IPR and consumer or world welfare interests? What issues are unresolved under the Uruguay Round IPR agreement? How do the agreement's benefits and costs weigh against each other? What effect will the new dispute settlement mechanism have on IPR-related complaints? If the agreement is not implemented by the United States (or other major traders), what alternative policies might be considered?