

Paul Goldstein
Joseph Straus
Editors

Peter Ganeva, Tanuja Garde, Ashley Isaacson Woolley
Associate Editors

MPI Studies on Intellectual Property, Competition and Tax Law

9

Intellectual Property in Asia

Law, Economics, History and Politics



Springer

Paul Goldstein • Joseph Straus
(Editors)

Peter Ganea • Tanuja V. Garde

Ashley Isaacson Woolley

(Associate Editors)

Intellectual Property in Asia

Law, Economics, History and Politics

Professor Paul Goldstein
Stanford Law School
Stanford
CA 94305
USA
paulgold@stanford.edu

Professor Joseph Straus
Max Planck Institute for Intellectual
Property, Competition and Tax Law
Marstallplatz 1
80539 Munich
Germany
joseph.straus@ip.mpg.de

ISBN 978-3-540-89701-9 e-ISBN 978-3-540-89702-6

DOI 10.1007/978-3-540-89702-6

Library of Congress Control Number: 2008943237

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Cover design: WMX Design GmbH, Heidelberg

Printed on acid-free paper

9 8 7 6 5 4 3 2 1

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Max Planck Institute for Intellectual Property,
Competition and Tax Law



MPI Studies on Intellectual Property, Competition and Tax Law

Volume 9

Edited by

Josef Drexl
Reto M. Hilty
Wolfgang Schön
Joseph Straus



Introduction

Intellectual property rights foster innovation. But if, as it surely does, “intellectual property” means not just intellectual property *rules*—the law of patents, copyrights, trademarks, designs, trade secrets, and unfair competition—but also intellectual property *institutions*—the courts, police, regulatory agencies, and collecting societies that administer these rules—what are the respective roles of intellectual property rules and institutions in fostering creativity? And, to what extent do forces outside intellectual property rules and institutions—economics, culture, politics, history—also contribute to innovation? Is it possible that these other factors so overwhelm the impact of intellectual property regimes that it is futile to expect adjustments in intellectual property rules and institutions to alter patterns of innovation and, ultimately, economic development?

It was to address these questions in the most dynamic region of the world today, Asia, that we invited leading country experts to contribute studies that not only summarize the current condition of intellectual property regimes in countries ranging in economic size from Cambodia to Japan, and in population from Laos to China, but that also describe the historical sources of these laws and institutions; the realities of intellectual property enforcement in the marketplace; and the political, economic, educational, and scientific infrastructures that sustain and direct investment in innovative activity.

A. The Region

Although the study of a single economy can shed useful light on the impact of intellectual property rules and institutions on innovation and economic growth, comparative study of several economies can produce even more valuable insights. Why, for example, did Singapore’s science and technology infrastructures catapult that nation onto the list of countries with the highest GDP per capita worldwide, while the infrastructures of Malaysia—which, like Singapore, was carved out of the British Straits Settlements half a century ago—did not? Regional studies can also shed light on the impact of geographic proximity. Will the inflow of pirated goods from an economically more-developed country into a less-developed neighbor that lacks even the industrial facilities to produce pirated goods (for example, from Thailand into Laos) stunt the second country’s prospects for developing its own innovation infrastructures?

Asia has experienced impressive growth since the 1960s, with the exception of a period in the late 1990s. Developing Asian countries in particular have seen impressive growth rates. For instance, Cambodia’s economy grew at 13% in 2005 and 10% in 2006, while China’s economy has consistently grown at about 10% for the last two decades.¹ Japan is a positive outlier on almost every economic indicator:

¹ Data available from the World Bank, WORLD DEVELOPMENT INDICATORS, <http://www.worldbank.org>.

in terms of GNI and GNI per capita, Japan broke away from the pack in the 1960s and has far outstripped its Asian neighbors ever since. The country has also maintained strong net outflow of FDI since the 1970s. China is also an outlier, although its story is more mixed. While China's GNI has skyrocketed since the 1990s, its GNI per capita remains low. Asia as a whole has seen an increase in exports, including a rising share of high-tech products. While only three Asian economies—Japan, Taiwan, and South Korea—were on the list of Top Ten High-Tech Exporters in 1986, seven Asian economies—Japan, China, South Korea, Hong Kong, Taiwan, Singapore, and Malaysia—dominated the list in 2005.² Many Asian countries have also experienced notable increases in FDI; the headline-maker is Singapore, for which FDI now accounts for nearly 20% of GDP. China has also seen a tremendous increase in FDI, though as a share of GDP, FDI has actually decreased there.

B. Factors Affecting Investment in Innovation

One fact stands apart from all others in the country studies of national efforts to promote innovation. For whatever reason, and regardless of the specific forms that it takes, the central engine of innovation employed in all of these countries is private property rights. The economically more developed countries, such as Japan and the Asian "Tigers," rely on the full panoply of intellectual property rights to organize investment in innovation—patents for invention, design patents, and utility models; copyright; trademark; and unfair competition—accompanied by vigorous enforcement and sophisticated administration. Less-developed countries rely on generally less robust versions of these mechanisms, and in some cases effectively sidestep patents for inventions altogether. And, as the less-developed countries evolve economically, so, too, do the rigor and sophistication of their intellectual property regimes. But the striking fact that characterizes every phase of the evolutionary continuum is that all of the countries studied—large and small, economically more and less advanced—turn to the institution of private property rights to organize investment in—and competitive access to—innovation within their borders.

So pervasive is the reliance on private property regimes that it is possible to map a country's relative advancement along the continuum of economic development by tracing the contours of its intellectual property institutions at any point in its history. In its economically most primitive stage, a country will possess neither the industrial facilities required to copy goods in commercial quantities nor the intellectual property institutions to bar unauthorized copying; even in the age of TRIPS and other trade-based international obligations, IP laws and institutions may exist on the books, but enjoy little or no practical effect in the marketplace. To take one example, although intellectual property laws have been in place in Cambodia since 2001, neither enforcement activities nor imitative industries have so far materially evolved there.

At the next stage of development, a country will possess the industrial facilities for imitative activity, but still lack effective enforcement mechanisms to shut down

² Global Insight, Inc., <http://www.globalinsight.com>.

unauthorized copying. Several countries studied in this volume—Malaysia, one of the world's largest exporters of pirated software, is one—are at this stage. At the next stage, a country will more effectively enforce intellectual property laws that require relatively low levels of research and development investment—copyright, design, utility models, and trademark. This shift has occurred in Thailand, for example, where most IP litigation involves copyright and trademark infringement and patent cases are still relatively rare. At the most advanced stage, a country will adopt a robust system of patents for inventions, including an expert examining corps to review patent applications; Japan is an example of a country at this most advanced stage.

These stages are not always discrete, nor do they exactly track economic progress. Further, causality is not always clear, and the question inevitably persists of the relative extent to which intellectual property rights promote economic progress, and the extent to which economic progress spurs demand for intellectual property rights.

The experience of several of the Asian countries studied reveals an important economic nuance in this progression. In some countries, like Japan and South Korea, domestic-owned patents have always outnumbered foreign-owned patents. But often, at the time a system of rights (particularly a full-fledged system of patents for invention) is adopted, nationals of countries more economically advanced than the adopting country will make greater use of the system than will nationals of the adopting country, producing a net outflow of revenues from the adopting country. Usually, however, this difference will shrink within as few as ten years (as in the case of Taiwan) as use of the system by local nationals approaches that by foreign nationals. This transitional period roughly marks a country's "tipping point" at which the national economy is thought to benefit more from rigorously calibrated and enforced intellectual property norms than norms that are more conducive to piracy. In Taiwan, for example, domestic patent propensity has increased dramatically since 1998, when the ratio of domestic invention patents to foreign invention patents was about 1:3; by 2007, it was 4:5.

Statistics on domestic versus foreign use of IP systems yield even more information about the state of a country's economy when it is remembered that the term "patent" is sometimes used in this context to encompass three different kinds of intellectual property: patents for invention, utility models, and designs. Separating out the three kinds of patents, important trends emerge. The number of domestic utility model applications in these countries is almost always much higher than foreign utility model applications, while invention patents—which are more technologically intensive—tend to be dominated by foreigners. Thus, while the total number of domestic "patents" outnumbers foreign-owned patents in a country like Taiwan, foreign applications have always dominated invention patents (though that lead is shrinking), while domestic applications dominate the other two.

The rate at which a country progresses from one stage of the evolutionary continuum to the next will be the product of a variety of forces—history, culture, levels of education, and geographic advantage. However, one factor stands out as an index of a country's ability to move from one stage to the next: political will.

Japan's relatively rapid progress toward innovation leadership was the product in no small part of intensely organized national efforts to catch up with the West, first, in the mid-nineteenth century and, later, following World War II. More recently, and in some ways more notably, the rapid industrialization around intellectual goods in Singapore and South Korea reveals the results of a concerted exertion of national will.

Although the country studies in this volume reveal that property rules are a *necessary* condition to the adoption of a thriving environment for innovation (including institutions capable of supporting investment in innovation), property rights are not—at least at the higher levels of innovation—a *sufficient* condition. Cultural, social, political, educational, and scientific factors also play important roles. For example, countries that have successfully developed highly innovative economies—Japan, South Korea, and Taiwan are examples—have, however gradually, moved from the historically dominant Confucian philosophy that treats individual morality rather than legal enforcement as the central norm for governance, subordinating the self to the community and preferring peaceful private settlement of disagreements over the disruption of social harmony caused by civil litigation. Increasingly, these countries are shifting toward acceptance of the rule of law, individual innovation, and litigation as a means of dispute resolution. On the other hand, some aspects of traditional Asian cultures aid in the development of IP-intensive economies. The traditional emphasis on education in many Asian countries—China, Japan, Singapore—has undoubtedly contributed to technologically intensive economies that can only exist with a highly educated population. Also, countries which have achieved political stability—China, Japan, Singapore, and Vietnam are examples—seem to have an advantage in long-term planning and in attracting foreign investment.

None of these factors alone determines economic behavior. Singapore and Vietnam both have stable governments, yet their economies have little in common. Also, there is an inevitable hen-egg problem in analyzing the role of these factors in an innovative economy. The high number of students at Taiwanese universities who concentrate in science and engineering would certainly seem to contribute to innovative industries. Yet, the fact that a strong innovation industry with good employment opportunities already exists in Taiwan may entice more students there to choose science and engineering careers. The exact way in which these factors interact to influence the development of innovative industries in particular countries is unique and complex in each case. Yet, if the country studies in this volume tell any story, it is that these factors are important, and that they do interact in the ongoing evolution of Asia as an innovation-intensive region in the world economy.

C. Acknowledgments

This volume, a collaborative venture of the ongoing research program of the Munich Intellectual Property Law Center and the Law, Science and Technology Program at Stanford Law School, owes a substantial debt to several individuals, companies, and foundations for supporting work at the two institutions, as well as at

two conferences, one at Stanford in October 2006, the second in Shanghai in October 2007.

For the work centered at Stanford, the volume owes a special debt to the Microsoft Corporation for its generous support of the Rule of Law Program at Stanford Law School which funded not only a widely-attended conference at Stanford on 21-22 October 2006, but also the work of Ashley Isaacson Woolley in editing the individual country studies and knitting them into a coherent whole, and Lynne Anderson in assisting with production of the manuscript. Without the commitment to the concept of the Rule of Law, and the unstinting support at Microsoft of Bradford L. Smith, Senior Vice President, General Counsel and Corporate Secretary; Nancy J. Anderson, Corporate Vice President and Deputy General Counsel; and Geoffrey Manne, University Academic Relations Manager for Law and Economics, this volume would not have been possible. Work on the volume was also supported by the Ewing Marion Kauffman Foundation, and we are deeply grateful to Robert Litan, Vice President of Research and Policy at the Kauffman Foundation, for his support; however the contents of the volume are solely the responsibility of the editors and authors. We are also grateful to F. Scott Kieff and the Project on Communalizing Innovation at Stanford University's Hoover Institution for their interest in these studies and their wide dissemination.

We also wish to thank Professor Tian Lipu, Director General, State Intellectual Property Office of the People's Republic of China; Professor Shan Xiaoguang and Professor Liu Xiaohai, Intellectual Property Institute of Tongji University, Shanghai; Professor Chen Zhixing, Director General, Shanghai Intellectual Property Administration and his team, especially Mr. Hong Yonqing for offering the contributors to this volume the opportunity to present their research findings within the framework of the 5th Shanghai International IP Forum, in Shanghai in October 2007. Without the financial and organizational support of the State Intellectual Property Office of the People's Republic of China and the Shanghai Intellectual Property Administration, as well as the IP Institute of the Tongji University, it would not have been possible to present the results of this project to such an eminent and skillful audience. We are also deeply indebted to the other contributors, speakers and moderators at the 5th Shanghai International IP Forum, in particular also to Dr. Jürgen Schade, the President of the German Patent and Trademark Office. Last but not least, we extend our thanks to the World Intellectual Property Organization and the World Trade Organization, which agreed to co-sponsor the Shanghai event, and to the World Trade Organization, the World Intellectual Property Organization, the United States Trade Representative, and the European Union Commission for dispatching to the earlier workshop at Stanford high-ranking experts whose suggestions and comments on the country reports contributed significantly to the quality of the entire project.

September 2008

Paul Goldstein
Joseph Straus

List of Contributors

Christoph Antons is Professor of Comparative Law and Director of the Centre for Comparative Law and Development Studies in Asia and the Pacific at the University of Wollongong. He is a QEII Fellow of the Australian Research Council (ARC), Chief Investigator in the ARC Centre of Excellence for Creative Industries and Innovation, Adjunct Research Fellow at the Max Planck Institute for Intellectual Property, Competition and Tax Law in Munich, and Honorary Senior Fellow in the Faculty of Law at the University of Melbourne. He has published several books on law in Asia with an emphasis on intellectual property; most recently, he co-edited *Globalisation and Resistance: Law Reform in Asia Since the Crisis* (Hart 2007).

Peter Ganea is head of the Asia Department of the Max Planck Institute for Intellectual Property, Competition and Tax Law in Munich. He is also a faculty member at the Munich Intellectual Property Law Center law school, where from 2006-2007, he served as the program director. In 2005, he was a visiting professor at the Institute of Innovation Research at the Hitotsubashi University, Tokyo. His main areas of research are the economic foundations of intellectual property and the socio-economic infrastructures of IP protection in Asia. He graduated from the University of Munich in Japanese and Chinese studies, and Economics.

Tanuja Garde is a Director for Intellectual Property Rights and Innovation at the Office of the United States Trade Representative (USTR) in Washington, D.C. She was a Herchel Smith Research Fellow at the Queen Mary Intellectual Property Research Institute in London, where she taught international and comparative patent law, and headed the U.S. Department at the Max Planck Institute in Munich. She has also taught at the Munich Intellectual Property Law Center and the University of Alicante. She is a member of the State Bar of California and has been admitted to practice before the United States Patent and Trademark Office. She has published widely on international and comparative patent law.

JIN Haijun is Associate Professor of Law and Vice Director of the Intellectual Property Teaching and Research Center at Renmin University of China. He has been a visiting scholar at Harvard Law School and the Max Planck Institute in Munich. His research specializes in IP systems and social structures and economic analysis of IP law. He is the author of *Intellectual Property Rights of Private Right* (Renmin University 2004) and the translator of *The Economic Structure of Intellectual Property Law* (Peking University 2005). He has a law degree from Southwest University of Politics and Law, an LL.M. in civil and commercial law from Renmin University, and a Ph.D. in civil and IP law also from Renmin University.

Paul C. B. Liu is Director of the Graduate Institute of Intellectual Property and the Center for Technology Policy and Law at the National Chengchi University in

Taiwan. He is on the Presidential Science Advisory Council and holds prominent positions in many technology-related associations in Taiwan. He has pioneered many recent science and technology policy developments in Taiwan and China; he was an original architect of Taiwan's Basic Science and Technology Law and author of the first Chinese textbook on computer information law. He has a Bachelor of Laws from the National Taiwan University and a Bachelor of Science in mathematics, an LL.M., and a Ph.D. in law from the University of Washington in Seattle.

Sadao Nagaoka is a Professor at the Institute of Innovation Research at Hitotsubashi University. He is also a Research Counselor at the Research Institute of Economy Trade and Industry of Japan. He has both a Ph.D. in economics and an M.S. in Management from the Massachusetts Institute of Technology (MIT) and a B.E. in Engineering from the University of Tokyo. His fields of specialization are innovation and industrial organization, and he publishes widely in international journals.

Ferdinand M. Negre teaches at the School of Law of Ateneo de Manila University. He is a founding partner of Bengzon Negre Untalan, the only exclusively IP law firm in the Philippines. He is a prominent figure in many IP-related organizations in the Philippines, and has worked at the Bureau of Patents, Trademarks and Technology Transfer (now the Intellectual Property Office) and the Bureau of Trade Regulation and Consumer Protection. He has a degree from the Ateneo de Manila School of Law and a Master of Intellectual Property from Franklin Pierce Law Center in New Hampshire. He did post-graduate studies at the Munich Intellectual Property Law Center and the Queen Mary Intellectual Property Research Institute in London.

Ng-Loy Wee Loon is the Director of the LL.M (Intellectual Property and Technology) program at the Faculty of Law, National University of Singapore, and a member of the Board of Governors of the Singapore IP Academy. She has also served on the Singapore Government Parliamentary Committee (for Law and Home Affairs), as well as on the Board of Directors of the Intellectual Property Office of Singapore. She is the author of the book *Law of Intellectual Property of Singapore* (Sweet & Maxwell 2008) and has also published widely in international journals.

Jonathan Q. Perez is a Senior Associate at Bengzon Negre Untalan, the only exclusively IP law firm in the Philippines. He is a Trustee of the Intellectual Property Professors and Researchers Organization of the Philippines. He obtained his law degree from the Arellano Law School and his Bachelor of Arts in Political Science from the University of the Philippines. He also has a good grasp of the ins and outs of the legislative system, having had a six-year stint as a political affairs officer at the House of Representatives of the Republic of the Philippines while taking up his legal studies.

Ji-Hyun Park is an attorney at Morrison & Foerster LLP. Her practice focuses on international and domestic business transactions involving intellectual property, as well as counseling on Internet-related matters, drafting various IP-related agreements, conducting IP due diligence, and researching various IP issues. She worked for two years in the WIPO Arbitration and Mediation Center in Geneva. She also held a research position at Stanford Law School, where she obtained her LL.M in Law, Science, and Technology. She earned her law degree from Yonsei University in Seoul, where she also obtained her Masters in Property Law.

Viet D. Phan is an attorney at Tran H.N. & Associates in Hanoi and Associate Lecturer of the Judicial Academy in Hanoi. He has also served as a Visiting Researcher at the Max Planck Institute for Intellectual Property, Competition and Tax Law in Munich, the Institute of Intellectual Property in Tokyo, and as a practicing attorney at law in Berlin. He has researched and published extensively about IP law and TRIPS in Vietnam, and in developing countries generally. He received a law degree from the Humboldt University of Berlin, where he wrote his thesis on regional security in Southeast Asia with respect to ASEAN and its ZOPFAN project.

Julia Sorg is a German attorney at law with a focus on intellectual property in M&A transactions. She has working experience in Asia in an international law firm and in the European Union Chamber of Commerce in China. She has worked as a research assistant at the Asia Department of the Max Planck Institute in Munich for several years. She has also been a tutor to the Masters faculty of the Munich Intellectual Property Law Center. She wrote her Ph.D. dissertation on the economic impact of TRIPS on the People's Republic of China and Thailand and she is the author of several articles about IP protection in Asia.

Treaties and Abbreviated Terms

AFTA	Asian Free Trade Area
ASEAN	Association of Southeast Asian Nations
APEC	Asia-Pacific Economic Cooperation
Berne Convention	Berne Convention for the Protection of Literary and Artistic Works
Budapest Treaty	Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure
GATT	General Agreement on Tariffs and Trade
Geneva Convention	Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of Their Phonograms
PCT	Patent Cooperation Treaty
TRIPS or TRIPS Agreement	WTO Agreement on Trade-Related Aspects of Intellectual Property
IMF	International Monetary Fund
Madrid Agreement	Madrid Agreement Concerning the International Registration of Marks
Madrid Protocol	Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks
Paris Convention	Paris Convention for the Protection of Industrial Property
Rome Convention	International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations
OECD	Organisation for Economic Co-operation and Development
UCC	Universal Copyright Convention
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UPOV	International Union for the Protection of New Varieties of Plants
UPOV Convention	International Convention for the Protection of New Varieties of Plants
USPTO	United States Patent and Trademark Office
USTR	United States Trade Representative
Washington Treaty	Treaty on Intellectual Property in Respect of Integrated Circuits
WCT	WIPO Copyright Treaty
WPPT	WIPO Performances and Phonograms Treaty

WIPO
WTO

World Intellectual Property Organization
World Trade Organization

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