

SUCCESS OR FAILURE? JAPAN'S NATIONAL STRATEGY ON INTELLECTUAL PROPERTY AND EVALUATION OF ITS IMPACT FROM THE COMPARATIVE LAW PERSPECTIVE

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I. INTRODUCTION

In the late 1980s and early 1990s when I studied at the University of Washington under Professor Haley's guidance, Japan's economy and international competitiveness were at their peak. With respect to my study of Japan's patent system, Professor Haley suggested that Japan adopted a patent policy similar to that of developing countries although it had already become a developed country. He felt that Japan's economy had developed so quickly that the minds of political leaders were unable to catch up with the country's swift development. The U.S. government viewed Japanese industry as engaging in unfair business practice by infringing on intellectual property ("IP") rights, which led to Japan's strong competitiveness vis-à-vis U.S. industry. Japan's patent system was extensively criticized by U.S. companies for the narrow scope of patent rights granted by the Japan Patent Office ("JPO") and the restrictive interpretation of those rights by the Japanese patent courts.

Only after experiencing a deep recession did the Japanese government discover that its economy had matured and that strong protection of its intellectual assets would help to recover its international competitiveness. In 1997, the Japanese government published a report on the national strategy to revive the economy.¹ Since then, Japan has been determined to become a "nation built on intellectual property" by adopting a national strategy on IP.² To accomplish this goal, Japan enacted the Basic Law on Intellectual Property ("Basic IP Law")³ and began to overhaul its IP

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1. COMM'N ON INTELLECTUAL PROP. IN THE TWENTY-FIRST CENTURY, TOWARD THE ERA OF INTELLECTUAL PROPERTY CREATION: CHALLENGES FOR BREAKTHROUGH (1997), *available at* http://www.jpo.go.jp/shiryou_e/toushin_e/kenkyukai_e/21cene.htm.

2. STRATEGIC COUNCIL ON INTELLECTUAL PROP., INTELLECTUAL PROPERTY POLICY OUTLINE (2002), *available at* http://www.kantei.go.jp/foreign/policy/titeki/kettei/020703taikou_e.html#0-2.

3. Basic Law on Intellectual Property, Law No. 122 of 2002. An English translation is available

system.⁴ This overhaul included a review of not only IP laws and IP enforcement mechanisms, but also the educational system for IP professionals.

This short Article will discuss Japan's national IP strategy and changes brought to the IP system, focusing on features that follow the U.S. IP system. Additionally, it will review these changes from the comparative law perspective and evaluate whether the new system has accomplished its national strategy mission.

II. JAPAN'S NATIONAL IP STRATEGY

A. Basic IP Law

In the 1980s, Japan hit its peak economic power due to the low labor costs associated with well-trained Japanese workers and improvements to manufacturing technologies imported from the United States and Europe. However, Japan's competitiveness rapidly declined in the nineties as it faced challenges from China and other emerging markets when Japanese labor costs gradually increased.⁵ Learning from the United States, which revived its economy through the Reagan and Bush administrations' adoption of a "pro-patent policy," the Japanese government enhanced its international competitiveness by strengthening protection and encouraging exploitation of intellectual property. Strong leadership was necessary to accomplish this goal, so the Japanese government created the Strategic Council on Intellectual Property, consisting of Prime Minister Koizumi and his Cabinet, along with legal professionals, scientists, academics, and representatives from industry.⁶ Under the slogan of turning Japan into an "IP-based nation," the IP Council published an extended list of action plans and announced a recommendation to enact a law to execute the plans by establishing a policy headquarters housed in the cabinet.⁷ Adopting the

at http://www.kantei.go.jp/foreign/policy/titeki/021204kihon_e.pdf.

4. See Toshiko Takenaka & Ichirō Nakayama, *Will Intellectual Property Policy Save Japan from Recessions? Japan's Basic Intellectual Property Policy and Its Implementation Through the National Strategic Program*, 35 INT'L REV. INTEL. PROP. & COMPETITION L. 877 (2004).

5. INT'L INST. FOR MGMT. DEV., IMD WORLD COMPETITIVENESS YEARBOOK (on file with author); see also MINISTRY OF FINANCE, TRANSITION OF JAPAN'S INTERNATIONAL COMPETITION POWER, available at http://web.archive.org/web/20051217091651/http://www.mof.go.jp/singikai/sangyokanze/tosin/sk1406mt_37.pdf (last visited Feb. 7, 2009).

6. For information on the Strategic Council on Intellectual Property, see Prime Minister of Japan & His Cabinet, Concerning the Strategic Council of Intellectual Property (Provisional Translation) (Feb. 25, 2002), http://www.kantei.go.jp/foreign/policy/titeki/konkyo_e.html.

7. See STRATEGIC COUNSEL ON INTELLECTUAL PROP., *supra* note 2.

recommendation, the Basic IP Law was enacted in November 2002 and became effective in March 2003.⁸ Unlike existing IP laws, the Basic IP Law does not affect private party rights and duties. Instead, the law gives direction to IP policy by setting forth a fundamental mission with respect to Japan's national strategy.⁹ It also sets forth the roles of government, industry and academics in executing the strategy,¹⁰ while listing measures necessary to accomplish the individual groups' missions.¹¹

B. Execution of National Strategy

The Basic IP Law gave the Japanese government the power to establish an IP Strategy Headquarters ("Headquarters") within the Cabinet.¹² This power, some suggest, may have been designed to parallel the Patent and Copyright Clause in the U.S. Constitution.¹³ In truth, however, this law was Japan's unique solution to problems resulting from internal power competition. In the past, ministries and agencies often fought over jurisdiction when introducing bills involving new IP-related issues.¹⁴ This competition for power made it difficult for Japan to develop a comprehensive IP policy covering the jurisdictions of various ministries and agencies.

To make a comprehensive overhaul of the IP system possible and to execute a uniform IP policy, the Japanese government had to implement a strategy that superseded ministerial and agency levels. Very strong leadership was necessary to execute action plans that the ministries had already failed to execute prior to the creation of the Headquarters. The Prime Minister and his Cabinet members have provided this leadership since the Headquarters' creation in March 2003. Its composition has remained the same, even when Mr. Koizumi's successors took over the Prime Minister's office.

8. Basic Law on Intellectual Property Law No. 122 of 2002. An English translation is available at http://www.kantei.go.jp/foreign/policy/titeki/hourei/021204kison_e.pdf.

9. *Id.* arts. 3–4.

10. *Id.* arts. 5–8.

11. *Id.* arts. 12–18.

12. *Id.* art. 24.

13. U.S. CONST., art. I, § 8, cl. 8.

14. A good example is the issue relating to computer software protection; it is well known that the Ministry of Economy, Trade and Industry ("METI") and the Ministry of Education, Culture, Sports, Science and Technology ("MEXT") compete over how to reform the Copyright Act to protect computer software. See NOBUHIRO NAKAYAMA, LEGAL PROTECTION OF COMPUTER SOFTWARE 11–17 (1986).

The Headquarters has its own secretariat, comprised of bureaucrats dispatched from ministries and agencies in charge of various aspects of intellectual property. This bureaucratic “think-tank” was led by Mr. Hisamitsu Arai, a former Japanese Patent Office (“JPO”) Commissioner.¹⁵ He shared Professor Haley’s view that Japan’s IP policy was outdated, and thus led the JPO in an extensive campaign to promote the status of IP rights and raise the awareness of such rights among politicians.¹⁶ Headquarters bureaucrats function as liaison officers for the ministries and agencies from which they are dispatched so that policies and legislation developed by the Headquarters are executed effectively and uniformly throughout the government.

In addition to creating this secretariat, the Headquarters executed the national strategy by developing a program for promoting creation, protection, and exploitation of intellectual property; listing action plans; and reviewing the execution of such plans by ministries and agencies.¹⁷ Since the publication of its first program in July 2003, the Headquarters has published revised annual programs, each listing more than two hundred action plans.¹⁸ Although the Headquarters does not directly execute these plans, it makes clear in the program which ministries and agencies are responsible for plan execution and organizes its own task force to develop policies to execute the action plans for the most important issues requiring strong leadership. Soon after it was created, the Headquarters selected medical method patent protection, media contents protection, and intellectual property enforcement to receive supervision from expert task forces.¹⁹

Action plans listed in the annual program are classified into five areas: (1) creation, (2) protection, (3) exploitation, (4) media contents protection,

15. HISAMITSU ARAI, *INTELLECTUAL PROPERTY POLICIES FOR THE TWENTY-FIRST CENTURY: THE JAPANESE EXPERIENCE IN WEALTH CREATION* (1999). After retiring from METI, Hisamitsu Arai organized the Intellectual Property National Strategy Forum and prepared proposals to revise Japanese intellectual property laws. The IP Strategy Forum’s website is http://www.smips.jp/IP_forum/. Members of the Forum recommended one hundred proposals to change the Japanese IP system. See Hisamitsu Arai, *Country Focus: IP Revolution—How Japan Formulated a National IP Strategy*, *WIPO MAG.*, June 2007, at 14, available at http://www.wipo.int/wipo_magazine/en/pdf/2007/wipo_pub_121_2007_03.pdf [hereinafter *IP Revolution*].

16. *IP Revolution*, *supra* note 15.

17. *Id.*

18. English translations of all programs are available at http://www.ipr.go.jp/e_materials.html (follow hyperlinks under the “Intellectual Property Strategic Program” heading) (last visited Feb. 7, 2009).

19. See *INTELLECTUAL PROP. POLICY HEADQUARTERS, STRATEGIC PROGRAM FOR CREATION, PROTECTION AND EXPLOITATION OF INTELLECTUAL PROPERTY* (2003), available at http://www.kantei.go.jp/foreign/policy/titeki/kettei/030708f_e.html [hereinafter 2003 STRATEGIC PROGRAM].

and (5) human resources. Important action plans in the area of creation relate to enhancing incentives for scientists and researchers in Japanese universities to develop basic and applied technologies and to the establishment of mechanisms to comprehensively manage IP in such technologies.²⁰ Action plans in the area of protection include both procurement and enforcement of IP rights. Since IP rights are useless unless enforced effectively, the Headquarters places a strong emphasis on improving enforcement mechanisms and consequently organizes its own task forces to secure prompt and strong protection. Action plans in the first program included a review of the court system and a recommendation to create a special court with exclusive jurisdiction over appeals arising from technology-related IP rights.²¹ Execution of these plans may sacrifice the independence of courts and interfere with the balance of power between administrative and judicial branches.²² Regarding the area of exploitation, Headquarters acknowledged the importance of industry initiative by increasing the commercialization of unexploited technologies. Thus, the program listed action plans to provide infrastructure to deliver information about such technologies to those who might be interested in commercialization.²³ Action plans in the area of media content protection call for developing a mechanism for comprehensive media content management to reinforce protection of intellectual property rights in the contents.²⁴ The long list of action plans concludes with those in the area of human resources by recommending an introduction of IP education systems for both lawyers and non-lawyers.²⁵

III. PHASE ONE: FIRST THREE YEARS SELF-ASSESSMENT

The Japanese government set a goal to become one of the most advanced IP-based nations within the first three years of the enactment of the Basic IP Law. It published a self-assessment report on improvements resulting from the execution of action plans in 2007.²⁶ Some developments

20. *Id.*

21. *Id.*

22. The Supreme Court of Japan has exclusive power to determine the career path of all Japanese judges. Michael K. Young & Constance C. Hamilton, *Introduction to Japanese Law*, 1 JAPAN BUSINESS LAW GUIDE 7-550 (1988), reprinted in YUKIO YANAGIDA ET AL., *LAW AND INVESTMENT IN JAPAN: CASES AND MATERIALS* 63, 64 (1995).

23. See 2003 STRATEGIC PROGRAM, *supra* note 19.

24. *Id.*

25. *Id.*

26. IP STRATEGIC HEADQUARTERS, CHITEKIZAISANSENRYAKU NO SHINCHOKUJYÖKYÖ [STATUS OF EXECUTING INTELLECTUAL PROPERTY STRATEGIES] (2007) [hereinafter SELF-ASSESSMENT

recognized as “major progress” in the report are particularly interesting, from the comparative law perspective, because they were inspired by the following examples from the United States: (1) the establishment of technology license offices at Japanese universities in the area of creation, (2) the creation of a high court in the area of protection, and (3) the restructuring of the education system for IP professional training.

A. Creation: The Japanese Bayh-Dole System

The Self-Assessment Report lists the establishment of IP offices for Japanese universities and the increase in the number of patent applications and license revenues for Japanese universities as indicative of major progress in the area of creation.²⁷ The Basic IP Law introduced a significant change in the university technology transfer system and made it possible for IP offices to comprehensively manage IP rights in the results of research performed by university professors and researchers. Before the enactment of the Basic IP Law, Japanese university professors and researchers retained such IP rights under the rule in the Guidelines published by the Ministry of Education, Culture, Sports, Science and Technology (“MEXT”).²⁸ In Japan, major research universities are national universities, which were part of MEXT and had never been given the status of independent legal entities. Thus, they were bound by the MEXT rule and were unable to own IP rights. Although private universities were not bound by the MEXT rule, they nevertheless followed the example of the national universities. If professors wanted to commercialize their technologies, they needed to find industry partners and make their own arrangements for technology transfer.

In the United States, enactment of the Bayh-Dole Act²⁹ and other technology transfer-related acts in the 1980s has effectively promoted university-industry collaboration and commercialization of new

REPORT], available at <http://www.kantei.go.jp/jp/singi/titeki2/kettei/070531siryou.pdf>.

27. *Id.* at 1–3.

28. Monbukagakushō [MEXT], Kokuritsu Daigakutō no Kyōkantō no Hatsumei ni kakaru Tokkyōtō no Toriatsukai ni tuite: Monbushō Gakujyutsu Kokusai Kyokuchō, Monbushō Daijinkanbō Kaikeikachō Tsūchi, BungakuJyo 117 Gō [Handling of Patents Relating to Inventions by Faculty of National Universities: Monbushō Science Notification No. 117] (Mar. 15, 1978). For information on IP ownership rules and procedures regarding industry-university collaborative research under this notice, see Robert Kneller, *University-Industry Cooperation and Technology Transfer in Japan Compared with the United States: Another Reason for Japan's Economic Malaise?*, 24 U. PA. J. INT'L ECON. L. 329, 365 (2003).

29. 35 U.S.C. §§ 200–212 (2000).

technologies.³⁰ Before its enactment, the federal government—not researchers or universities—retained ownership of patents in technologies resulting from federally funded research. Without any technology transfer activities by the government, the majority of such patents were not exploited. Allowing universities to retain patent rights through the Bayh-Dole Act encouraged the licensing of university inventions to industries and resulted in a significant increase in the numbers of patent applications from American universities and royalty revenues from U.S. industries.

Following the U.S. example, Japan's Diet enacted the Technology Transfer Promotion Law in 1998³¹ and the Japanese version of the Bayh-Dole Act as part of the Industrial Revitalization Special Law in 1999.³² These enactments led private universities to change ownership rules and establish technology license offices at their universities. However, national universities were unable to take full advantage of these enactments because they were unable to own IP rights unless they formed a legal entity. But MEXT soon enacted a law to reform national universities, which became effective in April of 2004.³³ The law gave national universities a legal entity to own IP rights and flexibility to set their own rules to manage such rights. With a recommendation in the 2003 Strategic Program followed by MEXT endorsement, the majority of national and private universities adopted a Bayh-Dole style rule to ensure their ownership of IP rights resulting from the use of university facilities.³⁴ In executing action plans in the 2003 Strategic Program, MEXT provided universities with funds to establish their technology transfer offices and cover costs of patent prosecution and licensing. As of July 2003, forty-three Japanese universities have set up their own technology transfer

30. The Bayh-Dole Act and other technology transfer-related legislation were enacted to amend U.S. patent law. For a detailed discussion of the U.S. Bayh-Dole Act and the U.S. technology transfer system, see *infra* note 34; Rebecca S. Eisenberg, *Public Research and Private Development: Patents and Technology Transfer in Government-Sponsored Research*, 82 VA. L. REV. 1663, 1671 (1996).

31. Daigakutō ni okeru gijutsu ni kansuru kenkyū seika no minkan jigyōsha he no iten no sokushin ni kansuru hōritsu [The Law for Promoting University-Industry Technology Transfer], Law No. 52 of 1998.

32. Sangyō Katsuryoku Saisei Tokubetsu Sochihō [Industrial Revitalization Law], Law No. 131 of 1999, ch. 3, arts. 30–33. General information about the law is available in English at <http://www.meti.go.jp/english/information/data/cIP9972e.html> (last visited Mar. 21, 2009).

33. Kokuritsu daigaku hōjinhō [National University Legal Entity Law], Law No. 112 of 2003.

34. This resulted in ninety-five percent of national universities and thirty-seven percent of public and private universities adopting the rule that universities retain the ownership of IP rights in inventions that fall within the scope of employee inventions under article 35 of the Patent Law. SELF-ASSESSMENT REPORT, *supra* note 26, at 3.

offices, which has led to a significant increase in patent issuance and license revenues to these universities.³⁵

B. Protection: The Court System

The United States has also clearly been influential in the area of protection with respect to the restructuring of the court system and the passing of legislation for IP infringement remedies. Since 1999, the Japanese government has focused its attention on court proceedings in order to enforce IP rights through its Justice System Reform Initiative.³⁶ This effort resulted in the 2003 revision of the Japanese Code of Civil Procedure,³⁷ which gave exclusive jurisdiction to Tokyo and Osaka District Courts for cases involving infringement of patents, utility model registrations, integrated circuit layout design rights, and computer program copyrights. The revision also concentrated appeals of related IP cases to the Tokyo High Court. This change made the Tokyo High Court Japan's de facto IP High Court, with exclusive jurisdiction over both infringement and validity disputes regarding patents and other intellectual property rights involving technologies.

Despite the changes brought by the 2003 civil procedure revision, the 2003 Strategic Program required the creation of an IP High Court.³⁸ Japanese judges who handled technology-related IP cases had the necessary expertise, even without any restructuring, because IP cases were sent to the IP special divisions at the Tokyo and Osaka District Courts and the Tokyo High Court.³⁹ Although the Supreme Court of Japan has long adopted a policy of transferring judges from one court to another every two or three years, judges who are appointed to an IP special division are

35. *Id.* at 1–2. The number of patents issued has increased 3.6 times and license revenues have increased 4.3 times between 2002 and 2005.

36. *Shihō seido kaikaku suishinhō* [The Justice System Reform Promotion Law] Law No. 119 of 2001; see also Reports on the Office for Promotion of Justice System Reform, available at http://www.kantei.go.jp/foreign/policy/sihou/index_e.html (last visited Mar. 21, 2009).

37. *Minji soshōhō* [Law for Revising Part of the Civil Procedure Law], Law No. 108 of 2003, art. 6, para. 1 (amending *Minji soshōhō* [Civil Procedure Law] Law No. 109 of 1998).

38. 2003 STRATEGIC PROGRAM, *supra* note 19, at 52.

39. For a general discussion of Japanese IP enforcement proceedings before the 2003 Civil Procedure Law Revision, see generally Ryū Takabayashi, *Practices of Patent Litigation in Japanese Courts*, CASRIP NEWSLETTER (Ctr. for Advanced Study & Research on Intellectual Prop., Univ. of Wash. Sch. of Law, Seattle, Wash.) Spring/Summer 1998, at 13, available at <http://www.law.washington.edu/CASRIP/newsletter/vol5/news5i2jp2.html>; Toshiko Takenaka, *Comparison of U.S. and Japanese Court Systems for Patent Litigation: A Special Court or Special Divisions in a General Court?*, in STREAMLINING INTERNATIONAL INTELLECTUAL PROPERTY: CASRIP SYMPOSIUM PUBLICATION SERIES NO. 5 (Ctr., for Advanced Study & Research on Intellectual Prop. ed., 2000), available at <http://www.law.washington.edu/CASRIP/Symposium/Number5/pub5atcl6.pdf>.

exempt from transfer in order to develop their expertise in IP law and the technologies involved in IP disputes. Once judges were appointed to one of the IP special divisions, they either stayed for more than three years or returned to the special divisions, even if transferred to other courts. Further, judges who had experience with IP were assisted by technical assistants called *Chōsa-kan*, who were senior examiners dispatched by the JPO and well-experienced patent attorneys temporarily appointed by the Supreme Court of Japan. Thus, these divisions also have the legal and the technical expertise to handle complex IP cases.

However, these divisions were still part of the general courts of the Tokyo and Osaka District Courts and Tokyo High Court. Considering recent developments in the creation of IP courts in the United States, Europe, and Asia, the Headquarters urged Japanese courts to follow the world trend and create an IP High Court to signify Japan's commitment to IP protection. Consequently, in April 2005, an IP High Court was created as a "semi-independent" court that has its own administrative power and its own secretariat, but remains a branch of the Tokyo High Court.⁴⁰ This unique organizational structure resulted from a compromise between the Japanese courts' need to maintain the long tradition throughout their judicial history of avoiding the creation of any specialized court and the Japanese government's request that the courts enhance their capability to hear complicated cases involving cutting-edge technology and making proper decisions in a foreseeable and timely manner.

In Japanese high courts, a three-judge panel hears an appeal from district courts.⁴¹ To hear special cases that involve complex legal issues and significant policy implications promptly and effectively, the Japanese IP High Court introduced an enlarged board system inspired by the en banc hearing system in the U.S. Court of Appeals for the Federal Circuit, which has exclusive jurisdiction over appeals arising from U.S. patents.⁴² Unlike the en banc U.S. Federal Circuit, the enlarged board does not consist entirely of IP High Court judges; instead, it consists of presiding judges from all four divisions and the IP High Court President.

40. Chitekizaisan kōtōsaibansho secchihō [Law for Establishing Intellectual Property High Court], Law No. 119 of 2004.

41. For an overview of Japan's judicial system, see DAN FENNO HENDERSON & JOHN OWEN HALEY, *LAW AND THE LEGAL PROCESS IN JAPAN*, reprinted in YANAGIDA ET AL., *supra* note 22, at 39.

42. No other high court in the Japanese system except the IP High Court has an enlarged board decision system.

C. Human Resources

The Japanese government recognized the key role of IP professionals in its national strategies. However, it viewed them as not ready to competitively support Japanese IP owners in the global market because they lacked a science background and also because of the language barrier. Thus, the action plans in the 2003 Strategic Program included a legal education review to increase the number of lawyers and patent attorneys and improve the quality of their representation in IP cases.⁴³ To attain this goal, the Japanese government again looked to the United States; this time, it focused on American law schools and U.S.-style lawyer training.

Ideally, IP professionals should be competent not only in law but also in technology and business. Japanese legal education follows the German tradition and educates law students at the undergraduate level, making it difficult to educate lawyers who also have a scientific background and business experience. To reflect the educational background division, IP professionals are divided into two categories: (1) general IP attorneys (*Bengoshi*), who are law faculty graduates, and (2) patent attorneys (*Benrishi*), the majority of whom are science and engineering faculty graduates. The number of examinees who passed the national bar exam was very small, giving Japanese lawyers a monopoly in the practice of law. As a result, very few lawyers have been eager to specialize in IP law, and particularly in patent law. To improve legal services through competition, the Japanese government introduced a new system to educate law students at the graduate level through the Judicial System Reform Initiatives, thus following the U.S. model of legal education.⁴⁴ As a result, more than seventy Japanese universities created “American-style” law schools in April 2004.

However, the Japanese government did not think legal education reform would bring about sufficient improvement in the quantity and quality of IP professionals required by the action plans. So, to encourage law students to take IP-related courses, the Ministry of Justice changed the content of the national bar exam to include IP as an optional subject. Furthermore, MEXT strongly encouraged universities to include IP courses at various levels of education, including both the undergraduate

43. See 2003 STRATEGIC PROGRAM, *supra* note 19, at 69.

44. Reforming legal education is one of the measures listed in the recommendations by the Judicial System Reform Council. THE JUSTICE SYSTEM REFORM COUNCIL, RECOMMENDATIONS OF THE JUSTICE SYSTEM REFORM COUNCIL: FOR A JUSTICE SYSTEM TO SUPPORT JAPAN IN THE 21ST CENTURY (2001), available at http://www.kantei.go.jp/foreign/policy/sihou/singikai/990612_e.html.

and graduate levels.⁴⁵ As a result, all “American-style” law schools offer at least one IP course, and the number of universities that offer IP courses for non-law school students has significantly increased.⁴⁶

IV. COMPARATIVE LAW ANALYSIS

Overall, Japan's national strategies place its IP system more in line with its U.S. counterpart by mirroring U.S. legislation and IP infrastructures. However, the Japanese government did not simply aim to copy the U.S. system; it tried to develop an original strategy to meet the unique needs of Japanese industry and society.⁴⁷ Importing the U.S. system, which is based on the common law tradition, presented a big challenge because the Japanese judicial system is based on the civil law system, particularly the German system. This is especially true with respect to Japanese patent and other IP laws because most of the original provisions in the current statutes are translations of their German counterparts.⁴⁸ Some of the imported U.S. systems would have had significantly reduced effects, and thus were considerably modified to fit into Japanese tradition. Other systems failed to work or will need more time to become part of the Japanese system. This process of localizing a foreign legal system led to the development of a strategy unique to Japan, which was important to the Japanese government.⁴⁹

One of most successful measures in the Japanese structure is the Bayh-Dole system. Japan now has as many technology transfer offices as the United States.⁵⁰ Although the number of patents and license revenues are significantly lower than those of U.S. technology license offices, this difference can be explained by the short history of Japanese license offices. It is very likely that applications claiming valuable inventions are still pending and have not yet been issued. The number of university invention-based spin-offs has also steadily increased.⁵¹ According to the Ministry of Economy, Trade, and Industry (“METI”), these spin-offs have positively impacted Japan's economy by creating jobs and introducing new products and services.⁵²

45. 2003 STRATEGIC PROGRAM, *supra* note 19, at 70–72.

46. SELF-ASSESSMENT REPORT, *supra* note 26, at 48.

47. 2003 STRATEGIC PROGRAM, *supra* note 19.

48. For information on Japanese patent statutes, see TOSHIKO TAKENAKA, INTERPRETING PATENT CLAIMS: THE UNITED STATES, GERMANY AND JAPAN 39–45 (1995).

49. *See generally* 2003 STRATEGIC PROGRAM, *supra* note 19.

50. SELF-ASSESSMENT REPORT, *supra* note 26, at 3.

51. *Id.* at 6.

52. *Id.* METI's statistics report sixteen thousand new jobs directly created by the university spin-

This success was made possible by the heavy subsidization from the Japanese government used to operate these offices. The JPO not only deeply discounts or waives its official fees, but it also accelerates the examination process for applications filed by universities. Further, the JPO also established an office to support universities and dispatch university IP advisors on the JPO's budget. In addition to this assistance with domestic applications, MEXT covers patent prosecution costs for foreign applications. In contrast, U.S. technology transfer offices receive little to no financial support from federal or state governments for patent procurement.

However, these offices will face a financial challenge when MEXT's funding expires in March of 2009. Thus, MEXT will likely be more selective and only renew its support of technology transfer offices that operate efficiently and bring in license revenues. Statistics clearly show a significant increase in patenting costs, which force these offices to cover more than half of their budgets through funding from the universities.⁵³ The average age of technology managers in Japanese technology transfer offices is much higher than that of U.S. managers because many Japanese offices are run by retired JPO examiners and retired in-house counsels. In other words, the Japanese Bayh-Dole system created *amakudari* positions, but did not necessarily create training opportunities for young engineers.⁵⁴ This stands in stark contrast to U.S. technology managers who are fresh from post-doctoral positions at U.S. universities. Having highly paid managers whose salaries are based on the seniority system makes operation expensive and inefficient. Without MEXT support, these offices will go out of business or will be forced to merge with other offices.

In the area of protection, there has been both tremendous success and failure. The Japanese government was successful in creating a court system more advanced than its U.S. counterpart in dealing with IP issues. The new system provides IP and technology expertise for all three levels from its district to the Supreme Court of Japan. In contrast, the U.S. system provides expertise only for the intermediate level through the creation of the U.S. Court of Appeals for the Federal Circuit.⁵⁵ Moreover, the Federal Circuit's exclusive jurisdiction is limited in that it only hears

offs and twenty million yen produced by these spin-offs.

53. *Id.* at 1.

54. *Amakudari* is the Japanese practice of placing retiring senior government officers in high profile positions in both the private and public sectors.

55. To address the lack-of-expertise problem, the U.S. Congress is considering a bill to start a pilot program to assign patent cases to selected district judges. See H.R. 34, 110th Cong. (2007).

appeals arising from U.S. patent disputes and does not hear appeals from trademark and copyright disputes.⁵⁶ The Federal Circuit's power to examine factual issues is very limited because it examines them under either the "clearly erroneous" standard or the "substantial evidence" standard.⁵⁷ Although the U.S. Supreme Court has affirmed the Federal Circuit's en banc decision to remove the issue of claim interpretation from jury power,⁵⁸ a variety of issues remain questions of fact and are thus to be decided by a jury. Such questions include literal infringement, infringement under the doctrine of equivalents, and whether a defendant's infringement was willful.⁵⁹ As a result, parties in patent cases must educate not only inexperienced district court judges, but also jurors.⁶⁰ This is also true with respect to appellate court judges of computer software copyright and other technology-related IP cases and Supreme Court Justices.

The Japanese Government was unsuccessful in its attempt to create a new IP High Court, which would have signified Japan's commitment to a pro-patent policy. For instance, the U.S. Federal Circuit, upon which Japan's IP High Court was modeled, has improved the legal certainty of U.S. patents and lowered the chance of invalidity.⁶¹ In contrast, the IP High Court struck down so many patents that the validity rate has fallen as low as that of the U.S. patents enforced in regional appeal courts before the creation of the U.S. Court of Appeals for the Federal Circuit.⁶²

This legal uncertainty in Japanese patent validity also resulted from the adoption of a U.S. patent system feature that allowed accused infringers to raise a defense of invalidity in infringement proceedings. Traditionally, Japanese courts followed the German system and developed case law that gave exclusive jurisdiction to the JPO regarding patent validity. Defendants of infringement proceedings had to file an invalidation trial with the JPO if they wanted to contest the patent validity. The Japanese Supreme Court changed this practice in the *Kilby* decision,⁶³ giving

56. 28 U.S.C. § 1295(c) (2000).

57. KIMBERLY MOORE ET AL., *PATENT LITIGATION AND STRATEGY* 718 (2d ed. 2003).

58. *Markman v. Westview Instruments Inc.*, 517 U.S. 370, 376 (1996).

59. MOORE, *supra* note 57, at 719.

60. For interesting statistical data regarding the determination of issues by U.S. judges and jurors, see generally Kimberly Moore, *Judges, Juries and Patent Cases: An Empirical Peek Inside the Black Box*, 99 MICH. L. REV. 365 (2000).

61. John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q. J. 185, 205 (1989).

62. GLORIA KOENING, *PATENT INVALIDITY: A STATISTICAL AND SUBSTANTIVE ANALYSIS*, § 3.01 (2d ed. 1980).

63. *Texas Instruments, Inc. v. Fugitsu Corp. (Kilby Case)*, 54 MINSHŪ 1268 (Sup. Ct., Apr. 11,

Japanese courts the power to examine a patent's validity and refuse to enforce the patent if it is found obviously invalid. The JPO codified this new power by revising the patent law,⁶⁴ but failed to copy the presumption of validity from the U.S. patent statute.⁶⁵ The low burden of proof for establishing invalidity encouraged defendants to frequently raise this defense, which led to a high invalidity rate.⁶⁶ Influenced by the high patentability hurdle in Japanese courts, the chance of a patent application being rejected or an existing patent being invalidated by the JPO has also significantly increased.⁶⁷

The Government also failed to change the amount of damages awarded to remedy Japanese patent infringement to be more in line with those available to U.S. patent owners. Alarmed by a huge gap between patent infringement damages awarded by American as opposed to Japanese courts, the JPO introduced the 1998 Japanese patent law revision by codifying U.S. case law doctrine for establishing lost profits.⁶⁸ Early cases awarding big damages led the Japanese patent community to believe that the revision made Japanese judges' views significantly more patent-friendly. A speedy proceeding and the expectation of big damages led to a significant increase in cases filed with both the Tokyo and Osaka district courts.⁶⁹ However, more recent statistics indicate a decrease in the average amount of damages awarded in Japanese courts.⁷⁰ The proportion of the amount awarded to the amount claimed by the patentees has also declined in recent cases.⁷¹

2000).

64. Tokkyohō [Japanese Patent Law], Law No. 171 of 1959.

65. 35 U.S.C. § 282 (2000).

66. Statistics show the proportion of cases in which a defense of invalidity was used has steadily increased to reach eighty percent in 2006. JAPAN INTELLECTUAL PROPERTY ASSOCIATION, SHINGAISOSHŌ NI OKERU TOKKYOMUKŌ NO KŌBEN NO KENKYŪ [STUDY OF DEFENSE OF PATENT INVALIDITY], available at http://www.jjpa.or.jp/content/jyohou_hasin/sympo/temp/07sym_tkkyo2.pdf (last visited Feb. 7, 2009).

67. *Id.*

68. Tokkyohō [Japanese Patent Law], art. 102. For the legislative history of the revision, see Toshiko Takenaka, *Patent Infringement Damages in Japan and the United States: Will Increased Patent Infringement Damage Awards Revive the Japanese Economy?*, 2 WASH. U. J.L. & POL'Y 309, 321 (2000).

69. For information on IP case length and the number of IP cases filed from 1997 to 2007, see Tōkei: Chitekizaisankenkankeiminjijiken no shimju kisai kensū oyobi heikinshinrikikan (Zenkokuchisai daiisshin) [Intellectual Property High Court Statistics: New and Existing Filed Cases and Average Trial Length of Intellectual Property Related Civil Cases], http://www.ip.courts.go.jp/aboutus/stat_03.html (last visited Feb. 7, 2009).

70. INST. OF INTELLECTUAL PROP., REPORT ON CURRENT SITUATIONS IN INDUSTRIAL PROPERTY DISPUTES 91 (2006).

71. *Id.* Seventy percent of the claimed amount was awarded in 2000 but only twenty percent was awarded in 2003.

This relatively small impact resulted from Japanese judges' interpretation of U.S. case law; they converted negative factors used to reject causation between infringement and damages under pre-1998 practice into deductible factors, which reduce the amount of damages established by patentees.⁷² Another reason is the frequent denial of reasonable royalties with respect to infringing products when the patentee has failed to establish causation for lost profits.⁷³ This resulted from the JPO's failure to include express language to guarantee reasonable royalties as the minimum compensation for patent infringement damages while maintaining the language to give courts discretion to reduce the amount exceeding a reasonable royalty.⁷⁴ Japanese patentees have not relied on the new calculation as frequently as expected because the calculation requires a disclosure of per-unit net profits on patented products.⁷⁵ As a result, the huge gap between Japanese and U.S. damages remains, although the revision has doubled the average damages awarded by Japanese courts.

In addition, due to the increased uncertainty in validity and limited damages, the chances for Japanese courts to find infringement still remains the lowest among major industrialized countries (i.e., the United States, the United Kingdom, France, and Germany).⁷⁶ Reflecting the courts' unfriendly attitude, the number of patent cases filed with Japanese courts has significantly decreased over the last few years.⁷⁷

The least successful adoption of the U.S. system occurred in the area of legal education. The new "American-style" law schools have poorly served the goal of educating IP professionals with international competitiveness and interdisciplinary backgrounds. The new Japanese bar exam, modeled after U.S. state bar exams, was originally expected to have a passing rate as high as 70% to 80%;⁷⁸ however, the passing rates for the first (2006) and second (2007) exams were much lower than that: 48.35%

72. For more discussion of the 1998 revision's impact, see Toshiko Takenaka, *Adequate Compensation for Patent Infringement Damages: A Comparative Study of Damage Measurements in Japan and the United States*, in PATENT LAW AND THEORY (Toshiko Takenaka ed., forthcoming Mar. 2009); Toshiko Takenaka, *Harmonizing Patent Infringement Damages: A Lesson from Japanese Experiences*, in PATENT AND TECHNOLOGICAL PROGRESS IN A GLOBAL WORLD 463 (Wolrad Prinz zu Waldeck und Pyrmont et al. eds., 2008).

73. Judgment of IP High Court, Sept. 25, 2006; Judgment of Osaka District Court, Apr. 19, 2007.

74. Tokkyohō [Japanese Patent Law], Law No. 171 of 1959, art. 102.

75. INST. OF INTELLECTUAL PROP., *supra* note 70, at 173. Patentees requested lost profits under article 102, paragraph 1, only in ten percent of all cases in which damages are awarded.

76. Michael Elmer, *International Patent Enforcement Strategy—Choice of Jurisdiction*, in LEGAL CONSULTATION OF INTERNATIONAL INTELLECTUAL PROPERTY DISPUTES RESOLUTION 191 (Toshiko Takenaka & Kazunori Yamagami eds., 2006).

77. See Intellectual Property High Court Statistics, *supra* note 69.

78. THE JUSTICE SYSTEM REFORM COUNCIL, *supra* note 44, at ch. III, pt. 2(2)(2)(d).

and 40.18%, respectively.⁷⁹ The passing rate for the third exam (2008) is expected to be even lower, around 35%.⁸⁰ Further, new law school graduates can take the bar exam only three times within five years of graduating law school. This low passing rate, combined with the limited number of test-taking opportunities, significantly discourages prospective students who already work in the industry from leaving their jobs and enrolling in law school. Also, only a few Japanese law schools offer evening programs due to a fear that evening students would not have enough time to study, and the resulting low rates of passage would negatively impact the school ranking.⁸¹ The percentage of law students with job experience has significantly decreased after the Department of Justice announced the low passing rate.⁸²

Unlike the U.S. system, where undergraduate-level legal education was developed into graduate level education, MEXT did not remove undergraduate legal education when it adopted graduate legal education. It allowed Japanese law schools to take into account the student's undergraduate education and permit students with a bachelor's in law to finish law school in two years rather than three. In other words, graduates of non-law undergraduate departments are reluctant to compete with those who already have four years of legal education. Contrary to the government's expectation, the percentage of students with science backgrounds has remained relatively small and has gradually decreased since 2004.⁸³

The new law school system failed to meet the goal of training lawyers to compete in the global market. With a high chance of failing the bar exam, Japanese law students concentrate their education on bar exam subjects. Fortunately, IP is a popular optional subject for the bar exam and many students take IP classes.⁸⁴ However, students are not interested in

79. Results of the 2007 bar exam are available at <http://www.moj.go.jp/SHIKEN/SHINSHIHOU/h19kekka01-4.pdf> (last visited Mar. 21, 2009). Colin P.A. Jones, *Japan's Push to Add Lawyers Fraught with Troubles*, NAT'L L.J., Sept. 8, 2008, http://www.law.com/jsp/nlj/PubArticle.NLJ.jsp?id=120242430_9363.

80. *Id.*

81. Only eight out of seventy-four law schools offer evening programs.

82. SELF-ASSESSMENT REPORT, *supra* note 26. Only 48.4% of the 2004 law school entering student body were students with work experience. However, this percentage decreased to 32.1% in 2007. Statistics on the student body entering law schools in 2004 to 2007 are available at http://www.mext.go.jp/b_menu/houdou/16/05/04051301.htm (2004); http://www.mext.go.jp/b_menu/houdou/17/05/05052002.htm (2005); http://www.mext.go.jp/b_menu/houdou/18/05/06051209/001.htm (2006); http://www.mext.go.jp/b_menu/houdou/19/05/07051423/001.htm (2007).

83. SELF-ASSESSMENT REPORT, *supra* note 26. Only 8.4% of entering law school students in 2004 held a science or engineering degree. However, the percentage went down to 4.8% in 2007.

84. The Department of Justice introduced IP as an elective subject in 2006. It was the third most

studying advanced IP topics, including U.S. and European IP systems, which are beyond the scope of the bar exam. Despite students' lack of interest in subjects unrelated to the bar exam, law schools are required to offer foreign law and advanced topics. In fact, MEXT wants to carry on with the original mission of legal system reform and require law schools to teach a wider variety of subjects.⁸⁵ Law schools that focus their curriculum on bar exam preparation will be subjected to the risk of poor results from periodical assessments by outside evaluators. In short, law schools face a dilemma between the desire to meet the needs of students and the need to avoid a violation of the MEXT standard.

Even if law students are able to pass their bar exam, finding a job is not easy. Since the old exam remains in place until 2010, current law students must compete with students who passed a bar exam with significantly lower passing rates.⁸⁶ Because Japanese law firms are more familiar with students who passed the old exam, and because students who pass the old exam find out their exam results earlier than those who take the new exam, law firms prefer to hire the former students with whose qualifications they are familiar. The Japanese legal market is also very reluctant to hire new law school graduates, even though its needs motivated the increase in the number of lawyers through legal reform. This is because the seniority system in the Japanese market makes it very difficult to set job descriptions and compensation without precedent.

Members of the first entering class from the new law schools who passed the bar exam would have completed their judicial training in 2008,

popular subject among eight elective subjects in 2006 through 2008. *See* Monbukagakushō [MEXT], Heisei 19nendo hōkadaigakuin nyūgakusha senpatsujisshijyōkyōno gaiyō [Summary of the Entrance Examination for Law School in 2007], http://www.mext.go.jp/b_menu/houdou/19/05/07051423/001.htm (2007) (last visited Mar. 12, 2009); Hōmushō daijinkanbō jinjika [Ministry of Justice, Minister's Secretariat Personnel Div.], Heisei 19nen shinshihōshiken no kekka [Results of the 2007 Bar Examination Under the New Exam Style], <http://www.moj.go.jp/SHIKEN/SHINSHIHOU/h19kekka01-4.pdf> (last visited Mar. 12, 2009); Hōmushō daijinkanbō jinjika [Ministry of Justice, Minister's Secretariat Personnel Div.], Heisei 19nen shinshihōshiken no kekka [Results of the 2008 Bar Examination Under the New Exam Style], <http://www.moj.go.jp/SHIKEN/SHINSHIHOU/h20kekka01-4.pdf> (last visited Mar. 12, 2009).

85. MEXT, CENTRAL EDUCATION COUNCIL, UNIVERSITY COMMITTEE, LAW SCHOOL SUBCOMMITTEE, REPORT ON DIRECTION FOR LEGAL EDUCATION AT LAW SCHOOLS IN ACCORDANCE WITH THE MISSION OF LEGAL SYSTEM REFORM (2007), http://www.mext.go.jp/b_menu/shingi/chukyo/chukyo4/houkoku/07122014/001.pdf.

86. The average passing rate for the old exam over the last decade was 3%, although the rate for the 2006 exam was 1.81%. The passing rates between 1989 and 2006 are available at <http://www.moj.go.jp/PRESS/061109-1/18syutu-gou.html>. For the 2007 and 2008 results, see Hōmushō daijinkanbō jinjika [Ministry of Justice, Minister's Secretariat Personnel Div.], Heisei 20nendo Kyushihōshiken daijijishiken no kekka nituite [Results of the Second Level Bar Examination Under the Old Exam Style], <http://www.moj.go.jp/PRESS/081113-1/20soukatu.html> (last visited Mar. 12, 2009).

and yet many of them are still unable to find a job at a law firm or in industry. Some accepted positions at law firms equivalent to resident doctors at U.S. hospitals, working for little or no compensation to receive practical training. These lawyers are called *Noki-ben* (“eaves lawyers”), i.e., lawyers who rent space just to avoid the wind and rain. The number of *Noki-ben* is expected to rise as the number of graduates with judicial training increases. Getting a *Noki-ben* position has already become highly competitive.

However, once the relatively low bar exam passing rate was announced, the Japanese IP community expected that it would be difficult to educate IP professionals in the new law schools. To carry out the action plans in the Strategic Programs, MEXT created two IP professional schools that have a unique curriculum to educate students in both the legal and business aspects of managing IP rights.⁸⁷ Both schools aim to attract students who currently work in the industry and both offer evening classes to entice students who already have jobs. Unlike law school instruction, courses at these professional schools are taught by experienced patent attorneys and retired in-house counsels of major technology companies. Furthermore, students are not expected to pass a national exam. Thus, these schools are better suited than law schools to face the challenge of preparing students to pass the bar exam and find jobs.

Although its new law school system failed to give IP lawyers with science backgrounds and specialized skill sets the education required to work in the global market, the Japanese government has been successful in increasing the number of IP professionals and expanding IP protection in Japanese society. Currently, free IP-related seminars are generally offered in Tokyo every day and even on weekends. These seminars are designed for both lawyers and non-lawyers like scientists, engineers, and business people. Intensive training programs that would cost a fortune in the United States are offered by Japanese universities free of charge, thanks to government funding. Furthermore, narrowing the scope of what is tested by the patent bar has increased the number of patent attorneys, leading to attorney fee and prosecution cost discounts. Some argue that the quality of the services offered by newly admitted attorneys has declined; however, the competition among these attorneys is expected to improve their quality.

87. Two IP professional schools were created, one each in Tokyo and Osaka, in April 2005.

V. CONCLUSION

It took more than a decade for the Japanese government to catch up with Professor Haley. Although METI and JPO officers now share his views, Japanese judges are still more influenced by tradition and are reluctant to change their sense of justice when dealing with IP rights and underlying policies. Other Asian countries transitioning from being technology importers to technology exporters could learn from the Japanese example of stimulating its economy after losing its competitive power due to the disappearance of cheap labor.

Japan's experience demonstrates the challenges that come with changing a well-established legal system and culture by importing a foreign system. Since the U.S. systems that were copied were built into the existing system, they are localized through judicial interpretation or compromise with parties whose interests were at stake in the old system. Some may view such localization negatively as a failure to move the Japanese IP system more in line with its U.S. counterpart, which is the global standard. However, the goal of Japan's national strategy was to develop its own unique IP system and policy while learning from U.S. experiences. Japan attained this goal through localization.

The ultimate mission of Japan's national IP strategy was to improve its international competitiveness and revive its economy. This mission has been successfully completed. The technology import-export balance became a surplus the year Japan adopted the IP Strategies and this surplus has steadily expanded since then.⁸⁸ Its international competitiveness rankings have been gradually improving, even though the most recent ranking went down.⁸⁹ The Japanese economy had also recently shown a strong recovery from its recession, until the global economic crisis hit. Although there is no direct evidence that the recovery was prompted by the METI-JPO adoption of the pro-patent policy and national strategies, finding such evidence would likely be impossible. Assuming that the recovery is indeed the result of the national IP strategy, it seems that had the Japanese government listened to Professor Haley's comments two

88. MEXT, HEISEI 19NEN KAGAKU GIJYU TSU HAKUSHO [2007 SCIENCE & TECHNOLOGY WHITE PAPER] (2007), available at http://www.mext.go.jp/b_menu/hakusho/html/hpaa200701/033.htm.

89. Japan's international competitiveness ranking from the International Institute for Management Development went down in 2007, as did its ranking by the Global Competitiveness Report. METI, Wagakuni no sangyōgijyutsu nikansuru kenkyū kaihatsu katsudōno dōkō—Shuyōshihyō to chōsadēta—[TRENDS OF R&D ACTIVITIES IN INDUSTRIAL TECHNOLOGIES IN JAPAN] (2008), available at [http://www.meti.go.jp/policy/tech_research/20_indicator/japanese\(h20.03\).pdf](http://www.meti.go.jp/policy/tech_research/20_indicator/japanese(h20.03).pdf).

decades ago, Japan would not have lost out on the technology boom of the 1990s.