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The History of the Patent Harmonization Treaty: Economic Self-Interest as an Influence

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The History of the Patent Harmonization Treaty: Economic Self-Interest as an Influence

Abstract

How shall the United States decide whether to adopt the Patent Harmonization Treaty? What questions shall we ask? Whose answers shall we trust? What sources of information can provide us with the background needed for these inquiries? This article offers a framework in which to ask, and begin to answer, these questions. It focuses on the international community's past efforts to harmonize the law of patents. It asserts not only that history provides context, but also, that the same history yields lessons directly applicable to many of the treaty's basic issues. Section I discusses the immediate history of WIPO's efforts to obtain the Patent Harmonization Treaty and summarizes the steps that have been taken to date before that organization. In addition, it also states the current procedural posture of the treaty negotiations. Section II places this immediate history in larger context. The international community has been grappling with the problems of foreign patenting for over a century. Many of those problems predate the first international patenting agreement, the Paris Convention. The article summarizes those problems. Section III outlines a set of inquiries to evaluate the Patent Harmonization Treaty. Fundamentally, we must discern the national interests of the United States and how the treaty will affect them. Given industry's large role in designing the treaty, coupled with its historical disinterest in the costs of patenting, particular attention must be placed on the increased domestic costs that the Patent Harmonization Treaty will impose on the United States.

Keywords

Patents, WIP, Patent Harmonization Treaty, international law, foreign patents, intellectual property

Disciplines

Comparative and Foreign Law | Intellectual Property Law | International Law

THE HISTORY OF THE PATENT HARMONIZATION TREATY: ECONOMIC SELF-INTEREST AS AN INFLUENCE

R. CARL MOY*

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INTRODUCTION

The United States has recently seen increasing efforts to harmonize¹ its law of patents with those of foreign countries. Extensive intellectual-property provisions exist, for example, in the North American Free Trade Agreement.² The Uruguay-Round negotiations concerning the General Agreement on Tariffs and Trade ("GATT") have, for the first time, produced a comprehensive set of intellectual-property provisions in the context of that agreement, albeit in draft form.³ Discussions of the merits of harmonization are appearing frequently in legal literature.⁴

1. Generally speaking, the harmonization of legal systems refers to coordinating the various rules of law in the subject systems to the point where they express common, minimum principles. In this sense, harmonization can be contrasted with the more exacting ideal of "unification" of the law which, in its pristine form, refers to the use of the same legal rules in each system. See generally 2 DAVID RENE, *THE INTERNATIONAL UNIFICATION OF PRIVATE LAW*, INTERNATIONAL ENCYCLOPEDIA OF COMPARATIVE LAW, ch. 5, 34-35 (1971).

2. PAUL HASTINGS, JANOFSKY & WALKER, *NORTH AMERICAN FREE TRADE AGREEMENT: SUMMARY AND ANALYSIS* 83-89 (1993). If adopted, the North American Free Trade Agreement ("NAFTA") would create a free-trade zone comprising the United States, Mexico, and Canada. All three governments have signed the agreement, but it has yet to be ratified.

The intellectual property provisions of NAFTA have been reprinted in 5 *WORLD INTELL. PROP. REP.* 284 (1992). For an analysis of these provisions, see Seth D. Greenstein, *Examination of I.P. Provisions of North American Free Trade Agreement*, 6 *WORLD INTELL. PROP. REP.* 344 (1992).

3. In part, due to the insistence of United States negotiators, the member nations of GATT have resolved to negotiate substantive intellectual-property provisions for inclusion into that agreement during the Uruguay Round. See generally DONALD K. DUVAL, *UNFAIR COMPETITION AND THE ITC* 553-68 (1992). The present text of GATT treats intellectual property matters only peripherally. *Id.* at 555.

The Director-General of GATT, Arthur Dunkel, has produced a draft agreement in an effort to conclude the Uruguay Round of negotiations. *Draft Final Act for Uruguay Round*, GATT Doc. No. MTN.TNC/w/Fa (Dec. 20, 1991). See Alan S. Gutterman, *The North-South Split Regarding the Protection of Intellectual Property Rights*, 28 *WAKE FOREST L. REV.* 89, 108-11 (1993). The intellectual-property provisions of that agreement have been reprinted at 5 *WORLD INTELL. PROP. REP.* 42 (1992). They have been the subject of considerable controversy. See, e.g., *Mid-April Deadline Set for Talks; TRIPs Document Gets Poor Reviews*, 6 *WORLD INTELL. PROP. REP.* 41 (1992); *Proposed TRIPs Text Would Limit Use of Special 301, USTR Counsel Says*, 6 *WORLD INTELL. PROP. REP.* 102 (1992).

For general discussions of the intellectual property negotiations of the Uruguay Round, which are referred to by the acronym TRIPs, see generally John Richards, *Trade Related Intellectual Property Issues (TRIPs)*, 72 *J. PAT. & TRADEMARK OFF. SOC'Y* 906 (1990); Otto A. Stamm, *GATT Negotiations for the Protection of New Technologies*, 73 *J. PAT. & TRADEMARK OFF. SOC'Y* 680 (1991); *Symposium, Trade Related Aspects of Intellectual Property*, 22 *VAND. J. TRANSNAT'L. L.* 223, 689 (pts. 1 & 2) (1989); *GATT OR WIPO? NEW WAYS IN THE INTERNATIONAL PROTECTION OF INTELLECTUAL PROPERTY*, 11 *IIC STUDIES* (Frederick Beier & Gerhard Schrickler eds. 1991).

4. E.g., Blake R. Wiggs, *Canada's First-to-File Experience — Should the U.S. Make the Move?*, 73 *J. PAT. & TRADEMARK OFF. SOC'Y* 493 (1991); Lisa M. Brownlee, *Trade Secret Use of Patentable Inventions, Prior User Rights and*

As a part of these efforts, the United States is now poised to decide whether to accept the Patent Harmonization Treaty.⁵ Negotiations concerning the treaty have taken place before the World Intellectual Property Organization ("WIPO")⁶ since 1983.⁷ A draft text has been produced.⁸ The Paris Union has discussed the draft at

Patent Harmonization, 72 J.P.T.O.S. 523 (1990); Charles R.B. Macedo, *First-to-File: Is American Adoption of the International Standard Worth the Price?*, 1988 COLUM. BUS. L. REV. 543 (1988); Ned L. Conley, *First-to-Invent: A Superior System for the United States*, 22 ST. MARY'S L.J. 779 (1991).

5. See generally *History of the Preparations of the Patent Law Treaty*, WIPO Doc. PLT/DC/5 (Dec. 21, 1990) [hereinafter *History*], reprinted in *Records of the Diplomatic Conference for the Conclusion of a Treaty Supplementing the Paris Convention as Far as Patents are Concerned*, WIPO, Diplomatic Conference, pt. 1 (1991) [hereinafter *Records*]. For discussions of the Patent Harmonization Treaty overall, see Edward G. Fiorito, *Harmonization of U.S. and Worldwide Patent Laws*, 73 J. PAT. & TRADEMARK OFF. SOC'Y 83 (1991); Jochen Pagenberg, *The WIPO Patent Harmonization Treaty*, 19 AIPLA Q.J. 1 (1991); William Fryer III, *Patent Law Harmonization: The Current Situation and Alternatives Available*, 72 J. PAT. & TRADEMARK OFF. SOC'Y 242, 298 (pts. 1 & 2) (1990).

The treaty is known officially as the "Patent Law Treaty." See, e.g., *History*, *supra*. Those in the United States, however, have referred to it most commonly as the "Patent Harmonization Treaty." This article adopts the latter usage.

6. Generally speaking, WIPO is the organization that administers the various forms of the Convention for the International Protection of Industrial Property ("Paris Convention") and agreements subsidiary thereto. See INTERNATIONAL TREATIES ON INTELLECTUAL PROPERTY (Marshall A. Leaffer, ed. 1990). It is the creation of the countries that have adhered to the Paris Convention, who together comprise the Paris Union. WIPO replaced the United International Bureau for the Protection of Intellectual Property ("BIRPI") in 1967. *Id.* at 563-64; see also *The Convention Establishing the World Intellectual Property Organization*, WIPO Pub. No. 251, reprinted in Leaffer, *supra* at 566.

7. The treaty has been negotiated in a series of sessions before WIPO of the "Committee of Experts on the Harmonization of Certain Provisions of Law for the Protection of Inventions." See generally *History*, *supra* note 5, at ¶ 4. In general, eleven preparatory sessions have been held, including an initial meeting limited to the consideration of issues relating to the use of a "grace period" before filing. See *infra* notes 30-36. The following is a list of those sessions along with citations to the Notes summarizing each that have appeared in WIPO's monthly publication, INDUSTRIAL PROPERTY:

Prior meeting on grace period	1984 INDUS. PROP. 313
1st Session	1985 INDUS. PROP. 267
2nd Session	1986 INDUS. PROP. 309
3rd Session	1987 INDUS. PROP. 204
4th Session	1988 INDUS. PROP. 179
5th Session,	
part 1	1988 INDUS. PROP. 358
part 2	1989 INDUS. PROP. 53
6th Session	1989 INDUS. PROP. 269
7th Session	1990 INDUS. PROP. 140
8th Session,	
part 1	1990 INDUS. PROP. 297
part 2	1991 INDUS. PROP. 41

8. *Draft Treaty Supplementing the Paris Convention for the Protection of Industrial Property As Far As Patents Are Concerned (Patent Law Treaty)*, WIPO Doc. No. PLT/DC/3 (Dec. 21, 1990) [hereinafter PLT], reprinted in *Records*, *supra* note 5, at 11-53. WIPO has suggested various modifications to

the first part of a diplomatic conference,⁹ with the second and probably final part of the conference likely to take place soon.¹⁰ Legislation has been introduced nationally that would, in effect, commit the United States to implement a signed treaty.¹¹

Much of this activity has come at the insistence of patent-owning industry.¹² United States industry is relying increasingly on foreign sales.¹³ It has attributed lost profits on those sales to inadequate patent protection in foreign countries.¹⁴ Patent harmonization is seen as a means of strengthening the patent protection that

this proposal. They are summarized in *Observations of the International Bureau Following the First Part (1991) of the Diplomatic Conference*, WIPO Doc. No. PLT/DC/69 (Jan. 29, 1993). See also *Memorandum of the Director General: Continuation of the Diplomatic Conference for the Conclusion of a Treaty Supplementing the Paris Convention as Far as Patents Are Concerned*, WIPO Doc. No. P/A/XIX/3 (1992) [hereinafter *Memorandum of the Director General*]; *Report Adopted by the Assembly*, WIPO Doc. No. P/A/XIX/4 (1992).

9. The first part of the diplomatic conference occurred in June 1991. Those proceedings are summarized in 1991 INDUS. PROP. 360. See also *Results of The First Part (1991) of the Diplomatic Conference*, WIPO 2d pt., Doc. No. PLT/DC/INF/5 (Jan. 29, 1993). See discussion *infra* notes 52-67.

10. See *infra* notes 64-67.

11. S. 2605, 102d Cong., 2d Sess. (1992); H.R. 4978, 102d Cong., 2d Sess. (1992); See also 138 CONG. REC. S5226-01 (introducing S. 2605); 44 PTCJ 3 (May 7, 1992) (summarizing testimony at the joint hearing on S. 2605 and H.R. 4978). Both bills failed to become legislation. As of this writing, however, the bills are expected to be reintroduced before the second part of the diplomatic conference. See *infra* note 67.

12. *Joint Hearings on S. 2605 and H.R. 4978 Before the Senate Subcommittee on Patents, Copyrights and Trademarks and the House Subcommittee on Intellectual Property and Judicial Administration of the House and Senate Committees on the Judiciary*, 102d Cong., 2d Sess. (statement of Robert Armitage on behalf of the National Association of Manufacturers) (Apr. 30, 1992); Position Statement by Intellectual Property Owners, Inc. on S. 2605 and H.R. 4978, *The Patent Harmonization Act of 1992*, June 25, 1992. See also *First-to-file Does Not Win Approval by ABA House of Delegates, but Is Approved at National Association of Manufacturers meeting*, 45 PAT. TRADEMARK & COPYRIGHT J. 323-24 (Feb. 18, 1993). The various advisory committees that assisted the United States in formulating its policies toward trade negotiations in the 1980's included heavy representation from industry. See *infra* notes 188-89.

13. See, e.g., Office of the United States Trade Representation, Administration Statement on International Trade Policy 2 (Sept. 23, 1985) (reporting growth of imports and exports, as percentage of total GNP, from 9% in 1950, to 13% in 1970, to 21% in 1985).

14. E.g., U.S.I.T.C., Foreign Protection of Intellectual Property Rights and the Effect on U.S. Industry and Trade, U.S.I.T.C. Pub. 2065, 4-1 (Feb. 1988) [hereinafter U.S.I.T.C. Survey]; Beier & Schriker, *supra* note 3 (assertion by joint group of United States, Japanese, and European business entities). See generally U.S.I.T.C. Survey, at 4-3 (calculating losses for all forms of intellectual property, based on survey results, at \$23 billion); Statement of Secretary of Commerce Malcolm Baldrige on the Proposed "Intellectual Property Rights Improvement Act of 1986," reprinted in United States Dept. of Commerce News (Apr. 7, 1986) (reporting losses as "from \$8 billion to \$20 billion in sales"); Task Force on Intellectual Property, Summary of the Phase I Recommendations to the Advisory Committee for Trade Negotiations 2 (Oct. 1985) [hereinafter Phase I Recommendations].

foreign countries provide.¹⁵

The interests of the United States as a whole, however, are not necessarily those of its patent-owning industries. Certainly, the nation does have a clear interest in preserving the health of its industry. At the same time, it is also interested in preserving the overall balance between incentive and cost that the patent system represents.¹⁶ In fact, where the two conflict, reason suggests this latter, broader set of interests should outweigh the narrower interests of industry.

This conflict raises a troubling problem in deciding whether to accept the Patent Harmonization Treaty. Simply put, industry's enthusiasm for the treaty may not be enough. If industry's interests can differ from those of the United States, industry may well favor a particular international patenting agreement that is nevertheless harmful to the country as a whole. Consequently, relying on industry's advice to adopt such a treaty would be unwise.

The history of the negotiations over the Patent Harmonization Treaty makes this problem particularly vexing. The treaty has been negotiated by a small number of people outside the United States.¹⁷ Most attending on behalf of the United States have been closely associated with industry.¹⁸ Few others in the United States have followed the negotiations in detail, even among the patent

15. See, e.g., Phase I Recommendations, *supra* note 14, at 2-3; Statement on International Trade Policy, *supra* note 13, at 12; Statement on Intellectual Property Rights, *supra* note 14, at 4-5.

16. For general discussions of balancing costs and benefits in patenting, see FRITZE MALCHUP, AN ECONOMIC REVIEW OF THE PATENT SYSTEM, PATENT STUDY NO. 15 OF THE SUBCOMM. ON PATENTS, TRADEMARKS AND COPYRIGHT OF THE COMMITTEE ON THE JUDICIARY OF THE UNITED STATES SEN., 86th Cong., 2d Sess. 21-24 (1958); Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265 (1977); ERICH KAUFER, THE ECONOMICS OF THE PATENT SYSTEM 19 (1989).

17. The negotiations have occurred in Geneva. An exact listing of the persons who have appeared at the WIPO negotiations appears in the various Notes, published in INDUSTRIAL PROPERTY, that summarize each meeting. Only fifty-five persons have attended any of the WIPO negotiations as representatives of United States' interests. In addition, their attendance has been highly sporadic. Only seven persons have attended the negotiations regularly. For a more complete analysis of the attendance of U.S. experts at the WIPO negotiations, see R. Carl Moy, *Essay: Patent Harmonization, Protectionism, and Legislation*, 74 J. PAT. & TRADEMARK OFF. SOC'Y. 777, 793-803 (1992).

18. Of the United States experts at the WIPO negotiations who were not employees of the United States Patent and Trademark Office ("PTO"), nearly all were either employees of large corporations or members of large law firms. See generally Moy, *supra* note 17, at 800-01. This is due in part to the PTO's apparent decision not to include private individuals in the United States' official delegations to the negotiations. *Id.* at n.87. Although a number of PTO employees have attended, there is reason to question whether, with regard to the WIPO negotiations, they represent an independent viewpoint. *Id.* at 800-01. Cf. PAUL J. QUIRK, INDUSTRY INFLUENCE IN FEDERAL REGULATORY AGENCIES (1981) (discussing concept of agency "capture" by special-interest groups).

bar.¹⁹ For these reasons, decisionmakers in the United States have comparatively little information with which to analyze the Patent Harmonization Treaty.

How, then, shall the United States decide whether to adopt the Patent Harmonization Treaty? What questions shall we ask? Whose answers shall we trust? What sources of information can provide us with the background needed for these inquiries?

The following article offers a framework in which to ask, and begin to answer, these questions. It focuses on the international community's past efforts to harmonize the law of patents. It asserts not only that history provides context, but also, that the same history yields lessons directly applicable to many of the treaty's basic issues.

Section I discusses the immediate history of WIPO's efforts to obtain the Patent Harmonization Treaty and summarizes the steps that have been taken to date before that organization. In addition, it also states the current procedural posture of the treaty negotiations.

Section II places this immediate history in larger context. The international community has been grappling with the problems of foreign patenting for over a century.²⁰ Many of those problems predate the first international patenting agreement, the Paris Convention.²¹ The article summarizes those problems.

In addition, this section describes the approach to international patenting embodied in the convention and the difficulties that the international community has encountered in using that approach. Section II suggests that an economic analysis explains the events under consideration. In contrast to a purely domestic scenario, international activity permits greater freedom to select the costs and benefits that an individual national economy will receive from patenting. The behavior of national governments is consistent with a desire simultaneously to receive large national benefits and to incur small costs. In contrast, the behavior of international, patent-own-

19. See Remarks of Kirk, 1991 AIPLA BULL., at 442-43 (noting lack of input to the PTO from other sources prior to the diplomatic conference).

20. The international community had begun to address patenting issues at least as early as the middle decades of the 1800's. See 1 STEPHEN P. LADAS, PATENTS, TRADEMARKS AND RELATED RIGHTS - NATIONAL AND INTERNATIONAL PROTECTION 59-68 (1975); EDITH T. PENROSE, THE ECONOMICS OF THE INTERNATIONAL PATENT SYSTEM 42-59 (1951); Heinrich Kronstein & Irene Till, *A Re-evaluation of the International Patent Convention*, 12 J.L. & CONTEMP. PROB. 765 (1948).

21. The Paris Convention came into being in 1883. See generally Arpad Bogisch, *The First Hundred Years of the Paris Convention for the Protection of Industrial Property*, 1983 INDUS. PROP. 187; Frederick Beier, *One Hundred Years of International Cooperation - the Role of the Paris Convention in the Past Present, and Future*, 15 IIC 1 (1984).

ing industry is consistent with a predominant desire to obtain benefits and a relative insensitivity to cost. Many of the historical divisions between international industry and national government continue to exist today. Consequently, they are present in the negotiations over the Patent Harmonization Treaty.

Section III outlines a set of inquiries to evaluate the Patent Harmonization Treaty. Fundamentally, we must discern the national interests of the United States and how the treaty will affect them. Given industry's large role in designing the treaty, coupled with its historical disinterest in the costs of patenting, particular attention must be placed on the increased domestic costs that the Patent Harmonization Treaty will impose on the United States.

In addition, Section III provides a means of intelligently weighing industry's enthusiasm for the treaty. Where industry's interests coincide with those of the nation, industry's view of the treaty is entitled to significant weight. In contrast, where industry's support for the treaty is colored by that group's disinclination to consider cost, industry's advice must be regarded skeptically. Finally, Section III suggests new ways to judge the law-making adequacy of the negotiations over the Patent Harmonization Treaty. Given the differing views of the various domestic constituencies that patenting affects, issues of representation become critical.

I. THE PATENT HARMONIZATION TREATY

A. Procedural History

The immediate history of the Patent Harmonization Treaty is related to two developments that occurred in the late 1970's. During that period, the European Patent Office ("EPO"), the Japanese Patent Office ("JPO"), and the United States Patent and Trademark Office ("PTO") began exploring ways to coordinate their operations.²² In addition, during the late 1970's the patent systems of many western European countries underwent fundamental change.

22. See Annual Report of the Commissioner of Patents and Trademarks, 1983, at 14; Michael Kirk, *WIPO's Involvement in International Developments*, 50 ALB. L. REV. 601, 602 (1986). Two influences appear to have driven these activities. First, the Patent Cooperation Treaty ("PCT") entered into force on January 24, 1978. *E.g.*, Leaffer, *supra* note 6, at 76. Chapter I of that treaty sets out the procedures for filing an application for patent in relatively high detail. *Id.* at 76, 79-105. Thus, the opportunities for cooperation between national patent offices increased.

At the same time, inventors were seeking patent protection in foreign countries with increasing frequency. Because of the requirements of the Paris Convention, many of these new, foreign-origin applications were largely duplicative of one another. See, *e.g.*, 35 U.S.C. § 119 Paris Convention, art. 4(D)(3), *reprinted in* Leaffer, *supra* note 6, at 22 (allowing the receiving country to require the foreign applicant to produce a copy of the priority application). Generally speaking, one goal of the national offices was to eliminate the duplicative

The member countries of the European Community had already committed themselves to harmonizing their national patent laws, first via the Strassbourg Convention of 1963,²³ and again in 1973 via the European Patent Convention ("EPC").²⁴ For some countries, these agreements committed the signors to make numerous, basic changes in how they approached patenting.²⁵ By the late 1970's, these changes were on the verge of becoming reality.

One such harmonization-driven change was Germany's removal of a grace period²⁶ from its patent laws. Prior to harmonization, the German patent system contained a grace period for certain types of pre-filing disclosures.²⁷ The substantive provisions of the Strassbourg Convention and the EPC, however, did not contain a

administrative work that occurred in handling essentially duplicate patent filings.

23. Strassbourg Convention of 1963, *reprinted in* GERALD PATERSON, THE EUROPEAN PATENT SYSTEM 701 (1992) (requiring the adoption of similar rules of substantive patent law).

24. European Patent Convention, *reprinted in* Leaffer, *supra* note 6, at 143 (creating a single examination proceeding to obtain national patents in member countries).

25. The Strassbourg Convention defines the substantive law of patents in relatively complete detail. One author asserts that its creation was driven by the desire of members of the European Community to preclude the use of national patent laws as barriers to trade. PATERSON, *supra* note 23, at 16 (1992) (noting that, prior to the formation of the Strassbourg Convention, "the existence of separate national patents for the same invention was seen as a mechanism whereby trade barriers could be maintained, contrary to the newly emerging European interest in a common market . . .").

The EPC took effect on October 7, 1977. Leaffer, *supra* note 6, at 141. Driven by that event, a number of European countries passed patent statutes with substantial new provisions. *E.g.*, Law No. 78-742 of July 13, 1978, *translation as amended reprinted in* 3 WIPO, INDUSTRIAL PROPERTY LAWS AND TREATIES, France, 2-001 (1993) (moving from registration system to an examination system); Patents Act 1977, *reprinted in* 3 WIPO, INDUSTRIAL PROPERTY LAWS AND TREATIES, United Kingdom, 2-001 (1993). Professor Ullrich, for example, asserts that France had no obviousness standard for patents until that time. Beier & Schricker, *supra* note 3, at 133 n.11. For a discussion of the changes in British patent law, see CHARTERED INSTITUTE OF PATENT AGENTS, C.I.P.A. GUIDE TO THE PATENTS ACTS (1990).

26. Generally speaking, the term "grace period" refers to the time interval prior to filing for patent during which a patent system will excuse various public disclosures and/or commercialization of the invention. *See generally* Grace Period for Public Disclosure of an Invention Before Filing an Application, WIPO Doc. No. GP/CE/I/2 Rev. (1984) (general study), *reprinted in* 1984 INDUS. PROP. 314. The time period in the United States is currently one year, 35 U.S.C. § 102(b), although it has varied during history. *E.g.*, Patent Act of 1839, ch. 88, § 7, 5 Stat. 353, 354 (providing two-year grace period); Patent Act of Aug. 5, 1939, ch. 450, § 1, 53 Stat. 1212 (providing current grace period of one year).

As an alternative, a national patent system may refuse to excuse any such activities prior to filing. *E.g.*, Patent Act of 1836, ch. 357, § 6, 5 Stat. 117, 119. Patent systems incorporating this latter standard are said to operate under the principle of "absolute novelty."

27. *See* section two, Law of Jan. 2, 1968, *translation reprinted in* JUGEN VON UEKULL, GERMAN PATENT LAW, UTILITY MODEL LAW, AND TRADEMARK LAW 11 (1968) (6-month grace period for acts based on invention of applicant).

grace period.²⁸ Thus, when Germany implemented the Strassbourg Convention via its Patent Act of 1980, it was forced to remove the grace period provisions from its national law.²⁹

At least some interests regretted this change.³⁰ As a result, they began pressing for developments that would restore a grace period to the German system.³¹ In particular, WIPO agreed to convene a committee of experts to study the possibility of obtaining a multilateral treaty that would call for the use of a grace period.³² The strategy was apparently to obtain an agreement encompassing countries beyond the EC, and then to press for a corresponding amendment to the European Patent Convention.³³

In 1983, these two efforts coalesced into the process of negotiating at the Patent Harmonization Treaty. The experts meeting before WIPO soon realized that the specifics of a grace period also brought into play other, related issues of patent law, both procedural and substantive.³⁴ Thus, in order to be successful at defining a grace period, the subject matter under discussion in the WIPO negotiations could not be circumscribed narrowly. In addition, the ongoing nature of the discussions between the EPO, JPO, and USPTO apparently increased the willingness of those entities to include procedural questions within the negotiations before WIPO.

WIPO therefore terminated the work of its initial committee of experts after that body had met for one session. To replace the

28. Article 52 of the EPC, for example, requires that patentable inventions be new. Article 54 defines "new" to mean anything that "does not form part of the state of the art," *i.e.*, everything not "made available to the public . . . before the date of filing." The EPC thus adopts the requirement of absolute novelty.

29. Compare, *e.g.*, the provision cited *supra* note 27 with sections one and three of the German Patent Act of December 16, 1980, translation reprinted in Beier, *supra* note 21.

30. For example, the Association for the Protection of Industrial Property (AIPPI) and the International Federation of Patent Agents (FICPI) passed resolutions in support of a general grace period. 1984 INDUS. PROP. at 320. Beier, *supra* note 21, at 19.

31. *Joint Hearings on S. 2605 and H.R. 4978 Before the Senate Subcommittee on Patents, Copyrights and Trademarks and the House Subcommittee on Intellectual Property and Judicial Administration of the House and Senate Committees on the Judiciary*, 102d Cong., 2d Sess. (1992) (statement of Harold Wegner) [hereinafter Wegner]. As of this writing, the transcript of this hearing has not been published.

32. See generally WIPO, *Meeting Note on the First Session of the Committee on Experts on the Grace Period for Public Disclosure of an Invention Before Filing an Application*, 1984 INDUS. PROP. 313, and the documents cited therein.

33. Cf. 1984 INDUS. PROP. at 324 (asserting international treaty on grace period to be "preferable" because it would create "momentum for changing national laws"). The operation of the grace period provision in the Patent Harmonization Treaty is strikingly similar to the operation of the pre-EPC provision in the German national patent law. Compare the sources cited *supra* notes 7 and 27.

34. *WIPO History*, *supra* note 5, ¶ 3.

committee, WIPO created a second committee whose mandate extended beyond the issue of harmonizing national provisions relating to a grace period, and into the broader question of harmonizing patent law generally.³⁵ This second committee of experts has now met on eleven occasions.³⁶ As one might expect, it initially continued the former committee's consideration of a grace period, and additionally considered related procedural and substantive issues.³⁷ Throughout the course of its meetings, the committee's activities have expanded to include numerous other issues relating to patenting.³⁸ The product of its efforts is the Draft Proposal of the Patent Harmonization Treaty, which WIPO published in November of 1990.³⁹

B. Structure of the Treaty

Presently, the Patent Harmonization Treaty is structured as a Special Agreement under the Paris Convention.⁴⁰ Twenty four of the treaty's thirty nine articles address substantive issues of patent law. The other articles relate to procedural or administrative treaty matters.⁴¹ Furthermore, a number of the articles are now

35. *Id.* ¶ 4.

36. See the sources cited *supra* note 7.

37. This new committee initially considered the additional issues of naming the inventor, whether an oath should be required, and the requisites for establishing a filing date. *Note on the First Session*, 1985 INDUS. PROP. 267.

38. By WIPO's own count, the committee considered new issues in the following pattern: 2d session, four; 3d session, three; 4th session, six; 5th session, part 1, one; 5th session, part 2, three; 6th session, five. Many new issues appear to have been considered at the 7th and later sessions. WIPO appears to have abandoned from that point on the practice of reporting the prior history of the issues under negotiation. It is not clear whether WIPO originally contemplated covering as many issues as the treaty now does.

39. See *supra* note 8.

40. *WIPO History*, *supra* note 5. Article 19 of the Paris Convention permits the members of the Paris Union to enter into special agreements, to further the convention itself, provided they are not inconsistent with the convention. The European Patent Convention is an example of such an agreement. See generally *Beier*, *supra* note 21, at 13-14.

41. See Appendix A for a list of articles from the *Basic Proposal*

Of these articles, WIPO has now proposed omitting numbers 10, 19, 22, 24, 25 and 26 from the treaty. Memorandum of the Director, *supra* note 8, at ¶¶ 7-8; *Observations of the International Bureau Following the First Part (1991) of the Diplomatic Conference*, WIPO, Doc. PLT/DC/69 (Jan. 29, 1993) [hereinafter *Observations*]. It has also proposed removing the preamble.

The two stated reasons for this recommendation are that the articles are controversial, and that they overlap with provisions proposed in the TRIP's negotiations in GATT. Memorandum of the Director, *supra* note 8, ¶¶ 7-8. The sufficiency of this latter justification, however, appears to be questionable. The GATT negotiations are at a standstill. In addition, the draft intellectual property provisions of GATT have drawn considerable criticism. See *supra* note 3. Thus, it is very uncertain whether the intellectual property provisions in the current GATT draft will ever become effective. See, e.g., *Gutterman*, *supra* note 3, at 111.

presented in alternative forms that are to be the subject of further negotiations.⁴²

The scope of the treaty is wide. It addresses, at least in broad terms, virtually the entire field of patent law. Included are detailed provisions relating to questions such as statutory subject matter,⁴³ novelty,⁴⁴ obviousness,⁴⁵ and the rights conferred by patenting⁴⁶ — matters that are now governed by other, different provisions in the patent law of the United States.⁴⁷ In addition, however, the Patent Harmonization Treaty also addresses legal questions that the United States has never committed to statute, such as the proper definition of the doctrine of equivalents⁴⁸ and the role of the specification in construing claim scope.⁴⁹ By any objective measure, the treaty is clearly a comprehensive attempt to fix the law of patents into a definite, particularized set of legal standards, to a degree far beyond anything the United States has previously attempted.⁵⁰

C. *The Diplomatic Conference*

Obviously, WIPO has no power to accept treaties on behalf of the member states of the Paris Union. Both conceptually and practically, the work of WIPO's second committee of experts has been only preliminary to the creation of the Patent Harmonization Treaty. The committee's task has been to define a proposed treaty in sufficient detail that the Paris Union has a realistic chance of agreeing on a final text through the formal mechanism of a diplomatic conference.⁵¹

In October of 1989, WIPO decided the draft treaty had progressed to the point where a diplomatic conference could be held

42. PLT, *supra* note 8, arts. 8-10, 19-20, 22, 24-26.

43. *Id.* art. 10.

44. *Id.* arts. 11(2), 12, 13.

45. *Id.* art. 11(3).

46. *E.g.*, PLT, *supra* note 8, arts. 19, 20.

47. For a discussion of the specific differences, see Richard C. Wilder, *An Overview of Changes to the Patent Laws of the United States After the Patent Law Treaty*, 26 J. MARSHALL L. REV. 497 (1993).

48. PLT, *supra* note 8, art. 21(1).

49. *Id.* art. 21(2).

50. On the degree to which the United States patent law is currently defined by statute, see Pasquale J. Federico, *Commentary on the New Patent Act*, at 1-10, *reprinted in* Title 35, U.S.C.A. (1954 ed.) ("While patents are creatures of statute, the entire body of patent law is much fuller than the statute itself, including a vast amount of case material . . .").

The Patent Harmonization Treaty is also to be accompanied by regulations that amplify and define the language of the treaty itself. PLT, *supra* note 8, art. 29. Thirteen such regulations are currently proposed, although the treaty contemplates that additional regulations can be added by a three-fourths vote of the Assembly of the Paris Union. *Id.* art. 29.

51. See, *e.g.* *General Rules of Procedure*, WIPO Doc. No. 399(E)Rev.3, at 25-26 (1990).

in June 1991 to consider the matter.⁵² Supporters hoped the text of the treaty could be agreed upon and signed at that time.⁵³ During the Spring of 1991, however, various events upset those hopeful plans. WIPO's committee had held its meetings in Geneva, Switzerland, making the negotiations inaccessible to many interested persons.⁵⁴ In addition, WIPO had pushed the committee of experts to complete a draft treaty quickly.⁵⁵ This effort outstripped the ability of the interest groups in the United States to consult their constituencies meaningfully prior to the negotiations.⁵⁶ Indeed, the pace of negotiations arguably outstripped even WIPO's ability to inform the public through its own publications.⁵⁷

52. WIPO, *Note on the First Part of the Diplomatic Conference for the Conclusion of a Treaty Supplementing the Paris Convention as Far as Patents Are Concerned*, 1991 INDUS. PROP. 360 [hereinafter *Note on the First Part of the Diplomatic Conference*].

On its face, it may appear odd for WIPO to decide that the Patent Harmonization Treaty would be ready for the Paris Union's full consideration two years in advance. At this point it may be useful to note that the intellectual-property negotiations of GATT, *see supra* note 3, have taken place concurrently with WIPO's work on the Patent Harmonization Treaty. The negotiations have addressed many of the same issues. *See supra* note 41.

This other, rival regime for patent harmonization poses threats to WIPO. If comprehensive patent-harmonization provisions are finalized in GATT before the Patent Harmonization Treaty comes into being WIPO risks losing much of the institutional control it now holds over international patent matters. *See generally* Beier & Schricker, *supra* note 3, at 18-30, 75-92. WIPO therefore has considerable reason to push the negotiations over the Patent Harmonization Treaty to a rapid conclusion. *See infra* note 55. Indeed, some of WIPO's interests favor creation of the Patent Harmonization Treaty independent of whether that treaty is sound as a matter of international patent policy.

53. It is clear that WIPO originally thought the Paris Union would finalize the treaty at this conference. *See Note on the First Part of the Diplomatic Conference, supra* note 52, at 360.

54. As noted *supra* note 18, the USPTO has not included private-sector representatives in the official delegations of the United States to the negotiations. It apparently decided to rely on interested persons attending the negotiations independently.

55. *See* Kirk, *supra* note 22, at 605 (describing WIPO as "pushing" the harmonization negotiations "on a fast track"). WIPO's Committee of Experts met from July 1985 to November 1990 at an average of once every five months.

56. *See, e.g.*, Minutes of the 1991 Midwinter Meeting of the Council of the ABA Section of Patent, Trademark and Copyright Law, ABA-PTC, 1990-91 ANNUAL REPORT 23, 25 (reporting statement by William Brunet that the short time period between WIPO's issuance of the draft treaty and the scheduled beginning of the diplomatic conference "presents a timing problem"); *see also* Fryer, *supra* note 5, at 246 (noting lack of time to prepare for WIPO meeting and need for interest groups to act "immediately").

57. The Committee appears to have set the topics for each meeting no earlier than the preceding meeting. *See, e.g.*, *Note on the Third Session*, 1987 INDUS. PROP. 204, 207-08; *Note on the Fourth Session*, 1988 INDUS. PROP. 174, 183, 185-86; *Note on the Second Part of the Fifth Session*, 1989 INDUS. PROP. 52, 59-60, 62. WIPO's International Bureau, moreover, which acted as Secretariat at the negotiations, often did not publish summaries of meetings for two to three months. *See generally* WIPO's Meeting Notes *supra* note 7. It appears, in fact, that the International Bureau of WIPO at times placed items on the agenda for

As a consequence, several members of the Paris Union were in fact less willing to make concessions than their negotiating delegations had indicated during the meetings of the committee.⁵⁸ Perhaps the most prominent example of such unwillingness involved the United States' position on changing to a "first-to-file" priority rationale. In a move not widely noted at the time, the Commissioner of Patents and Trademarks had indicated to the committee of experts in 1987 that the United States would be willing to consider changing its national law of patents in such a manner.⁵⁹ Subsequent drafts of the treaty incorporated that offer of change.⁶⁰ In early 1991, however, the PTO realized that the relevant groups inside the United States did not strongly support such a change.⁶¹ Therefore, the United States proposed that the treaty include an alternative provision that would allow the United States to retain its first-to-invent priority rationale, but make other, hopefully offsetting changes in its laws.⁶²

The net effect of these late movements away from consensus was to prevent the Paris Union from finalizing the treaty at the June 1991 session of the diplomatic conference.⁶³ The Paris Union

a meeting and issued explanatory reports only *after* the conclusion of the last preceding meeting. See, e.g., *Note on the Second Session*, *supra* note 7, at 311.

58. See, e.g., Harry Manbeck, *Commissioner of Patents and Trademarks*, Address to the First Part of the Diplomatic Conference (June 19, 1991), *excerpt reprinted in* BNA PAT. TRADEMARK & COPYRIGHT DAILY, Sept. 4, 1991 [hereinafter Manbeck Speech]. Gutterman, *supra* note 3, at 107.

59. *International Developments/Patents: U.S. Offers to Adopt First-to-File as Part of a Balanced Package of Reforms*, 33 BNA PAT. TRADEMARK & COPYRIGHT. J. 581 (1987). See *Note on the Third Session*, 1987 INDUS. PROP. 204, 205 (noting U.S. delegation's statement that it would be "favorably inclined to consider" changing priority rule).

60. E.g., *Draft Treaty on the Harmonization of Certain Provisions in Laws for the Protection of Inventions*, WIPO Doc. No. HL/CE/IV/2, art. 301 (1987), *reprinted in* 1988 INDUS. PROP. 179, 187-88 (draft treaty for discussion at fourth negotiating session).

61. See, e.g., Kirk, *supra* note 19, at 442 (observing that, as of January 1991, "no organized support" beyond a "few individuals" was being shown in favor of adopting a first-to-file priority system in the United States). Letter of Hon. Harry Manbeck, Comm'r. of Patents, to Arpad Bogsch, Dir. General of WIPO, Feb. 22, 1991, *reprinted in* 5 WORLD INTELL. PROP. 93-94 (1991) (asserting lack of support for a first-to-file system in the private sector in the United States).

62. *Draft Articles 9, 11, and 13*, The United States of America, Doc. PLT/DC/6 (Mar. 1, 1991), *reprinted in* *Records*, *supra* note 5. See generally *USPTO Proposes First-to-Invent Option in Harmonization Treaty*, 5 WORLD INTELL. PROP. 93 (1991); Kirk, *supra* note 19, at 442 (discussing substance of proposal).

63. See *Note on the First Part of the Diplomatic Conference*, *supra* note 52, at 360. This document reports that Paris Union Assembly decided, in April 1991, to shorten the duration of the June 1991, session of the diplomatic conference and continue the conference into a second part. WIPO abandoned its attempts to finalize the treaty in 1991 at this time. See also *WIPO Postpones Decision on U.S. Proposal to Change International Patent Law*, BNA PAT. TRADEMARK & COPYRIGHT DAILY, May 1, 1991 (discussing WIPO's decision to

therefore extended the conference to include a second, future session.⁶⁴ Originally unscheduled,⁶⁵ that second session was to be held in the summer of 1993.⁶⁶ Changes associated with the new presidential administration, however, have rendered the United States unable to fully participate by that date. During the preparation of this paper, WIPO therefore postponed the second session of the diplomatic conference indefinitely.⁶⁷

postpone consideration of the United States' proposed amendments to the Paris Convention).

For reports of the generally divisive effects of these late developments, see, e.g., Manbeck Speech, *supra* note 58; *Joint Hearings on S. 2605 and H.R. 4978 Before the Senate Subcommittee on Patents, Copyrights and Trademarks and the House Subcommittee on Intellectual Property and Judicial Administration of the House and Senate Committees on the Judiciary*, 138 CONG. REC. D487 (statement of the Hon. Harry Manbeck, Commissioner of Patents and Trademarks) (daily ed. Apr. 30, 1992) [hereinafter Manbeck Statement] (describing reaction of foreign delegations to United States proposal); William J. & Michael N. Meller, *Report on Diplomatic Conference for Patent Harmonization Treaty*, BNA PAT. TRADEMARK & COPYRIGHT DAILY, Sept. 4, 1991.

Some foreign interest groups, however, were receptive to the alternative U.S. proposal. See, e.g., International Federation of Industrial Property Counsel, *FICPI Position Paper for the Diplomatic Conference for the Conclusion of a Treaty Supplementing the Paris Convention as Far as Patents Are Concerned (Patent Law Harmonization Treaty)*, at 1-2 (May 6, 1991) [hereinafter *FICPI Position Paper*]; Remarks of Bardehle at the Spring-States Meeting of the AIPLA (May 2, 1991), 1991 AIPLA BULL. 633, 636 (July-Sept. 1991).

64. See, e.g., *Note on the First Part of the Diplomatic Conference*, *supra* note 52.

65. *Id.*

66. See *Memorandum of the Director General*, *supra* note 8 for a description of the rescheduled second session.

67. Report of the Assembly, Twentieth Session (10th Extraordinary) WIPO Doc. No. P/A/xx/1 (Apr. 5, 1993). Those in the United States who favor harmonization have labored during the interim to create a consensus in favor of the treaty. The Intellectual Property Section of the American Bar Association, for example, was asked at both its 1991 and 1992 annual meetings to adopt a number of resolutions in favor of harmonization. Action taken on resolutions at the Annual Meeting in Atlanta, Georgia - August 1991, 10 PTC Newsletter, No. 1, 3 (1991); Action taken on resolutions at the Annual Meeting in San Francisco, California - August 1992, 11 PTC Newsletter, No. 1, 9 (1992). The Advisory Commission on Patent Law Reform addressed several of the specifics of harmonization in its September 1992 Report to the Secretary of Commerce. Report to the Commissioner, 41-72 (1992). The leadership of the American Intellectual Property Law Association continues to support harmonization strongly. See, e.g., 1991 Annual Meeting Report of the Harmonization Committee, 1991 AIPLA BULL. 128 (Oct.-Nov. 1991).

Perhaps the most important of these efforts is the legislation that was introduced in Congress during 1992, and which will probably be reintroduced in 1993. See *supra* note 11. Generally speaking, that legislation seeks to place the United States on record as favoring the Patent Harmonization Treaty.

The odd structure of the legislation shows that the pro-harmonization forces in the United States are at this time concerned primarily with resistance that is domestic, and not foreign. The legislation does not simply authorize representatives of the United States to pursue negotiations. Rather, it seeks to commit the United States, in advance, to adopt what are considered to be the major concessions in substantive patent law that harmonization would involve. *E.g.*, S. 2605, 102d Cong., 1st Sess., § 2 (1991) (amending Title 35 U.S.C. to incor-

II. PRIOR HARMONIZATION EFFORTS

The facts set out in the foregoing section are, to many, the complete history of the Patent Harmonization Treaty. In reality, however, the treaty is only the latest in a long series of international agreements that have addressed foreign patenting. Many such agreements exist already.⁶⁸ Generally speaking, all involve patent harmonization to some extent: they provide for the coordination, between countries, of national legal provisions relating to patents.⁶⁹ Patent harmonization is therefore an old concept and not a new one.⁷⁰

Common sense suggests that this prior history is relevant to the Patent Harmonization Treaty. The basic structure of international patenting transactions remains unchanged from at least the 1800's: an inventor seeking foreign patent rights must enter the legal system of that foreign country and submit to its requirements for patenting.⁷¹ Patent systems remain instruments of national policy.⁷² For these reasons, the basic problems of international patenting, and the general concerns that affect their resolution, should be

porate first-to-file priority). The effective date of the legislation will be tied to the date on which Japan and Europe adhere to the treaty. Thus, a major concern among pro-harmonization forces in the United States at this time clearly is convincing foreign delegations that the United States *wants* to harmonize.

68. The first and most notable is the Paris Convention, but others, such as the Patent Cooperation Treaty, 28 T.I.A.S. 7645 (1970), and the European Patent Convention, *reprinted in* PATERSON, *supra* note 23, at 499, are also well known.

69. See *supra* note 1 for a definition of harmonization.

70. PENROSE, *supra* note 20, at 49 (noting that "[t]he dream of many [who participated in the creation of the Paris Convention] was complete uniformity of the laws protecting industrial property in all nations."); Beier, *supra* note 21, at 5; EMERSON STRINGHAM, PATENTS AND GEBRAUCHMUSTER IN INTERNATIONAL LAW 45-62 (1935).

71. See generally WIPO, General Information, 15-16 (1992); William R. Cornish, *The International Relations of Intellectual Property*, 52 CAMBRIDGE L.J. 46, 47-48 (1993). One alternate structure is agreement to rely on an extra-national process for the grant of national patents. An example of this structure is the reliance, by the member countries of the EPC, on the granting procedure before the European Patent Office. See European Patent Convention, art. 64, *reprinted in* Leaffer, *supra* note 6, at 167 ("A European patent shall . . . confer on its proprietor, . . . in each Contracting State in respect of which it is granted, the same rights as would be conferred by a national patent granted in that State."). The provisions of Chapter II of the Patent Cooperation Treaty have this same general structure, although they not binding as yet. Another structure involves agreement to rely on initial grant and liability determinations that are both extra-national. The Community Patent Convention, *reprinted in* 1 MARY VITORIA ET. AL., ENCYCLOPEDIA OF UNITED KINGDOM & EUROPEAN PATENT LAW 5001 (1990), is an example of such an agreement, although it is not in force. The United States has never been party to any such agreement.

72. See, e.g., PENROSE, *supra* note 20, at 88-89; Beier, *supra* note 21, at 9; Cornish, *supra* note 71, at 47-48. The assertion results from the fact that national patent systems remain the creation of individual national governments. See generally Beier & Schricker, *supra* note 3, at 136-38.

largely unchanged.⁷³

The following discussion therefore examines the history of multilateral efforts to address foreign patenting. The examination is general; its purpose is not to review that history in full detail.⁷⁴ Rather, the examination uses history to test certain assertions regarding the motivations and systematic behavior of the participants.

A. *International Patenting Prior to the Formation of Multilateral Agreements*

The national patent systems that existed prior to the Paris Convention often contained widely varying legal rules.⁷⁵ The United States, for example, examined patent applications substantively,⁷⁶ while many European countries did not.⁷⁷ Most countries published the technical disclosures of patent applications upon grant, some held the disclosures in secret until after the patent expired,⁷⁸ while still others published the disclosure immediately upon filing.⁷⁹ Generally speaking, the variation between national

73. It is certainly true that the amount of international trade has increased greatly since the 1800's. *See, e.g., infra* notes 12-15. How this trend should affect the debate over international patenting, however, is unclear. Increasing international trade has doubtless made it increasingly important that we resolve the issues of international patenting correctly. Yet international trade includes both imports and exports. As the following discussion demonstrates, the mere fact that international trade has increased therefore does not determine, *per se*, which resolution of the issues is proper.

74. Sources discussing this history in the English language are extremely sparse. Almost no original documents exist in that language prior to 1900. *See, e.g.,* REPORT OF THE COMMISSIONERS APPOINTED TO REVISE THE STATUTES RELATING TO PATENTS, TRADE AND OTHER MARKS, AND TRADE AND COMMERCIAL NAMES UNDER ACT OF CONGRESS APPROVED JUNE 4, 1898, S. Misc. 20, 56th Cong., 2d Sess. (1902). Later summaries include PENROSE, *supra* note 20, at 42-57; LADAS, *supra* note 20, at 59-68; Beier, *supra* note 21, at 1; STRINGHAM, *supra* note 69 at 45-62; ULF ANDERFELT, INTERNATIONAL PATENT LEGISLATION AND DEVELOPING COUNTRIES 65-92 (1971). Kronstein & Till, *supra* note 20. The literature in French and German is apparently much more extensive.

75. *See generally* PENROSE, *supra* note 20, at 1-18. For a modern discussion of these divergencies from the viewpoint of a patent lawyer, see LADAS, *supra* note 20, at 20-27.

76. The United States instituted its system of examining patent applications substantively in 1836. The move was in reaction to the high frequency with which patents issued under the prior registration system were being invalidated in court actions.

77. *See, e.g.,* CHARLES S. WHITMAN, PATENT LAWS AND PRACTICE OF OBTAINING LETTERS PATENT FOR INVENTIONS (1871). The French system was the most notable example of such a registration system. *Id.* at 152; LADAS, *supra* note 20, at 23-24. Italy examined only applications for inventions that related to beverages and food. WHITMAN, *supra*, at 165.

78. Austria and the Netherlands, for example. WHITMAN, *supra* note 77, at 63-64, 174.

79. This was certainly the practice of countries that awarded patents via registration. *See supra* note 77. In addition, England and Germany advertised pending applications prior to grant. LADAS, *supra* note 20, at 23-24.

provisions at the time appears to have been substantially larger than exists today.⁸⁰

These variations in national patent practices created procedural obstacles to the international assertion of patent rights.⁸¹ In those countries that published patent disclosures immediately upon filing, for example, the mere act of applying for patent disclosed the invention publicly. At the same time, other countries conditioned patentability on absolute novelty worldwide.⁸² Applying for a patent in one country could thus create an absolute barrier to obtaining a valid patent in another.⁸³

These procedural obstacles to patenting generally appear to have arisen inadvertently. There also existed at this time, however, another category of obstacles that national governments had erected purposefully. The obstacles in this second category were essentially protectionist.⁸⁴ By the late 1800's European and United States scholars had explored the economics of patenting extensively.⁸⁵ As explained below, many granting sovereigns had begun to manipulate their national patent laws to enrich themselves in relation to their trading partners.

1. *The protection of national wealth from foreign patenting*

Patent systems are large-scale governmental intrusions into the free-market economy. They involve manipulating social costs and benefits to increase the national wealth.⁸⁶ Perhaps the most significant cost of such systems is the higher prices imposed on con-

80. The improved situation today may be due to the normalizing influence of the harmonization agreements that have already been put into place. PENROSE, *supra* note 20, at 1.

81. See LADAS, *supra* note 20, at 22.

82. Ladas lists these countries as including France, Spain, Sweden, and Italy. *Id.* at 22-23.

83. PENROSE, *supra* note 20, at 69-70; LADAS, *supra* note 20, at 26. Ladas asserts that filing applications simultaneously in multiple countries was the only means of assuring the issuance of corresponding foreign patents.

84. E.g., Fritze Malchup & Edith Penrose, *The Patent Controversy in the Nineteenth Century*, 10 J. ECON. HIST. 1, 28-29 (1950); PENROSE, *supra* note 20, at 88-89; ANDERFELT, *supra* note 74, at 99-100. Cf. Beier, *supra* note 21, at 9. As to the general validity of this dual categorization of patenting obstacles, see, e.g., LADAS, *supra* note 20, at 20.

85. This literature is summarized in *Patent Controversy*. Malchup & Penrose, *supra* note 84, at 9-10. The economic analyses of patenting in the 1800's were said to compare favorably with the literature on the subject offered as recently as the 1950's. *Id.*

86. E.g., Paul Heald, *Federal Intellectual Property and the Economics of Preemption*, 76 IOWA L. REV. 959, 962 (1991). See, e.g., VICTOR ABRAMSON, THE PATENT SYSTEM: ITS ECONOMIC AND SOCIAL BASIS, PATENT STUDY NO. 26 OF THE SUBCOMM. ON PATENTS, TRADEMARKS AND COPYRIGHT OF THE COMMITTEE ON THE JUDICIARY OF THE UNITED STATES SEN., 86th Cong., 2d Sess., 6 (1958) (reports in this set are hereinafter referred to individually as Patent Study No. —). MALCHUP, *supra* note 16, at 58.

sumers of the patented advance.⁸⁷ If the patented technology has some economic value⁸⁸ the patent owner is able to impose single-source pricing on it — a price that is higher than would exist in a truly competitive market.⁸⁹

Patent systems exist because this social cost of higher prices is presumed to result in an increased pace of invention.⁹⁰ Higher prices transfer increased amounts of money from consumers of the patented technology to producers. Knowing this, inventors will strive to invent patentable technology more vigorously. Some will succeed who otherwise would have failed. The sophistication of the country's industrial base thus increases, and new technology becomes available to consumers. According to the presumption, the social benefits of this increased rate of invention are large enough to more than offset the costs of patenting.⁹¹

In a purely domestic economy the national effects of these costs and benefits are linked together relatively tightly. Each unit of increased cost imposed on domestic consumers provides a unit of increased revenue to domestic industry. Evaluating such a patent system therefore involves, in large part, estimating the amount of increased invention that will actually result from a given increase in expected revenue.⁹² In addition, the increased resources diverted to a domestic patent owner are not wholly lost to the domestic economy. Rather, the domestic patent owner generally will reinvest all or a part of those resources, thereby mitigating the cost of patenting to some degree.⁹³

International patenting, on the other hand, de-couples the national effects of patenting. Assume that an inventor exploits the advance through patenting, not in his or her *own* country, but in a *foreign* country. In that situation industry domestic to the inven-

87. The result is society's underutilization of the advance. *E.g.*, ANDERFELT, *supra* note 74, at 58. MALCHUP, *supra* note 16, at 60-62.

88. Of course, technology is not necessarily valuable merely because it has been patented. *See, e.g.*, DONALD CHISUM, PATENTS § 4.02 (1992) (economic rationale for minimal utility requirement in the United States); SCM Corp. v. Xerox Corp., 645 F.2d 1195 (2d Cir. 1981) (relation of patent rights to market power in antitrust context). The text means to restrict the discussion to those patented advances that consumers find desirable over pre-existing technology.

89. *E.g.*, RICHARD POSNER, ECONOMIC ANALYSIS OF LAW 195-99 (2d ed. 1977); Kitch, *supra* note 16, at 266-67; MALCHUP, *supra* note 16, at 58-60.

90. *See, e.g.*, MALCHUP, *supra* note 16, at 44-45; PENROSE, *supra* note 20, at 94.

91. PENROSE, *supra* note 20, at 55, 76-79; RAYMOND VERNON, THE INTERNATIONAL PATENT SYSTEM AND FOREIGN POLICY, PATENT STUDY NO. 5, 6 (1957).

92. *E.g.*, MALCHUP, *supra* note 16, at 63-66; Richard P. Merges & Richard R. Nelson, *On the Complex Economics of Patent Scope*, 90 COLUM. L. REV. 839, 878-80 (1990).

93. *See* PENROSE, *supra* note 20, at 145-60. *Cf.* MALCHUP, *supra* note 16, at 79.

tor's own country receives increased profits from patenting, but domestic consumers do not pay the associated higher prices. Instead, the higher prices are imposed on consumers in the foreign country.⁹⁴ International patent transactions therefore reallocate wealth *away* from the granting country and *into* the country of the patent owner.⁹⁵

Prior to the Paris Convention many countries had acted on this basic economic truth. Their national laws included numerous, varied provisions that curtailed the domestic patent rights of foreign nationals. Some countries, for example, had adopted compulsory licensing provisions.⁹⁶ By their very nature, compulsory licenses lower the cost of the patented advance closer to multiple-source pricing.⁹⁷ In addition, if the compulsory license is given to a domestic entity a portion of the foreign trade is prevented outright.⁹⁸ Both these mechanisms reduce the amount of wealth that flows out of the country into the hands of the foreign patent owner.

Another type of protectionist provision motivated by the same economic calculation was the widespread presence of national working requirements.⁹⁹ Generally, these provisions required patent owners to supply domestic demand for the patented technology

94. Cf. MALCHUP, *supra* note 16, at 79. In addition, the probability that the patent owner will reinvest the proceeds from patenting into the economy of the granting country is in all likelihood reduced. See, e.g., VERNON, *supra* note 91, at 7. The mitigating influence on the cost patenting discussed *supra* note 93, is thus removed. See e.g., PENROSE, *supra* note 20, at 145-60. Cf. ANDERFELT, *supra* note 72, at 80-81.

95. MALCHUP, *supra* note 16, at 55; PENROSE, *supra* note 20, at 95-96. See also ANDERFELT, *supra* note 74, at 127-29; VERNON, *supra* note 91, at 12-13.

96. E.g., LADAS, *supra* note 20, at 26; MALCHUP, *supra* note 16, at 5. See generally FREDRIK NEUMEYER, COMPULSORY LICENSING OF PATENTS UNDER SOME NON-AMERICAN SYSTEMS, Patent Study No. 19 (1959). PENROSE, *supra* note 20, at 164-69.

97. E.g., MALCHUP, *supra* note 16, at 73-74. VERNON, *supra* note 91, at 13. The difference is roughly the cost of the royalty. Most systems require that the royalty be assessed at a level that is reasonable. The inherent indeterminacy of this standard, coupled with the fact that its calculation is ultimately in the hands of the granting nations' government, exposes foreign patentees to obvious risks. For a discussion of the effects of compulsory licensing in an international context, see PENROSE, *supra* note 20, at 152-68.

98. Penrose asserts, for example, that this consideration motivated England's introduction of compulsory licensing in its Patents Act of 1910. PENROSE, *supra* note 20, at 82 n.58. See also Kronstein & Till, *supra* note 20, at 778.

99. E.g., ANDERFELT, *supra* note 74, at 65-66, 99-100. VERNON, *supra* note 91, at 3; Montgomery, *International Aspects of Patent Legislation*, 31 J. POL. ECON. 90, 93-94 (1928). France appears to have been the most notable example. The laws of that country not only required the invention be worked domestically; they also forbade the importation of any product covered by a French patent. Thus, French demand could be supplied only by domestic French production. E.g., PENROSE, *supra* note 20, at 75.

Ladas does not classify working requirements as protectionist measures. See generally LADAS, *supra* note 20. His work has been criticized, however, as unsophisticated in economic matters.

through domestic production. The failure to do so resulted in the patent becoming invalid or unenforceable. Facially neutral with regard to nationality, working requirements had an obviously greater, purposeful impact on patent owners who were foreign.¹⁰⁰ In essence, foreign patentees were required to either abandon their patent rights or behave as if they were domestic entities.

2. *The protection of domestic industry from uneven international patenting*

In addition to increased prices, patents impose another social cost that is relevant to international patenting: they retard further research in the patented technology.¹⁰¹ Patents commonly dominate inventions that remain to be discovered and patented themselves.¹⁰² Once a patent issues, therefore, every person other than the patent owner has a reduced expectation of return from further research in the areas of technology that the patent dominates.¹⁰³ Rationally, then, researchers will reduce their inventive efforts in technology that is dominated by another's patent.¹⁰⁴ If competition

100. *E.g.*, ANDERFELT, *supra* note 74, at 65-66; MALCHUP, *supra* note 16, at 17 n.92; VERNON, *supra* note 91, at 35-36; PENROSE, *supra* note 20, at 143. A domestic inventor will either already have production facilities that are located domestically or, generally speaking, be able to arrange for the construction of facilities more easily than will a foreign inventor.

101. *E.g.*, Kitch, *supra* note 16; Merges & Nelson, *supra* note 92; Mark F. Grady & Jay I. Alexander, *Patent Law and Rent Dissipation*, 78 VA. L. REV. 305 (1992); MALCHUP, *supra* note 16, at 63-64; KAUFER, *supra* note 16.

102. The ability of patents to be related in dominant-subservient relationships is well known. *See, e.g.*, Kitch, *supra* note 16, at 268-69. Such patents are related in one of three ways: a patent to the generic invention may dominate a later-discovered specie; a patent to a subcombination may dominate later-discovered combinations that incorporate the subcombination; and a patent to a product may dominate later-discovered methods of making and/or using the product.

103. The owner of the dominating patent will extract royalties from the inventor of the improvement, thus forcing the newcomer to share his or her profits. *See, e.g.*, PENROSE, *supra* note 20, at 101-03. In addition, in countries that do not provide for compulsory licensing, the newcomer risks being denied commercial use of the technology altogether by the dominant patent owner's refusal to deal. A number of countries ameliorate this latter effect by giving compulsory licenses to owners of subservient, or "dependent," patents. *See, e.g.*, NEUMEYER, *supra* note 96, at 28-30.

104. Penrose cites as an example the stagnation of Britain's incandescent lamp industry in the 1800's after the initial grant of broad patents to a domestic entity. PENROSE, *supra* note 20. Merges & Nelson assert that the effect has recurred in a number of industries. Merges & Nelson, *supra* note 92, at 884-908. As a more recent example, a large United States manufacturer of health-care devices is reported to have moved a portion of its research facilities to Europe in response to another entity's dominant patent in this country. Thomas Burton, *Aid for Racing Hearts Could Also be a Boon to a Pacemaker Firm*, WALL ST. J., Jan. 12, 1993, at A1, A8.

spurs the speed of research,¹⁰⁵ this reduction in competition will slow industrial development over time. The issue in a purely domestic economy is optimally balancing the initial incentive to the original patent owner with the detriment to future researchers.¹⁰⁶

With international patenting, however, the problem becomes more complex. The teachings of an issued patent can travel beyond the borders of the granting sovereign and into other countries.¹⁰⁷ Corresponding patent rights in such other countries may, or may not, exist.¹⁰⁸ In countries where they do not, the public learns of the advance and yet is free from the economic impediment of dominating patent rights. Technological development therefore continues unabated. In countries where dominant patent rights do exist, in contrast, only the holder of the dominant patent is fully motivated to continue researching. Over time, this risks reducing the industrial sophistication of the patenting country in comparison to that of the non-patenting country.¹⁰⁹

105. Interestingly, lawyer-scholars active in the area have been unable to agree whether competition in research is economically efficient. Compare Kitch, *supra* note 16, at 276, with Merges & Nelson, *supra* note 92, at 871-78. The sources cited in the preceding footnote support the narrower proposition, made in the text, that competition increases the speed with which invention occurs.

In any event, it would appear that the proposition in the text can be accepted as true for present purposes, inasmuch as patent systems reflect the general attempt to increase the speed of innovation by fostering competitive research. *E.g.*, MALCHUP, *supra* note 16, at 50-52. See generally WILLIAM G. SHEPHERD, *THE ECONOMICS OF INDUSTRIAL ORGANIZATION* 145-51 (2d ed. 1985).

106. See generally *supra* note 101.

107. This can be due to any of a number of reasons, such as a national of one country gaining access to a copy of a patent granted in another, or because of international commerce in the patented good itself. See generally ANDERFELT, *supra* note 74, at 136-37; VERNON, *supra* note 91, at 17; PENROSE, *supra* note 20, at 100. Knowledge of the technology embodied in patented inventions appears to have traveled internationally routinely in the 1800's, particularly in Europe. With the common-language filings of the Patent Cooperation Treaty and the European Patent Convention, the availability of such foreign-patent teachings is probably far greater today. This ability to obtain technical information without granting national rights to the inventor seriously undercuts any attempt to rely on the traditional rationale of fostering disclosure in the context of international patenting.

108. During the early time period under discussion, the time-wise duration of national patents varied greatly between countries. *E.g.*, LADAS, *supra* note 20, at 24-25.

109. See ANDERFELT, *supra* note 74, at 137-39; Kronstein & Till, *supra* note 20, at 774; PENROSE, *supra* note 20, at 133-35. This fact casts serious doubt on the viability of Kitch's prospect theory of patenting. Kitch, *supra* note 16. Kitch's theory relies on the efficiencies that arguably arise from placing control of technological development in the hands of a single firm. It has been attacked with the argument that competitive research is more efficient. Merges & Nelson, *supra* note 92.

At a more basic level, because the rights conferred by national patents are territorially limited, national patents do not provide the single-firm control over the patented technology upon which Kitch's theory depends. Instead, multi-firm competition to develop improvements is largely inescapable. Any

These economic considerations spurred a number of countries to act during the early period of international patenting. Primary among those actions were national provisions that caused domestic patents to expire as soon as any corresponding foreign patent expired.¹¹⁰ In operation, these provisions freed domestic industry from the constraining effects of patenting as soon as the industry in another country became free.

In total, these various protectionist provisions inflicted immense difficulties on patent owners.¹¹¹ Often, one simply could not obtain patent rights in a foreign country. Even if a foreign patent could be obtained, many times its continued existence depended on the patent owner rapidly initiating manufacture in that foreign country. This could be disadvantageous for many different reasons.¹¹²

B. *The Paris Convention*

Prior to the Paris Convention essentially no international agreements addressed the obstacles to international patenting set out in the preceding section.¹¹³ Instead, patent owners who wished to assert patent rights in foreign countries were forced to rely on their own resources. As a practical matter, they were forced to restrict the number of countries in which they sought patent protection.

In 1883, a decade-long process of negotiation culminated in a number of countries signing the Paris Convention.¹¹⁴ Although the creation of the convention was an act of international diplomacy, the participants in the negotiations included not only representatives of national governments, but representatives of industrial interests as well.¹¹⁵ It appears, in fact, that the negotiations began

attempt to rely on Kitch's prospect theory would therefore be largely futile. See generally PENROSE, *supra* note 20.

110. See, e.g., LADAS, *supra* note 20, at 27-28. The United States had such a provision until 1897, when it was replaced by the predecessor of Title 35, U.S.C. § 102(d) (1987). CHISUM, *supra* note 88, § 6.04[1].

111. E.g., ANDERFELT, *supra* note 74, at 65-66; LADAS, *supra* note 20, at 26-28.

112. See, e.g., ANDERFELT, *supra* note 74, at 138; PENROSE, *supra* note 20, at 107-08. See LADAS, *supra* note 20, at 29.

113. Only two bilateral treaties regarding patents existed prior to the formation of the Paris Convention. LADAS, *supra* note 20, at 45-46.

114. See sources cited *supra* note 74. The process involved congresses at two major industrial conferences, the International Exhibition of Vienna in 1873 and the Paris Exhibition of 1878. In addition, the negotiators convened a third congress in Paris in 1880.

115. E.g., ANDERFELT, *supra* note 74, at 66-69. The large presence of industrial interests during the negotiations has been detailed by various writers. E.g., PENROSE, *supra* note 20, at 45-57; Beier, *supra* note 21, at 2-3. Beier asserts that this influence has continued. *Id.* at 13.

primarily at the insistence of industrial interests.¹¹⁶

As the following discussion details, the Paris Convention addressed a portion of the obstacles to international patenting. At the same time, other obstacles remained unresolved.¹¹⁷ This partial failure raises an immediate question: Why was agreement on those issues not reached? Many causes doubtlessly contributed.¹¹⁸ At the same time, however, the pattern of successes and failures suggests that the different economic interests of the various parties to the negotiations was a significant cause. In particular, agreement appears to have been possible only where the economic interests of national government and industry coincided.¹¹⁹

1. Patent owners vs. the national interest

It is axiomatic that the interests of national government will tend to be national in scope. With regard to patenting, these interests will include the full range of social costs and benefits of a patent system: the potential benefits of an increased rate of innovation, for example, as well as the costs of higher consumer prices, the costs of administering the patent system, and the costs borne by other endeavors from whom the increased resources spent on patenting have been diverted.¹²⁰

This focus on both the costs and the benefits of patenting should also hold true with regard to transactions of international patenting. A national government will be concerned with the increased incentive that patent rights in foreign countries bestow upon its domestic industry.¹²¹ Government will also be concerned with the domestic costs of awarding patents to foreigners: the loss of national wealth from importation of patented goods, and the potential stunting of domestic industry via international patenting that is uneven.¹²²

116. *E.g.*, PENROSE, *supra* note 20.

117. *See infra* notes 133-38. As to the results of the Paris Convention, Malchup states: "Only a few of the irksome problems of foreign patenting were solved and no progress was made toward the establishment of an 'international patent.'" MALCHUP, *supra* note 16, at 18.

118. For a general discussion of the difficulties of harmonizing substantive patent law, see LADAS, *supra* note 20, at 13-16.

119. Scholars in the field of negotiation theory agree that negotiated agreements are possible generally only where the parties have compatible interests. *See generally* ROGER FISHER & WILLIAM URY, GETTING TO YES 73 (1981); HOWARD RAIFFA, THE ART AND SCIENCE OF NEGOTIATION 45 (1982).

120. *See, e.g.*, MALCHUP, *supra* note 16, at 63-65, for a review of the social costs and benefits of patenting.

121. *See generally* VERNON, *supra* note 91, at 14; PENROSE, *supra* note 20, at 114-15.

122. *See* PENROSE, *supra* note 20, at 114 (noting that "[t]he question . . . is whether the gain to any particular economy from obtaining patents in other

Industry's view of patenting, in contrast, is potentially quite different. Industry will be concerned with how patenting affects its own, private interests.¹²³ Those interests will in all likelihood be very different from the interests of society as a whole.¹²⁴ For example, patent systems rely entirely on the incentive of increased profits to spur innovative activity. Patenting therefore bestows large private benefits on industry.¹²⁵ At the same time, the social costs of patenting are generally spread throughout society. They therefore impose private costs on industry to a much lesser degree.¹²⁶

This observation is very significant. Unless one views inventors as entitled to monopoly profits naturally, patent systems must be seen as societal mechanisms for providing an optimal amount of incentive to invent.¹²⁷ To determine that amount of incentive, one must consider more than industry's narrow, private interests. The result of that broader calculation need not coincide with industry's preferences. Thus, society can prefer rules of patent law that industry would not choose. Stated conversely, industry can prefer rules of patent law that are adverse to society. The differences of position between the two groups should be systematic.¹²⁸

For the same reasons, industry and national governments should also have systematically different interests with regard to

countries is likely to offset the costs of granting domestic patents to foreign non-resident patentees").

123. *E.g.* MALCHUP, *supra* note 16, at 56-62. Malchup presents a summary of the concepts of private vs. social costs and benefits. *Id.* at 56-58.

124. *Id.*

125. *See, e.g., id.*, at 58; PENROSE, *supra* note 20, at 126. Of course, the statement in the text applies not to all industry, but to those industrial entities that expect to obtain significant patent rights. Firms that intend to seek patents more aggressively will therefore tend to weigh the benefits of patenting more strongly than will nonpatenting firms. Patent-seeking firms may be more prevalent in some industries than others. *See generally* Merges & Nelson, *supra* note 92.

126. Of the various social costs identified by Malchup, only the costs of faster obsolescence and dominating patent rights appear to result in private costs that are concentrated in industry. MALCHUP, *supra* note 16, at 64. Of particular note, the costs associated with single-source pricing over the patented advance appear to be widely diffused throughout society. Kitch asserts that the courts have viewed such output restrictions as the main cost of patenting. Kitch, *supra* note 16, at 282.

127. That is, the amount of incentive at which the social gains from further induced invention begins to fall short of offsetting the associated increase in social costs. *See, e.g.* PENROSE, *supra* note 20, at 94-95.

128. This proposition is a basic one that has been repeatedly understood in the scholarly literature, although not always considered worthy of express statement. *See, e.g.,* ANDERFELT, *supra* note 74, at 99; PENROSE, *supra* note 20, at 91, 126. It is expressly stated here in recognition of the fact that some members of the patent bar either disagree or have not considered the matter in depth.

international patenting.¹²⁹ If they behave rationally according to economic criteria, national governments will be interested in obtaining agreements that maximize the wealth of their individual countries. These will be agreements whose operation bestows on the particular national economy both large benefits and small costs from international patenting.¹³⁰ Industry, in contrast, will seek the private benefits of increased international patenting¹³¹ but will be relatively unconcerned with any associated social costs. In particular, industry will be largely unconcerned with whether a disproportionate share of such costs falls on any particular national economy, including that of its own country.¹³²

In essence, because the parties to an international sale of a patented item each belong to a different national economy, their private costs and gains become social costs and gains for the countries involved. For example, where a national of the country under consideration holds a foreign patent, the sale of goods under that patent transfers wealth out of the foreign country into the hands of the patent-owning national. The national's private gain is thus a social gain for the national's own country. Conversely, where a country has granted one of its patents to a foreigner, the domestic sale of goods under the patent impoverishes domestic consumers and enriches the foreign patentee. The consumer's private cost is thus a social cost to the granting country. The outlook of national government differs from that of its patent-owning industry because the nation participates in both import and export transactions, while industry is largely preoccupied with exports.

2. *The agreement to foster increased foreign patenting*

The structure of the Paris Convention is consistent with the operation of these economic interests. Foreign patenting, for exam-

129. See generally ANDERFELT, *supra* note 74, at 76-77; Beier, *supra* note 21, at 13-20.

130. See, e.g., PENROSE, *supra* note 20, at 114-15, 119-20, 123.

131. Again, to the extent that the individual industrial entities expect to receive significant patent rights in foreign countries. E.g., PENROSE, *supra* note 20, at 115. See *supra* note 125.

This factor can explain why independent inventors and small businesses have such small enthusiasm for the Patent Harmonization Treaty. See, e.g., 138 CONG. REC. H7370-72 (daily ed. Aug. 4, 1992) (statement of Rep. Bentley). Obtaining and enforcing patents in foreign countries is notoriously difficult. Large corporations with heavy R&D expenditures and extensive foreign sales can generally overcome these difficulties. Independent inventors and small companies, in contrast, are generally less able to do so. Because these groups are less likely to obtain the benefits of increased foreign patenting the associated costs may become relatively more significant to them.

132. Cf. PENROSE, *supra* note 20, at 131 (concluding that some form of international patenting is necessary to prevent stronger industrial countries from forcing weaker industrial countries to accept oppressive patent agreements).

ple, is crucial to the objectives of both industry and national government. Patents provide the market power that yields increased profits to industry. If such increased profits are to be had on foreign sales, industry must obtain foreign patents. Those same increased profits on foreign sales, moreover, appear to be the major mechanism by which countries enrich themselves through international patenting.¹³³ National government is thus interested in seeing its citizens obtain as many foreign patents as possible. Additionally, foreign patents are needed to constrain the industrial development of competing countries while an advance is subject to domestic patent rights.

For these reasons, one would expect easy agreement in the Paris Convention to increase the general availability of foreign patenting. The interests of national governments are more or less the same on this particular issue.¹³⁴ In addition, the self interests of national governments and industry generally coincide.

The original text of the Paris Convention shows such easy agreement on this issue through the concept of foreign priority:

Any one who shall have regularly deposited an application for a patent of invention . . . in one of the contracting States, shall enjoy for the purpose of making the deposit in the other States . . . a right of priority under the periods hereinafter determined.

In consequence, the deposit subsequently made in one of the other States of the Union, before the expiration of [this] period cannot be invalidated by acts performed in the interval, especially by another deposit, by the publication of the invention or by its working by a third

133. See, e.g., PENROSE, *supra* note 20, at 113-14, 119-20. Foreign patents owned by entities domestic to a particular country can be counted as additions to that country's national wealth. See, e.g., MALCHUP, *supra* note 16, at 55.

134. This statement is subject to at least one major caveat. Some countries may have few domestic inventors and thus be less likely to obtain foreign patents even in an "open patenting" regime. Undeveloped and less developed countries present particular examples. Such countries may well conclude that the gains from a greater freedom to patent internationally are, from their national perspective, at best hypothetical. See, e.g., PENROSE, *supra* note 20, at 96, 115-17. Anderfelt's work explores various implications of this problem. See also Douglas F. Greer, *The Case Against the Patent System in Developing Countries*, 8 J. INT'L. L. & ECON. 223 (1973) (concluding that the costs which less developed countries incur from international patenting outweigh the potential gains which such countries will receive); Gutterman, *supra* note 3, at 89. There are indications, however, that this issue was not present in the initial negotiations over the Paris Convention. ANDERFELT, *supra* note 74, at 92 (asserting that original negotiations included only industrialized countries and those with no national patent systems). More recently, increasing numbers of less developed countries have become signatory to the Paris Convention. E.g., ANDERFELT, *supra* note 74, at 92-97; Beier, *supra* note 21, at 14-15. This has led to the increasing occurrence of "north-south" splits in international patenting issues, as developing countries act on their main interest of stopping the outflow of wealth to foreign patentees. E.g., *EC Officials Express Concern over Unresolved TRIPs Issues*, 5 WORLD INTELL. PROP. REP. 215 (1991) (describing "clear north-south split" over the patentability of pharmaceuticals). See generally ANDERFELT, *supra* note 74, at 133-35; Beier, *supra* note 21, at 14-20.

party¹³⁵

As a result of this provision, an inventor could establish a date of filing in all member countries via an initial filing in a single country. The act of applying for patent rights on the same invention in several foreign countries was therefore made much easier.¹³⁶

3. *The failure to stem protectionist provisions*

As to protectionist provisions, the economic interests of national government and patent owners appear to diverge. National government is critically interested in retaining the freedom to impose protectionist provisions. By definition, these provisions reduce the outflow of national wealth to foreign patentees. They are an important means of minimizing the domestic costs of international patenting.

Industry, in contrast, will be generally opposed to protectionist provisions. Protectionist provisions reduce the market power of industry's foreign patents. Industry will therefore object to their presence in the patent systems of foreign countries and will seek their abolition. In addition, because others pay the private costs of increased patents on imports, industry has little reason to favor protectionist provisions in the domestic patent system of its own country.

Under an economic analysis, therefore, patent-owning industry will seek broad prohibitions against protectionist measures. In contrast, each national government will seek to preserve at least those protectionist provisions that operate to the country's own net benefit. Based upon these fundamentally different interests one would expect difficulty in achieving any agreement to eradicate protectionist provisions generally.

The historical course of negotiations over the Paris Convention is consistent with this analysis as well. The original text of the Paris Convention contained conspicuously little with regard to the two most widespread protectionist measures, working requirements and compulsory licenses:

The introduction by the patentee into countries where the patent has been granted, of articles manufactured in any other of the States of the Union, shall not entail forfeiture.

The patentee, however, shall be subject to the obligation of working his patent conformably to the laws of the country into which he has

135. Convention for the Protection of Industrial Property, Paris, Mar. 20, 1883, art. 4, 1 T.S. 80, 82. The provisions relating to industrial models, designs, and trademarks are omitted. Originally six months, the period of priority for inventions is now one year. Stockholm Revision, art. 4(c), 21 U.S.T. 1629, 1632.

136. See generally PENROSE, *supra* note 20, at 67-71, 90; LADAS, *supra* note 20, at 93.

introduced the patented articles.¹³⁷

The text did require signatories to permit importation. At the same time, it specifically allowed the continued existence of national working requirements generally. It did not mention compulsory licenses at all.¹³⁸

4. *The selection of national treatment*

In addition to the principle of foreign priority, the Paris Convention also adopted the principle of national treatment. "The subjects or citizens of each of the contracting States shall enjoy, in all other States of the Union, so far as concerns patents for inventions, . . . the advantages that the respective laws thereof at present accord, or shall thereafter accord to subjects or citizens."¹³⁹ Stated simply, national treatment requires each government to apply the same provisions to both its own citizens and foreign nationals.¹⁴⁰ It has been described, along with the principle of foreign priority, as a fundamental tenet of the convention.¹⁴¹

The Paris Union's agreement to provide for national treatment stands in apparent opposition to the economic analysis suggested in this article. At least in theory, national treatment prevents governments from employing the most effective tool for reducing the domestic cost of international patenting: expressly denying domestic patent rights to foreign inventors.¹⁴² In addition, the Paris Union consciously selected national treatment over the competing principle of reciprocity.¹⁴³ Under reciprocity, each government need

137. PLT, *supra* note 8, art. 5.

138. For discussions of the effect of this article in its initial form, see PENROSE, *supra* note 20, at 74-87.

139. PLT, *supra* note 8, art. 2. *See generally* Beier & Schricker, *supra* note 3, at 83-87; PENROSE, *supra* note 20, at 64-67.

140. *E.g.*, Beier & Schricker, *supra* note 3, at 83; PENROSE, *supra* note 20, at 64-65, Beier, *supra* note 21, at 9.

141. *See, e.g.*, PENROSE, *supra* note 20, at 66; Beier, *supra* note 29, at 84; ANDERFELT, *supra* note 74, at 70; LADAS, *supra* note 20, at 265; VERNON, *supra* note 91, at 2.

142. Although such provisions were no longer widespread by the 1870's, at an earlier time it was apparently common for national governments to refuse patents to foreigners outright. *See* LADAS, *supra* note 20, at 27. The United States patent had such a provision in its laws from 1793 to 1836. *See* Moy, *supra* note 17, at 789 n.42. Canada, as another example, had such a provision until the early 1870's. *See, e.g.*, Annual Report of the Commissioner of Patents, 1873, at 13-14.

National treatment also leads, by short extension, to the abolition of provisions that link the expiration of domestic and foreign patents. *See generally* LADAS, *supra* note 20, at 505-07; PENROSE, *supra* note 20, at 71-74. Although not in the Paris Convention originally, this prohibition appeared in the Washington Revision of 1911. *E.g.*, PENROSE, *supra* note 20, at 72.

143. PENROSE, *supra* note 20, at 64; Beier, *supra* note 21, at 8-10; LADAS, *supra* note 20, at 269-70.

award to foreign inventors only those patent rights that the foreign inventor's own government awards to non-nationals.¹⁴⁴ Reciprocity would thus seem a favorite of national governments: under it, the cost of awarding domestic patents to foreigners is tied directly to the benefits that domestic industry receives from patenting in foreign markets.¹⁴⁵

What, then, does the Paris Union's selection of national treatment imply? Does it invalidate the assertion that economic self-interest explains the Paris Convention's substantive provisions? More broadly, does it show the Paris Union to have adopted an internationalist, free-trade approach to foreign patenting?

When examined carefully, the adoption of national treatment probably does not support these suppositions. Reasons completely apart from a free-trade rationale can cause government to favor national treatment over reciprocity. A country applying reciprocity, for example, must be expert in the patent laws of every foreign country. Reciprocity thus risks large administrative costs.¹⁴⁶

In addition, a deeper examination shows that national treatment still permits government many forms of protectionist behavior in patenting.¹⁴⁷ Still possible, for example, are provisions that are facially neutral with regard to nationality, but which impact foreigners disproportionately. Working requirements and compulsory licenses are examples of two such provisions;¹⁴⁸ the restrictions in United States law against proof of invention by foreign activities are another.¹⁴⁹

Another, more subtle type of protectionist provision permitted under national treatment involves reducing the domestic costs of patenting generally. The loss of domestic wealth to foreign patentees can occur only when domestic patenting results in valuable

144. *E.g.*, Beier, *supra* note 21, at 8; Bogsch, *supra* note 21, at 196-97; William R. Cornish, *The Canker of Reciprocity*, 10 EUR. INTELL. PROP. J. 99 (1980).

145. Elements in France, for example, objected to the use of national treatment in the convention. PENROSE, *supra* note 20, at 65-66. Various authors assert that the United States has historically pressed for reciprocity with the most vigor of any country in the Paris Union. *Id.* at 66; ANDERFELT, *supra* note 74, at 73 n.26; LADAS, *supra* note 20, at 270. The United States has recently made reciprocity the basis of protection for foreign nationals in the Semi-Conductor Chip Protection Act. 17 U.S.C. §§ 902(a), 914.

146. *E.g.*, MALCHUP, *supra* note 16, at 138; LADAS, *supra* note 20, at 269; Bogsch, *supra* note 21, at 197; M. Osterag, *International Unions for the Protection of Literary, Industrial, and Artistic Property*, 25 MICH. L. REV. 107, 110-11 (1926).

147. Indeed, national treatment appears to have been the norm in national patent laws even prior to the Paris Convention. LADAS, *supra* note 20, at 27-28, 47-48.

148. *See supra* notes 96-100. Strict working requirements, in fact, can have very nearly the same effect as refusing to grant patents to foreign inventors altogether. PENROSE, *supra* note 20, at 111, n.2.

149. Moy, *supra* note 17, at 788.

rights. Thus, government can reduce the outflow of wealth to foreigners by simply reducing the economic value of the domestic patent rights that are available. Indeed, the loss can be reduced to zero by refusing to grant domestic patents altogether.¹⁵⁰

The Swiss patent system provides a historical example of a national government employing this latter technique.¹⁵¹ Switzerland progressed through the industrial revolution without a patent system.¹⁵² The economic rationale behind this decision was sound: without domestic patents Swiss consumers paid no increased prices for new technology. Switzerland thus minimized the outflow of its wealth to importers. Indeed, refusing to issue patents removed all the social costs of patenting from the domestic Swiss economy.¹⁵³ At the same time, Switzerland continued to receive most of the benefits of patenting. True, Swiss industry could not expect patent profits from introducing new technology into the domestic Swiss economy. The absence of domestic patents, however, gave Swiss industry free access to all the new technology that others developed. In addition, Swiss industry held patents in foreign countries,¹⁵⁴ thus earning patent profits from exports and receiving an incentive to invent in that way. In fact, because the the Swiss economy was small, the incentive that Swiss industry received from patented exports was arguably greater than the incentive that dominating the domestic Swiss economy via patenting might have supplied.¹⁵⁵

National treatment provided no obstacle to this strategy. The original Paris Convention did not commit its members to provide any minimum rights to patentees.¹⁵⁶ Thus Switzerland could, and in fact did, adhere to the Paris Convention even though it had no

150. Cf. Bogsch, *supra* note 21, at 196-97. This can also be done selectively by refusing to grant patents in particular technologies. Switzerland did so for a time, for example, with regard to process technology. ERIC SCHIFF, INDUSTRIALIZATION WITHOUT NATIONAL PATENTS 85-87 (1971); PENROSE, *supra* note 20, at 124. Modern examples include the exclusion of pharmaceuticals and food products from patentable subject matter in the patent laws of various countries. See generally Gutterman, *supra* note 3, at 125-36.

151. There are at least several sources that discuss, in the English language, the development of the Swiss patent system during the 1800's and early 1900's. Schiff, *supra* note 150, at 85-126; Penrose, *supra* note 20, at 16-17, 120-24; Kaufert, *supra* note 16, at 9-10, 48; Kronstein & Till, *supra* note 20, at 774-79.

152. See SCHIFF, *supra* note 150, at 85-95.

153. PENROSE, *supra* note 20, at 122.

154. E.g., PENROSE, *supra* note 20, at 121; SCHIFF, *supra* note 150, at 103-04. In some countries, Swiss inventors "took out more patents per head of the domestic population than did inventors of any other nation." SCHIFF, *supra* note 150, at 90.

155. Cf. ANDERFELT, *supra* note 74, at 129-31; SCHIFF, *supra* note 150, at 100; PENROSE, *supra* note 20, at 117-24 (discussing importance of foreign patenting to countries with small domestic economies).

156. E.g., Beier, *supra* note 21, at 11.

patent system whatsoever.¹⁵⁷ Its denial of patent rights equally to domestic nationals and foreigners satisfied the requirement of national treatment. Additionally, adhering to the Paris Convention guaranteed Swiss inventors national treatment from foreign governments, thereby ensuring Swiss industry access to patent profits on its exports.¹⁵⁸ In fact, Switzerland did not find it in her interest to enact a national patent system until Germany threatened her with retaliatory tariff action.¹⁵⁹

C. *Multilateral Negotiations Subsequent to the Original Paris Convention*

Subsequent negotiations to revise the Paris Convention have continued to follow this pattern.¹⁶⁰ It has been increasingly possible to harmonize the procedural requirements of patenting.¹⁶¹ At

157. PENROSE, *supra* note 20, at 65. The Netherlands also adhered to the Paris Convention without a national patent system. *E.g.*, ANDERFELT, *supra* note 74, at 71; Beier, *supra* note 21, at 10-11.

158. PENROSE, *supra* note 20, at 121.

159. PENROSE, *supra* note 20, at 16-17; Kronstein & Till, *supra* note 20, at 778-79. Recognizing the existence of this mechanism raises interesting questions about the current Japanese patent system. That system has been criticized as failing to provide meaningful rights, particularly to foreign inventors. *E.g.*, *Hearing on the Effect of the Japanese Patent System on American Business Before the Subcommittee on Foreign Commerce and Tourism of the Committee on Commerce, Science, and Transportation, United States Senate*, 100th Cong., 2d Sess. (June 24, 1988); *Hearing on Japanese Patent Policy Before the Subcommittee on Foreign Commerce and Tourism of the Committee on Commerce, Science, and Transportation, United States Senate*, 101st Cong., 1st Sess. (Feb. 28, 1989). The provisions of the Patent Harmonization Treaty that place maximum time limits on examination, for example, *Basic Proposal*, art. 16, are commonly regarded as being directed against the Japanese.

The current Japanese economy has several qualities that are similar to the economy that apparently existed in Switzerland in the second half of the 1800's: a relatively high degree of industrialization; a significant reliance on the export of manufactured, and hence potentially patentable, goods; a propensity for obtaining patents in foreign countries; and an overall size that represents a small domestic market in relation to the export market. *See generally* SCHIFF, *supra* note 149, at 90-101. In addition, at least some segments of Swiss industry feared that they were less innovative than foreign entities, and thus at risk of being dominated by foreign-owned patent rights, an accusation that some United States industrialists have leveled at Japan. *E.g.*, *Id.* at 92; PENROSE, *supra* note 20, at 16, 123-24.

Japan may thus be benefiting from trade distortions that are the result of a general absence of a domestic patent system, much as Switzerland did in the late 1800's. *See generally* SCHIFF, *supra* note 150, at 101-06. For discussions of the relationship between substantive Japanese patent law and Japan's national trade interests, see Carter Mackley, *The Role of the Patent System in Technology Transfer: The Japanese Experience*, 26 COLUM. J. TRANSNAT'L. L. 131 (1987); Guntram Rahn, *The Role of Industrial Property in Economic Development: The Japanese Experience*, 14 IIC 449 (1983).

160. *E.g.*, Beier, *supra* note 21, at 12 (asserting pattern of attempts to include minimum standards in revisions to the Paris Convention).

161. *See* STRINGHAM, *supra* note 70, at 126-30. Article 4 of the convention, for example, has expanded massively, and now treats numerous procedural

the same time, agreement to limit the use of national patent provisions for protectionist purposes has not progressed very far. The Paris Union has repeatedly revisited the issues of working requirements and compulsory licensing since 1883.¹⁶² The resulting provisions place very few restrictions on national governments that wish to use these mechanisms. Compulsory licenses can be granted as soon as three years after the patent issues. The patent can be revoked for failure to work two years thereafter.¹⁶³ Perhaps more significant, even today the Paris Convention contains virtually no requirements that national governments grant any other minimum rights to patent holders.¹⁶⁴ Indeed, the Convention still does not even require that national governments enact patent systems at all.¹⁶⁵

This reluctance to forego protectionism has shown itself outside the Paris Convention as well. The substantive standards in Chapter II of the Patent Cooperation Treaty are expressly non-binding;¹⁶⁶ the patent standards to be added to GATT are in sharp dispute.¹⁶⁷ Even the one exception to this trend, the binding sub-

cases in relatively minute detail. Stockholm Revision, arts 4-4^{quater}, July 14, 1967, 21 U.S.T. 1629, 1631-36.

162. PENROSE, *supra* note 20, at 78-87; ANDERFELT, *supra* note 74, at 72-92; LADAS, *supra* note 20, at 68-89. Penrose describes these provisions as the "most controversial" in the convention.

163. The relevant portions of article 5 now read:

A. — (1) Importation by the patentee into the country where the patent has been granted of articles manufactured in any of the countries of the Union shall not entail forfeiture.

(2) Each country of the Union shall have the right to take legislative measures providing for the grant of compulsory licenses to prevent the abuses which might result from the exercise of the exclusive rights conferred by the patent, for example, failure to work.

(3) Forfeiture of the patent shall not be provided for except in cases where the grant of compulsory licenses would not have been sufficient to prevent the said abuses. No proceedings for forfeiture or revocation of a patent may be instituted before the expiration of two years from the grant of the first compulsory license.

(4) A compulsory license may not be applied for on the ground of failure to work or insufficient working before the expiration of a period of four years from the date of filing of the patent application or three years from the date of grant of the patent, whichever period expires last; it shall be refused if the patentee justifies his inaction by legitimate reasons.

21 U.S.T. 1636-37.

164. See Beier, *supra* note 21, at 79, 96 (noting that the Paris Convention does not call for the provision of sufficient national laws); Kirk, *supra* note 22, at 601 (asserting that the Paris Convention provides for essentially no minimum standards).

165. *E.g.*, ANDERFELT, *supra* note 74, at 95, 114. Anderfelt suggests that changes to article 17 during the Lisbon Revision of 1958 may obligate members of the Paris Union to enact patent systems. *Id.* at 114. He admits that at least one country did not adopt that interpretation.

166. PLT, *supra* note 8, art. 64(1).

167. See the authorities cited *supra* note 3.

stantive standards in the EPC,¹⁶⁸ is anomalous: the EPC exists only among a small number of countries that are party to a broad, prior commitment to internationalism amongst themselves.¹⁶⁹

III. ANALYSIS

The nature of the Patent Harmonization Treaty becomes clear when viewed in light of the foregoing history. Despite the practically continuous efforts of patent owners, the international community has never agreed to provide meaningful minimum standards of patent protection to patentees. The treaty is another effort to obtain those standards. Included in it are virtually all the substantive provisions that patent owners have sought historically and been denied.

Additionally, the interest groups that are at odds over the treaty remain essentially unchanged from prior harmonization efforts. International, patent-owning industry continues to seek broad substantive rights in all countries.¹⁷⁰ Governments continue to seek the freedom to impose national laws that favor domestic development.¹⁷¹

In short, the Patent Harmonization Treaty is simply the newest vehicle in an ongoing debate. That debate existed long before the treaty was proposed. It will likely continue long after the treaty is either signed or abandoned.

A. Evaluating the Patent Harmonization Treaty

This context suggests a number of analyses that might be useful in evaluating the Patent Harmonization Treaty. First, imple-

168. Arts. 52-74, reprinted in PATERSON, *supra* note 23, at 523-30. See Beier, *supra* note 21, at 20.

169. Members of the European Economic Community, who roughly make up the membership of the EPC, are signatory to the Treaty of Rome. See generally Moy, *supra* note 17, at 808-09 nn.137-38.

170. The identity of the trade and industry groups that have appeared before WIPO are listed in meeting notes referred to at *supra* note 7.

171. These differences can be seen in many of the disputes over specific provisions of the treaty. *E.g.*, PLT, *supra* note 8, art. 10 (fields of technology); *Id.* art. 19 (rights conferred by the patent); *Id.* art. 22 (patent term); *Id.* art. 25 (obligations of the patent owner); *Id.* art. 26 (remedial measures for violation of art. 25).

Perhaps the clearest indication is in the dispute over the preamble of the treaty. The preamble is to be non-binding. *Observations, supra* note 41, at 5. Nevertheless, the various parties to negotiations cannot agree whether the Union "recogniz[es] the need to take into consideration the public policy objectives underlying national patent law," and is willing to "tak[e] into account development, technological, and public interest objectives" of its members. *Basic Proposal, PLT, supra* note 8, at 4. The preamble is one of the provisions of the treaty that the International Bureau has recommended deleting. See *supra* note 41.

menting the treaty will require the United States to change its domestic patent laws.¹⁷² As with all such proposed changes, we must analyze their purely domestic effect. Amending the law to change the rights of patent owners inevitably alters the balance between the social costs and benefits of patenting. We must therefore discern whether the changes required by the Patent Harmonization Treaty would improve the balance in the United States, or at least not damage it unacceptably.

The debate over prior-user rights illustrates this point. Prior-user rights, in the form under consideration, except prior users of a patented advance from the patent owner's control.¹⁷³ They currently do not exist in the United States. Introducing them would necessarily reduce the profits that holders of United States patents could expect from commercial exploitation of their patent rights. This should directly reduce the incentive benefit of patenting.¹⁷⁴

At the same time, however, awarding rights to a prior user by definition creates a multiple-supplier market for the patented technology. Prior-user rights are thus a specific form of compulsory license. In general, they should drive the price of the patented technology down and decrease the social costs of patenting. From a purely domestic viewpoint, therefore, evaluating prior-user rights should involve calculating whether this decrease in social cost acceptably offsets the decrease in incentive benefit.

In addition to domestic considerations, however, evaluating the Patent Harmonization Treaty will require us to analyze the treaty's effect on the flow of wealth across our national borders. Strong patent rights transfer increased amounts of wealth outside the country to foreign patentees, while weak patent rights transfer smaller amounts. Changing the economic rights of patent holders in the United States will inevitably change the size of this transfer.

172. See Wilder, *supra* note 47.

173. Article 20, paragraph 1 of the proposed treaty reads as follows:

Notwithstanding Article 19 ["Rights conferred by the Patent"], a patent shall have no effect against any person (hereinafter referred to as the "prior user") who in good faith, for the purposes of his enterprise or business, before the filing date of where priority is claimed, the priority date of the application on which the patent is granted, and within the territory where the patent produces its effect, was using the invention or was making effective and serious preparations for such use; any such person shall have the right, for the purposes of his enterprise or business, to continue such use or to use the invention as envisaged in such preparations.

PLT, *supra* note 8, at 41.

174. *Joint Hearings on S. 2605 and H.R. 4978, Before the Senate Subcommittee on Patents, Copyrights and Trademarks and the House Subcommittee on Intellectual Property and Judicial Administration of the House and Senate Committees on the Judiciary*, 102d Cong., 2d Sess. (statement of Douglas Wyatt) (Apr. 30, 1992).

Prior-user rights again provide an illustration. The treaty calls for prior-user rights to be awarded only to prior users who are active *domestically*.¹⁷⁵ Such rights would thus remove wealth from patent owners, a class of persons in which foreign nationals can be numerically commonplace, and transfer it to domestic industry and consumers. Prior-user rights therefore protect domestic wealth from the incursions of foreign patentees.¹⁷⁶ The interest in minimizing outflow of the nation's wealth to foreigners argues for their introduction even apart from purely domestic concerns.

As a still further issue the wealth-transfer effect of foreign patents suggests in fact that the United States examine carefully the basic assumption that increased patent harmonization is in the national interest. At least three major variables affect the losses that a country will suffer from foreign patenting: the size of the country's economy; the strength of the rights that the country's patent laws give to patentees; and the overall number of patents that the country grants to patentees who are foreign. The United States does not appear to fare well by any of these criteria. Its economy represents 30% of the world's consumption — by far the largest economy of any single country in the world. At the same time, United States patent laws provide patent owners with some of the strongest patent rights in existence.¹⁷⁷ The United States currently grants 45% of its patents to foreigners, the highest percentage at any time in its history.¹⁷⁸

Taken together, these factors virtually assure that open international patenting will inflict a substantial loss of economic wealth

175. The Patent Harmonization Treaty calls for prior-users rights based upon use "within the territory where the patent produces its effect." PLT, *supra* note 8, art. 20(1). The legislation previously before Congress would have granted prior-user rights only to those whose use was "in the United States." *E.g.*, S. 2605, § 3(b) (proposing new 35 U.S.C. § 273(a)). This national focus corresponds to nearly identical provisions in the national laws of other countries. *E.g.*, Beier, *supra* note 29, at 14, 17.

176. Article 4 of the Paris Convention, in fact, has always permitted the award of prior user rights by making the right of foreign priority "subject to the rights of third parties." *E.g.*, PENROSE, *supra* note 20, at 68 n.18.

177. *E.g.*, PENROSE, *supra* note 20, at 1 n.1; LADAS, *supra* note 20, at 270. *But* see VERNON, *supra* note 91, at 4 (asserting antitrust limitations on patenting in United States to exceed those in foreign countries). The law of antitrust in the United States is less extensive today than 1957, the date of Vernon's writing.

178. USPTO, Patents Issued by the Patent and Trademark Office, U.S. DEPT. OF COMMERCE NEWS RELEASE NO. 92-1 (Feb. 14, 1992). The latest statistics are expected to show a very slight decline in this percentage.

This percentage has increased drastically in the relatively recent past. At the turn of the century, less than 10% of United States patents were being granted to foreign nationals. COMM'R PATS. ANN REP. 1970, 11, 26. The percentage was below 20% throughout most of the 1960's. *Id.* Thus foreign patenting can be said to inflict much greater damage on the United States economy today than in earlier times. *See generally* VERNON, *supra* note 91, at 4; Greer, *supra* note 134, at 228-30.

on the United States. They suggest, in fact, that the United States may well suffer the largest such losses of any country in the world.¹⁷⁹

Put plainly, then, there are substantial reasons why the United States might lose, rather than gain, from a general increase in the amount of international patenting. The national interest may thus favor resisting patent harmonization. At the very least, we should submit to patent harmonization only after comparing carefully what we will gain with what we will lose.

B. *Evaluating Industry's Advice*

Historical context also suggests how to evaluate industry's enthusiasm for the Patent Harmonization Treaty. Industry's enthusiasm should be suspect to the extent that it is the result of industry's own peculiar subset of interests in patenting. In particular, history and reason suggest that we should carefully examine whether industry has considered the social costs that increased international patenting will impose domestically. If industry's calculus excludes those costs its advice is not sound.

A concrete example will illustrate how this evaluation might operate. The Patent Harmonization Treaty has been described, from the viewpoint of the United States, as a bargained-for exchange. The United States is offering to change its theory of priority from the current rationale of first-to-invent to the rationale of first-to-file. In return, the European Community will provide inventors a grace period prior to filing.¹⁸⁰

Industry's endorsement of this bargain is understandable. A grace period would be more hospitable to inventors than Europe's

179. The reevaluation suggested in the text may find historical precedent in the changing negotiating position of England, which went from supporting open international patenting strongly in the 1880's to advocating more protectionist agreements in the early 1900's. Anderfelt suggests that this change was driven by the rest of the industrialized world reaching rough parity with England's development at the end of the Industrial revolution. ANDERFELT, *supra* note 74. See also PENROSE, *supra* note 20, at 140-41.

It is important to note that deemphasizing multilateral patent harmonization as a goal does not mean abandoning efforts to improve the rights of United States patentees in foreign countries. Bilateral mechanisms, such as actions under section 301 of the Trade Act of 1930, *codified as amended in* 19 U.S.C. §§ 1301, 1303, are available to change the behavior of the United States' trading partners. See generally DUVALL, *supra* note 3, at 591-93. Generally speaking, use of these mechanisms would require the United States to offer fewer commitments to change its own patent laws in return for concessions from foreign governments.

180. *E.g.* Fiorito, *supra* note 5, at 88-89; Pagenberg, *supra* note 5, at 2, 7; Manbeck statement, *supra* note 63.

current rule of absolute novelty.¹⁸¹ Marginally more European patents would issue to inventors under such a rule, thereby increasing somewhat the overall expectation within United States industry of profit from patenting in Europe.¹⁸²

At the same time, offering to adopt first-to-file priority will impose increased costs on the United States. The United States' first-to-invent provisions effectively discriminate against foreign inventors in the race to obtain United States patents.¹⁸³ Because few other provisions in United States patent law have this effect,¹⁸⁴ first-to-invent priority may well be the major means by which the United States protects itself against the outflow of its wealth to foreign patentees.¹⁸⁵ Changing to first-to-file priority will thus increase the outflow of wealth from the United States, perhaps significantly.

Industry's enthusiasm for the basic bargain of the Patent Harmonization Treaty must therefore be viewed skeptically. Exchanging a European grace period for first-to-file may provide the United States economy with a net gain. Industry, however, will not bear most of the costs that increased foreign patenting will inflict on the United States. Industry would probably support the treaty even if its operation would provide society with a clear net loss.

Historical context also raises other issues. If the interests of industry and the nation are in fact different, adherence to proper

181. Inventors who make public disclosures during the grace period will obtain patents that would not be granted otherwise.

182. Of course, this increase will apply to European inventors as well. The fact that European patenting interests also favor the use of a grace period is therefore not surprising. *See supra* note 30.

183. Moy, *supra* note 17, at 784-88.

184. United States patent law does not contain, for example, a working requirement, compulsory licensing or prior user rights. It contains no selective exclusion of technological fields from patentable subject matter. 35 U.S.C. § 101. United States procedures for granting patents, moreover, operate with essentially equal efficiency on applications filed by nationals and foreigners. Thus, while the United States' first-to-invent provisions are less than perfectly internationalist, United States patent law as a whole is probably no more protectionist than that of foreign patent systems. *See, e.g.*, Section 24, German Patent Act of 1980, *reprinted in* Beier, *supra* note 21, at 22 (setting out compulsory licensing and working requirements); Societa Italiana Brevetti, *Bulletin on Patents and Trademarks in Italy*, 74 J. PAT. & TRADEMARK OFF. SOC'Y 484 (1992) (discussing compulsory licensing and working requirements in various European countries); Frederick M. Ritchie, *So You Want a Commercially Important Patent in Japan!*, 74 J.P.T.O.S. 186 (1992). The sources on Japanese patent practices cited *supra* note 158. Indeed, it may be considerably less so.

185. The protectionist effects of the United States' first-to-file provisions have been noted by foreign interests during the WIPO negotiations. *See, e.g.*, International Federation of Industrial Property Counsel, *FICPI Position Paper for the Diplomatic Conference for the Conclusion of a Treaty Supplementing the Paris Convention as Far as Patents Are Concerned (Patent Law Harmonization Treaty)*, at 1-2 (May 6, 1991) (discussing result as "bias in favor of residents of the U.S.").

lawmaking processes becomes critical. Whether the treaty reflects the overall will of the United States, for example, should depend heavily on whether the various constituencies have been represented adequately. Yet, from the record it appears that industry has had a disproportionate role in defining the treaty before WIPO. Nearly all of the nongovernmental participants in the WIPO negotiations have been from industrial and related interests.¹⁸⁶ One author has even suggested that industrial interests should control the debate within WIPO over patent harmonization.¹⁸⁷

Industry's narrow interests, in fact, may have already influenced how the United States is approaching international patenting generally. The Federal government has relied on several advisory committees in this area¹⁸⁸ — advisory committees whose memberships have been drawn heavily from patent-owning industry.¹⁸⁹ The government's recent statements of policy reflect precisely the limited outlook that one would expect of industry.¹⁹⁰ Much attention has been paid to the increased revenues that industry could expect from stronger intellectual property rights abroad.¹⁹¹ In contrast, little or no attention has been paid to the costs that any concessions will impose on the United States. Indeed, many of the documents prepared by the government and its advisory committees do not reveal an awareness that increased international patenting will inflict *any* domestic costs. Observers can therefore wonder whether the flaws of the Patent Harmonization Treaty exist in

186. See Moy, *supra* note 17, at 793-803.

187. Beier, *supra* note 21, at 18.

188. The advisory committees that have addressed international patenting issues since 1980 include the Advisory Commission of Patent Law Reform to the Secretary of Commerce, see A Report to the Secretary of Commerce (1992), the Industry Functional Advisory Committee on Intellectual Property Rights for Trade Policy Matters to the Secretary of Commerce (IFAC 3) and the Advisory Committee on International Intellectual Property to the Secretary of State.

189. For example, of the twenty-five members and alternate members of the Advisory Commission on Patent Law Reform, twenty were either employees of large patent-owning entities or private patent lawyers. Similarly, at least 31 of the 38 members of IFAC 3 were closely aligned with patent-owning industry.

190. See, e.g., Administration Statement on International Trade Policy, Sept. 23, 1985; U.S. Trade Representative, *Oversight Hearing on Intellectual Property and Trade Before the Subcommittee on Courts, Intellectual Property, and the Administration of Justice of the Committee on the Judiciary*, 101st Cong., 1st Sess. 27-61 (1989) (testimony of Carla Hills).

191. Those efforts have included attempts to obtain greater protection, see Administration Statement on the Protection of U.S. Intellectual Property Rights Abroad, (Apr. 3, 1986); Statement by Secretary of Commerce Malcolm Baldrige on Proposed "Intellectual Property Rights Improvement Act of 1986," (Apr. 7, 1986); Statement by Ambassador Clayton Yeutter Concerning Intellectual Property Rights Protection, (Apr. 7, 1986), as well as efforts to document the amount of the potential gains. E.g., Foreign Intellectual Property Protection and the Effect on U.S. Industry and Trade, U.S.I.T.C. Pub. No. 2065 (1988).

other international agreements that have been negotiated recently, such as NAFTA and the TRIPs portion of GATT.

IV. CONCLUSION

The Patent Harmonization Treaty is one of the most recent events in a historical series of international negotiations relating to patenting. In those negotiations, patent owners have sought to increase their rights generally. National governments, in contrast, have tended to seek arrangements that provide net gains to their individual economies. Typically these objectives have been in opposition. As a result, international patenting agreements have not progressed very far, despite efforts that have now spanned more than a century.

One can wonder whether the United States has been aware of this history in negotiating the Patent Harmonization Treaty. With regard to substantive, as opposed to procedural patent provisions, precious little of what occurred in the negotiations to date has been an altruistic exercise in international cooperation. Rather, the various parties have consistently sought terms of agreement that further their own self-interests. Certainly this has been true of the national governments; it has been equally true of private industry.

Knowing this, one would expect the United States to have carefully measured the cost of each concession it has offered. Yet, this does not appear to be the case. No significant study appears to have preceded, for example, either the United States' offer to switch to first-to-file priority or its later, more limited offer of compromise.¹⁹²

More fundamentally, given the self-interested behavior of the parties one would expect the United States to have demanded high quality, representative input into the negotiations. Yet this may not have happened either. Patent-owning industry has had a large role in defining the United States's position on the Patent Harmonization Treaty. Whether that industry has acted in the national interest, rather than its own, is questionable. In any event, domestic United States industry appears to grasp the implications of international patenting much less well than do foreign interests in the WIPO negotiations.

192. See *infra* note 6.

