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INVESTING IN THE DRAGON: MANAGING THE PATENT VERSUS TRADE SECRET PROTECTION DECISION FOR THE MULTINATIONAL CORPORATION IN CHINA

Robert Bejesky[†]

I. INTRODUCTION

The global dependencies that exist in today's high technology world require that the value of intellectual property (IP)¹ be protected. Most believe that granting a monopoly right² to the pecuniary benefits accruing from an invention will motivate entrepreneurs to innovate new products³ and stimulate aggregate international economic progress.⁴ From a competitive transnational business perspective, protecting the value of IP is important to both the individual firm that

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1. Throughout this Article, when the term "IP" is employed, it will refer specifically to patents and trade secrets. However, in many cases, the term could potentially be employed more generally to refer to all types of IP.

2. See Christopher R. Perry, *Trademarks As Commodities: The "Famous" Roadblock to Applying Trademark Dilution Law in Cyberspace*, 32 CONN. L. REV. 1127, 1138 (2000).

3. Peter K. Yu, *Toward a Nonzero-Sum Approach to Resolving Global Intellectual Property Disputes: What We Can Learn From Mediators, Business Strategists, and International Relations Theorists*, 70 U. CIN. L. REV. 569, 650 (2002).

4. Richard J. Ansson, Jr., *International Intellectual Property Rights, The United States, and the People's Republic of China*, 13 TEMP. INT'L & COMP. L.J. 1, 1 (1999).

holds those rights⁵ and to the parent country's exports in service-focused and technology-dominant economies of the world.⁶ Given the national economic interest involved,⁷ technologically abundant countries have pressed for enhanced IP protections globally.⁸ This is because inventions often first actualize in these countries⁹ and

5. Peter J. Wied, *Patently Unfair: State Unfair Competition Laws and Patent Enforcement*, 12 HARV. J.L. & TECH. 469, 469 (1999); see generally William P. Alford, *Intellectual in East Asia: How Theory Does – And Does Not – Matter: American Approaches to Intellectual Property Law in East Asia*, 13 UCLA PAC. BASIN L.J. 8, 9 (1994).

6. Trade in services accounts for two-thirds of U.S. GNP. See generally RALPH H. FOLSOM ET AL., *INTERNATIONAL BUSINESS TRANSACTIONS* 268 (2d ed. 2001). Imports and other balance of payment debit items must be paid for by purchasing the foreign currency of the exporting country. See generally *Balance of Payments*, BIZ/ED, at <http://www.bized.ac.uk/stafsup/options/notes/econ218.htm> (last visited Mar. 22, 2004). IP-annexed exports or receipt of licensing fees are credits that offset debit items. *Id.* In service dominant countries, such as the United States, this accounting item is very important since imports would need to be paid for by increasing taxes or by financing deficits. History has exhibited that countries first build their economies by industrialization and often accumulate wealth by exporting of goods from that industrialization. This is called "export-led" development. However, the development process eventually results in shifting industrial production to where labor rates are lower and where regulatory frameworks may be more amenable to higher levels of industrialization. Shifting dominant production, in the general temporal order in which it has occurred, has gone from Western Europe, United States, Japan, the Asian Tigers, and then to China. In the countries where there is a shift moderately away from manufacturing, service-oriented and technology-based industries attain increasing importance for the economy and global competition. Technological innovations as a percentage of the economy can even sometimes be classified as a hybrid between service and manufacturing sectors since expenditures on research and design are derived from the value placed on intellectual thought as applied to tangible goods.

7. Some technology abundant countries have noted the vital importance of global IP right protections and developed national IP strategies. Zenta Senoo, *The State of Intellectual Property Strategy*, 21 J. JAPANESE TRADE & INDUS. 38, 38 (2002).

8. Maureen A. O'Rourke, *Toward A Doctrine of Fair Use in Patent Law*, 100 COLUM. L. REV. 1177, 1203 (2000).

9. See Alan S. Gutterman, *The North-South Debate Regarding the Protection of Intellectual Property Rights*, 28 WAKE FOREST L. REV. 89, 89 (1993). Developed nations have a comparative advantage in technology and have favored stronger intellectual property rules, while developing countries have tended to favor weaker protections for intellectual property; see also Evelyn Su, *The Winners and the Losers of the Agreement on Trade-Related Aspects of Intellectual Property Rights and its Effects on Developing Countries*, 23 HOUS. J. INT'L L. 169 (2000).

traverse sovereign borders by the initiative of multinational corporations (MNCs).¹⁰

Countries disagree about the appropriate level of IP protection because of varying stages of economic development¹¹ and divergent interests. Safeguarding IP is a function of territorial jurisdiction and sovereign prerogative. The persona of the law and enforcement of the law can be impacted by factors such as economic development, political history, ideology, and culture within a country.¹² Even among technologically abundant countries, there is discord regarding the appropriate broadness and standards for IP protection rules and definitions due to cultural distinctions.¹³ However, there is an even greater disparity between the levels of IP right protections of the technologically advanced and developing economies of the world.

A company assumes more investment risk and volatility when investing in an emerging economy than when investing in a developed market economy.¹⁴ However, a government that upholds IP rights displays a signaling indicator to potential investors that the government recognizes the private sector's preference in making business decisions with few government impediments¹⁵ and within a more transparent regulatory framework,¹⁶ therefore decreasing risk of IP value loss. Governments that provide this perception rouse foreign

10. See generally Susan K. Sell, *Multinational Corporations as Agents of Change: The Globalization of Intellectual Property Rights*, in PRIVATE AUTHORITY AND INTERNATIONAL AFFAIRS 169 (A. Claire Cutler et al. eds., 1999).

11. Generally, property right protections are often weaker in emerging markets than in developed markets. See T.G. Rowski, *Chinese Industrial Reform: Accomplishments, Prospects and Implications*, 84 AM. ECON. REV. 271 (1994).

12. Susan Tiefenbrun, *Piracy of Intellectual Property in China and the Former Soviet Union and its Effects Upon International Trade: A Comparison*, 46 BUFF. L. REV. 1 (1998).

13. Michael North, *The U.S. Expansion of Patentable Subject Matter: Creating a Competitive Advantage for Foreign Multinational Companies?*, 18 B.U. INT'L L.J. 111, 112 (2000); see also Samson Helfgott, *Cultural Differences Between the U.S. and Japanese Patent Systems*, 72 J. PAT. & TRADEMARK OFF. SOC'Y 231, 231 (1990).

14. See M.W. PENG, *BUSINESS STRATEGIES IN TRANSITION ECONOMIES* (2000).

15. See generally ROBERT M. SHERWOOD, *INTELLECTUAL PROPERTY AND ECONOMIC DEVELOPMENT* 269-70 (1990).

16. See *China Briefing*, FAR E. ECON. REV., Dec. 26, 2002. The U.S. Trade Representative noted China's significant process in fortifying the rule of law its first year in the WTO, but the most pressing concerns still include lack of transparency in new rule frameworks and IP rights. *Id.*

investment within their respective jurisdictions.¹⁷ A crucial issue among foreign investment entrepreneurs is how companies should value risk of high technology investment in the developing world as compared to that of more developed markets.¹⁸

This article considers two factors related to this risk in the context of China associated with the global importance of this market and serious apprehensions encompassing China's IP right protections.¹⁹ First, it considers objective enforcement of codified legal institutions²⁰ that protect patents and trade secrets while examining political, cultural, and informal²¹ influences on legal frameworks. MNCs often must negotiate with government officials and build political relationships in the investee country.²² Second, within the context of dynamic interactions between political and legal influences, the article appraises the important trade-off between filing for patent protection or protecting process technology internally via trade

17. See F.M. Ross Armbrecht, *WTO Entry, Government's Welcome Could Spur Foreign R&D in China*, 45 RES. TECH. MGMT. 2 (2002).

18. Pressing risks include: political risks, country and industry-sector risks, environmental and obsolescence risks, transparency risks, and currency risks. See generally Christian Leuz et al., *Investor Protection and Earnings Management: An International Comparison*, BATTEN BRIEFINGS: VALUATION IN EMERGING MARKETS, BATTEN BRIEFINGS, Apr. 2002, available at <http://www.darden.virginia.edu/batten.vem/PDFs/Wysockipaperfinal.pdf> (last visited Mar. 12, 2004); see also Sandeep A. Patel et al., *Measuring Transparency and Disclosure at Firm-level in Emerging Markets*, BATTEN BRIEFINGS: VALUATION IN EMERGING MARKETS, May 2002, available at <http://www.darden.virginia.edu/batten.vem/PDFs/Patelpaperfinal.pdf> (last visited Mar. 12, 2004). At the essence of a foreign entrepreneurial venture that relies on technology as a large percentage of asset value is the extent to which the local country's legal system can efficiently and transparently protect investments.

19. IP protection has become one of the most prominent concerns for those seeking economic integration into China. Daniel C.K. Chow, *Enforcement Against Counterfeiting in the People's Republic of China*, 20 NW. J. INT'L L. & BUS. 447, 448 (2000). While the article focuses on China, it does have broader geographic scope, such as for most developing countries where adequate IP rights protections are suspect. See *id.*

20. "Institutions," throughout the paper, refer both to codified law and regulatory frameworks that provide substantive parameters for proper societal conduct and to government institutions that have the authority to enforce that substantive law.

21. All three of these terms have been employed by various authors to depict informal norms of societal behavior or government action outside the legal system in China. For simplicity, this article will primarily use the term "political."

22. See Jean J. Boddewyn & Thomas L. Brewer, *International-Business Political Behavior: New Theoretical Directions*, 19 ACAD. MGMT. REV. 119 (1994).

secret.²³ This is a particularly important question since Chinese officials are currently grappling with the issue of whether business methods should be patentable.²⁴ These two questions are then applied to the MNC's due diligence and valuation assessment process for a foreign investment within the type of organizational investment form appropriate for particular technology.

II. CHINA'S PROGRESS IN FORTIFYING IP PROTECTIONS

A. *International Influences and Global Cooperation*

In order to protect a patent, a firm must comply with filing requirements, the invention must fall within the scope of patent protection as defined by the host government, and the holder must take measures to enforce patent rights if there is a potential infringement. To protect a trade secret, suitable internal company safeguards must be implemented to secure the secret's preservation within the company and adequate measures must be taken to enforce trade secret rights if there is an infringement.

Patent and trade secret protection falls within the domestic jurisdiction of the foreign country; therefore, enforcement is dependent on the host country's judiciary and/or executive prerogative. Despite disparate interests, economic systems, and levels of development among countries, the pronounced trend has promoted and procured markedly stronger IP protections globally. Government leaders recognize that economic globalization and technological investment contribute to the growth of economies²⁵ (assuming that there is a relatively inelastic supply of innovations and a correlation between the level of economic development and the level of technology transferred).²⁶ The desire to attain advanced technologies has fostered much worldwide cooperation.

23. Robert C. Haldiman, *Intellectual Property: Policy Considerations from a Practitioner's Perspective: Prior User Rights for Business Method Patents*, 20 ST. LOUIS U. PUB. L. REV. 245, 251-52 (2001).

24. Joy Y. Xiang, *How Wide Should the Gate of "Technology" Be? Patentability of Business Methods in China*, 11 PAC. RIM L. & POL'Y J. 795, 795 (2002).

25. See Gao Lulin, *A Preliminary Analysis of the TRIPS Negotiations of the Uruguay Round of GATT*, CHINA PAT. & TRADEMARK, Jan. 1993.

26. This is premised on the assumption that innovations must match the appropriate level of economic development because certain technologies can stimulate growth in particular industries but other technologies may be less beneficial to the economic structure of a country because the technology may not be put to a very efficient and capable use.

International influences,²⁷ treaty-based frameworks,²⁸ and executive agreements²⁹ have had a notable impact on the aggregate value of IP assets worldwide and continue to provide more security.³⁰ Therefore, cooperative international frameworks validate and embody long-term relationships, resulting in governments enacting domestic institutional rule improvements and more effective enforcement of those rules.³¹ The most notable contention among states is how to define and interpret acceptable rules of conduct in IP right protections. Uncertainty for MNCs derives from the friction between countries that rely on the rule of law to provide heightened transparency for economic actors and those that rely more on political will and cultural norms. Even though knowledge, creation, and adaptation to product designs and production techniques are universally perceived as being essential for competitiveness and economic growth in any country, fortifying institutional protections is

27. International relation influences can include financial or moral leverage, or any consideration that can cause a state to find that it is in its self-interest to cooperate. See BRUCE BUENO DE MESQUITA, *PRINCIPLES OF INTERNATIONAL POLITICS: PEOPLE'S POWER, PREFERENCES, AND PERCEPTIONS* 167-95 (2d ed. 2003). International relations and cooperation have been a politically important issue in driving global IP rights protection. See Sumner J. La Croix & Denise Eby Konan, *Intellectual Property Rights in China: The Changing Political Economy of Chinese-American Interests*, 25 *WORLD ECON.* 759, 759 (2002).

28. A treaty is an international agreement between states that grants rights and binds governments to perform obligations in a way that did not exist prior to the treaty. See DAVID J. BEDERMAN, *INTERNATIONAL LAW FRAMEWORKS* 25-40 (2001). The TRIPS agreement, as part of the World Trade Organization (WTO) framework, is one of the most influential IP right protection frameworks. This result is because of the connection to the WTO and number of countries participating. Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Apr. 15, 1994, *LEGAL INSTRUMENTS—RESULTS OF THE URUGUAY ROUND* vol. 1 (1994), 33 *I.L.M.* 1125 (1994); Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, *LEGAL INSTRUMENTS—RESULTS OF THE URUGUAY ROUND* vol. 31, 33 *I.L.M.* 81 (1994).

29. Executive agreements are international agreements that are binding between countries negotiated by heads of state that do not require domestic level ratification after the signing process. See BEDERMAN, *supra* note 28, at 166-69.

30. See J.H. Reichman & David Lange, *Bargaining Around the TRIPS Agreement: The Case for Ongoing Public-Private Initiatives to Facilitate Worldwide Intellectual Property Transactions*, 9 *DUKE J. COMP. & INT'L L.* 11 (1998).

31. See Joel W. Rogers & Joseph P. Whitlock, *Is Section 337 Consistent with the GATT and the TRIPS Agreement?*, 17 *AM. U. INT'L L. REV.* 459 (2002). One would expect that enforcement mechanisms will continue to improve, but there is still a fairly expansive disconnect between adopting new laws and enforcing those laws. *Id.* at 503.

a gradual process and one that is far from being receptive to legal transplants from foreign sources.³²

International influences³³ and governmental recognition that fortify IP protection for regimes to attain better technology can beget more pronounced economic growth and therefore, are in the self-interest of leaders in power.³⁴ However, any foreign investment with annexed IP value must consider the dynamics of legal and institutional change along a continuum in the investee/host country. This is especially the case when there has been much cultural reluctance to fully embrace Western conceptions of property rights and when there is wealth transfer from developing to industrialized countries.³⁵ Normally, these dynamics are in the form of expatriated MNC profits. Also, there are distinctions in the degree to which remnants of statist governments exist and concomitant political influences on the private sector subsist in emerging markets.³⁶

32. Paul Edward Geller, *Legal Transplants in International Copyright: Some Problems of Method*, 13 UCLA PAC. BASIN L.J. 199, 199-201 (1994).

33. China has had "no other choice but to establish and strengthen its intellectual property protection system." Zheng Chengsi, *The TRIPS Agreement and Intellectual Property Protection in China*, 9 DUKE J. COMP. & INT'L L. 219, 219 (1998).

34. See J. Mark Ramseyer, *Public Choice*, in CHICAGO LECTURES IN LAW AND ECONOMICS 101-11 (Eric A. Posner ed., 2000). The assumption is that leaders will govern in a way that helps them maintain power. *Id.* Improvements in economic growth will appease the populace. *Id.* In consolidated democracies, there is a relatively clear nexus between constituent desires and the positions of respective politicians since they compete in electoral markets to remain as representatives. *Id.* While only having one political party in power eliminates electoral choice or debate among policy positions, see generally *Introduction*, in BUILDING DEMOCRATIC INSTITUTIONS: PARTY SYSTEMS IN LATIN AMERICA 6-20 (Scott Mainwaring & Timothy R. Scully eds., 1995), the Chinese Communist Party's (CCP) authoritarian grip on society has slowly declined. STANLEY B. LUBMAN, *Introduction: Understanding China Through Chinese Law*, in BIRD IN A CAGE: LEGAL REFORM IN CHINA AFTER MAO 9 (1999). There has been much fragmentation and inter-unit bargaining regarding policy proposals within the CCP. Kenneth G. Lieberthal, *Introduction: The "Fragmented Authoritarianism" Model and Its Limitations*, in BUREAUCRACY, POLITICS, AND DECISION MAKING IN POST-MAO CHINA 1 (Kenneth G. Lieberthal & David Lampton eds., 1992). It is logical to assume that those in power in China do react to populace desires and that unilateral guidance of the populace is not the norm even though China is not a democracy.

35. See generally Frederick M. Abbott, *The WTO TRIPS Agreement and Global Economic Development*, in PUBLIC POLICY AND GLOBAL TECHNOLOGICAL INTEGRATION 4-12 (Frederick M. Abbott & David J. Gerber eds., 1997).

36. See MIRJAN R. DAMASKA, *THE FACES OF JUSTICE AND STATE AUTHORITY* 80-88 (1986). A statist government is one whereby private sector and government interests are unified. *Id.* This has also been called an activist state. While the norm in today's

Some frame the IP rights protection issue primarily in terms of national economic rational choice analysis: "intellectual property pirating fuels development until the country reaches the point where intellectual property protection becomes economically advantageous."³⁷ While it is generally recognized that utilizing technology in the economy may be the most important factor to foster growth³⁸ (IP right protections serve as a stimulus to induce risky ventures with high initial research and design allocations), technologically less advanced countries are not in a strong position to compete globally in certain industries with technologically advanced countries. Varying levels of economic development breed dissension; therefore, a more fortified and objectively enforced IP protection regime will be assembled when the country can internally and naturally accept that elevated level of protection and when it is consistent with the economic realities of the country.³⁹ However, the benefits of IP protection may consistently outweigh its costs.⁴⁰ Without a natural consistency between IP protections and the level of economic development that fosters government decisiveness to protect IP value, enforcement actions are more apt to be sporadic⁴¹ and driven by political will to provide a media perception of improvement to international actors. Consistency and transparency in enforcement may not exist.

capitalistic world has been that of decentralizing government and promoting a relatively more laissez-faire private sector, there are still exceptions. Along with China, Japan would also be a relatively good example of a statist government. PETER J. KATZENSTEIN, *Conclusion: Domestic Structure and Strategies of Foreign Policy*, in *BETWEEN POWER AND PLENTY* 297-333 (Peter J. Katzenstein ed., 1977).

37. Stephan Kirchanski, *Protection of U.S. Patent Rights in Developing Countries: U.S. Efforts to Enforce Pharmaceutical Patents in Thailand*, 16 *LOY. L.A. INT'L & COMP. L. REV.* 569, 598 (1994).

38. See generally RICHARD R. NELSON, *THE SOURCES OF ECONOMIC GROWTH* (1996).

39. On the one hand, one can reason that fortifying IP rights is a natural progression of an economy that is becoming more dominated by market dynamics. As a higher percentage of an economy is identified as consisting of privately held production entities, the greater should be the move toward fortifying legal institutions for property rights in items that were previously publicly held property. IP is just another form of property, but it is a form of property with varying comparative rule and enforcement interpretations, especially over how rules can best stimulate economic development.

40. Kirchanski, *supra* note 37, at 98-99.

41. *Id.*

Rules and enforcement institutions can give a perception to MNCs about written law, but political changes⁴² and influences can alter the application of IP legal regimes in individual cases, therefore generating uncertainty for the private sector. Thus, it appears that most countries will continue to adopt and adhere to IP right regimes in a manner that is more consistent with international treaties and expectations, fortify domestic legal institutions, and open up the possibility of predictable trends; however, there is still the potential for randomness and variability.⁴³ This is particularly the case with China because its economy remains a gallimaufry of public and private property ownership driven by a modernization process that is gradually migrating further away from communism and toward more dependence on markets. However, there are very important historical cultural remnants affixed to this migration.

B. Historical Cultural Influences on IP Rights Protection

Leaders in China, like in many other developing countries, have been enacting rules as well as establishing and fortifying enforcement institutions that will more fully protect IP rights. The Chinese Communist Party (CCP)⁴⁴ accepts that enhanced IP right protections are vital to nourishing long-term economic well-being for the population.⁴⁵ China has gradually⁴⁶ opened its door to the outside

42. Generally speaking, domestic political shifts can be triggered by a number of events. First, democratic elections can change the composition of those in government. Certainly, in China, there have not been political shifts to new parties, but there have been shifts within the Communist Party because of battling factions. A new government may be more or less prone to support economic integration and international investment than a previous agreement. Second, there may be some form of "tied" aid, economic dependence or an international agreement that relatively "locks in" a government's future purview of action because of promises made to other countries. This can sometimes provide a pacifying effect that promotes greater certainty to the private sector.

43. See Ruth L. Gana, *Prospects for Developing Countries Under the TRIPS Agreement*, 29 VAND. J. TRANSNAT'L L. 735 (1996); see also Arthur Wineburg & Edmund H. Mantell, *Managing Intellectual Property - An International Capital Asset*, 99 COM. L.J. 366 (1994).

44. The CCP is the only true political party in China that governs the country. Given that there are competing ideologies within the CCP and policy and legislative outcomes are often negotiated "median" positions among CCP factions, there may be a relatively close consistency between populace desires and government legislation and policy.

45. See William P. Alford, *How Theory Does - And Does Not - Matter: American Approaches to Intellectual Property Law in East Asia*, 13 UCLA PAC. BASIN L.J. 8, 15-16 (1994).

world,⁴⁷ "started to transform itself from a command-style economy to a socialist-capitalist one,"⁴⁸ and has demonstrated a commitment to cooperate within the structure of international market standards and IP right protections.⁴⁹ Its gradual migration closer to international expectation and standards⁵⁰ has exposed the conflict between tradition and new legal frameworks. Successful implementation of international agreements in China has proven to be exceedingly difficult.⁵¹ Market economies have conceptions of property rights that are generally at odds with Chinese tradition and culture.⁵² "[F]or the vast majority of Chinese, the role of IPR in society remains unclear" even though China's reformers developed legal awareness programs for individual citizens and economic actors.⁵³ Therefore, custom and culture remain dominant factors that influence practical implementation of rules and IP right enforcement.

At the foundation of IP protection in China is the balance between collectivist and individualist thought.⁵⁴ Historical influences⁵⁵ on operative ideology can be traced back to the teachings

46. China's privatization and marketization process has been gradual because abrupt change to domestic societal needs in a country of 1.3 billion people could lead to political and social instability. Its approach has been to open up to foreign investment to assist in building the economy, but within the context of keeping control over the economy and stimulating exports to generate economic wealth.

47. Weiqiu Long, *Intellectual Property in China*, 31 ST. MARY'S L.J. 63, 69 (1999). With international market integration, the role of the government in the economy seemingly will decrease, such that government must protect private property and contract rights, allow the market to allocate resources, and only intervene in the economy to correct market failures. Kenneth J. Vandeveld, *Investment Liberalization and Economic Development: The Role of Bilateral Investment Treaties*, 36 COLUM. J. TRANSNAT'L L. 501, 504-05 (1998).

48. Jennifer Fan, *The Dilemma of China's Intellectual Property Piracy*, 4 UCLA J. INT'L L. & FOREIGN AFF. 207, 207 (1999).

49. Long, *supra* note 47.

50. *Id.*

51. Thomas T. Moga & Jonathan Raiti, *The TRIPS Agreement and China*, 29 CHINA BUS. REV., Nov. 1, 2002.

52. See John D. Mittlestaedt & Robert A. Mittlestaedt, *The Protection of Intellectual Property: Issues of Origination and Ownership*, 16 J. PUB. POL'Y & MARKETING 14 (1997).

53. See Moga & Raiti, *supra* note 51.

54. See generally Liwei Wang, *The Current Economic and Legal Problems Behind China's Patent Law*, 12 TEMP. INT'L & COMP. L.J. 1 (1998).

55. Quite ironically, this adoration for historical writers in China and the past made it a show of respect to copy someone else's work. See generally WILLIAM P. ALFORD, *TO STEAL A BOOK IS AN ELEGANT OFFENSE* 28-29 (1995). "I transmit rather than

of Confucius, who stressed the rights of society over the rights of the individual.⁵⁶ Chinese leaders have utilized traditional beliefs and conceptions "to preserve conformity and sociopolitical stability."⁵⁷ Collectivist ideology, viewed from the perspective of a firm's profit potential in a market economy, is apt to undermine Western IP right protections, while individualist thought is more apt to protect such rights. Individual rights were favored only to the extent that collective and social needs could be served.⁵⁸ Collective rights have outweighed the interests of any one individual or group of individuals for over fifty years.⁵⁹ Since the CCP came to power,⁶⁰ it has only been over the past two decades that this traditional posture of collectivism has been relaxed.⁶¹

create; I believe in and I love the Ancients." DANIEL C.K. CHOW, *THE LEGAL SYSTEM OF THE PEOPLE'S REPUBLIC OF CHINA IN A NUTSHELL* 411 (2003).

56. See generally LUN YU, *THE ANALECTS OF CONFUCIUS* (Chichung Huang ed., 1997); see also Ronald J. Troyer, *Chinese Thinking about Crime and Social Control*, in *SOCIAL CONTROL IN THE PEOPLE'S REPUBLIC OF CHINA* 45, 51-52 (Ronald J. Troyer et al. eds., 1989). Confucius thought has designated the importance of particular actors in society by placing the state first, the collective second, and the right of the individual last. See Zhengyuan Fu, *China's Perception of the Taiwan Issue*, 1 *UCLA J. INT'L L. & FOREIGN AFF.* 321, 322-23 (1996-97).

57. John R. Allison & Lianlian Lin, *The Evolution of Chinese Attitudes Toward Property Rights in Invention and Discovery*, 20 *U. PA. J. INT'L ECON. L.* 735, 743 (1999).

58. See ALFORD, *supra* note 55, at 10.

59. Randall P. Peerenboom, *Rights, Interests, and the Interest in Rights in China*, 31 *STAN. J. INT'L L.* 359, 367 (1995).

60. In 1950, the government codified IP regulations that ensured State ownership over property rights and clarified that those who engaged in "invention or creation" were knowingly participating in a social activity and producing work product that would ultimately belong to all members of society. Long, *supra* note 47, at 66.

61. *Id.* Starting in 1979, economic reform prescribed amendments from collectivist predispositions toward some degree of individualism and property right protections even though the "fundamental tenet of ownership by the people" remained. *Id.* This is a posture that was supported politically and institutionally by the Chinese Communist Party, but it is one that has been subject to intermittent shifts. *Id.* The Chinese Communist Party's posture can be illustrated by Art. 51 of the PRC Constitution: "The exercise by citizens of the People's Republic of China of their freedoms and rights may not infringe upon the interests of the state, of society and of the collective, or upon lawful freedoms and rights of other citizens." P.R.C. CONST. art. 51 (Adopted 1982). The trend of change toward a more relaxed balance between individual and collective rights to promote economic growth can be found in the 1999 amendments to the Constitution. "The People's Republic of China shall be governed according to law and shall be built into a socialist country based on the rule of law." Stanley Lubman, *Bird in a Cage: A Chinese Law Reform After Twenty Years*, 20 *Nw.*

Consistent with this ideological emphasis are informal and formal means of societal control conflict,⁶² which makes appreciating the applicability of tradition and culture to modern legal processes all the more important. This struggle between informal "moral and social rules of conduct" and codified state-imposed sanctions has generally been called a struggle between *li* and *fa* respectively.⁶³ Some have stated that there has been a distrust of formal law and a desire to maintain collective harmony in the community, therefore, implying that emphasizing individual rights undermines community harmony.⁶⁴

This enigmatic dilemma between *li* and *fa* and collectivism and individualism inclined the CCP to fortify the rule of law with "checks

J. INT'L L. & BUS. 383, 399 (2000); see also *China Enacts Constitutional Amendments to Entrench Private Business, Rule of Law* (British Broadcasting Corporation, Mar. 17, 1999). All legal change is to some degree influenced by these norms and the political will of the CCP, making legal evolution more gradual than it would otherwise be in a more individualistic Western culture. It has been articulated that the contents of a constitution must serve the political objectives of those in power. See Zhang Youyu, *Why "Sida" Has Been Abolished*, 23 BEIJING REV., Oct. 6, 1980, at 27.

62. There was a movement back to rely on culturally driven norms of conduct when Mao Zedong, as head of the CCP, abolished all laws in 1957. See CARLOS WING-HUNG LO, *CHINA'S LEGAL AWAKENING: LEGAL THEORY AND CRIMINAL JUSTICE IN DENG'S ERA* 10 (1995). "Societal control" refers to parameters for acceptable societal conduct.

63. ALBERT HUNG-YEE CHEN, *AN INTRODUCTION TO THE LEGAL SYSTEM OF THE PEOPLE'S REPUBLIC OF CHINA* 8-9 (1992). *Li's* significance as a means of societal control is that there is integration between the society, the family, and paternalistic state. *Id.* at 10. The CCP dominated Chinese society for three decades until 1980 by utilizing Confucian ideals. Edward J. Epstein, *Law and Legitimation in Post-Mao China*, in *DOMESTIC LAW REFORMS IN POST MAO CHINA* 19, 32 (Pitman B. Potter ed., 1994) (employing informal power sources of ethical persuasion); see also Note, *Concepts of Law in the Chinese Anti-Crime Campaign*, 98 HARV. L. REV. 1890, 1907 (1985); see also CHEN, *supra*, at 8 (providing "moral examples"); see also Troyer, *supra* note 56, at 45 (conferring remote credence to written sources of law).

64. See Glen R. Butters, *Pirates, Dragons and U.S. Intellectual Property Rights in China: Problems and Prospects of Chinese Enforcement*, 38 ARIZ. L. REV. 1081, 1084 (1996). Others have expressed that citizen distrust of law is not only rooted in respect for Confucian collectivist traditions, but also "in the bitter knowledge that the Communist Party has exploited law to serve its own often corrupt ends, as well as those of its more powerful members." *Id.* at 1083-84. Codified law has the potential to "disturb" society and devitalize natural harmonious relations. Timothy A. Gelatt, *The People's Republic of China and the Presumption of Innocence*, 73 CRIM. L. & CRIMINOLOGY 259, 307 (1982). However, it is the abuse of law that most offends the common Chinese citizen.

and balances to prevent arbitrary government" action.⁶⁵ However, personal relationships, or *guanxi*, "remains central in interpersonal, bureaucratic and commercial dealings in China," making flexibility in the law still an important variable that has permitted opportunism.⁶⁶ "China is ruled by people, not laws."⁶⁷ This phrase cannot be overstressed because it has overwhelming consequential implications for MNCs and IP right protection decisions.⁶⁸ It could make curbing IP right infringements more difficult or it could make attaining more effective IP right enforcement more probable.

Certainly, China has been fortifying the rule of law to make it more transparent and somewhat less influenced by political forces. Consequently, this has encouraged the flow of much-needed foreign investment and has given MNCs the perception that it is becoming a safe country to make investments.⁶⁹

65. Preston M. Torbert, *Book Review: China's Internal Debate*, 28 J. MARSHALL L. REV. 639, 640 (1995). Enacting formal legal controls to fortify state power. See James Hugo Friend, *Foreword the Rocky Road Toward the Rule of Law in China: 1979-2000*, 20 NW. J. INT'L L. & BUS. 369, 373 (2000); see also James V. Feinerman, *The Rule of Law . . . With Chinese Socialist Characteristics*, 96 CURRENT HIST., Sept. 1, 1997. Ironically enough, diminishing the CCP's informal power-based hold on society has improved individual rights and liberties as well as bestowed heightened legitimacy to government after de-legitimizing periods. While it is *fa* today that is slowly empowering individual rights, *fa* has also been used as a tool of repression. See William P. Alford, *Of Arsenic and Old Laws: Looking Anew at Criminal Justice in Late Imperial China*, 72 CAL. L. REV. 1180, 1183 (1984).

66. Butterson, *supra* note 64, at 1113. While personal ties are very important in China, they will not guarantee success. Kenneth Lieberthal & Geoffrey Lieberthal, *The Great Transition*, HARV. BUS. REV. 70, 79 (2003).

67. Ben Dolven, *An Easy Way to Lose Your Shirt*, FAR E. ECON. REV., Apr. 3, 2003 (quoting Sam Porteous, China Manager for Kroll Associates).

68. See discussion *infra* Part III.C.

69. See Linda A. Mabry, *Multinational Corporations and U.S. Technology Policy: Rethinking the Concept of Corporate Nationality*, 87 GEO. L.J. 563, 575 (1999). Cooperative initiatives by governments and assent to international market principles necessitate that domestic law accommodate the many business forms resulting from transnational business operations. See Paul B. Stephan, *The New International Law - Legitimacy, Accountability, Authority, and Freedom in the New Global Order*, 70 U. COLO. L. REV. 1555, 1556-57 (1999); see also Mabry, *supra*, at 575. The property rights of those operations are protected, since stronger IP protections ostensibly beget a higher volume of investment. See Jeong-Yeon Lee & Edwin Mansfield, *Intellectual Property Protection and U.S. Foreign Direct Investment*, 78 REV. ECON. & STAT. 181 (1996). Indeed, investment choices must adjust for greater uncertainty in the risk-based rate of return. Deng Xiaoping sought to "assuage foreign fears and thus encourage foreign investment in China," stimulate new scientific and technological research in China, encourage exchange of information about protection, and open

China has assented to a number of treaties⁷⁰ and is actively producing legislation and enforcement institutions that are more consistent with international IP right standards.⁷¹ Because transfer of international intellectual property can accelerate international investment and concomitantly foster technological progress in developing countries, China's early focus was fixed on providing assurances to MNCs that investments would be safe in China. Many domestic firms now press for enhanced IP protections⁷² and leaders now emphasize providing more protections to domestic businesses.⁷³ In some IP-based industries, it is quite feasible that Chinese enterprises will dominate the market once the infrastructure is first developed by foreign technology.⁷⁴ This is because local firms have advantages in many areas, such as better access to marketing channels and government preferences in import and tax laws.

C. Patent and Trade Secret Protection Institutions in China

While new laws in China provide more objectivity and transparency to societal norms, vagueness and general phrases may encourage arbitrary enforcement.⁷⁵ Thus, distinctions between *li* and

China up to the opportunities of participation in international institutions and agreements. Allison & Lin, *supra* note 57, at 754. Jiang Zemin followed this path, as his successor, President Hu Jintao.

70. This increasing level of international cooperation has included joining the World Intellectual Property Organization (1980), the Paris Convention for the Protection of Intellectual Property Rights (1985), the Treaty for Integrated Circuits Property Right Protection (1989), the Madrid Agreement for the Registration of International Trademarks (1989), The Berne Convention (1992), the Universal Copyright Convention (1992), the Audio-Visual Products Treaty (1993), and the Patent Cooperation Treaty (1994). Long, *supra* note 47, at 70. It also assisted in "drafting of the Agreement on Trade-Related Aspects of Intellectual Property Rights, including Trade in Counterfeit Goods (TRIPS)" in 1995 and signed a Memorandum of Understanding regarding intellectual property protections with the United States in 1989, 1992, and 1995. *Id.*; see also Allison & Lin, *supra* note 57, at 757-59.

71. See Long, *supra* note 47, at 70-71.

72. See La Croix & Konan, *supra* note 27, at 770-72.

73. Ansson, *supra* note 4, at 17-18. The privatization process has led many previously state-owned production entities to seek patent protection for technological advances. Michael Oksenberg et al., *Advancing Intellectual Property Rights: Information Technologies and the Course of Economic Development in China*, 7 NAT'L BUREAU ASIAN RES., 1996, at 9.

74. See Leslie Cataldo, *A Dynasty Weaned from Biotechnology: The Emerging Face of China*, 26 SYRACUSE J. INT'L L. & COM. 151, 171-72 (1998).

75. See Perry Keller, *Sources of Order in Chinese Law*, 42 AM. J. COMP. L. 711, 740 (1994).

fa are still appropriate. However, legal institutions have become more popularly accepted.⁷⁶ China has been an active participant in various international IP protection regimes⁷⁷ and is dedicated to providing heightened IP rights protections because its economic modernization is dependent on technological innovations.⁷⁸ Unfortunately, there are still many structural and traditional reasons that impede achieving significant levels of success.⁷⁹ Western rules of IP protection have proven somewhat difficult to assimilate.⁸⁰ Nonetheless, China's progress in modernizing its patent system to make it more consistent with global business expectations has been quite remarkable.⁸¹

One of the most important issues for a MNC that has decided to make a technology-based investment in China that may be protected by patent law and/or trade secret law is the organizational structure that should be employed when making the investment. This question inevitably turns on the extent that either of these two institutional frameworks can be relied upon if there is an infringement. A discussion of the patent and trade secret protection institutions in China follows, which will then be followed by an analysis of how MNCs have interpreted these frameworks to best protect IP value at risk and how political influence impacts this decision.

1. Patent Protection

While China recognized state ownership of inventions as early as 1950,⁸² it was Deng Xiaoping who spearheaded patent protection

76. See Lubman, *supra* note 61, at 399.

77. Ansson, *supra* note 4, at 8.

78. Angela Mia Beam, *Piracy of American Intellectual Property in China*, 4 J. INT'L L. & PRAC. 335, 342 (1995); see also Liwei Wang, *The Current Economic and Legal Problems Behind China's Patent Law*, 12 TEMP. INT'L & COMP. L.J. 1, 4 (1998).

79. Some have been

unconvinced that China has developed, or will even ultimately develop, an effective patent system. Some are simply unconvinced that centuries-old Chinese cultural traditions can be reversed in the foreseeable future. Others are unpersuaded that entrepreneurialism and other hallmarks of an efficient market economy can coexist with socialistic and authoritarian policies.

Allison & Lin, *supra* note 57, at 737-38.

80. See Richard Thurston, *Country Risk Management: China and Intellectual Property Protection*, 27 INT'L LAW. 51, 60 (1993).

81. See generally PETER FENG, *INTELLECTUAL PROPERTY LAW IN CHINA* (1997).

82. Laurance P. Harrington, *Recent Amendments to China's Patent Law: The Emperor's New Clothes*, 17 B.C. INT'L & COMP. L. REV. 337, 342-48 (1994). The patent

reform⁸³ to make it more congruous with *gradual* market reforms.⁸⁴ China enacted its first patent law in 1985,⁸⁵ but because of many limitations in this law⁸⁶ and threats by the United States Trade Representative,⁸⁷ it was substantially amended in 1993⁸⁸ and then again in 2000.⁸⁹ The items that concerned foreign investors and were modified in 1993 included "expanding the technological fields of

laws were based on the Soviet socialist model from 1950 to the late 1970s, and they did not provide the incentive for innovation. See Allison & Lin, *supra* note 57, at 749-52.

83. In the late 1970's and early 1980's, China focused more on patent protection.

Under Deng Xiaoping's direction, a patent law drafting committee began an exceptionally thorough three-year effort to learn as much as possible about the world's patent systems. Many Chinese, especially those with technical education, were sent to study the patent systems of developed nations such as the United States, Japan, and West Germany, and even to some socialist countries considered by China to be prosperous such as Yugoslavia. The drafting committee also acquired and translated the patent laws of more than thirty countries. After almost two dozen drafts, the committee presented to the People's Congress proposed legislation for a patent system based largely on the German model. Once in the People's Congress, it was substantially amended before enactment by those with little of the knowledge or experience of those on the drafting committee.

Allison & Lin, *supra* note 57, at 754. Some have commented that China's legal reform has not been sufficiently aggressive. Cataldo, *supra* note 74, at 151.

84. See generally WILLIAM H. OVERHOLT, *THE RISE OF CHINA: HOW ECONOMIC REFORM IS CREATING A NEW SUPERPOWER* (1993).

85. See Hamideh Ramjerdi & Anthony D'Amato, *The Intellectual Property Rights Laws of the People's Republic of China*, 21 N.C. J. INT'L L. & COM. REG. 169, 175 (1995).

86. Allison & Lin, *supra* note 57, at 754-57.

87. See Louis S. Sorell, *A Comparative Analysis of Selected Aspects of Patent Law in China and the United States*, 11 PAC. RIM L. & POL'Y J. 319, 321 (2002). Pursuant to Section 301 of the Trade Act of 1974, the president can take unilateral action against foreign countries that pursue discriminatory trade practices. Jill M. Brannelly, *The United States' Grant of Permanent Normal Trade Status to China: A Recipe for Tragedy or Transformation?*, 25 SUFFOLK TRANSNAT'L L. REV. 565, 575 (2002).

88. See Patent Law of the People's Republic of China, available at <http://www.cpahkltd.com/Publication/Laws/NewPatentLaw.html> (last visited Mar. 12, 2004) [hereinafter Patent Law of China]. U.S. relations have played an important role in China's legal reform process. Memorandum of Understanding Between the Government of the United States of America and the Government of the People's Republic of China on the Protection of Intellectual Property, Jan. 17, 1992, U.S.-P.C.R., 34 I.L.M. 676 (1995).

89. See Sorell, *supra* note 87, at 323.

patent protection . . . extending the duration of patent rights for" both inventions and utility models, narrowing the scope of compulsory license rules, and shortening the patent approval process.⁹⁰ In 2000, the patent law changes included accommodating the needs of the socialist market economy, strengthening the protection of patent rights, simplifying and accelerating the patent approval process, and harmonizing the patent law with international standards.⁹¹ Accordingly, codified substantive law has become more consistent with international standards.

One can attain a patent by filing⁹² with the Patent Administrative Organ under the State Council⁹³ and proving that the product invention has novelty, inventiveness, and practical applicability.⁹⁴ If these elements are met, the application will be published within eighteen months of filing the application.⁹⁵ Once obtained, the patent holder has an exclusive monopoly right to use and exploit the invention.⁹⁶ If the application is defective, there is a right to cure it.⁹⁷ If it is held that the requirements of patentability have not been met, the patent will be denied, but there is a right to have the Patent Reexamination Board review that decision.⁹⁸ Patentability in China is denied for:

- "(1) scientific discoveries;
- (2) rules and methods for mental activities;
- (3) methods for the diagnosis or for the treatment of diseases;
- (4) animal and plant varieties;
- (5) substances obtained by means of nuclear transformation."⁹⁹

Patents are also denied for inventions "contrary to the laws of the State or social morality or that [are] detrimental to public interest."¹⁰⁰ While there is always a risk that a decision will deny a patent when it would be granted in another country, China has made much progress

90. *Id.* at 322.

91. *Id.* at 323.

92. China follows a "first to file" system. Patent Law of China, *supra* note 88, art. 9.

93. *Id.* art. 3.

94. *Id.* art. 22.

95. *Id.* art. 34.

96. *Id.* arts. 11, 39 & 40. The monopoly right is granted for twenty years for inventions and ten years for utility models. *Id.* art. 42.

97. The patent administration organ must notify of the defect and give an opportunity to cure. Patent Law of China, *supra* note 88, art. 37.

98. *Id.* art. 42.

99. *Id.* art. 25.

100. *Id.* art. 5.

in more efficiently and effectively processing applications and granting patents over the past ten years.¹⁰¹

Having substantive laws that stimulate innovations¹⁰² and are consistent with markets is fundamental; however, institutions that can provide transparency and consistency to the substantive framework are also critical. A country can ascribe parameters for legal action, but a substantive legal framework means very little unless enforcement institutions are readily available to give bite to the rules. The risk inherent with Chinese investment has not been due to a lack of substantive IP right rules, but of having inadequate IP right enforcement.¹⁰³ It has taken time for China to gradually fortify its judicial system,¹⁰⁴ modify administrative institutions, and establish a National Intellectual Property Office.¹⁰⁵

If an applicant has attained a patent, and that patent is violated, the patent holder's rights may be enforced by either judicial or administrative means.¹⁰⁶ The judicial route has been said to be more disentangled from many of the political influences that were previously common in China since judges are supposedly appointed now without any particular affiliation to the CCP.¹⁰⁷ The government is dedicated to decreasing political influences in the law and making improvements in the judiciary. This does appear to be the trend.¹⁰⁸ However, there is still an unwritten requirement that laws are executed in a custom consistent with Party ideology and a formal selection process for judges that still makes them accountable to local

101. Yin Xintian, *A Brief Introduction to the Patent Practice in China*, 9 DUKE J. COMP. & INT'L L. 253, 254-55 (1998).

102. Conflict has been noted between having substantive protections that foster innovation and protecting IP rights. See Wang, *supra* note 54, at 2.

103. See Douglas Clark, *IP Rights Will Improve in China - Eventually*, 27 CHINA BUS. REV., May 1, 2000.

104. After the decimation of legal institutions during the Cultural Revolution and the existence of societal characteristics that made non-adversative, negotiation, and self-help the most accepted method of resolving disputes, there was arguably very little consistency between what was needed to support a substantive framework of market/individual-based IP rights and enforcement institutions.

105. Long, *supra* note 47, at 69.

106. Patent Law of China, *supra* note 88, art. 57.

107. Davis Hill & Judith Evans, Comment, *Chinese Patent Law: Recent Changes Align China More Closely with Modern International Practice*, 27 GEO. WASH. J. INT'L L. & ECON. 359, 372 (1993-94).

108. See *Apparent Full Text of Work Report of Chinese People's Procuratorate*, BBC Monitoring International Reports, Mar. 31, 2003.

government officials.¹⁰⁹ Top Chinese government officials admit that the judiciary is plagued with problems such as partiality, incompetence, and corruption.¹¹⁰ Judges within the court system are continuously becoming more knowledgeable about IP law,¹¹¹ but judicial enforcement, or "civil action"; however, it is still impractical because it is often slow, difficult to prove with evidence, lacking in the more effective "raid and seizure" tactics available in administrative enforcement, and cannot be combined with injunctive relief.¹¹²

The administrative method of enforcement is the more prevalent process of attaining relief in China.¹¹³ An administrative action will

109. "[J]udges are elected by local people's congresses or appointed by the standing committee of the local people's congresses," meaning that they are oftentimes controlled by local government. See Wang, *supra* note 78, at 37-38.

110. The issues within the Chinese judiciary system have recently been addressed by the Supreme People's Court:

[I]n December 2001, the President of the Supreme People's Court, Xiao Yang, stressed that courts should conduct trials impartially and efficiently, and announced a series of measures to improve the professional standards of judges. These measures included amendments to the Law on Judges and new regulations stipulating the procedures to dismiss incompetent or corrupt judges. While announcing the new measures, the Supreme Court President also acknowledged that people's confidence in the judicial system had been seriously harmed by nepotism and bias, particularly in many provincial courts.

People's Republic of China: Establishing the Rule of Law and Respect for Human Rights: The Need for Institutional and Legal Reforms, AMNESTY INTERNATIONAL, Oct. 22, 2002, at <http://web.amnesty.org/library/Index/ENGASA170522002?open&of=ENG-CHN> (last visited March 11, 2004). [Hereinafter *Amnesty International Memorandum to the State Council*]. It is possible that judges may make decisions based less on the rule of law and more on political or Confucian thought. See Wang, *supra* note 78, at 38.

111. In 1993, the Beijing Intermediate People's Court established an intellectual property division and began to train judges in the law of IP. See Butterson, *supra* note 64, at 1101. Courts that would hear IP matters in other regions of the country were also established, along with an appellate division in Beijing. See *id.*

112. See Chow, *supra* note 19, at 466-67. There are also no guidelines for transferring evidence from an administrative raid and seizure to the courts. See *id.* at 467.

113. See *id.* at 454.

Administrative enforcement power over counterfeiting in China is currently not centralized in a single entity, but is divided among a number of different administrative entities. The Administration of Industry and Commerce ("AIC") has primary jurisdiction over trademarks, including matters of registration, administration and

normally consist of the IP holder complaining to the requisite government agency by petition,¹¹⁴ which will then decide whether to investigate and conduct a raid of the premises of the alleged counterfeiter's operations.¹¹⁵ Since use of force via raids is permissible, injunctions are also available with an administrative action.¹¹⁶ Raids may be swift and effective, but they are still not sufficiently harsh enough to deter the piracy from occurring in the first place.¹¹⁷ Experts have commented that it is available only when those with political power desire it to occur.¹¹⁸

In summary, there have been improvements in patent right enforcement institutions. Chinese courts have made notable decisions ending IP infringement in many cases, and raids throughout the country by administrative action have become commonplace, leading to the closure of various production facilities.¹¹⁹ Despite much improvement, the degree of IP right protection has certainly not risen to the level that technologically abundant countries would desire.¹²⁰

2. Trade Secret Protection

As with patents, the communist economic system regarded trade secrets as public property. China agreed in 1994 to enact an Unfair

enforcement. Another administrative body, the Technical Supervision Bureau ("TSB") has authority over product quality and consumer protection issues, and as a result, also has enforcement power over counterfeit goods. In some instances, brand owners can also seek enforcement from the Patent Administration Office, based upon its jurisdiction over patent rights, and from the General Administration of Customs, based upon its jurisdiction over China's national borders, where imports or exports of counterfeit products are involved.

Id.

114. *Id.* at 456.

115. See Sorell, *supra* note 87, at 329. "An administrative authority for patent affairs is established in every province, autonomous region, and municipality. The patent administrative office has the power to enjoin acts of infringement and may mediate the damages issue upon the request of the parties." *Id.*

116. See *id.* at 335; see also Chow, *supra* note 19, at 456.

117. See generally Clark, *supra* note 103.

118. See generally Joseph Kahn, *To Be Rich, Chinese and in Trouble: 3 Tales*, N.Y. TIMES, Oct. 13, 2002, at 1.

119. Ansson, *supra* note 4, at 12-13. In fact, the number of raids has increased significantly over time. See Clark, *supra* note 103.

120. See Butterson, *supra* note 64, at 1101; see also Assafa Endeshaw, *The US-China Intellectual Property Dispute: Another View*, 9 ASIAN BUS. L. REV. 49 (1995); see Ansson, *supra* note 4, at 24-25.

Competition Law that would protect trade secrets.¹²¹ There has been more hesitancy to protect other types of IP trade secrets because of the belief that foreigners could more easily abuse trade secret violations.¹²² While the Unfair Competition Law is the primary source of protection, trade secrets can also be protected by contract,¹²³ tort,¹²⁴ and criminal law.¹²⁵

This area of IP is more difficult to contend with due to trade secret violations involving infringements that can occur in myriad ways and operate on relatively general provisions open to much interpretation. Political will is even more important when more flexibility in law exists. Indeed, more ambiguities can arise with trade secret violations than in other areas of IP protection. For instance, business methods that give a competitive advantage can be classified into: (1) manual ways of administering a business, (2) placing business operations into a technical system, and (3) business processes that are indispensable to a product technology.¹²⁶ Many

121. Law of the People's Republic of China for Countering Unfair Competition (Adopted at the Third Session of the Standing Committee of the Eighth National People's Congress and Promulgated on September 2, 1993), *available at* <http://www.apeccp.org.tw/doc/China/Competition/cncom2.html> (last visited Mar. 12, 2004). [hereinafter Unfair Competition Law]. U.S. pressure likely had a great deal to do with the enactment of this law. Yuan Cheng, *Legal Protection of Trade Secrets in the People's Republic of China*, 5 PAC. RIM. L. & POL'Y J. 261, 262 (1996). Article 4 of the Sino-U.S. Memorandum of Understanding Concerning the Protection of Intellectual Property Rights, signed on January 17, 1992, required the Chinese government to protect trade secrets and to enact legislation domestically that codified trade secret rights. *Id.* at 263.

122. *See id.* at 269.

123. *Id.* at 278. Contract law can protect trade secrets by governing the relationship between employer and employee. However, limitations are that protection only extends to parties to the contract and lasts for the duration of the contract, and it may be difficult to attain evidence to prove breach. *Id.* at 278-79.

124. *Id.* at 279. Although tort law can provide protection for trade secrets in many countries, and it may be possible to use this action in China as well by using General Principles of Civil Law of the PRC, serious limitations may exist in using this as a viable action for an IP violation. Cheng, *supra* note 121, at 279-81.

125. *Id.* at 281. While criminal liability is not available in the Unfair Competition Law, it could be applied under China's criminal law provisions. *See id.* at 281-84.

126. Xiang, *supra* note 24, at 800. A business process that was patentable in the United States but not in China and which falls into the first and second categories of business process is where an "on-line system that streamlined the traditional international trade transaction process" was denied in China, but a system called "Virtual Sales Personnel" that provided an "interactive sales representative system for providing sales guidance" was patentable in the United States. *See id.* at 795-96.

legal systems differ on whether the former two categories should be patentable.¹²⁷ China would likely deny patentability for business methods that fall into the former two categories,¹²⁸ which means that a MNC's only alternative is to rely on trade secret law. China would be more apt to grant a patent in the third category,¹²⁹ allowing a choice for a MNC to protect the invention as a trade secret or as a patent.

Likewise, more uncertainty arises in trade secret protection because infringements can be due to the illegal attainment of business secrets, as in the case of commercial espionage or when technology-exposed personnel move from one firm to another. The rationale for trade secret protection is that certain processes give value and a competitive advantage to a firm. Someone who illegally obtains internal information about business processes should keep those processes proprietarily within a firm, not subjecting them to appropriation. This protection should also include someone who was privy to those processes as an employee, since the employee was working on behalf of the company and not as a risk-assuming entrepreneur.

The legal framework that endeavors to protect unfair competition also encompasses trade secret protections. China's Unfair Competition Law requires that to develop the socialist market economy, business shall follow principles of "voluntariness, equality, fairness honesty and credibility, and observe generally recognized business ethics."¹³⁰ Within this framework, a "business secret" is defined as: "technical information and operational information which is not known to the public, which is capable of bringing economic benefits to the owners of the rights, which has practical applicability and which the owners of the rights have taken measures to keep secret."¹³¹ It is illegal to obtain business secrets owned by others through theft, promise of gain, or any coercive or illegitimate means.¹³² A party possessing business secrets of another cannot use or disclose those business secrets when those secrets are obtained by illegitimate

Likely, the Chinese example would fall into the first category of business process and the United States example would fall under the second type of business process.

127. *Id.* at 805-12.

128. *Id.* at 803-05.

129. *Id.* at 823.

130. Unfair Competition Law, *supra* note 121, arts. 1 & 2.

131. *Id.* art. 10.

132. *Id.*

means or in violation of the rights of the owner.¹³³ This prohibition also applies to a third party who "obtains, uses or discloses" the protected business secrets when the party knew or should have known the secret was obtained by illegal acts.¹³⁴ The law is therefore applicable to both the direct infringer and third parties. Jurisdictional overlap in the legal frameworks, the nature of trade secret rights, employer-employee relationships, liability, and related ambiguities might require China to enact a special trade secret law to address these issues.¹³⁵

When a trade secret violation occurs involving a breach of contract, the aggrieved party may seek either an administrative or court-based civil remedy.¹³⁶ However, if no contractual relationship exists, a party may seek an administrative remedy, which must be enforced by the government under the Unfair Competition Law.¹³⁷ The "control and inspection authorities" investigate any potential trade secret infringement and have a fairly broad right to discover materials, inspect relevant information to determine any Unfair Competition Law violation¹³⁸ and decide whether to assess a fine.¹³⁹ If there is a trade secret infringement, the injured party is entitled to damages; the damages are assessed by calculating losses incurred as a result of the infringement or on the basis of profit gained by the trade secret infringer, and also any investigation costs sustained.¹⁴⁰ The investigations normally must be kept confidential¹⁴¹ because the nature of the information being inspected unavoidably requires decreased transparency in the application of the law. Similar to patent protection, the administrative remedy is more rapid and effective as opposed to a court based remedy, but may be prone to more "local favoritism" and corruption.¹⁴²

If a party is not satisfied with the punishment assessed by the administrative remedy process, it may appeal within fifteen days to

133. *Id.*

134. *See id.*

135. Cheng, *supra* note 121, at 275.

136. A contract law violation would involve an individual suing for civil liability for breach of contract in a People's Court. *See id.* at 284-88.

137. *See* Unfair Competition Law, *supra* note 121, art. 3.

138. *See id.* arts. 16-19. This refers to the industrial and commercial administrative department above the county level. *See also* Cheng, *supra* note 121, at 290.

139. Unfair Competition Law, *supra* note 121, art. 25.

140. *See id.* art. 20.

141. *See* Cheng, *supra* note 121, at 270.

142. *Id.* at 291, 293-94.

"the competent authority at the next higher levels for reconsideration" within the control and inspection authority.¹⁴³ If the aggrieved party is not satisfied with this decision, it may then institute proceedings in a competent People's Court.¹⁴⁴

3. Culture's Influence on Patent and Trade Secret Protection Institutions

China adopted new regulatory frameworks in order to protect IP rights through international cooperation and the desire to modernize its economy by increasing technology. Evaluating the trade-off between receiving monopoly rights for publicly disclosing the intricacies of an invention through patenting it¹⁴⁵ and keeping the technology in-house as a trade secret that provides a competitive advantage, is an important decision in any legal system. However, the decision becomes all the more important in China because of how frameworks are interpreted and the extent to which enforcement institutions are prejudiced by political forces, particularly when there is an option to request a judicial or administrative enforcement procedure, or perhaps some other forum.¹⁴⁶ The rest of this article explores this issue within the context of the MNCs' investment decision and the real economic value at risk from a potential IP infringement.

143. Unfair Competition Law, *supra* note 121, art. 29.

144. *Id.*

145. MARTIN J. ADELMAN ET AL., CASES AND MATERIALS ON PATENT LAW 1 (1998).

146. Conciliation and arbitration are potential alternative forums that may possibly be less influenced by cultural and political forces; however, these methods also have limits because executive branch enforcement is necessary to the extent that recalcitrance to comply exists on the part of the infringer. If an IP violation is covert or there is an intractable party that is knowingly doing something illegal, conciliation and arbitration may not be options. This would differ from the circumstance occurring when there is a contentious patent infringement case and a legitimate dispute, or contract issues in a trade secret case. When a reputable company is the alleged infringer there is a better possibility of resolving such disputes in a forum outside of the administrative or court structure.

III. ECONOMIC INTEGRATION WITH CHINA AND IP PROTECTION

A. *(IP Value at Risk) = (Risk of Infringement) x (Economic Value Lost as a Result of Piracy)*

The risk that MNCs often accepts when transferring IP into a foreign country is clear from a broad perspective¹⁴⁷ but often ambiguous when quantification for the proposed investment is necessary.¹⁴⁸ There are even greater uncertainties when it is difficult to assess an accurate value for the true economic loss if piracy were to occur.¹⁴⁹ Any foreign MNC expansion must consider risk of loss in expected profitability,¹⁵⁰ and whether resorting to a more integrated organizational form of market penetration might decrease risk. While market and competition uncertainties can materialize and call into question a foreign investment's profitability projections, failing to adequately address environmental risks by not taking effective organizational precautions and improperly managing contractual arrangements can also account for some loss of investment value. Protecting IP value in the international market must include ascertaining and examining foreign legal IP right institutions and relevant political influences within the context of different

147. See *Intellectual Property: United States Firms Lose Billions Annually to Foreign Piracy*, ITC Intellectual Property Study Finds, 5 INT'L TRADE REP. (BNA) 290 (Mar. 2, 1988). A dynamic investment environment with uncertain IP right protections necessitates that a MNC affirmatively manage local risks. Yadong Luo, *Determinants of Entry in an Emerging Market: A Multilevel Approach*, 38 J. MGMT. STUD. 443, 450 (2001).

148. This process is evidenced by considering the joint responsibilities and due diligence standards required of both lawyers and accountants in calculating ROI for a FDI. Accountants are primarily responsible for placing a value on assets, but placing a value on IP rights, or goodwill, is an arduous process that becomes exceedingly more complicated for foreign investments given legal and political risks. On the other hand, it is the lawyer's responsibility to ascertain potential IP right losses and risks, which in an international joint-venture, merger, or licensing agreement, can be of primary interest when incorporating the overall value of the business expansion and the entity's assets and liabilities. The lawyer "must include the identification of all relevant rights, an assessment of their worth in the context of exclusivity, validity and enforcement, and an identification of possible liabilities." Evelyn M. Sommer & Mauro Premutico, *Intellectual Property Issues in Mergers and Acquisitions*, N.Y. ST. B.J., May-June 1995, at 42.

149. See Patrick H. Hu, "Mickey Mouse" in China: Legal and Cultural Implications in Protecting U.S. Copyrights, 14 B.U. INT'L L.J. 81, 94 n.83 (1996).

150. See generally Tailan Chi & Donald J. McGuire, *Collaborative Ventures and Value of Learning: Integrating the Transaction Cost and Strategic Option Perspectives on the Choice of Market Entry Modes*, 27 J. INT'L BUS. STUD. 285 (1996).

organizational structures, and forecasting the economic impact once enforcement occurs. The rest of this paper will incorporate the following simple formula to assess value of IP at risk: (Value) = (Risk of Infringement) x (Economic Value Lost as a Result of Piracy).

Risk of Infringement considers three aspects of the foreign investment: (1) the organizational form of investment and the level of integration most desirable when IP rights are annexed to a product expansion into a foreign country, (2) the risk of loss resulting from unexpected dispositions under the codified law or enforcement measures when there is a patent or trade secret infringement, and (3) the political dynamics that can influence the IP right protection framework or enforcement measures. The following section will employ empirical literature to buttress this framework involving studies that have examined MNCs in emerging markets generally, but will be applied to the context of China.

B. The MNCs Organizational Form of Investment

Economic integration can take several forms that are generally categorized from the strongest to the weakest form of integration.¹⁵¹ The various forms of integration, in order of decreasing strength are: wholly-owned or majority ownership foreign direct investment (FDI), joint venture, technology licensing, and trade in merchandise and services.¹⁵² Firms normally choose the form of investment that will maximize its risk-adjusted return on investment (ROI).¹⁵³ There are many reasons for choosing a particular form of investment,¹⁵⁴ but this

151. "Strongest to weakest form of integration" refers to the level of control the firm will have over the investment and business processes. It also assumes the desire to have a long-term presence in the host country. Doug Ierley, *Private Capital Flows as a Springboard for World Bank Reform*, 23 U. PA. J. INT'L ECON. L. 1, 3 (2002). Also, a stronger form of integration normally places more investment value at risk.

152. See generally James R. Markusen, *The Boundaries of Multinational Enterprises and the Theory of International Trade*, J. ECON. PERSP., Spring 1995, at 168.

153. See generally A. Madhok, *Cost, Value and Foreign Market Entry Mode: The Transaction and the Firm*, 18 STRATEGIC MGMT. J. 39 (1997).

154. Other factors that are influential in determining the form of economic integration include relative bargaining power with the host government; see Boddewyn & Brewer, *supra* note 22, at 119, interests in ownership, location advantages, internationalization advantages; see John H. Dunning, *Toward an Eclectic Paradigm of International Production: A Restatement and Some Possible Extensionss*, 19 J. INT'L BUS. STUD. 1 (1988), minimizing transaction costs of the firm; Erin Anderson & Hubert Gatignon, *Modes of Foreign Entry: A Transaction Cost Analysis and Propositions*, J. INT'L BUS. STUD., Fall 1986, at 1, and organizational

section will focus solely on the consideration of IP right protection and how it influences investment forms.

The form of investment is a decisive factor when considering IP rights in emerging markets.¹⁵⁵ The form of investment is dependent upon whether IP rights are based primarily on patent law or are partially protected by keeping certain processes confidential as in-house trade secrets. Often, a process or product innovation for which a patent may be attained could also be protected in-house as a trade secret. In fact, if a product invention or process is not likely to meet the host government's definition of "patentability," or enforcement mechanisms are questioned, then protecting the product's process technology as a trade secret may be the only alternative. Both patent and trade secret protections can safeguard the MNC's IP rights in China, but precautions must be taken, expectations modified, and proactive management of the environment deliberated. There is an increasing vagueness between the definition of technology and business methods as innovations throughout the world, and China has been especially reluctant to protect business methods as patents.¹⁵⁶

C. Risk Assessment of Investment and Organizational Structure

1. Introduction

The risk-adjusted value of IP rights can be diminished when the host country's institutional frameworks and enforcement mechanisms are lacking, ambiguous, or unpredictable. Despite the regular and often prudent decision to avoid foreign jurisdiction by stipulating to choice of law and arbitration clauses in some international business contracts; there is no way to evade a foreign country's legal system regarding the use of the IP in foreign nations because its very presence in that territory is what gives the IP value. If an IP right violation occurs within the sovereign territory of another country, the host country's executive authority or judiciary must ascertain and enforce the MNC's IP rights.

A value must be placed on the IP when a MNC considers an IP-annexed foreign investment.¹⁵⁷ Once an assessment of the likelihood

capability of the MNC; David J. Teece et al., *Dynamic Capabilities and Strategic Management*, 18 STRATEGIC MGMT. J. 509 (1997).

155. See Luo, *supra* note 147, at 443.

156. Xiang, *supra* note 24, at 795.

157. See *supra* note 148 and accompanying text.

of protection for a given type of IP has been made, a discount rate can be applied for purposes of valuing the investment for negotiations with potential joint venture partners or licensees, or to assist in calculating a company's ROI¹⁵⁸ in relation to the FDI. Framing potential risks and effectually managing the IP rights environment within the political and legal framework of the country can preempt complications by lessening the uncertainty that normally exists under conditions of asymmetric information in foreign technology investments.¹⁵⁹

The value of the investment is influenced by natural forces, strategic business planning, market dynamics, and also by government policies within the particular legal framework. Consequently, political and regulatory concerns are among the most important considerations when calculating the value of IP for FDI.¹⁶⁰ As previously described, China's history and culture have conceived dynamic interactions between political and legal influences¹⁶¹ on patent protection in courts¹⁶² and when pursuing an administrative remedy.¹⁶³ These interactions are also present in the case of trade secret protection in both legal and administrative remedies.¹⁶⁴ Businesses often employ particular organizational structures to accommodate weaknesses in a foreign country's IP framework, thereby forming a strategic balance, which relies on both trade secret and patent protections.

158. "Return on investment" is the expected percentage of annual profit that can be generated over the term of the investment. The percentage is based on the amount of the investment. Patent protection is most valuable to a company when there is a unique feature annexed to its products or processes. North, *supra* note 13, at 113. When placed in terms of asset valuation and within the context of differing legal institutional structures, at one extreme, if a country has no IP protection regime and the value of a proposed FDI is derived 50% from IP, then the value of the FDI in the foreign country may be 50% of the originally anticipated value, or possibly less, because the MNC could be left to compete without research and design advantages and efficiencies that it would otherwise have if the IP were protected. The risk that all IP value concomitant with an international investment will be lost is near 100% if there are no IP protection institutions and there are local entities that believe a profit can be made by pirating the product.

159. See generally Nancy T. Gallini & Brian D. Wright, *Technology Transfer Under Asymmetric Information*, 21 RAND J. ECON. 147 (1990).

160. See Leuz, *supra* note 18, at 4.

161. CHEN, *supra* note 63, at 8-9.

162. See Wang, *supra* note 54, at 37-38.

163. See Kahn, *supra* note 118.

164. See Cheng, *supra* note 121, at 293-94.

2. Legal System Expectations and Organizational Structure of Investment

If a host country has a weak legal system, process technology is more readily kept confidential within the firm and free from external duplication. This reduces the need to rely on legal remedies and may diminish the risk that IP rights will be violated. However, additional internal protections can sufficiently increase product costs,¹⁶⁵ as well as increase other administrative costs in defending an infringement when a violation has occurred.¹⁶⁶ The more that a firm relies on proprietary process technology, the more that the following analysis is apropos, and the discussion on product technology should be balanced to the extent that it is at issue.¹⁶⁷

This does not mean that an assessment of the legal system is not necessary if process technology is solely at issue, or comprises most of IP value. The issue still exists as to whether to file for a patent, if the technology is an innovation that can meet China's relatively higher threshold definition of "patentability,"¹⁶⁸ or to protect the innovation as a trade secret. Likewise, the type of organizational structure that would be most beneficial for the company's internal dynamics in the foreign market is also an issue, particularly when there could be an associated domestic firm that could serve as a joint venture partner.¹⁶⁹

165. If protecting a process within the company is the chosen method of protection, the MNC must be willing to employ extra costs to ensure that there are security procedures that will protect the confidentiality of the process. Those employees who are privy to the process must be screened and should be required to sign confidentiality agreements in order to invoke contract and unfair trade practices law which will provide remedies if there is a violation. Firewalls must be created and there must be incentives to keep employees from disclosing business processes.

166. Chow, *supra* note 19, at 451.

167. For example, if a company finds in a proposed joint venture, that 70% of the value that the MNC brings to the partnership is IP, and that 80% of the IP is process technology and 20% is product technology, then simple calculations of value at risk might assume that 56% (70% x 80%) of value that could be lost, given the risk of lacking IP rights enforcement when it should otherwise be reasonably provided, will be dependent on a process technology analysis; while 14% (20% x 70%) of product loss could be risked solely by placing the product on the market. Given this particular numerical breakdown of asset value, the dominant analysis and concern will be with process technology, and thus in turn, organizational structure of a business can provide much insight.

168. Patent Law of the People's Republic of China, ch. 2, art. 22, *available at* <http://www.chinaiprlaw.com/english/laws/laws4.htm> (last visited Mar. 5, 2004); *see also* Xiang, *supra* note 24, at 795.

169. This is a decision that can assist in ascertaining profit sharing, the degree of in-house IP protections needed between firms, and the frictions related to technological

If the form of economic integration is not being chosen to diminish risk of relatively uncertain legal institutional structures, then more emphasis can be placed on other cost attributes of the business decision, such as the desire to decrease marginal costs of internally policing the IP rights and shifting that cost externally¹⁷⁰ to the legal system. Under this scenario, a company may choose a less costly non-hierarchical form of integration that is more prone to accept the contingency that technology could seep outside the firm, but could handle more business dealings with reduced information costs.

MNCs are reluctant to release technology, fearing that protected information might enter the foreign market either through negotiations with potential joint ventures partners or via the terms of a binding contract. The amount of process technology that a company is willing to relinquish should correlate with a combination of factors such as: the degree of IP rights protections expected in the legal system, the value of that technology, and the risk of duplication in that foreign market. Because of these risks, there is also an inverse relationship between a hierarchical investment structure and reliance on the foreign legal system to protect IP rights. As countries increase IP rights protections, firms will choose more technology licensing and joint ventures and less FDI¹⁷¹ because the risk of IP loss decreases when the ability to rely on the legal system increases. Foreign enterprises doing business in China have been reluctant to license technologies because of weak IP right protections.¹⁷²

If uncertainty exists in a host country's IP legal protection regime and "process" technology rather than "product" technology¹⁷³ is

and managerial transfer costs. See Randall Morck & Bernard Yeung, *Why Investors Value Multinationality*, 64 J. BUS. 165 (1991).

170. See DOUGLAS C. NORTH, INSTITUTIONS, INSTITUTIONAL CHANGE AND ECONOMIC PERFORMANCE 32-35 (1990).

171. See Ignatius Horstmann & James R. Markusen, *Licensing Versus Direct Investment: A Model of Internalization by the Multinational Enterprise*, 20 CAN. J. ECON. 464 (1987).

172. La Croix & Konan, *supra* note 27, at 769.

173. Based on this legal analysis and assessment of risk for patent and trade secret rights, one must also demarcate between process and product technology value loss because precautions that can be taken to maintain value will differ as predicated on characteristics of each. Patent protection for technology can include the product itself when sold to the public (product technology) and the right to protect operations of efficiently and significantly producing the product (process technology). The conflict inherent in deciding between whether to protect IP as a trade secret, or by filing for a patent can apply to both process and product technology. On one hand, China's law does provide enhanced protections regarding trade secrets because it recognizes "prior

primarily at issue, then one might employ a stronger and more localized form of economic integration to prevent information leakages. However, if a process can be patented, but is instead maintained as an in-house trade secret, and a competing firm develops the process, then risk of IP value loss could actually be higher than if patent protection was sought and uncertainties of patent enforcement institutions were relied upon.¹⁷⁴ The likelihood of patent infringement is higher in a less reliable legal framework because of the required public disclosure of process technology. The potential benefits reaped from filing for patent protection must be contemplated against the expected costs to enforce a patent infringement in the foreign jurisdiction, and the possibility of increased costs in constructing and managing an organizational foreign presence that makes external informational leakages improbable.

If the risk-adjusted expected value loss of relying on the legal system is less than the cost of enhanced in-house protections for a process technology as a trade secret (as modified by the probability of trade secret leakages), then patent protection might be chosen over trade secret protection if it is available. This premise applies even more readily to firms with technologies that are more expensive to develop but easily copied (e.g. chemicals, pharmaceuticals, and computerized processes), and is less likely to impact lower-technology based investments.¹⁷⁵ Alternatively, if it is possible to protect information internally from reverse engineering once the product is placed on the market,¹⁷⁶ then employing a hierarchical organizational form may better protect IP by keeping process trade secrets

user rights." This is an example of a party developing a new technology and choosing to protect that technology as a trade secret, but another party develops it independently and patents the process and has a claim against the first inventor. Under Chinese law, the patent holder does not have a claim against the prior user. Allison & Lin, *supra* note 57, at 763.

174. This is especially the case because China follows a "first to file" system. Patent Law of the People's Republic of China, ch. 1, art. 9, *available at* <http://www.chinaiprlaw.com/english/laws/laws4.htm> (last visited Mar. 5, 2004).

175. Keith E. Maskus, *The Role of Intellectual Property Rights in Encouraging Foreign Direct Investment and Technology Transfer*, 9 DUKE J. COMP. & INT'L L. 109, 130-31 (1998).

176. A good example is the recent concerns expressed over semiconductor foundry business expansions into China. See Tom Murphy, *Can China's Fabs be Trusted to Play Fair?* ELECTRONIC NEWS, July 9, 2001, *available at* http://www.findarticles.com/cf_0/m0EKF/28_47/76495690/p1/article.jhtml (last visited Mar. 5, 2004).

confidential.¹⁷⁷ Wholly-owned subsidiaries are often used as a control mechanism to decrease risk of infringement.¹⁷⁸

3. The Investment Decision

U.S. companies tend to choose more hierarchical alliances, such as equity joint ventures rather than contract-based alliances when they partner with firms based in countries with weak IP protections.¹⁷⁹ A cross-national survey study of 174 foreign firms in China¹⁸⁰ found that the "joint venture is preferred when perceived governmental intervention or environmental uncertainty [as with uncertainty in IP right protections] is high or host country experience is low," but that a wholly-owned form of entry is chosen "when intellectual property rights are not well protected, the number of firms in the industry is growing fast, the need for global integration is high, or the project is located in an open economic region."¹⁸¹ Some companies may depart from this general model and use licensing if it will improve their profitability.¹⁸² On the other hand, if the legal system is more fortified and it can be relied upon to quickly remedy a contract-based patent or trade secret violation, then weaker forms of economic integration are more apt to be chosen.¹⁸³ This trend in relation to process technology in a country with a weak IP right protection system is depicted graphically in the following chart:

177. The renowned example is that of internally protecting Coca Cola's formula rather than patenting it. Both the ingredients and the process of mixing and formulating those ingredients are essential elements of duplication.

178. See Dunning, *supra* note 154, at 1.

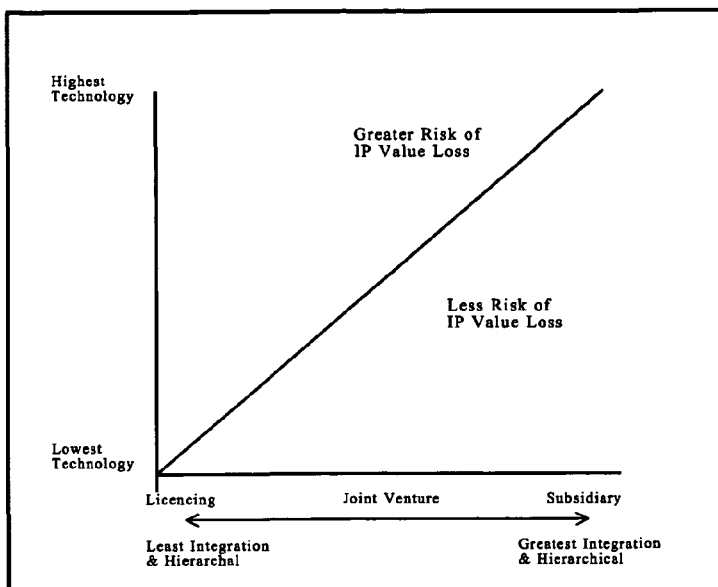
179. See Joanne E. Oxley, *Institutional Environment and the Mechanisms of Governance: The Impact of Intellectual Property Protection on the Structure of Inter-Firm Alliances*, 38 J. ECON. BEH. & ORG. 283 (March 1999).

180. See Luo, *supra* note 147, at 458-60.

181. *Id.* at 443.

182. See Keith H. Hammonds, *Motorola Bets on Its Chips*, FAST CO., Mar. 2003, at 42 & 44.

183. This concerns both potential defection of employees and a wholesale breach by the licensee firm. Either an individual or a firm may misuse knowledge in a manner that could increase value for a competing company to the detriment of the legal right holder. However, as IP protections improve, licensing costs, which are partially derived from more transparent information, should drop because risk declines as it becomes easier to discipline licensees against misuse of proprietary technology. See Markusen, *supra* note 152, at 182-86.

CHART 1

Consider the visual within the context of biotechnology in China. Foreign biotechnology firms that want to diversify their operations into China have three general choices. Firms can either integrate operations into China as a wholly owned enterprise or as an equity joint venture, license a local firm to use the IP for a fee, or simply export the product to China. This decision can directly affect risk of investment, control over operations, and the required investment.¹⁸⁴ Certainly, the Chinese government's preference is to have the biotechnology investments very localized so that there is a greater likelihood that technology will spill over to domestic businesses and benefit the skill level of the local workforce. For both legal and political reasons, MNCs have historically used the joint venture nearly exclusively when diversifying into China.¹⁸⁵ Joint ventures have fostered important connections and relationships with Chinese companies, assisted in dropping R&D costs, provided leverage with local authorities, and made use of natural resources in China.¹⁸⁶

184. See Jean-Francois Hennart, *Can the 'New Forms' of Investment Substitute for the 'Old Forms'?* A Transaction Cost Perspective, 20 J. INT'L BUS. STUD. 211 (1989).

185. Cataldo, *supra* note 74, at 163.

186. *Id.* at 163-64, 166.

Several important premises can be reached from the graphic. First, there is very little concern for protecting IP when the value of the technology is low. This occurs because the technology can be reproduced with relatively less expense and effort, or it is older technology. The risk of loss is then lower and less control is needed over a foreign market partner even if the host country has weak legal IP protections. As any given technology abates in value, the product may no longer require a hierarchical organizational form. Many foreign companies entering China have taken consolation in the fact that they have not been transferring their most sophisticated technology,¹⁸⁷ thus decreasing risk of loss. Hierarchical control, through a subsidiary or strictly controlled joint-venture expansion, may be needed to keep a portion of the technology in-house as trade secret process technology. On the other hand, if patent protection is available on a given process, there is a relatively high risk that a process will leak to a competitor if kept in-house as a trade secret, and since it is not apt to be adequately protected by trade secret law in China, a patent may be the optimal IP protection device.

Second, the line in the chart is an indicator for a discount factor when making the investment, which demonstrates that there is a risk that ROI will be lower relative to the distance above the line. The distance from the line represents the likelihood that the legal system will adequately and expeditiously enforce IP rights in the case of patent infringement. IP rights can be quantified in China by assuming information about historical levels of enforcement. For example, one might be able to ascribe a variance for the probability that protection will occur and how successful it might be, given different types of economic integration and technology industries.¹⁸⁸

A MNC may reduce risks by analyzing the IP right protection history in the host country for patent versus trade secret protection

187. See generally *id.* at 166. "[K]eep out of China critical technologies and production processes that can be pirated." Lieberthal & Lieberthal, *supra* note 66, at 80.

188. Framing this parameter could include attaining China's patent granting information on similar products, the ease with which these products could be replicated when a public disclosure is made by a patent filing versus ease of replication if trade secret in-house protections are breached, the likelihood of adequate patent or trade secret enforcement, and the value that can be lost when enforcement either is slow or inadequate. Points that fall above the line represent failed protections and the further they fall from the line exhibits a greater risk of failure and perhaps more of a loss, while those that fall below it can be deemed successful protections.

and whether certain industries have been given special protection¹⁸⁹ or are apt to be influenced by international trends.¹⁹⁰ Such analysis can partially elucidate if one type of legal framework for IP rights is more transparent or more favorable to another. Institutions cannot be presumed to provide static parameters because IP right violations and enforcement mechanisms inject foreign legal concepts in the consideration and because political influences on those rules and mechanisms are anomalistic across countries.¹⁹²

189. Besides assessing legal institutions, one must consider the extent to which a country's IP laws have had a track record of effectively protecting various categories of IP. One can classify across both industries and categories of the locus of IP protection to assess the extent that a given country is apt to vigorously protect a type of IP. Some industries may have been granted special legal protection that would be unexpected without further scrutiny. For example, in many countries chemical and pharmaceutical industries have been granted more protection than others. See Charles R. McManis, *Intellectual Property and International Mergers and Acquisitions*, 66 U. CIN. L. REV. 1283, 1295-96 (1998). Higher technology products are more influenced by dissimilarities in IP protection regimes and more standardized and labor-intensive technologies are rather insensitive to differences.

190. For example, one of the most important industries for the future and one that has raised serious concerns in China is protection for computer application programs. Much debate has focused on whether computer programs should be protected by patent or copyright law, but the general consensus is that the Berne Convention for the Protection of Literary and Artistic Works should protect them. See generally Paris Act relating to the Berne Convention for the Protection of Literary and Artistic Works of September 9, 1886, *concluded at* Paris on 24 July 1971, 1161 U.N.T.S. 31; see also Universal Copyright Convention, *revised at* Paris, July 24, 1971, 25 U.S.T. 1341. What this has come to mean or how it should be interpreted has led to substantial dissimilarities in domestic institutional protections. WTO Member Countries, which are parties to the TRIPS agreement, have been able to interpret whether the scope of copyright protection for computer programs should be defined broadly (in the case of traditional literary and artistic works) or narrowly (in the case of more functional or factual works). A variety of legal standards and interpretations have ensued. Similarly, the protection of IP on Internet sources will be particularly vexing as these sources necessarily incorporate information and technology from "[t]elephone systems, broadcast media, textual media, personal computing, and the Internet." Henry H. Perritt, Jr., *Access to the National Information Infrastructure*, 30 WAKE FOREST L. REV. 51, 52-53 (1995). It will continue to pose a myriad of legal issues, from copyright and data protection to protection of privacy. See also David A. Rice, *Digital Information as Property and Product: U.C.C. Article 2B*, 22 U. DAYTON L. REV. 621 (1997).

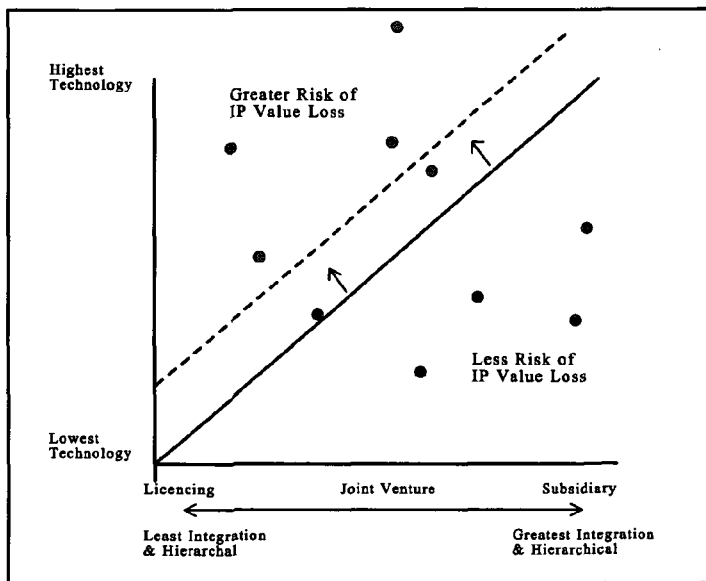
191. See Robert M. Sherwood, *Human Creativity for Economic Development: Patents Propel Technology*, 33 AKRON L. REV. 351, 358 (1999).

192. Within a country's legal framework,

[t]he causes and effects of intellectual property piracy are intricately connected to, and affected by, the economy of the country in which

The larger the variance and the greater likelihood that points are located above this line would be indirectly correlated with the degree that the legal system is fortified with consistent IP rights protections. Also, larger variances with regard to given forms of economic integration, technology levels, and industries should produce a larger discount factor in assessing ROI (to the degree to which process technology is involved). The variance of risk should decrease as China's legal system becomes stronger and better protects IP rights. The number of points located above the line should also decrease because there would be a parallel shift in the line upward. Logically, this should give more flexibility to MNCs regarding the form of investment strategy as derived from risk-adjusted ROI. This is depicted graphically:

CHART 2



The analysis deviates only when product technology is at issue because there is no available organizational structure that can protect

the piracy is committed, the political history and ideology of the pirating nation, the culture of the people engaged in the piracy, and the adequacy of the legal system to enforce its intellectual property laws.

Tiefenbrun, *supra* note 12, at 1.

the IP, such as when a product can easily be reverse engineered. If an organizational structure cannot reduce the risk of a violation of the IP rights, then one must rely solely on the legal system and a patent must be sought. Once a rival firm masters the production of the product, and it can be duplicated efficiently, that firm will be able to compete with the IP rights holder until an enforcement action against the patent-infringing firm occurs. If a legal system is relatively predictable it would not matter whether the firm is highly integrated into China or whether the product is being imported, however, caveats to this assumption will be forthcoming due to the political dynamics of China.¹⁹³

D. The Influences of Politics and Culture in China

1. Rational Choice & Guanxi

If leaders have ratified international agreements and have promised to fortify domestic IP right protection institutions, they are casting a position to other states and MNCs. These promises form parameters for acceptable current and future government actions. Likewise, when leaders frame IP right regulations and interpretive commentary in domestic law, they make a rational strategic decision on the degree to which strong legal protections will enhance the likelihood of receiving new technologies and the extent to which those rights should be protected. A government that grants reasonable monopoly rights provides further assurances to the international system by enforcing those rights, thereby begetting follow-on investors and derivative technologies within that country. However, if there is too much flexibility and ambiguity in IP right protection institutions, political actors may have too much discretion in deciding whether to grant monopoly rights on an innovation, or on whether to rapidly enforce IP rights if there is an alleged infringement.¹⁹⁴

193. Patent Law of the People's Republic of China, ch. 1 art. 3, *available at* <http://www.chinaiprlaw.com/english/laws/laws4.htm> (last visited Mar. 5, 2004).

194. For example, if there is significant ambiguity in decision making and patents are leniently granted, the first investors will make initial investments but follow-on investors in the same industry will be less likely to make investments or they will withhold more advanced technologies or protect confidential secrets internally to guard from being exposed to the legal system. Risk of loss for foreign investment has increased for the first investors. On the other hand, if a more rigid definition of attaining monopoly IP rights is followed, the first investor is less apt to attain monopoly rights but may have filed in the foreign jurisdiction and even face the risk that information contained in the filing could become available to competing firms. Competing firms could proliferate in this environment. However, if monopoly rights

As the previous graphics depicted, there is an interrelationship between objective legal institutions and subjective political influences. Risk increases in this environment. Political means of control are often more consistent with cultural norms and can sabotage the objectivity of enforcement institutions. Collectivism, *guanxi* relations, and cultural norms inevitably beget an environment of opportunism in China.¹⁹⁵ Outside relations with local political figures can feed many of the weaknesses in the judicial system.¹⁹⁶ Likewise, the more intrusive and encompassing regulations are on MNCs, which has been the case with most developing countries, the more important are political dynamics and the need to effectively manage relationships with administrative agencies. The Chinese bureaucracy often impairs expeditious and efficient business endeavors while personal *guanxi* relations can accelerate those business dealings.¹⁹⁷ Personal connections with key individuals in emerging market countries are often more important than the written law.¹⁹⁸ On the other hand, when regulations are more objectively defined and enforced, rather than based on discretions, risks associated with political uncertainty can be restrained. This is the balance between "rule by law" (law) and "rule by man" (politics).

have been granted under a rigid definition of IP rights protection, then there could be a decreased likelihood of follow-on investors because it may be more difficult to compete with the IP right holding firm.

195. Butterson, *supra* note 64, at 1113-14.

196. *Amnesty International Memorandum to the State Council*, *supra* note 110, at 3-5. Cited problems include: CCP control over the law, an abstract definition of judicial power, allegiance of local judges to local interests, a weak system of judicial review for legislative and administrative actions, a lack of independence of individual judges within their own court, financial funding and human resources, check and balances, and a code of professional ethics. *Id.*

197. See Katherine R. Xin & Jone L. Pearce, *Guanxi: Connections as Substitutes for Formal Institutional Support*, 39 ACAD. MGMT. J. 1641 (1996).

198. See Yadong Luo, *Partner Selection and Venture Success: The Case of Joint Ventures in China*, 8 ORG. SCI. 648 (1997). When IP protection rules are open to greater interpretive flexibility, such as when standards of justice are derived from subjectivity and/or sparse legal guidance, political influences can be stronger than legal influences. While this is changing in many emerging markets and gradually in China, such reforms are incremental and depend considerably upon the dedication of monetary resources to support transparent enforcement and the existence of protective devices that will forbid political influences from seeping into the legal process. The more that political influences decrease in this process, the more that legal institutions will become transparent and provide enhanced decision-making stability for foreign investments.

Thus far the assumption has been that the risk-symbolizing line in the previous graphics is apt to be relatively stable, but could shift slowly over time as legal protections become more fortified. While legal IP rights will improve in emerging market countries like China and coincide with higher levels of economic development,¹⁹⁹ legal protections can still be assisted or hindered by political influences. Political leaders may eagerly welcome technology even though there is uncertainty as to whether the legal system can adequately protect that technology. While the Supreme People's Procuratorate (the enforcement institution) has made official statements indicating China's firm dedication to transparently and fairly enforcing the law for market-based crimes and infringements,²⁰⁰ there is still much uncertainty.

As a rational actor, the central government might unofficially prefer limiting IP right protections on less integrated forms of organization, such as importation, because freely allowing technologies to be imitated might assist domestic firms and speed up economic development as a whole.²⁰¹ Even if the central government does prefer strict enforcement it has proven difficult because of weak federalism and the profit motives of local officials.²⁰² However, a habitual pattern of non-enforcement would result in foreign firms

199. There is a strong correlation between a higher level of economic development and stronger IP right protection frameworks. However, foreign investment decisions are often made by a market's future potential, even when risk of IP right infringement is very high. Booming economic development and larger populations often are weighed against risks that might not be as high in poorer countries.

200. See *Apparent Full Text of Work Report of Chinese People's Procuratorate*, *supra* note 108.

201. Under some circumstances, there may be a negative impact resulting from strict enforcement of IP protection.

To rigorously enforce intellectual property law in such a harsh condition for state-owned enterprises will drive many of them out of business and a substantial number of people will lose their jobs. Therefore, enforcing intellectual property law to protect foreign interest with little imminent benefit to the domestic economy may lead to serious consequences: unemployment and social instability.

Chengfei Ding, *The Protection for New Plant Varieties of American Businesses in China After China Enters the WTO*, 6 DRAKE J. AGRIC. L. 333, 348 (2001).

202. "[T]he Chinese central government 'simply lacks the authority' to end much of the piracy in the Chinese economy. IPR regulations mandated by the central government are often ignored by corrupt local officials who share in the profits from piracy." La Croix & Konan, *supra* note 27, at 772 (quoting Robert S. Ross, *Enter the Dragon*, FOREIGN POL'Y, Fall 1996, at 18, 24).

avoiding localization of the most advanced technologies and would also discourage domestic businesses from innovating. The quality of transferred technologies does rise with stronger IP rights regimes,²⁰³ but directional shifts in improving IP right protection regimes may not be stable because they are ostensibly influenced by different political dynamics and preferences.

2. Current Options for MNCs

Given this "rule by law" and "rule by man" trade-off, the foreign investor has many legitimate ways that it can influence the informal and political enforcement structures. Such influence may improve the functioning and adherence to the formal legal system, and thereby decrease risk. First, international relations and legal agreements between countries provide leverage in disputes. A high degree of company/industry influence on the home country government may make diplomatic pressure a viable option, especially when there are meaningful dependencies between the countries.²⁰⁴ Nevertheless, using this technique could actually undermine benefits that can be fostered by cooperation.

Second, bargaining power and the relationship with the host government are important factors in making an initial foreign investment and managing that investment.²⁰⁵ However, building strategic ties with key actors in the investment locale is also imperative.²⁰⁶ Relying on others with more experience and relationships in China can give a MNC a comparative edge²⁰⁷ by reducing the stigma of being foreign²⁰⁸ and also may improve the

203. See Sharmila Vishwasrao, *Intellectual Property Rights and the Mode of Technology Transfer*, 44 J. DEV. ECON. 381 (1994).

204. Countries have potential recourse at the diplomatic level and domestically for patent violations abroad. In the U.S., there are unfair trade practice laws such as Section 301 of Trade Act of 1974. See generally Trade Act of 1974 § 301 (as amended 19 U.S.C. §§ 2411-2420 (1994)).

205. See generally Benjamin Gomes-Casseres, *Firm Ownership Preferences and Host Government Restrictions: An Integrated Approach*, 21 J. INT'L BUS. STUD. 1 (1990).

206. Judicial favoritism for local interests has been a cited problem. *Amnesty International Memorandum to the State Council*, *supra* note 110.

207. Hiring or developing experts can be critical to penetrating the Chinese system. Lieberthal & Lieberthal, *supra* note 66, at 80.

208. Corporate identity should "highlight[] the compatibility between the company's goals and the country's goals." *Id.* at 78. See also Yadong Luo & Mike W. Peng, *Learning to Compete in a Transitional Economy: Experience, Environment, and Performance*, 30 J. INT'L BUS. STUD. 269 (1999). An advantage of having a more integrated presence in China is: appeasing the government, particularly because the

probability of attaining a more objective and fair disposition if an IP infringement arises.²⁰⁹ Knowledgeable and effective individuals who will be associated with and represent the firm and government officials with whom the MNC must later interact are essential. Local partners and associates may be able to influence government policies²¹⁰ and decrease costs associated with building local market alliances from the ground up.

If a more integrated form of organizational presence is chosen, a strategic alliance with a Chinese firm can reduce fixed costs, improve access to the chain of distribution, and reduce the impact of protectionist policies.²¹¹ Protecting IP is sometimes easier when a domestic Chinese business is involved in a joint venture, as opposed to protecting investment as a purely foreign company,²¹² even though national treatment is supposed to exist for expeditious handling of IP

CCP has a desire to promote technology investment. See Naigen Zhang, *Intellectual Property Law in China: Basic Policy Developments*, 4 ANN. SURV. INT'L & COMP. L. 1, 3 (1997). Another advantage is meeting localization requirements since there is a compulsory licensing system. Compulsory licensing occurs when a patent owner refuses to grant a license, but the government deems that it is a public need to have that patented product worked locally within the country. Patent Law of the People's Republic of China, ch. 6, art. 48, available at <http://www.chinaiprlaw.com/english/laws/laws4.htm> (last visited Mar. 5, 2004). In other words, there is a valid patent that the government decides to exploit.

Where any entity which is qualified to exploit the invention or utility model has made requests for authorization from the patentee of an invention or utility model to exploit its or his patent on reasonable terms and such efforts have not been successful within a reasonable period of time, the patent administrative organ under the State Council may, upon the application of that entity, grant a compulsory license to exploit the patent for invention or utility model.

Id.

209. Please note that this is not advocating the use of illegal influence or bribery of public officials, but instead simply assumes that better relations in China will beget a more objective and transparent enforcement of the law. In the United States, the Foreign Corrupt Practices Act prohibits such an influence. See Foreign Corrupt Practices Act of 1977, 18 U.S.C. 1961 (2004). Utilizing relationships in China is reality and is premised on the same reasoning that foreign businesses use forum selection clauses in international business contracts. A foreign business does not want to subject itself to potential discrimination when facing a local business in its own domestic dispute settlement forum.

210. See Paul W. Beamish & John C. Banks, *Equity Joint Ventures and the Theory of the Multinational Enterprise*, 18 J. INT'L BUS. STUD. 1 (1987); see also Gomes-Casseres, *supra* note 205.

211. FOLSOM ET AL., *supra* note 6, at 152.

212. See Cataldo, *supra* note 74, at 164.

right infringements.²¹³ There may also be a sense of national pride attached to assuring that ownership of certain patent rights remains in the hands of domestic interests.²¹⁴ Conversely, IP violators could have ties to the central or local governments and be harbored from enforcement actions.²¹⁵ This occurs either because of the institutional legacy of a close nexus between government and production²¹⁶ or because of local favoritism regarding enforcement for domestically based businesses.²¹⁷ Likewise, local officials could be reluctant to turn over patent infringers to the Ministry of Security (the PRC's national police force) due to favoritism.²¹⁸

Even though administrative enforcement may be tarnished by local patronage and corruption,²¹⁹ agency discretion for enforcement remains significant and could foster disadvantages to a foreign investment. Extensive administrative control over a FDI may make IP protection regimes seemingly more fortified and stable because the government is more involved, but they can lead to adverse and unexpected results depending on the degree of political leverage or influence that exists and who yields it. This makes managing administrative and political relations all the more important. Preventing potential infringements from occurring is better than idly waiting for an infringement to happen and using all leverage and means to strictly enforce the infringement. If IP rights are not managed proactively, the market and society may even yield antagonism, be more detrimental to a company in the long run, and outweigh the cost that might have been assimilated if those IP rights had been preemptively managed without politicizing the issue.²²⁰

213. La Croix & Konan, *supra* note 27, at 764.

214. See Peter Wonacott, *China Tries to Stake its Biotech Claims: Scientists Draft a Secret List of Products They Want to Keep Out of Foreign Hands*, WALL ST. J., Jan. 20, 2003, at A11.

215. Assafa Endeshaw, *A Critical Assessment of the U.S.-China Conflict on Intellectual Property*, 6 ALB. L.J. SCI. & TECH. 295, 326 (1996).

216. *Id.* Governments that were previously statist in nature have had unification with the private sector, which could arguably make enforcement based less on consistency and more on relationships. However, if these relationships are fostered within the context of what is legally expected and acceptable, then the legal system's beneficial influence should be improved solely within that case.

217. Cataldo, *supra* note 74, at 164.

218. Allison & Lin, *supra* note 57, at 781-82.

219. Cheng, *supra* note 121, at 291.

220. The IP right holder would not want a public spectacle to be made out of its individual enforcement because there could be a societal backlash, but it might favor publicizing raids of other infringements because it could deter future infringements.

In summary, there is a tradeoff between strong and consistent IP right legal protections and political influences on legal institutions. As the rule of law is strengthened, the influence of informal and political relations should decrease. However, the more that informal channels influence rules and enforcement mechanisms of the formal legal system, the more that informal or political relations need to be managed. If those relations can be managed from an early stage in the investment process, risk of IP value loss should decrease.

E. The Economic Realities of IP Right Violation Enforcement Actions and "Value at Risk"

1. National Economic Interest

Even if enforcement institutions seemingly exhibit political will to forcefully prosecute piracy violations, it remains undetermined whether it is economically rational to do so from a macroeconomic perspective. While the last section addressed political influence from the perspective of leaders' self-interest, this section addresses enforcement from China's traditional collectivist interest by considering the issue of economic loss in the $R \times E = \text{IP Value}$ formula. If IP right protections primarily benefit foreigners, and the assumption is that nations will act at least to some degree in their own self-interest,²²¹ there must be an economic advantage for China to more stringently enforce the law²²² and thwart future piracy. While the government has enacted and made promises to the international community that objective and serious enforcement will be forthcoming, it remains doubtful whether it can necessarily be

The Chinese government would want to publicize raids frequently because it sends a signal to the international system and MNCs that enforcement actions and raids are effective and regular; however, too much enforcement could also suggest that the government lacks societal control since piracy violations could appear habitual.

221. In world politics literature, there has been much debate about whether states will cooperate in the international system because of an altruistic desire to benefit the community of nations (absolute gains), or whether states primarily cooperate because of fostering self-interest (relative gains). See generally Joseph M. Grieco, *Anarchy and the Limits of Cooperation: A Realist Critique of the Newest Liberal Institutionalism*, 42 INT'L ORG. 485, 495 (1988). Given China's need to stimulate domestic development and provide a higher standard of living for 1.3 billion people and the existence of potent national pride, it does seem sensible to assume China is influenced at least to some degree by premises underlying relative gains theory.

222. See generally Peter K. Yu, *From Pirates to Partners: Protecting Intellectual Property in China in the Twenty-First Century*, 50 AM. U. L. REV. 131 (2000).

presumed that improvement in enforcement institutions will be based on the economic value at issue.

Not all agree that stronger patent laws foster economic growth.²²³ Some have postulated that protecting the interests of MNCs will undermine China's economic progress and survival.²²⁴ China's primary goal in improving IP right protection is to advance science and technology²²⁵ for the good of society. Therefore, what is best for the collective interest and consistent with the national development strategy may prevail over economic interests of individual companies.²²⁶ Assuming that IP right protections are motivated by the desire to advance science, technology, and the country's economic interests, and IP rights substantive provisions and related interpretations flow from this encompassing policy, it is rational to presume that a collectivist and national self-interest might also influence individual enforcement actions.

Chinese companies have lost market share²²⁷ because foreigners have attained patents on goods that could otherwise be produced by Chinese interests. Economists have considered the rational likelihood of international cooperation between the technologically advanced and the developing economies regarding enforcement of IP rights. Improving IP protections raises China's cost of technology.²²⁸ As property rights increase in value, developing countries should not consummate patent protection treaties. "[G]ranting a foreign patent does not create an incentive for development within the field of the issued patent because there is less economic incentive for national companies to develop patented technology" and "national companies within the developing countries will not be able to secure valuable

223. See David M. Gould & William C. Gruben, *The Role of Intellectual Property Rights in Economic Growth*, 48 J. DEV. ECON. 323 (1996).

224. See Catherine Gelb, *Patents versus Profits*, CHINA BUS. REV., Nov. 1, 2002, at 9, available at LEXIS, CHBUSR.

225. Patent Law of the People's Republic of China, ch. 1, art. 1, available at <http://www.chinaiprlaw.com/english/laws/laws4.htm> (last visited Mar. 5, 2004).

226. The trend being displayed is gradual movement from collective to heightened individual rights. See *supra* Part II.B; see also *supra* note 61.

227. At a national interest level, if IP intensive imports are taking market share in China, then economic losses consist of production losses in China and profit margins attained by companies holding the IP. If Chinese companies lose market share to a foreign enterprise that is producing a product in China, then the loss to the Chinese economy is the lost profit margin that could have been attained by Chinese entrepreneurs.

228. See Elhanan Helpman, *Innovation, Imitation, and Intellectual Property Rights*, 61 ECONOMETRICA 1247, 1276 (1993).

patents within foreign countries because of their lack of technological advancement."²²⁹

In fact, some studies have found that weaker patent protections can foster economic growth within a country.²³⁰ Consummating a treaty and codifying heightened standards of protection generally projects a perception of enhanced property right security, while weaker and less systematic institutional enforcement measures provide flexibility to make the most economically rational decision under the circumstances. Promises and substantive protections shape international perceptions, but enforcement discretion can be the escape hatch.

One can perceive how this premise breeds piracy at the microeconomic level when sufficient deterrents do not exist to curb individual infringements. Thus, the question of whether piracy occurs might be viewed in terms of whether a substantial deterrent exists to prevent would-be infringers from violating IP rights. If the benefits of piracy outweigh the costs, such as when monetary fines are low or incarceration is unlikely, IP right infringements are more apt to occur.²³¹ Even though the Chinese government regularly enforces IP right infringements and raids the violating production facilities, many believe that there are not sufficient penalties and punishments to deter counterfeiters and reduce recidivism.²³² Even though the law does potentially provide for civil penalties and potential criminal

229. North, *supra* note 13, at 132-33.

230. See generally Robert P. Merges & Richard R. Nelson, *On the Complex Economics of Patent Scope*, 90 COLUM. L. REV. 839 (1990).

231. Penalties for IP right violations in administrative enforcement actions are left to the discretion of that agency. Objective standards do not exist. Thus, if someone were to consider whether to establish an operation that would produce a product that violates the patent rights of another, there may be no objective and sufficiently harsh penalty that will forewarn (under the written law) and deter potential infringements. Thus, if the piracy's expected profits are much higher than a potential (and indefinite) monetary fine, then IP right violations are more apt to occur. In other words, calculation of utility equals potential benefits less costs (risk of getting caught multiplied by expected penalty amount). This differs from other countries, such as the United States, where stiff penalties for IP violations are available in the written law. See 15 U.S.C. § 1117a (2004). When criminal court cases in China do arise for IP right violations, they have had to overcome the insurmountable barrier of attaining evidence of a sufficiently high level of sales by the counterfeiter. Chow, *supra* note 19, at 461. This differs significantly from the levels of proof and use of inferences available to IP infringement cases in the United States. See *id.* at 462-63.

232. See *id.* at 452.

prosecution for both patent law²³³ and trade secret violations,²³⁴ uncertainty in judgments and varying penalties²³⁵ may not provide transparent costs to potential infringers.

If there is an economic incentive for pirating to occur because of a lack of sufficiently high deterrence cost, one can then ask whether strict enforcement is even the most economically rational action for the government. Weak penalties may be consistent with a national interest even though they do not make a statement to would-be pirates by being ambitious with enforcement actions. However, providing sufficiently high penalties can foster the movement of new technologies to foreign countries.²³⁶

2. Real Economic Loss to the IP-holding MNCs

In the short-run and on an ad hoc basis, piracy may make only a trivial difference on the financial statements of the company whose intellectual property was usurped. IP value is added into the cost of a product and those additional costs do not exist in counterfeit products because R&D was not spent on the development process. Therefore, IP-annexed products will have a higher price *ceteris paribus* than an IP-infringing substitute. Within any economy, price differentials can beget varying quantities purchased based on the demand function for products. This is particularly important in China, since per capita income could be as low as \$912 per year.²³⁷ United States per capita

233. Currently, the law of China says:

The illegal income of the said person shall be confiscated. He may be coupled with a fine of no more than 3 times of his illegal income and, where there is no illegal income, he may be imposed a fine of no more than 50,000 RMB. Where the infringement constitutes a crime, he shall be prosecuted for his criminal liability.

Patent Law of the People's Republic of China, ch. 7, art. 58, available at <http://www.chinaiprlaw.com/english/laws/laws4.htm> (last visited Mar. 5, 2004).

234. "[T]here is no specific criminal offense attached to the infringement of trade secrets," but "[i]n practice, a number of offenses are used by the Chinese courts to punish the infringers of trade secrets." Cheng, *supra* note 121, at 288. Depending on the actual circumstances, these offenses can include: theft, embezzlement of public funds, acceptance of bribes by a public official, divulgence of "state secrets", sabotage of collective production, and counterrevolutionary espionage. *See id.*

235. *See* Wang, *supra* note 54, at 20-23.

236. This assumes that administering enforcement institutions recognize that, in the aggregate, it is in China's economic interest to rigorously enforce IP rights.

237. While there is much disagreement over accurate per capita income levels in China, it has been estimated by Chinese economists that approximately \$912 per year is an accurate figure. *See* Alex Frew McMillan, *China Growth Myths Dispelled*,

income could be as much as forty times that of China.²³⁸ Consumer demand will fluctuate on products with annexed IP value because of varying income levels and price.²³⁹

Elastic demand for a product²⁴⁰ means that there is a significant change in the quantity demanded for a product as price changes and consumers will not buy as much of the product as price increases. Inelastic demand means that quantity demanded changes less as price changes²⁴¹ and consumers are still relatively apt to buy the product with price increases. IP right enforcement benefits the IP right holder most when there is relatively inelastic demand for a product, since consumers are more apt to pay a higher price for the legitimate product when there are no imitation substitutes. On the other hand, when there is relatively elastic demand for a product, larger quantities of a higher priced legitimate product may not be purchased.²⁴² The phenomenon results because: (1) differential between the level of elasticity of the demand curve and (2) the differential between the prices of legitimate and imitation products determine whether economic value is created when piracy occurs. Nonetheless, competition within many industries has become

at <http://edition.cnn.com/2002/BUSINESS/asia/10/29/hk.bnpchina/> (last visited Apr. 2, 2004). Other figures have suggested approximately \$4,700 is more accurate. See CENTRAL INTELLIGENCE AGENCY, THE WORLD FACTBOOK: CHINA (2003), at <http://www.cia.gov/cia/publications/factbook/geos/ch.html>. The distinction in figures is due to the use of exchange rate versus purchasing power parity measures.

238. The U.S. per capita income is approximately \$36,300. See CENTRAL INTELLIGENCE AGENCY, THE WORLD FACTBOOK: UNITED STATES (2003), at <http://www.cia.gov/cia/publications/factbook/geos/us.html#econ> (last visited Apr. 2, 2004). This also does not consider distinctions in discretionary income. If discretionary income as a percentage of per capita income is even lower in China than in the United States, then this multiple of comparative living standards will be even higher.

239. See WALTER NICHOLSON, MICROECONOMIC THEORY 192-93 (7th ed. 1998).

240. See *id.* at 189-92.

241. The slope of the elastic demand curve is less than one (i.e. the vertical price axis change is less than the per unit change on the horizontal quantity axis). For example, if quantity demanded for a product is 1,000,000 when price for a product is \$50, but only 500,000 when price is \$60, there is highly elastic demand. Total sales revenue drops from \$50,000,000 to \$30,000,000 with the \$10 change in price. The slope of the inelastic demand curve is greater than one (i.e. the vertical price axis change is greater than the per unit change of the horizontal quantity axis). For example, if quantity demanded for a product is 1,000,000 when price for a product is \$50, but 950,000 when price is \$60 there is highly inelastic demand. Total sales revenue increases from \$50,000,000 to \$57,000,000 with the \$10 change in price.

242. See NICHOLSON, *supra* note 239, at 190.

increasingly fierce in China.²⁴³ If the profit attributable to IP rights is already low resulting in only a marginal benefit to the firm holding IP rights, then elasticity will have less impact in those very competitive industries.

In the case where IP rights do add significant value to a product, some have alleged that piracy in China costs foreign interests "billions, if not tens of billions, of dollars" per year.²⁴⁴ However, if Chinese consumers cannot afford an original product with inelastic demand because of the added cost derived from IP, then a very large percentage of potential consumers will not purchase the legitimate product anyway.²⁴⁵ If this is the case, the MNC's losses may be overestimated. Assuming quality is relatively equal (which in many cases is an improbable assumption), it is unrealistic to assume that Chinese consumers will not accept an imitation product, but instead will opt for an original product when it costs significantly more.

Likewise, economic value to the Chinese economy may decrease with a crackdown in the short run because the utility²⁴⁶ to the aggregate of consumers drops when fewer items are sold at the legitimate product's higher price. The utility to a consumer remains higher when there is very little differential between the price of a legitimate and an imitation product. The total costs to society and the economy is higher when there is a crackdown on the piracy of products with inelastic demand,²⁴⁷ but the piracy crackdown creates an impression of improvement in IP enforcement institutions for future potential MNC investments.

This scenario differs when a foreign firm and a pirating firm are competitively selling a product in China or on global markets to relatively profitable firms that can pay the higher price for the good,²⁴⁸ or to government entities in China. If globally competitive companies can afford to pay for the use of a higher-priced product, such as particular software products on computers, then there is a tangible

243. Chow, *supra* note 19, at 451.

244. Ansson, *supra* note 4, at 4; *see also* Chow, *supra* note 19, at 448.

245. Hu, *supra* note 149, at note 83.

246. "Utility" means well-being/benefit to the consumer. When a consumer acts in the goods market, he/she will act in a way to maximize utility. *See* NICHOLSON, *supra* note 239, at 667-68.

247. Of course, "utility" would always be higher for consumers when price is lower.

248. Since China entered WTO membership, "pirates have become even more audacious, making more phony foreign-branded products than ever—and shipping more of them overseas." Dexter Roberts, *Clear Sailing for Pirates: For Now, the WTO Can't Stop Mainland Counterfeiters*, BUS. WK, July 15, 2002, at 53.

economic loss to the IP holding firm and competing firms that purchased the legitimate product. This raises the cost of technology. Paying royalties increases the price of a product and decreases China's terms of trade.²⁴⁹ China has reacted to this concern regarding unfair competition. The Chinese government has enacted a number of logistical restrictions to encourage firms to use patented software in their enterprises.²⁵⁰

If a MNC has a fairly integrated presence in China, such as a production joint-venture with a Chinese firm, there is still likely to be some loss of aggregate employment in China when piracy is halted,²⁵¹ but certainly not as much as in the case of where the IP is imported into China.²⁵² A more competitive patent violating firm may employ more workers at the loss of the foreign firm or related entity in China. Also, lost value by the IP holding firm means loss of revenue and ROI that would otherwise be expatriated to the parent company or its affiliates. Theoretically, this can lower R&D expenditures in the foreign country. If the marginal profit loss from the piracy had generated profit opportunities, it would also beget a lower profit margin and firm value. This particular value loss to the holder of the IP occurs whether or not there is an integrated local presence.

249. La Croix & Kronan, *supra* note 27, at 767.

250. Recent Chinese laws represent the country's policy to expand IP protection.

[I]n early 1998, the Chinese government established the Patent Software User Recognition Plan, which was promoted by China's Electronic Ministry and National Patent Bureau and organized by the International Commercial Software Association and the China Software Association. Under the plan, only organizations using patented software will be granted licenses. China also has agreements for protecting biotechnological rights and has signed related agreements establishing procedures for Chinese and foreign scientists applying for patents in the country. Under the new agreements, scientists can patent their discoveries in the fields of microbes and genetic substances. However, the government will not grant patents for the development of generically engineered or cross-bred animal and plant species.

Ansson, *supra* note 4, at 13-14.

251. Loss in employment will likely be higher when there is a larger price differential between the original good and the counterfeit good since more production occurs at a higher product demand consistent with lower price, especially when demand for that good is elastic.

252. If there is no localized presence producing the product in China, then the employment loss in China will be greater since there is no localized production coming from the legitimate holder of the IP.

Varying demand functions and levels of integration distinctions can impact the real economic value loss from an IP infringement. Of course, the logical alternative to cope with differentiated demand functions is to sell a product at different prices in different markets based on the expected elasticity of demand. Price discrimination permits a company to meet the optimal demand curve and can increase the firm's revenue, but it can also cause gray market trading.²⁵³ International sales distributors for products can employ price arbitrage and sell legitimate products (made in one country and produced in accordance with IP rights) to distributors and consumers in another country at discriminatory pricing levels that undercut the parent company's price in that market.²⁵⁴ Stopping the import of gray market goods is often not desirable and can be too difficult for customs to control. On the other hand, if there is an IP violating product, shipments of those products can be readily confiscated at a customs house.

This discussion has focused on the rational likelihood of more stringent IP enforcement in a politically-dominated country premised strictly on economic considerations and has suggested that the real economic loss for a current infringement may often be lower than is usually claimed. Furthermore the most pressing problem for foreign firms is not so much in the current economic loss that can be attributed to the drop in sales when there is a much higher price on a legitimate product over the price of the IP infringing product, but in the loss of brand loyalty if the infringing product is of lesser quality. This can have a long-term impact on a company and heightens a MNC's level of concern. However, this concern is much more difficult to quantify as a risk.

IV. CONCLUSION

This article established a framework of interacting business issues relating to legal and political dynamics of China's evolving patent and trade secret protection regimes. Also discussed were key

253. A gray market good is one that is produced legally, normally because a firm was granted a license to produce that product domestically, but the product was then sold in a foreign market. See FOLSOM ET AL., *supra* note 6, at 736-41.

254. This is the case when products would be readily exchangeable from one market to another, such as when little adaptation is needed in the product to sell it in a different country. If adaptation is required, such as foreign language or cultural changes to the product, then it is not easily adaptable and may not be appealing as a gray market product.

concerns involving the risk-adjusted value for an IP-annexed foreign investment.

China has eagerly consummated international treaties and has adopted strong domestic protections to attract technological innovations. For a country historically dominated by informal norms that define proper societal conduct, it has made incredible progress over the past two decades in gradually strengthening the rule of law, but new codifications are often inconsistent with culture and governance institutions. With inconsistencies between codification and enforcement, these new regimes have fallen back on political influences.

A government's decision to fortify IP protection frameworks in most emerging markets is expected because of the positive economic utility associated with increased investment to a country, but the implementation and enforcement of new laws is gradual and subject to slow consolidation. There can be inconsistent national interests that limit strict enforcement measures as well as local political relations that can undermine an objective enforcement process. Likewise, if enforcement is an expensive and time consuming affair plagued by political and bureaucratic inefficiencies, the value of IP can be significantly reduced to the degree of the time-sensitivity of the technology loss. If the product can be duplicated rapidly and it would be rational for an economic actor to duplicate it given knowledge that IP rights and penalties would not be sufficiently harsh, then there is effectively no deterrent.

A simple formula was proposed that consolidated IP value at risk with an international investment opportunity. It recognized the importance of political dynamics inherent in China's gradually improving enforcement framework and how the form of integration is very dependent on expectations of enforcement within the domestic market. Managing risk by choosing the most appropriate form of investment for the product and process technology and whether to rely on patent or trade secret protection are imperative issues. Nevertheless, the value that is truly at risk with any potential investment should not just consider aggregate projected sales of IP infringing products to determine lost revenues, but should also consider economic realities and the political and legal environment within the context of varying product demand functions. Such influences make the mode of entry into China very important. To date, companies have chosen more hierarchical organizational structures to protect IP rights, prevent leakage of trade secrets, create a more integrated presence that facilitates developing local

connections, and arguably establish more predictability regarding the enforcement process.

After an investment is made, practical management of the investment should be undertaken. A MNC should have mechanisms in place that screen the marketplace for IP violating goods. As soon as an IP right infringement is suspected, a private investigator should be hired to trace the source of the infringement to decrease the extent of loss prior to an enforcement action. When the patent or trade secret infringement is traced to its source, a decision must be made regarding whether to employ an administrative or judicial process to remedy the infringement. However, besides deciding between enforcement mechanisms, a question may also exist regarding the efficacy of requiring stringent enforcement because of costs related to potential political and societal backlashes against the MNC. In other words, a short-term success could result in long-term distress for a MNC. Strategic decisions must be made on how to enforce and the optimal degree of enforcement.

China's administrative agencies have "broad de facto and de jure powers" but there have been unexpected regulations and enforcement dispositions by agencies.²⁵⁵ Chinese courts have traditionally been impotent relative to executive and administrative prerogative,²⁵⁶ but judicial recourse is becoming more fortified in both patent²⁵⁷ and trade secret²⁵⁸ protection cases. Furthermore, Chinese courts are beginning to be perceived as more objective and neutral institutional mechanisms for resolving disputes. Administrative agencies may potentially be influenced more by political dynamics and *guanxi*. However, the decision to use a judicial remedy rather than an agency remedy must consider institutional efficacy, timeliness of

255. See David L. Weller, *The Bureaucratic Heavy Hand in China: Legal Means for Foreign Investors to Challenge Agency Action*, 98 COLUM. L. REV. 1238, 1238 (1998).

256. "This feature can be attributed to China's historic centrally planned economic system in which most aspects of the economy were planned, controlled, and administered by the State." See Chow, *supra* note 19, at 470. This form of economic administrative system has been called an activist state, whereby the judiciary was subordinate or too weak to protect individual rights because the good of the collective, defined by the state, must prevail. See also DAMASKA, *supra* note 36, at 17 & 80; Jerome Alan Cohen, *The Chinese Communist Party and "Judicial Independence": 1949-1959*, 82 HARV. L. REV. 967, 972 (1969); Amnesty International Memorandum to the State Council, *supra* note 110, at 8-10.

257. See Patent Law of China, *supra* note 88, art. 57; see also Hill & Evans, *supra* note 107, at 372.

258. See Cheng, *supra* note 121, at 284-88; see also Unfair Competition Law, *supra* note 121, art. 29.

alternatives, and political realities.²⁵⁹ The administrative remedy is still perceived as the more effective alternative.

IP right protections will continue to improve in China, but it will take time to reach levels of IP protection that the West desires. In the interim, because it is important that businesses become established in this colossal and accelerating marketplace, economic integration and localization is often desirable, but flexible adjustment to standard business practices must be recognized.

259. If administrative discretions beget unexpected or seemingly less neutral case dispositions, an important legal issue is whether there are protections against administrative abuses. Can the agency be held responsible for the failure to adhere to the law or to adequately enforce that law? Given differing constructs of separation of powers between branches of government, a court may be able to theoretically hold an administrative agency responsible under the law, but whether this is the case in reality may depend on the strength of this institution relative to the that of the executive. In most emerging markets, if there are over-lapping jurisdictional prerogatives between the court (under the law) and administrative agencies (with more discretion) regarding the question of whether IP rights should be enforced, other complexities in the balance between law and politics can arise. For instance, if a court makes an IP right enforcement disposition that undermines the policy of an administrative body, the agency may not comply with a judicial decision. Appropriate enforcement mechanisms for court decisions in China are often lacking. See La Croix & Konan, *supra* note 27, at 772.

