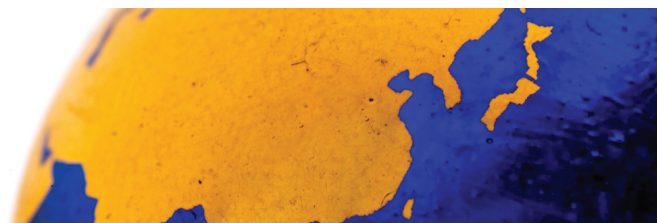


Topics in Law and Economics in China

Intellectual Property Rights Protection in China: Trends in Litigation and Economic Damages



By Kristina Sepetys
and Alan Cox*

Introduction

As a result of external pressures and to meet its own economic objectives, China has been moving its intellectual property rights (IPR) regime closer to those found in many more developed nations. As China's economy grows, its transition from manufacturing-based to knowledge-based production, more comprehensive laws, and more attention to enforcement have led to an increase in the number of IPR infringement cases being brought before the courts or taken up through China's administrative procedures. Allowing IP owners to recover their economic damages from infringers is an important component of a system for IPR protection. Properly determined, damage awards can serve as an effective deterrent to IPR violations and protect the incentives to innovate.

* Senior Consultant and Senior Vice President at NERA Economic Consulting.

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While problems of intellectual property infringement are widespread in many areas of the world,¹ some Chinese and foreign observers continue to assert that more should be done to deter counterfeiting in China.² According to many of these observers, IPR owners are generally compensated for only a small proportion of their losses under existing law.³ If these contentions are correct, such low damages discourage the filing of meritorious lawsuits and generally fail to adequately protect intellectual property.

This paper examines the pattern of damages awards by Chinese courts. To put this examination of damage awards in context, we first review the evolution of IPR protection as an economy becomes increasingly dependent on knowledge-based production. For readers who are not familiar with the remedies for IPR infractions in China, we then describe the laws and procedures in China for the protection of IPR, including both judicial and administrative procedures. Finally, we describe the results of a statistical analysis of a unique dataset that we have compiled on recent damage awards in IP cases in China.

We find that, under the administrative systems established in China, penalties and fines for IPR violations generally do not appear to provide adequate deterrence to would-be infringers. Fines are so low that they appear to allow infringers to earn an adequate profit, even if caught and fined. Consequently, most studies suggest that fines represent only a tiny fraction of the estimated sales revenue lost to IPR holders.⁴

Our review also suggests judicial damage awards for IPR violations in China are low compared to the United States and compared to the likely degree of harm caused. Furthermore, although the frequency of damage awards in IPR cases in China has increased, the average amount awarded has not increased. However, each year there appear to be a few cases which involve significant damages, and these high damage awards appear to be occurring more frequently each year. It also appears that, while damage awards tend to be low, IPR owners typically make low damages claims.

¹ For instance, Semiconductor Equipment and Materials International surveyed its members and determined that, while 71 percent expressed serious to very serious concern about infringement in "Mainland China," 64 percent expressed the same concerns about North America. The Software & Information Industry Association estimates that the software industry loses \$11 to \$12 billion annually to software piracy. Of this, almost half comes from Asia, with China and Indonesia identified as the biggest offenders. Western Europe accounts for between \$2.5 and \$3 billion dollars in piracy. About \$2 billion in piracy losses come from North America with one in every four copies of business application software being used illegally. See <http://www.sii.net/piracy/whatis.asp>, accessed 27 October 2008. The *2008 Special 301 Report* also places the following countries on its Priority Watch List: Russia, Argentina, Chile, India, Israel, Pakistan, Thailand, and Venezuela.

² The *2008 Special 301 Report* prepared by the Office of the United States Trade Representative (OUSTR) notes that "Despite anti-piracy campaigns in China and an increasing number of IPR cases in Chinese courts, overall piracy and counterfeiting levels in China remained unacceptably high in 2007." The OUSTR does not provide backup data for these statistics, so we cannot determine what other changes might have occurred to give context to these numbers. A report commissioned by the Business Software Alliance estimated that software piracy resulted in global losses of \$34 billion in 2005. Of that, \$3.9 billion was lost due to piracy in China, compared to \$6.9 billion in the United States. However, the rate of piracy in China was estimated to be 86 percent in China compared to 21 percent in the United States. See Candace Lombardi, "Study: Software Piracy Costs \$34 billion," *CNET News.com*, 23 May 2006. The 22 September 2008 issue of *China Daily* quotes Ni Guangnan, of the Chinese Academy of Engineering, who points out that piracy serves to reinforce the large market shares of companies like Microsoft at the expense of Chinese and other software, because with low penalties, it is presumably cheaper to imitate than to invent.

³ "Inadequate IPR enforcement is a key factor contributing to these shortcomings, with high criminal thresholds, as well as difficulties in initiating or transferring cases for criminal prosecution resulting in limited deterrence." Civil damages are also low, according to the *2008 Special 301 Report* prepared by the OUSTR.

⁴ The costs associated with counterfeiting are difficult to calculate. For examples of some estimates see, for instance, OECD, "Counting the Costs: the Economic Impacts of Counterfeiting and Piracy" (January 2007), <http://www.oecd.org/dataoecd/12/7/38015608.pdf>, accessed 27 October 2008, and U.S. Department of State Bureau of International Information Programs, "Trade Official Urges China to Punish IPR Violators Forcefully," at http://hongkong.usconsulate.gov/uscn_t_ipr_2005041201.html, accessed 27 October 2008.

Balancing IPR Protection and Economic Growth in Evolving Economies

IPR protection typically proceeds through a predictable series of stages as a country moves from an economy based upon manufacturing to an economy dependent on the utilization and exploitation of information and advanced technology.⁵ In the early stages of development, with limited resources and limited capacity for research and development, there may be little or no IPR protection. Domestic industry will be characterized by imitation rather than innovation. Imitation allows for low-cost production, low prices for goods and services, and the stimulation of consumption and employment. A weak IPR regime may support technological growth and development through imitation in early stages of development. At subsequent stages of development, however, a weak IPR regime discourages domestic innovation. Innovation and technological development are drivers of economic growth. Economies that succeed in shifting into knowledge-based production are characterized by domestic innovation, typically supported with well-designed and adequately enforced IPR laws.

A country may face conflicts and challenges while making the transition to a more developed IPR regime. Achieving the benefits of a strong IPR regime may involve incurring short-run costs. These costs include short-term and regional unemployment as labor shifts from infringing activities, and higher prices for consumer goods.⁶ These costs may create short-term disincentives for enforcing and upholding IPR laws. They will also tend to create divergent interests among different sectors of the economy and among different regions of a country.

Effective IPR enforcement may improve the quality of goods over time and facilitate more effective dissemination of knowledge both domestically and internationally. In a highly developed economy, losses to consumers due to higher prices associated with IPR enforcement will be counterbalanced by the benefits of increased innovation and invention.

The Legal Framework for IPR Protection in China

Overview

Over the past two decades, China has steadily developed an infrastructure to protect IPR in pursuit of its own interests at its current stage of development and in order to meet its international commitments. China has joined several international agreements to protect intellectual property⁷ and drafted and promulgated domestic IPR laws. It has established specialized IP divisions in many courts,⁸ as well as enforcement processes, and training programs. In November 2001, China joined the World Trade Organization (WTO). Since joining the WTO, China has further strengthened its legal framework and amended its IPR laws and regulations in compliance with the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

The TRIPS Agreement is particularly significant, as it specifies strong minimum standards for the protection and enforcement of various types of IPR, including copyrights, patents, and trade secrets. The resulting IPR infrastructure in China has been described as an extensive, though not complete, alignment with the IPR regimes in other countries that are party to the WTO Agreement.⁹

⁵ See, for example, Jesse David, Christian Dippon, Sourav Chatterjee, Fei Deng, and Mario Lopez, "Intellectual Property Rights in Developing Nations," Report for the Intellectual Property Institute, 20 February 2008.

⁶ One estimate from 2006 puts the number of people engaged in manufacturing, distributing, and selling of products that infringe copyrights and trademarks at 20 million. Harley I. Lewin, "The Future of Intellectual Property Rights in China," Portfolio Media, Inc., 16 March 2006.

⁷ China has joined nearly all major international IPR conventions, including the World Intellectual Property Organization, in 1980; the Paris Convention, in 1984; the Madrid Protocol and the Washington Convention, in 1989; the Berne Convention and the Universal Copyright Convention, in 1992; the Geneva Phonograms Convention, in 1993; and the Patent Cooperation Treaty, in 1994. China also adheres to several other conventions governing specific industries or disciplines, such as the revised International Convention for the Protection of New Varieties of Plants.

⁸ China has established special IPR courts in several provinces and cities to ensure that experts familiar with IPR laws and regulations may hear and preside over cases. For more information, see www.chinaiplaw.com/English/courts/fujian.ht.

⁹ Sumner La Croix and Denise Eby Konan, "Intellectual Property Rights in China: The Changing Political Economy of Chinese-American Interests," East West Center Working Papers, No. 39 (January 2002): 19-20, available at <http://www.eastwestcenter.org/fileadmin/stored/pdfs/ECONwp039.pdf>, accessed 11 November 2008.

IPR Law Enforcement

There are two primary ways in which an IP owner can seek to assert its IPR in China: through an administrative procedure or through a criminal or civil judicial procedure. The administrative procedure is an unusual approach to dealing with IPR issues and may be unique to China. The judicial course of action is similar to that found in the United States and other Western countries.

Administrative Enforcement: Injunctions, Fines and Penalties

The administrative procedure is the most commonly used method for asserting IPR in China, especially for trademark and copyright matters. It can provide an effective method for adjudicating IPR disputes, though it offers no financial compensation for an IP owner who prevails.

The exact course of action will vary depending on the type of IPR infraction. In general, an owner of intellectual property that suspects infringement may compile evidence to substantiate its claim and even some indication of the location of the facilities in which the alleged infringement of IPR is occurring (e.g., where illegal copies of movie DVDs are being manufactured). Private investigators will frequently be hired to assist in compiling such evidence.

This evidence will be taken to the local branch of the agency responsible for the protection of the relevant form of IPR.¹⁰ If the agency agrees to take on the case, it may conduct raids to confiscate illegal goods and equipment and to gather more evidence. It will also issue an order requiring the infringer to cease production. At some point, it will also require the parties to mediate the dispute.¹¹

While administrative agencies cannot award compensation to an IPR holder, they do impose costs on the infringer for its acts of infringement. Administrative agencies may fine copyright infringers and those involved in passing off a patent owned by another entity (known as “passing off”).¹² They may also seize goods or equipment used in manufacturing products that infringe trademarks.¹³ Information regarding such administrative actions is usually not made public, making it difficult to assess their effectiveness.¹⁴ Some commentators have stated that the costs of seized inventory and machinery are often too small to deter would-be infringers or to put offenders out of business.¹⁵

¹⁰ Article 57 of the Patent Law and Article 53 of the Trademark Law both call for the parties to attempt to settle a dispute through consultation before taking a complaint to the administrative authority for patent affairs.

¹¹ Article 57 of the Patent Law explicitly calls for mediation, though mediation may also be encouraged for trademark and copyright matters under some circumstances.

¹² Article 36 of the Regulations for Implementing the Copyright Law. The administrative authority for patent affairs may fine a company that passes off a non-patented product as a patented product or passes off a patent owned by another entity as its own. See Article 58, “Where any person passes off the patent of another person as his own, he shall, in addition to bearing his civil liability according to law, be ordered by the administrative authority for patent affairs to amend his act, and the order shall be announced. His illegal earnings shall be confiscated and, in addition, he may be imposed a fine of not more than three times his illegal earnings and, if there is no illegal earnings, a fine of not more than RMB 50,000 Yuan. Where the infringement constitutes a crime, he shall be prosecuted for his criminal liability.” Passing off is the only offense that results in a fine imposed through the administrative procedure.

¹³ Article 45 of the Regulations for Implementing the Trademark Law.

¹⁴ At least one source describes administrative actions as not being effective. International Intellectual Property Alliance (IIPA), *2004 Special 301 Report: People’s Republic of China*, 40.

¹⁵ “The trademark and copyright industries continue to point out that administrative fines are too low to provide a deterrent, and as a result, infringers continue to consider administrative seizures and fines as a cost of doing business. OUSTR, *2008 Special 301 Report*.

Judicial Enforcement: Compensation and Damages

Parties may pursue civil judicial actions in the local people's court. Though small IP owners may continue to prefer administrative actions, the number of IPR cases pursued through the court system has been increasing.¹⁶ This increase appears to be due, in part, to changes to the laws which are designed to strengthen enforcement through court action and to provide more guidance and transparency to those pursuing such remedies. There has also been a successful effort to improve the qualifications of the judges presiding over cases involving IPR.¹⁷ Compensation is typically awarded in connection with an order to cease infringing activities and, in the case of copyright infringement, to make a public apology.¹⁸ While criminal prosecutions, including imprisonment, are possible under China's IPR law, they are not presently commonplace.¹⁹

Usually, cases are first brought to the intermediate people's courts at the municipal and provincial level or, if the case is large enough, to the high people's courts.²⁰ Special divisions that have jurisdiction over intellectual property matters have been established in almost all intermediate courts. There are at least 69 intermediate people's courts with such divisions.²¹ In courts that do not have such divisions, there are dedicated panels in charge of intellectual property matters.²² Divisions with jurisdiction over intellectual property cases have been established within the high people's court in all provinces. In 1996, the Supreme People's Court also established an intellectual property division. Cases may be appealed to a higher court if a party is dissatisfied with the decision in the first instance. However, the second decision is final and no further appeals are permitted.

Compensation for infringement in China is usually determined with simple calculations. For example, the plaintiff may be awarded an amount large enough to replace profits under the apparently straightforward assumption that plaintiff's sales would have continued at the same rate as occurred before infringement began.

While such calculations may be easy to implement, they often take inadequate account of how the market would have evolved in the absence of the infringement. For instance, the IP owner's products may have been in an early stage of its life cycle at the time that a key patent was first infringed. In such a situation, the IP owner's sales and market share may likely have grown in the future in the absence of the infringement. However, the infringement might have disrupted this potential growth. Thus, the pre-infringement sales levels might be a poor predictor of the sales the IP owner would have achieved had there been no infringement. On the other hand, assuming that the entire loss is the result of infringement might be an overestimation. It could be the case that the infringer might have been able to compete effectively and take away some sales from the patent owner without infringing.²³ Such issues of market responses to infringing activity often require expert economic, business, and market analyses to calculate accurate and appropriate damage awards.

¹⁶ "China's courts have seen a near 50 percent annual increase in the number of cases concerning Intellectual Property Rights (IPR) violations involving foreign firms since the country joined the World Trade Organization. From 2002 to 2006, China's courts settled 931 civil cases of IPR violation at first instance trials with an annual increase of 48 percent on average. In 2006, China's courts settled 353 civil cases of IPR violation at first instance trials, up 52 percent on the previous year, according to the Supreme People's Court." China State Intellectual Property Office, http://www.sipo.gov.cn/sipo_English/news/iprspecial/200701/t20070129_131237.htm, accessed 20 November 2008.

¹⁷ In its 2004 *301 Report*, the International Intellectual Property Alliance (IIPA) remarks upon the growing sophistication and effectiveness of the IPR courts throughout China and the fact that Chinese and US rights holders are using the civil system more frequently. See OUSTR 2004 *Special 301 Report: People's Republic of China*, 43.

¹⁸ Articles 46 and 47 of the Copyright Law.

¹⁹ The 2008 *Special 301 Report* prepared by the OUSTR states: "Unfortunately, there has been no sign yet of a significant shift in emphasis toward criminal enforcement. The safe harbors from criminal liability created by China's high thresholds for criminal liability (i.e., minimum values or volumes required to initiate criminal prosecution, normally calculated on the basis of the infringer's actual or marked price) continue to be a major reason for the lack of an effective criminal deterrent."

²⁰ "[A]bout 90 percent of intellectual property cases in China have been tried at first instance by courts at intermediate levels or above." Torremans, Paul, Hailing Shan, and Johan Erauw *Intellectual Property and TRIPS Compliance in China: Chinese and European Perspectives* Edward Elgar Publishing, 2007.

²¹ Deshan Li and Hao Zhang, "The Costs of Infringement," in *Managing Intellectual Property, IP Focus, China*, 6th Edition, 1 April 2008, p.51. <http://new.managingip.com/Popups/PrintArticle.aspx?ArticleID=1915253&issueID=&categoryID=>, accessed 10 November 2008.

²² Torremans et al. (cited above) count 170 intellectual property divisions and 140 dedicated intellectual property panels.

²³ For a discussion of these points, see *Grain Processing Corp. v. American Maize-Products Co.*, F.3d (Fed. Cir. 1999). For an economic critique of the decision, see Hausman, Jerry; Leonard, Gregory K. and Sidak, Gregory J., "Patent Damages and Real Options: How Judicial Characterization of Non-Infringing Alternatives Reduces Incentives to Innovate," *Berkeley Technology Law Journal*, Vol. 22, Fall 2007.

In Chinese courts, damages are frequently computed based upon the infringer's unjust enrichment. Since infringers usually sell their illegal copies at a small fraction of the price charged by the IPR owner, damage awards based on unjust enrichment are often modest compared to damage awards based on the IP owner's lost profits from lost sales. Moreover, some infringers do not maintain complete transaction records and the full extent of their gain can be very difficult to determine.

Chinese courts will award legal fees, but review them for reasonableness. They will not award fees that they consider to be excessive.²⁴

Discovery is limited compared to the United States, the United Kingdom, Australia, New Zealand, and other common-law jurisdictions.²⁵ In the United States, for instance, parties to a dispute are entitled to documents from the opposing party's records that may pertain to the dispute.²⁶ By contrast, in China, as in other civil law jurisdictions, plaintiffs can simply petition the people's court to ensure that evidence is preserved. For instance, Article 50 of the Copyright Law allows an aggrieved copyright owner "before instituting proceedings, [to] apply to a people's court for evidence preservation where the evidence is likely to be missing, or to be difficult to obtain later." As is the case generally, in China, this situation may evolve to allow more comprehensive discovery.

In the meantime, new techniques and technologies may help parties in IPR litigation in China to develop more comprehensive and accurate damage estimates. For example, the increasing availability of retail scanner data may make it easier to collect information about past sales.²⁷ In addition, surveys may also help to develop a more comprehensive estimate of infringer's gains due to IPR infringement. A simple survey may, for example, establish market share by randomly selecting the relevant population of consumers and asking which products they own or have recently purchased. A more complex survey may determine the value of a patented feature by asking consumers to select among alternatives with and without the feature at different price points. Such techniques may enable both plaintiffs and defendants to produce more precise and accurate damage estimates.²⁸

As the situation currently stands, however, economic damages claimed and awarded are low compared to those found in the US and other industrialized countries. The relatively low amount of even the largest awards in China is discussed below. Since there are no limits on the damages that can be awarded by a Chinese court, it appears that plaintiffs have generally been unable to provide sufficient evidence to convince a judge that they have suffered extensive damages. Such caution has both economic benefits and costs. Low damage awards have the benefit of reducing the risk of IP owners receiving excessive damage awards unrelated to the actual economic harm suffered. Low damage awards can result in the wider use of a technology to the benefit of consumers since a company will expect that, even if convicted of infringement, it probably will not have a large judgment awarded against it. The expectation of lower damages will also encourage companies to attempt to design around a patent. Frequently such a design-around may be found to infringe, despite the defendant's attempt to avoid a legal dispute. With generally low damage awards, the costs of having attempted to innovate around a piece of IP are also low.²⁹

But damage awards significantly below the actual economic harm suffered can impose real economic costs on the economy. If infringers are not adequately deterred from infringing, there tends to be insufficient protection for innovators and decreased incentives to invest in research and development. Low damages have been recognized as compromising the effectiveness of the IPR system in China. The challenge is to find the balance between providing adequate compensation to those who have suffered losses from infringement, and not imposing damages so high as to suppress innovation by companies trying to design around others' patents.

More detail regarding patent, trademark, and copyright infringement fine and penalty assessment and damage calculations in China is described in the table below.

²⁴ In a copyright case brought by Walt Disney Inc. against Beijing Publishing House, the Court ruled that it was unfair for compensation for legal fees to be calculated on the basis of fees negotiated between Disney and its attorneys. The court based its award for fees on the basis of "correspondent regulations by relevant government authorities." See http://english.ipr.gov.cn/ipr/en/info/print.jsp?a_no=2656&col_no=128&dir=200604, accessed 2 September 2008.

²⁵ Pejovic, Caslav "Civil Law and Common Law: Two Different Paths Leading to the Same Goal," *Victoria University of Wellington Law Review*, Vol. 32, (2001) p. 832.

²⁶ This often includes detailed cost accounting records, business plans, demand studies, and technical documents. The staff of companies on both sides of the dispute may be questioned by lawyers on the opposing side under oath. Lawyers for both sides have a professional responsibility to ensure that document requests from the other side are respected. Failure to comply with the rules of discovery can result in severe sanctions.

²⁷ Scanner data may have already had an impact on proceedings arising from the newly enforced Anti-Monopoly Law.

²⁸ For a discussion of these issues, see Eugene P. Eriksen and Sarah M. Butler, "The Use of Surveys in Intellectual Property Disputes" in Leonard, Gregory K, and Lauren J. Stiroh (eds.) *Economic Approaches to Intellectual Property; Policy, Litigation, and Management*, NERA Economic Consulting, 2005.

²⁹ 5 Nw. J. of Tech. & Intell. Prop. 449 at <http://www.law.northwestern.edu/journals/njtip/v5/n3/4>, accessed 11 November 2008.

Table 1. Damage Estimation In IPR Cases In China

Type of Action	Patents ³⁰	Trademarks ³¹	Copyrights ³²
Administrative			
Basis for Damage Award	Not more than 3xearnings from passing off only. ³³	3xvolume of illegal business. ³⁴	3xvolume of illegal business ³⁵ and an apology. ³⁶
Award When Illegal Earnings Cannot Be Determined	Fines may not exceed \$6,000 for passing off only.	Fines may not exceed \$12,000.	Fines may not exceed \$12,000.
Judicial			
Basis for Damage Award	Plaintiff chooses damages based on losses suffered by the patentee, or the gain or profits which the infringer has earned through the infringement. ³⁷		
Calculation of Damage Award	Calculated as patent owner’s lost sales or infringer’s sales multiplied by reasonable profit for each product, or one to three times a reasonable royalty. If there is no reasonable license, compensation may be set between \$605 and \$36,000, but not more than US\$60,500.	Disgorgement: infringers’ profits or, if they cannot be determined, the profit margin for the plaintiff may be used. Lost profits: calculated as the sales amount of the infringing product times the profit margin of genuine product. Where neither the plaintiff’s loss nor the infringer’s profits may be determined, law permits payment of statutory damages up to \$60,000. ³⁸	Actual loss of the right owner or, if that cannot be determined, unlawful income of the infringer. If neither can be determined, compensation of up to \$60,000 depending on circumstances. ³⁹

³⁰ Patent Law of the People’s Republic of China. See <http://www.wipo.int/clea/en/details.jsp?id=860>, accessed 27 October 2008.

³¹ Trademark Law of the People’s Republic of China. See http://www.ccpit-patent.com.cn/references/Trademark_law_China.htm, accessed 20 November 2008.

³² Copyright Law of the People’s Republic of China. See http://ccpit-patent.com.cn/references/Copyright_Law_China.htm, accessed 20 November 2008.

³³ Article 58.

³⁴ Administrative fines for infringement the Trademark Law are from Article 52 of the Regulations for Implementation of the Trademark Law.

³⁵ Administrative fines for infringement the Copyright Law are from Article 36 of the Regulations for Implementation of the Copyright Law.

³⁶ Article 47 of the Copyright Law.

³⁷ See, for instance, Article 60 of Patent Law of the People’s Republic of China.

³⁸ Articles 14–16 of the *Interpretation by the Supreme People’s Court of Several Issues Relating to Application of Law to Trial of Cases of Civil Disputes over Trademarks*.

³⁹ Article 48 of the Copyright Law.

Recent IP Damage Awards in China

To investigate the trends in damage awards in IPR cases, we reviewed information on 179 cases filed in Chinese courts between 2002 and spring 2008. The main allegation in each of these cases was of patent, trademark, copyright, or trade dress infringement. These cases either settled, resulted in findings of guilt, or were unresolved at the time the data were compiled. Twenty of the cases primarily involved patents; 54 involved copyrights; 100 involved trademarks; two involved trade dress; two involved trade secrets; and one involved domain name disputes.

The information was drawn from more than 15 different sources, including Chinese government agencies, news stories in Chinese and international media, law firm newsletters, and other reports. We compiled data on all cases about which we could find information. The Chinese government and press have published information and data about most of these cases, several of which involve significant, record-setting damage awards.

However, our entire database represents a very small fraction of the IP cases decided in China during the period. By way of comparison, the number of IP cases filed in China grew from about 3,500 per year during the period from 1991 to 1996 to over 14,000 in 2006.⁴⁰ The particular cases appearing in our sample are not a random sample of the entire universe of cases, and thus we caution against extrapolating precise conclusions from our sample to the entire universe. The thousands of other cases for which we do not have data may have involved low or no damages.⁴¹ Nevertheless, the information is helpful in suggesting broad trends regarding the companies involved in IP litigation and the range of damage awards.

All values are shown in US dollars at the exchange rate prevailing at the time of the award.

Summary of Key Findings

- More than 90 percent of all IPR damages awarded in China are under \$100,000.
- The median damage award across all IPR cases in China in 2006-2007 was approximately \$15,000.
- The median damages award is approximately 15 percent of the IP owner's damages claim.
- In cases involving a Chinese plaintiff and a Chinese defendant, the plaintiff received a lower median award than when the plaintiff was foreign.
- Companies based in the US, France, Japan, and Germany make up 50 percent of plaintiffs in the cases reviewed, but less than 5 percent of defendants.
- Courts in Beijing and Shanghai hear the most IP cases tried in China.
- The highest damage award in each of the last five calendar years are:
 - 2004: \$50,000
 - 2005: \$1,100,000
 - 2006: \$210,226
 - 2007: \$44,300,000
 - 2008: \$2,780,000 (to date)

⁴⁰ According to the State Intellectual Property Office of the People's Republic of China (SIPO), in 2006, "14,056 first-instance civil cases concluded." An article by Former Judge Cheng Yong-Shun in the *Duke Journal of Comparative & International Law* (9 *Duke J. of Comp. & Int'l L.* 26) published in 1998 reported that "from 1991 to 1996, Chinese courts accepted 19,404 cases of intellectual property civil disputes (of which 17,588 cases were decided). These cases included 4,138 patent dispute cases (of which 3,687 cases were decided); 3,036 copyright dispute cases (of which 2,892 cases were decided); 1,227 trademark dispute cases (of which 1,095 cases were decided); 8,162 technology contract dispute cases (of which 7,208 cases were decided); and 2,841 other cases, including infringement of trade secrets (of which 2,706 cases were decided)." This suggests roughly 3500 cases a year were decided between 1991-96. As the more recent figures from SIPO suggest, it is reasonable to assume this number has grown considerably, as the number of cases filed has grown exponentially since the early 1990s.

⁴¹ Our data probably does not reflect the proportion of IP cases between Chinese companies.

Plaintiffs and Defendants

As is shown in Table 2, in the large majority of the cases in our sample, the defendant is a company located in China. In the balance of cases, the defendant most frequently is a company based in the US, France, Japan, or Germany. Only 38 percent of plaintiffs are China-based entities; the others are located in the same countries as non-China-based defendants. One might expect that countries with the highest levels of foreign investment in China would also be the countries where companies bringing the most IPR cases are headquartered. However, it is interesting to note that the home countries associated with the countries bringing the largest percentage of IPR cases only roughly comport with the amount of direct foreign investment from these countries. Sources of the highest foreign direct investment in China include Japan, South Korea, Singapore, the US, Taiwan, the United Kingdom, France, and Germany.⁴² There are no Singapore-based plaintiffs in our sample, only two plaintiffs from the United Kingdom and one from Taiwan. This pattern may be the result of the high proportion of trademark and copyright cases in our sample since the countries listed on Table 2 may be the source of many of the more valuable and sought-after copyrights and trademarks. Or it may simply be a function of the size of our dataset, relative to the total number of cases litigated.

Table 2. Top Five Home Countries As Plaintiff And Defendant

Plaintiff		Defendant	
Country	Percentage of Cases	Country	Percentage of Cases
China*	38%	China*	93%
US	26%	US	2%
France	9%	France	1%
Japan	9%	Japan	1%
Germany	6%	Germany	1%

* Includes litigants from Hong Kong.

That possibility is confirmed somewhat by noting that the most frequently appearing plaintiffs in our sample are large and well-known international companies, including Nike, Sanofi-Aventis, Warner Brothers Entertainment, and Yamaha. Some companies appear several times in our sample, particularly those in the sports clothing, music, and entertainment industries. Table 3 lists some of the plaintiffs most frequently encountered in the data.

Table 3. Companies That Appear Most Frequently In The Data

Number of Observations in Data	Company Name
8	Columbia Picture Corp.
7	Paramount Pictures; SONY; Walt Disney
6	Alfred Dunhill; Universal City Studios; 20th Century Fox; Puma; Warner Music
5	Lacoste
4	Adidas-Salomon AG; Parker Pen; Louis Vuitton
3	Nike; Levi Strauss & Co.

⁴² China Statistical Data, "Foreign Direct Investment by Country or Territory," (January-February 2007), <http://www.china.org.cn/e-company/07-05-10/page070317.htm>, accessed 27 October 2008. Also, "FDI up 10.87% in first 9 months." Xinhua News Agency, 13 October 2007. These figures do not include other sources that appear to be important contributors to foreign direct investment into China but which appear to be conduits for Chinese companies to invest back into mainland China. These include Hong Kong, Macao, the British Virgin Islands, and Samoa. Companies from other countries will also use these jurisdictions as places from which to invest into China.

The cases we reviewed involve a variety of industries, with many related to consumer goods and electronics. Table 4 shows the industries in our sample in which IPR is litigated most frequently. Cases in the clothing industry primarily involved trademark issues. Of all of the clothing cases, 23 percent featured plaintiffs from France, while 17 percent included plaintiffs from Germany. Cases with a plaintiff from China constituted 20 percent of the clothing cases in our sample.

Table 4. Filings By Industry

Industry	Percentage of Cases	Median Award	Percentage of Cases in Which Non-Chinese Company is Plaintiff
Clothing	20%	\$11,428	80%
Computer Software	8%	\$32,000	50%
Food	8%	\$25,252	57%
Automotive	5%	\$3,884	67%
Electronics	4%	\$14,579	50%
Electronics without Chint/Schneider	4%	\$6,658	57%

Courts and Jurisdictions

Table 5 shows the courts that appear most frequently in our sample. The most frequent venue was Beijing, followed by Shanghai. The remaining cases were tried in other cities throughout China. This is consistent with what appears to be a general consensus about the relative quality of courts. Both Beijing and Shanghai courts are apparently held in relatively high regard, which contributes to the large number of cases brought there. Cases also tend to move more quickly in Shanghai courts.⁴³ Among the cases in our sample, the Shanghai courts had a relatively higher proportion of non-Chinese plaintiffs.

Table 5. Filings By Court

Court*	Cases Reviewed Involving this Court**	Proportion of Foreign Companies Filing
Beijing No. 2 Intermediate People’s Court	24	71%
Shanghai No. 2 Intermediate People’s Court	22	77%
Shanghai No. 1 Intermediate People’s Court	18	89%
Beijing No. 1 Intermediate People’s Court	16	56%
Beijing Higher People’s Court	15	47%
Shenzhen Intermediate People’s Court	6	67%
Other	65	54%

* Data included only for cases in which a court is specified.

** Cases tried or appealed in more than one court are counted as a “case reviewed” in each of those courts.

Damage Awards

Table 6 provides summary statistics on IPR damage awards in our sample, while Table 7 provides more detail on the five largest awards. By far the largest award was that made to a Chinese company, Chint, in a case that was brought against a French company, Schneider Electric.⁴⁴ In that case the Wenzhou Intermediate People’s Court handed down an award of \$44.3 million in September 2007.⁴⁵ That award is so much higher than those awarded in other cases that it distorts the average award in our sample. Some other relatively high awards also tend to skew the average reward. To avoid these effects, we report medians instead of averages to summarize the data. The median is the midpoint in the range of outcomes, where half the outcomes are higher and half are lower. Table 6 shows the median damage award for all IPR cases. It also shows the median amount awarded as a percentage of the amount claimed in cases for which we have both figures.

⁴³ 2008 Special 301 prepared by the Oustr states: “Beijing courts enjoy a generally good reputation, which contributes to Beijing having the nation’s highest number of civil IPR cases. Shanghai is also increasingly becoming the venue of choice for foreign companies filing IP-related cases because of the expertise and competency of Shanghai judicial officials.”

⁴⁴ For further detail about this case, see David S. Bloch, *Damages in Mainland Chinese IP Litigation*, 19 (4), *Intellectual Property Litigation* 3 (Summer 2008).

⁴⁵ The Chint/Schneider case is still under appeal. See <http://www.chinaipmagazine.com/en/journal-show.asp?id=258>, accessed 11 November 2008.

While damage awards appear to be relatively modest, it also appears that in our sample the plaintiffs' damages claims have also been relatively low. This may be because plaintiffs are aware that they will not receive large awards and avoid asking for sums that may predispose the court to rule against them. It may also be because plaintiffs are more interested in the possibility of getting injunctive relief with an order to the defendant to stop production.

Damages awarded across all types of IP ranged from \$0 to \$2.8 million, excluding the Chint/Schneider case. There were seven cases in which no damages award was made. In six of these zero-damage-award cases we have an indication that damages were sought. The median amount being sought in those cases—which include one case with a damage claim of \$12.4 million—was \$997,500. In all cases in which there was a zero award of damages, at least one defendant was a Chinese firm.

Table 6. Median Damage Claims and Awards for all IPR*

Median Damages Claimed	\$87,500
Median Damages Awarded	\$13,100
Median Damages Awarded as % of Median Damages Claimed	15%

* Based only on cases for which both the amount claimed and the amount awarded are known.

Table 7. Cases Resulting in Five Largest Awards for IPR Infringement in China

Plaintiff	Plaintiff Headquarter Location	Defendants	Defendant Headquarter Location	Case Type	Damage Award
Chint	China	Star Electric Equipment Co. Ltd; Schneider Electric	China; France	Patent	\$44,300,000 (2007)
Mr. Zhao Hua	China	G2000	China (Hong Kong)	Trademark	\$2,780,000 (2008)
China National Cereal	China	Beijing Jia Tu Wine Co.; Jiang Xi Happy Wine and Food	China	Trademark	\$2,580,000 (2005)
Yamaha Corp	Japan	Zhejiang Huatian Industrial Company (and distributors, Taizhou Jiaji Motorcycle Distribution Co. Ltd and Taizhou Huatian Motorcycle Distribution Company Ltd)	China	Trademark	\$1,100,000 (2005)
Kenwood	Japan	Jujian Top Way Intelligent Science & Tech.; Beijing Yichang Yuan High-Technology Ltd; Fuqing Rongqei Communication Ltd	China	Patent; Copyright; Unfair Competition; Trademark	\$580,300 (2007)

Sources:

- <http://english.sina.com/business/1/2007/0929/127052.html>, accessed 27 October 2008.
- <http://www.chinalawandbusiness.com/2008/02/27/20-million-yuan-damages-for-trademark-infringement-yikes/>, accessed 27 October 2008.
- http://www.lawyersweekly.com.au/articles/Pirates-or-partners_z67655.htm, accessed 27 October 2008.
- <http://thekneeslider.com/archives/2007/06/13/china-builds-and-sells-fake-yamaha-scooters/>, accessed 27 October 2008.
- <http://www.tmsj.jp/2007/11/en/>, accessed 27 October 2008.

The pattern of results in Table 6 for cases involving all categories of IPR is roughly consistent with the results when the cases are broken out by the type of IPR asserted. For example, the upper panel of Table 8 shows the total and median damages claimed for all the patent cases compiled in our sample. Median damages claimed are a modest \$77,677, while awards are scaled back from plaintiff's request to a median amount of just \$34,722.

The lower panel displays results for cases in which we have information for both the award claimed by the plaintiff and the amount actually awarded by the court.⁴⁶ These results are consistent with the results for the larger number of observations that we report in the upper panel of the table.

Table 8. Damages Claimed and Damages Awarded in Patent Cases in China

For All Patent Cases in NERA Database	Number of Cases	Amount
For All Patent Cases in NERA database		
Median Damages Claimed	9	\$77,677
Median Damages Awarded	14	\$34,722
Median Damages Awarded as a Percent of Median Damages Claimed		45%
For all Cases in Which Both Claim and Award is Known		
Median Damages Claimed	5	\$77,677
Median Damages Awarded	5	\$38,839
Median Damages Awarded as a Percent of Median Damages Claimed		50%

Median damage awards for patent infringement are lower in China than in the United States. For example, according to a PricewaterhouseCoopers report, "Adjusting for inflation using the Consumer Price Index (CPI), the median annual damages award has remained fairly stable over the last 13 years. The median was \$3.9 million from 1995 through 2000, and \$3.8 million from 2001 through 2007."^{47,48}

Table 9 shows the equivalent figures for copyright and trademark cases. In copyright cases, claims appear to be significantly higher than in patent cases. On the other hand, damage awards tend to be smaller in copyright cases than in patent cases. In trademark cases, damages claimed appear to be about the same as in patent cases, though actual awards tend to be much lower. Put another way, plaintiffs receive a much smaller proportion of their claimed damages in copyright and trademark cases than in patent cases.

Damage awards for trademark infringement appear to be about half the amount of the damage awards made for patent infringement in China. Lower awards for trademark infringement are consistent with those awarded in the United States, though the difference appears to be smaller in China. For instance, the 2006 version of the PricewaterhouseCoopers report, cited above, reports that the median jury award for trademark infringement in the US was \$1.16 million from 2000 through 2005. The median jury award for patent damages during each of those years ranged from \$0.7 million to \$24.0 million. The average of these annual median patent damages awards was \$9.4 million.⁴⁹

We also examined the data to determine whether there was any clear difference in the patterns of awards being made to Chinese companies and foreign companies. The data in Table 10 indicate that Chinese plaintiffs tend to claim much higher damages; over four times more than foreign plaintiffs. However, Chinese plaintiffs are actually awarded much smaller amounts, approximately 50 percent of the awards made to foreign plaintiffs. Thus, Chinese companies appear to be awarded a much smaller percentage of their claims than foreign companies. Chinese plaintiffs may win a higher proportion of cases when suing a foreign firm, but any such result could be due to the facts of the cases being tried.

⁴⁶ A large claim of \$12 million also drops out of our data, since we do not know how much was awarded in that case.

⁴⁷ "A Closer Look: 2008 Patent Litigation Study: Damages awards, success rates and time-to-trial," PricewaterhouseCoopers LLP Advisory Service, [http://www.pwc.com/extweb/pwcpublications.nsf/docid/EBC144CF6220C1E785257424005F9A2B/\\$file/2008_patent_litigation_study.pdf](http://www.pwc.com/extweb/pwcpublications.nsf/docid/EBC144CF6220C1E785257424005F9A2B/$file/2008_patent_litigation_study.pdf), accessed 4 November 2008.

⁴⁸ "2007 Patent and Trademark Damages Study," PricewaterhouseCoopers LLP Advisory Crisis Management, [http://www.pwc.com/extweb/service.nsf/docid/3ca24a75615f03948025711e004b69a0/\\$file/2007_Patent_Study.pdf](http://www.pwc.com/extweb/service.nsf/docid/3ca24a75615f03948025711e004b69a0/$file/2007_Patent_Study.pdf), accessed 4 November 2008.

⁴⁹ See http://www.pwc.com/images/us/eng/about/svcs/advisory/pi/pwc_damages_final.pdf, accessed 20 November 2008.

Table 9. Damages Claimed and Damages Awarded in Trademark and Copyright Cases in China

	Copyright		Trademark	
	Number of Cases	Amount	Number of Cases	Amount
For All Cases in NERA Database				
Median Damages Claimed	35	\$213,000	41	\$65,478
Total Damages Awarded	31	\$1,231,526	78	\$7,518,089
Median Damages Awarded		\$18,109		\$18,488
Median Damages Awarded as a Percent of Median Damages Claimed		9%		28%
For All Cases in Which Both Claim and Award is Known				
Total Damages Claimed	14	\$15,705,431	25	\$21,157,438
Median Damages Claimed		\$251,313		\$83,178
Total Damages Awarded	14	\$533,263	25	\$5,112,384
Median Damages Awarded		\$20,607		\$12,500
Median Damages Awarded as a Percent of Median Damages Claimed		8%		15%

Table 10. Damages Claimed By and Damages Awarded to Chinese and Foreign Companies (All Types of IPR)

	Chinese Plaintiffs		Foreign Plaintiffs	
	Number of Cases	Amount	Number of Cases	Amount
For All Cases in NERA Database				
Median Damages Claimed	32	\$266,887	53	\$65,478
Total Damages Awarded	41	\$5,926,826	84	\$3,864,354
Median Damages Awarded		\$12,500		\$21,630
Median Damages Awarded as a Percent of Median Damages Claimed		5%		33%
For All Cases in Which Both Claim and Award is Known				
Median Damages Claimed	12	\$314,141	33	\$66,000
Total Damages Awarded	12	\$5,032,159	33	\$829,255
Median Damages Awarded		\$10,687		\$20,759
Median Damages Awarded as a Percent of Median Damages Claimed		3%		31%

We further examined this question through an econometric analysis to determine whether there was a difference in the size of awards when the plaintiff was Chinese or foreign.⁵⁰ While we have only limited information on the characteristics of the cases in our sample, econometrics does allow us to examine the effects of the location of the plaintiff and defendant companies while controlling for those characteristics for which we do have data. To do this, we estimated the coefficients (the β s) of the following equation using median regression:⁵¹

$$\text{Damages Awarded} = \beta_1 + \beta_2 \times \text{TM} + \beta_3 \times \text{C} + \beta_4 \times \text{PDC} + \beta_5 \times \text{PCDF}$$

All the variables on the right hand side are “dummy variables” indicating a characteristic of the case in which each award was given.⁵² TM indicates whether the case was a trademark case and C whether it was a copyright case. The last two variables are indicators of the nationalities of the parties involved. PDC indicates that both the plaintiff and defendant were Chinese entities. PCDF indicates that the plaintiff was Chinese and the defendant was foreign.

The equation attempts to show the damages awarded as a function of these explanatory variables.⁵³ The constant of the equation, β_1 , is the median of damages in the “base case,” which is a patent case in which the plaintiff is foreign and the defendant is Chinese.⁵⁴ The remaining variables capture how the median damage award varies compared to this base case. For example, the coefficient on the trademark dummy variable, β_2 , indicates the difference in awards in trademark cases relative to patent cases, holding constant the nationalities of the parties.⁵⁵ The coefficient β_4 represents the effect when the both the plaintiff and defendant are Chinese relative to the base case, holding constant the type of IP. The last coefficient, β_5 , indicates the additional effect on cases in which the plaintiff is Chinese but the defendant is not, relative to the base case, holding constant the type of IP.

The results of the regression are shown below:

$$\begin{aligned} \text{Damages Awarded} = & \\ & 37,311 - 17,311 \times \text{TM} - 16,063 \times \text{C} - 13,480 \times \text{PDC} + 1,528 \times \text{PCDF} \\ & (5.55)^{**} \quad (-2.49)^{**} \quad (-2.07)^{**} \quad (-2.66)^{**} \quad (0.17) \end{aligned}$$

N= 122

The numbers in parentheses are t-statistics used to test whether the corresponding coefficient is statistically significantly different from zero. A double star indicates that the corresponding coefficient is statistically significant at the 5 percent level.⁵⁶

⁵⁰ Econometrics is the application of statistics to economic data. In general, econometricians model the economic relationship among variables based on available data. Such models allow economists to infer the existence, direction, and strength of the relationships of interest.

⁵¹ As we mentioned above, there are a few damage awards that are 10 and even 100 times larger than the majority of the damage awards. In a situation such as this with a few significant outliers, a median regression is preferred to a standard Ordinary Least Squares (OLS) regression, since it is more robust to such outliers. The median regression, in this case, calculates the median of the amount of the awards, (rather than the average, as would be the case in OLS), given the values on the right hand side of the equal sign. More technically, in a median regression the coefficients (the β s) are calculated by minimizing the sum of the absolute differences between the predicted values and the actual values (the residuals) rather than minimizing the sum of the squared residuals, as would be the case in OLS.

⁵² Dummy variables are binary. They are equal to “1” when the condition is true and to “0” when it is not.

⁵³ Given that information on damages awarded is not available in all cases—either because the case has not settled or because information was not available—the number of observations used is lower than the total number of cases considered in this paper.

⁵⁴ In order to create a base case with a straightforward interpretation, we dropped cases involving trade secrets and trade dress from the regression. Dropping this small number of cases does not influence the substance of our results.

⁵⁵ The trademark dummy variable takes on “1” when the case is a trademark case, and “0” if it is not. Similarly, the coefficient on copyright captures, relative to patent cases, the change in the damages awarded that is expected in copyright cases.

⁵⁶ In a statistical hypothesis test such as this one, we calculate the probability of observing a t-statistic as large or larger than the one actually observed if the coefficient were in fact zero. If this probability is low (i.e., if it were very unlikely that we would observe a t-statistic as large as the one we observed if the coefficient were actually zero), we conclude that the coefficient is “statistically significantly different from zero.” Traditionally, statisticians and economists use 5 percent as the probability for determining statistical significance. That is, if the probability of observing the t-statistic we actually observed is less than 5 percent, we say that the coefficient is statistically significant. The 5 percent significance level corresponds roughly to a t-statistic of 2.

The constant, β_1 , indicates that the median award for a patent case in which the plaintiff is foreign is \$37,311. This is statistically significant from zero. The coefficient on the trademark dummy, β_2 , indicates that if the case is a trademark matter, the damages awarded will generally be \$17,311 less than the award for a patent case. Similarly, if the case is a copyright matter, the coefficient β_3 indicates that damages awarded will be \$16,063 less than in a patent case. Both of these effects are statistically significantly different from a finding of no difference from those in patent cases. However, we caution on extrapolating from our sample to the entire universe of cases due to the manner in which the data have been collected and the limited number of variables that are included.

The coefficients on the remaining dummy variables provide further insight into our earlier observation that Chinese plaintiffs tend to receive lower damage awards than foreign plaintiffs. In fact, the regression suggests that while Chinese plaintiffs receive lower median damage awards, this effect is only significant if the defendant is also Chinese. In cases involving a Chinese plaintiff and a Chinese defendant, the plaintiff receives a median award that is \$13,480 lower than when the plaintiff is foreign. On the other hand, the coefficient on the variable that indicates a Chinese plaintiff and a foreign defendant is not statistically different from zero. This indicates that the amount of the median award is not different when a Chinese firm is adverse to a foreign firm, regardless of which firm is the plaintiff.

Conclusion

IPR violations could have negative effects on the broader Chinese economy by discouraging investment and imposing costs upon those companies attempting to offer goods and services. As China becomes a major player in the world economy, it is strengthening its commitment to upholding and enforcing IPR. Chinese laws and regulations are converging with international standards. Patent, trademark, and copyright applications are being filed in growing numbers and damages and fines are increasing.

Notwithstanding this progress, however, violations continue to be documented.⁵⁷ Some IPR infringement is effectively curtailed through administrative procedures, though these result in low financial penalties and low compensation compared to the harm that some companies experience as a result of infringement. China's court system has become increasingly sophisticated over the last 10 years. Court cases, however, are marked by little discovery, and damage claims and awards that appear to be low. Plaintiffs may receive injunctive relief but are likely to be inadequately compensated through a damages award.

Our review of data on IPR court cases in China indicate that damages both claimed and awarded tend to be very small compared to those observed in other jurisdictions. Courts in patent cases award higher damages than in trademark and copyright cases. Damage awards in patent cases also are a higher percentage of the damages claimed than in trademark and copyright cases. China-based plaintiffs appear to receive lower awards in cases in which they prevail than foreign-based plaintiffs.

Improvements in the calculation and imposition of economic damages will contribute to IPR violation deterrence and provide better compensation to owners of IPR. Such improvements are likely to be in China's best interest as research and development continue to become more important to its economy.

About NERA

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Contacts

For further information and questions, please contact:

Alan Cox
Senior Vice President
alan.cox@nera.com

Kristina Sepetys
Senior Consultant
kristina.sepetys@nera.com

⁵⁷ According to the *2008 Special 301 Report* prepared by the Oustr, despite "positive progress...rampant counterfeiting and piracy problems have continued to plague China...indicating a need for stronger IPR regimes and enforcement."



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