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Abstract

Is being a foreign plaintiff a disadvantage in Chinese courts? Do right holders receive higher damage awards following the 2008 reform of statutory damage? This paper investigates these issues using patent infringement judgments from the Beijing courts in 2004-2011. We find that the popular notion of xenophobia is not supported in our sample; on the contrary, foreign plaintiffs are more likely to win lawsuits and obtain relatively higher compensation awards. Due to difficulties in damages calculation, judges tend to award statutory damages, which often fails to cover plaintiffs’ incurred losses. Despite increasing the maximum statutory damages award, the 2008 reform has failed to increase plaintiffs’ compensation, due to the lack of applicable conventions for calculating damages based on investigation and objective criteria. The proposal to introduce punitive damages in the Fourth Amendment of Chinese patent law since 2015 risks being just as inconsequential as the Third Amendment’s failed reform.

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INTRODUCTION

In the last two decades, China has been frequently criticised by its trading partners for being the source of counterfeit commercial goods, although China has been taking enormous effort in the legislation on intellectual property rights (IPR). After China introduced a comprehensive system of Intellectual Property (IP) law in the 1970s,¹ a dual IP enforcement system has formed.² As China subsequently revamped this system in response to U.S. pressure in the 1980s, before later amending it again in preparation for accession to the World Trade Organization (WTO), Chinese legislators have endeavoured to strengthen judicial enforcement.³ Chapter 7, Patent Law of the PRC has been constantly revised⁴ and China has numerous interpretative guidelines – binding upon all Chinese courts – specifying the

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⁴ Chapter 7 of the PRC Patent Law, ‘Protection of Patent Right’, has been amended in 1992, 2000, and 2008, with regard to the damages calculation, statutory damages, provisional measures, evidence rules, etc.
application of legal provisions on patent right enforcement. Despite these measures, many concerns have been raised regarding Chinese courts’ failure to implement these rules to effectively combat counterfeiting. However, besides these complaints, how IPR infringements are intervened and IPR victims are compensated in the courts, remain largely unknown.

Indeed, intellectual property rights are only as effective as the procedures and remedies by which they are enforced;\textsuperscript{5} the effectiveness of IPR enforcements can only be evaluated by systematically investigating the court outcomes. Therefore, this study attempts to fill the gap and take a first step toward empirically analysing the judicial enforcement of patent law in China. We evaluate the legal enforcement via addressing two major concerns of China’s trading partners: Are there home bias towards domestic parties and prejudice against foreign parties in the courts? Do IPR victims receive better compensation after reforms on statutory damages? We do this by assembling, aggregating, and analysing information on 318 patent infringement disputes trialled in the First and Second Beijing Intermediate People’s Courts from 2004 to 2011. The data in this study were acquired through our independent research and have never previously been available. For each observation (decision), we hand-coded the parties’ nationalities and names, the procedure duration, the litigation fee borne by each party, the damages claimed, and the compensation awarded, whether injunctive relief was granted, and so on. We also classified patents according to the categories of invention, utility model, and design patent, applying the patent varieties stipulated in the Patent Law of the PRC.\textsuperscript{6} We

\textsuperscript{5} C. Greenhalgh et al., \textit{Intellectual Property Enforcement in Smaller UK Firms} (2010), 3, at <http://ssrn.com/abstract=2707175>.

\textsuperscript{6} Art. 26-27, Patent Law of the People’s Republic of China (as amended up to the Decision of
collected all feasible variables in each judgement to capture each case’s key information. Our research goals are to test the conventional wisdoms, addressing the following issues:

(1) First, the popular perception that domestic protectionism, or even xenophobia, exists in Chinese courts regarding damages claims by domestic and foreign right holders (hereinafter ‘the hypothesis’);\(^7\)

(2) Second, the generally low patent damages awarded by Chinese courts and the lengthy and costly litigation may fail to adequately protect intellectual property rights (IPR);

(3) Third, whether the Third Amendment to the Patent Law of the PRC 2008, which endeavoured to enhance the level of patent protection (inter alia, by raising the maximum amount of awardable statutory damages), has positively influenced judicial practice;\(^8\)

(4) Finally, whether the proposed damages reform in the ongoing fourth amendment to 27 December 2008, regarding the Revision of the Patent Law of the People’s Republic of China), which is now in force. English translation available at


\(^7\) European Commission, *Commission staff working document, report on the protection and enforcement of intellectual property rights in third countries*, 5 February 2013, at

\(<http://trade.ec.europa.eu/doclib/docs/2013/march/tradoc_150789.pdf>\).

\(^8\) American Bar Association, *Joint Submission of the American Bar Association’s Section of Intellectual Property Law, Section of International Law, and Section of Science & Technology Law on Draft Amendments to the Patent Law of the People’s Republic of China* (undated), at

\(<http://www.abanet.org/intelprop/CommentsPRCPatentLaw_Changes.pdf>\).
the Patent Law of the PRC (‘the Fourth Amendment’) will, as pursued, increase the level of patent right enforcement to facilitate fighting counterfeiting.

The paper proceeds in five parts. Part I reviews the conventional wisdom on how the Chinese courts have adjudicated patent right holders’ civil remedy claims. To provide the necessary background information, we briefly introduce the civil remedy provisions relating to patent infringement disputes. Part II describes our data collection strategy and methodology. Part III presents our empirical results. Part IV discusses the implications of our findings for civil damages reform of the gestating Fourth Amendment to the Patent Law of the PRC. Finally, Part V concludes. By detailedly illustrating the state of patent infringement cases litigated to decision, we aim to enrich the discussion on IPR enforcement reform in China. We hope that other researchers will use and build on our dataset for further empirical study.

1. Perceived Inadequacy in Judicial Enforcement of Patent Rights

In recent years, China-originated illicit trade in piracy and counterfeiting of IPR has grown enormously. It has been claimed that this has resulted from the minimal risks posed to infringers through the courts, as the enforcement measures typically imposed by relevant judicial authorities offer inadequate deterrence: a widely bemoaned state of affairs; thus, the increasing importance of the ‘adjectival’ aspects of intellectual property law – rules of procedure, litigation, and remedies – is almost self-evident. Despite China’s effort in IPR

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legislation, more than two-thirds of all European companies surveyed described copyright
top protection in China as highly inadequate,\textsuperscript{10} and China received the most attention in the Report
on Enforcement of Intellectual Property (IPR) in Third Countries published by the European
Commission (EC) on 15 July 2015.\textsuperscript{11} According to the EC’s report, China is the only country
in which IPR protection requires urgent improvements. In its annual reviews of the global state
of IPR protection and enforcement, the Office of the United States Trade Representative
(USTR) has placed China top of the ‘Special 301 watch list’, the ‘priority watch list’, and
‘priority foreign countries’. China has been constantly surveilled by the US under ‘Section 306
of the Trade Act of 1974’ and subject to ‘Out-of-Cycle review of notorious markets’,
accompanied by the threat of economic sanctions.\textsuperscript{12}

\textsuperscript{10} European Commission, op. cit., n. 2.

\textsuperscript{11} An English-language version is available at

\textsuperscript{12} Office of the United States Trade Representative (USTR), 2006 Special 301 Report (2006), at
USTR, 2012 Special 301 Report (2012), at
\url{https://ustr.gov/sites/default/files/2012%20Special%20301%20Report.pdf};
USTR, 2013 Special 301 Report (2013), at
\url{https://ustr.gov/sites/default/files/05012013%20Special%20301%20Report.pdf};
USTR, 2014 Special 301 Report (2014), at
enforcement in China has been deemed a particularly acute problem, which, in 2009, triggered the WTO dispute between China and the U.S. under the TRIPS Agreement.\(^{13}\)

However, studies regarding the status of IPR enforcement in China tend to make factual assertions without sufficient empirical research.\(^{14}\) Those that highlight the perceived inadequacy of IPR protection in China typically refer to the ‘written law’, thus restricting their focus to legislation. Empirical studies have also not reached concrete conclusions regarding


\[^{14}\] Only a few empirical studies in this area have been conducted to date. The dataset of Cox and Sepetys, for example, represents a small sample of the IP cases decided in China during that period. The dataset was constructed from 15 different sources, which may reduce data consistency: see A.J. Cox and K. Sepetys, Intellectual Property Rights Protection in China: Trends in Litigation and Economic Damages (2009), at <http://ssrn.com/abstract=1330619>.
IPR enforcement in China,\textsuperscript{15} often for lack of adequate data.\textsuperscript{16} Sufficiently detailed data (for longer-horizon analysis) have not been collected to date. \textsuperscript{17} To fill this gap, our novel dataset provides an empirical basis for assessing the restoring and deterring functions of judicial enforcement of patent rights in China: the ‘law in action’.

\section*{2. Why Focus on Patents?}

\textit{(The Iconic Role of Patent Enforcement in the IPR Protection System)}

We focus on data concerning patent, rather than copyright or trademarks, for example, due to

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\begin{itemize}
\item \textsuperscript{17} Jin examines 166 decisions selected and published by the Gazette of the Supreme Court from 1985- 2014. However, for such a long horizon, this dataset is rather small: see H. Jin, ‘Statistical Analysis of Intellectual Property Rights Classic Cases (stats for 166 IP cases published in the Bulletin of the People's Supreme Court of China)’ (2015), at <http://law.cssn.cn/fx/fx_zscqfx/201511/t20151116_2595823.shtml>.
\end{itemize}
the following considerations:

(1) The patent, especially the invention patent, is the most valuable and comparable IPR type across countries. The Patent Law of the PRC protects invention patents, equivalent to the term ‘patents’ in Europe and the U.S.; design patents, equivalent to the same term in Europe and the US *Design*; and utility models. Based on the authors’ discussions with foreign practitioners, foreign entities do not use utility models and design patents as actively as Chinese entities. However, neither patent is inferior to the invention patent, despite their lower patentability requirements. We consider all three patent types in this study, as they are all treated as patents in the Chinese IPR enforcement system. Utility model infringement claims have also yielded very high damages awards in some instances. The protection of utility models and design patents is not only an integral part of patent enforcement in China but can also be very useful and valuable.

(2) Through its Interpretative Guidelines on civil remedies in patent disputes the Supreme People’s Court (SPC) has provided the first conventions on enforcing all kinds of IPR, especially with regard to calculating damages. In this sense, the empirical research on patent protection suggests the status quo of enforcing all IPR in China;

Alongside trademark protection, the inadequacy of patent enforcement has been most questioned and criticised – for example, by the EC – compared to enforcement in the areas of copyright, data protection, and geographical indications.\(^{19}\)

Furthermore, the strong increase in patent applications, including among Chinese stakeholders, also demonstrates the demand for analysing the functioning of judicial patent enforcement. Statistical data of the World Intellectual Property Organization (WIPO) indicates that China has recently become a major player in global IP development. The latest study from the Chinese Patent Data Project suggests that China is one of the world’s leading innovative economies, experiencing sustained, strong growth in patent filings in recent decades. For example, the number of applications for invention patents (the most-comparable type across countries) to the State Intellectual Property Office (SIPO) increased from 21,636 in 1995 to 391,177 in 2010, surpassing Japan to become the second largest patent-filing country; the number then increased to 526,412 in 2011, overcoming the U.S. to become the world’s top patent filer.\(^{20}\) Given that this patenting surge coexists with an established pattern of rampant piracy and counterfeiting in China, our study aims to contribute to fine-tuning appropriate rights delineation and proportionate IP protection standards. IP enforcement should balance

\(^{19}\) European Commission, op. cit. n. 2, p. 5.

and adjust the entire legal framework of IP, ensuring it fulfils its intended functions.²¹

3. **Role of Civil Measures in the Dual Patent Enforcement System**

China has maintained a unique dual IPR enforcement system,²² in which IP owners can seek to assert their IPR in China in two primary ways: the administrative procedure (injunctions, fines, and penalties) and the judicial procedure (damages awards, preliminary or permanent injunctive relief, and apologies).²³ However, under the current administrative systems in China, penalties and fines for IPR violations do not provide adequate deterrence to potential infringers. For instance, most studies suggest that fines represent only a tiny fraction of the estimated sales revenue lost to IPR holders.²⁴ As Chinese courts became more skilled in handling patent-related trials, administrative enforcement has increasingly been deemed to have accomplished


its historical mission.\textsuperscript{25}

Conversely, within the dual system, the leading role of judicial enforcement is an emerging trend. Though small owners of IP rights may continue to prefer administrative actions, the number of IPR cases pursued through the courts has been increasing.\textsuperscript{26} In sum, China’s efforts to improve the qualifications of judges presiding over IPR cases are deemed successful.\textsuperscript{27} Compensation is typically awarded alongside an order to cease infringing activities. While criminal prosecutions, including imprisonment, are possible under China’s IPR law, they are not presently commonplace.\textsuperscript{28}

In this context, we narrowed the subject matter of our empirical research to patent


\textsuperscript{26} After China’s accession to the WTO in 2001, the number of patent-related civil disputes accepted by first instance people’s courts increased from 2,549 in 2004 to 7,819 in 2012. Since the enactment of the Third Amendment to the Patent Law of the PRC in 2008, this has increased more rapidly: in 2008, 4,074 civil patent cases were accepted at first instance. In 2009, the courts accepted 4,422 first instances cases, indicating an increase of 8.54\% over the previous year. The annual increase in 2011 was 30.82 per cent and the increase in 2012 amounted to an annual rise of 35.16 per cent: see SIPO White Papers, at <http://english.sipo.gov.cn/laws/whitepapers/>.

\textsuperscript{27} USTR, op. cit. (2014), n. 13.

infringement litigation, focalising on the civil claims of right holders and the court rulings on them. China must strengthen its IPR civil litigation system to meet the requirements of TRIPS via, *inter alia*, amending statutes and improving court action to provide more guidance and transparency to right holders pursuing remedies. In our study, we hand-coded the data of two remedies: the injunction and compensatory damages. These are the most significant and frequently applied remedies in the IPR civil enforcement system. It is generally acknowledged that patent owners are at least entitled to two remedies: an injunction (cessation from infringement) and payment of damages. The availability of further remedies, such as

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29 According to Article 45 (1) of the TRIPS Agreement, the judicial authorities of member states shall have the authority to order the infringer to pay the right holder damages adequate to compensate for the injury the right holder has suffered because of an infringement of that person’s intellectual property right by an infringer who, knowingly, or based on reasonable grounds to know, engaged in infringing activity. Under Article 45(2) second sentence of the TRIPS Agreement, judicial authorities of member states may order the recovery of profits and/or payment of pre-established damages.

30 The relevant legal statutes for remedies are found in Article 134 of the General Principles of the Civil Law of the People’s Republic of China (effective 1 January 1987); Article 15 of the Chinese Tort Act (effective 1 July 2010), and Chapter 7 of the Patent Law of the PRC. As *lex specialis*, the regulations of the Patent Law of the PRC prevail over the other regulations.
apology, destruction of apparatus\textsuperscript{31} and provisional injunctions, is more contentious.\textsuperscript{32}

Our data collection and (regression) analysis focuses, \textit{inter alia}, on the civil damages awards in patent disputes, due to the following considerations:

(1) As is widely acknowledged, allowing infringed parties to recover economic damages from infringers is a vital component of the IPR enforcement system. Properly determined, compensation can restore the financial position of the holders of infringed rights, and, in appropriate cases, serve to effectively deter piracy and maintain the IP system’s healthy functioning.\textsuperscript{33}

(2) Before the conclusion of the Third Amendment to the Patent Law of the PRC (hereinafter ‘the Third Amendment’)\textsuperscript{34}, economic damages claimed and awarded in China were bemoaned as low compared to those in equivalent claims in the U.S. and


other industrialised countries. Thus, damage reform is the focus of the Third and (forthcoming) Fourth Amendments to the Patent Law of the PRC. One of the Third Amendment’s most important targets was enhancing compensation standards for right holders to facilitate fighting counterfeiting and piracy. Thus, we take 2008 as a hypothetical turning point (of increased compensation sums) that needs to be verified by regression analysis. By analysing the practical effects of the Third Amendment’s damages reforms, our findings should facilitate evaluating current reform proposals in the Fourth Amendment.35

Further, our datasets consider the proceedings duration and litigation fees of each dispute as the ‘cost of the enforcement’.36 To comprehensively detail the state of right holders in patent litigation, we recognise the ‘cost of the enforcement’ as the trade-off for patent right holders seeking judicial protection in China.

DATA

This dataset includes the first instance37 verdicts in all patent infringement disputes from the

35 The fourth amendment to the Patent Law of PRC (‘the Fourth Amendment’) was launched by the SIPO in 2014. The first draft was released on 1 April 2015 for public consultation, at <http://www.sipo.gov.cn/tz/gz/201504/t20150401_1095939.html>.

36 The attorney fees, as part of the enforcement fee, were not possible to trace on a case-by-case basis.

37 The jurisdiction on first-instance patent disputes in China was, until 2013, exclusively
Beijing Intermediate People’s Court from 2004 to 2011.

I. Sampling

We focused on Beijing for data collection due to the following considerations:

   (1) Patent cases in China are highly concentrated in a handful of major urban jurisdictions, especially Beijing, Shanghai, Jiangsu, Shandong, and Zhejiang. Interviews with IP judges and attorneys suggest that the courts in Beijing have been adjudicating a large proportion of all patent disputes in China in the past two decades. Prior empirical work has also confirmed this fact.38

   (2) Due to their geographical advantage, the Beijing courts have been playing a key role in China’s IPR enforcement reform.39

   (3) Since the establishment of the Beijing Intellectual Property Court (Special Courts) in 2014,40 the jurisdictions on patent infringement litigation of the First and Second

38 Cox and Sepetys, op. cit., n. 15, Table 5 (p. 13).

39 The SPC, located in Beijing, has initiated reforms to promote the role of judicial enforcement in the dual enforcement system.

40 The Regulations of the Supreme People’s Court on the Jurisdiction over Cases of the Intellectual Property Courts in Beijing, Shanghai and Guangzhou were enacted on 27
Beijing Intermediate Courts have been transferred to it. Thus, our datasets represent the pre-history of the Beijing IP Court, leaving scope for future empirical research in this regard.

2. **Source of Data**

Although court decisions are partly reported on public databases\(^41\) a full sample with over-inclusive datasets on the subject matter is impossible to collect through these sources. The SPC has endeavoured to facilitate the publication of court opinions since 2013, requiring Chinese courts of all instances to disclose and upload their written judgements to the designated database within seven days of their conclusion.\(^42\) Nonetheless, any judgments that could possibly violate data and/or privacy protection should be excluded from that database.\(^43\) Thus,


large numbers of judgments, orders, and opinions are excluded from the publicly accessible databases. Further, we suspect that the coverage of the ‘Judicial Opinion of China’ database is less comprehensive for older cases, as it was launched merely two years ago.

Therefore, we considered, but did not rely on, public databases for our data collection. This study’s data have largely been acquired through independent research. The population of patent cases was derived from the internal database of the Beijing Higher People’s Court, which has installed the ‘Judgment and Related Documents Automatic Collection Online System’ to automatically track every ruling of every Beijing court since 2004. The data derived from this system comprises 3,030 patent cases filed during the period 2004-2011. This includes every case resolved by any means (settlement, trial, ruling on transfer of jurisdiction, and so on). Among these 3,030 cases:

(a) 6 per cent are written orders regarding the parties’ objection to the court’s jurisdiction;
(b) 44 per cent are written orders to approve withdrawal of a suit;
(c) 10 per cent are settlements;
(d) 6 per cent are orders rejecting a civil litigation complaint because the administrative decision finding the patent invalid is confirmed by the court;
(e) 2 per cent are orders rejecting a complaint because the plaintiff did not appear at the trial;
(f) 4 per cent contain no content (entirely blank documents);
(g) 5 per cent are administrative litigation decisions reviewing a finding of patent invalidity by the Patent Re-examination Board (under the SIPO);
(h) 2 per cent are orders regarding objections of a person subject to enforcement;
(i) 21 per cent are patent civil litigation decisions, corresponding roughly to the dataset of 646 decisions we collected separately from the archive of the Administrative Office.

We have excluded the data in categories (a) to (h) for the following reasons. Categories (a) to (e) include merely procedural orders with no substantive content; they are not ‘decisions’ in terms of civil procedural law. This study aims to examine the function of judicial authority in the patent enforcement system, bemoaned by most of China’s trade partners. We notice that a large proportion of suits have been withdrawn by the plaintiff. This is probably due to settlement out of court. Unfortunately, these records are extremely brief, containing no substantive information. Category (f) offers no information to consider, while category (g) concerns patent validity. In general, disputes regarding patent validity are handled through prepositive administrative procedures in China. This is only remotely related to our aim of discovering the courts’ attitude to remedying infringement suffered by right holders in civil suits. Category (h) is a specific order issuable only in compulsory executions; therefore, it differs from infringement litigation in terms of civil procedure law.

The data obtained from the Administrative Office comprises 646 patent cases decided at first instance. When a patent case is tried and determined in the intermediate court, the judge is required to file a form with the Administrative Office, providing details regarding the case.\footnote{This is an internal regulation binding upon all judges and other staff in the Beijing Courts, but not stipulated in writing. We learnt of its existence through interviews with judges of the IP divisions in the Beijing Intermediate People’s Courts.} The Administrative Office compiles statistics by subject matter on determined litigation in
Beijing, dividing the filed patent judgements into the following categories: (1) Patent Infringement Disputes; (2) Patent Ownership Disputes; (3) Patent-related Contract Disputes, including disputes regarding patent applications, patent transfer contracts, and patent license contracts; and (4) Disputes between inventors and their employers. Our datasets focus on the patent infringement disputes in first-instance trials, which covers all the registered decisions in the first category used by the Administrative Office.

3. Data Description

There are 318 observations in the dataset, with the following variables:

- *foreign*: dummy variable, equals 1 for a foreign plaintiff;
- *design*: dummy variable, equals 1 for a design patent dispute;
- *inv*: dummy variable, equals 1 for an invention patent dispute;
- *claim*: the damages claimed by the plaintiff, in EUR;
- *comp*: the compensation that the plaintiff is awarded by the court, in EUR;
- *ratio*: the award ratio, calculated as *comp* divided by *claim*;
- *success*: dummy variable, equals 1 if the plaintiff’s claim on infringement succeeds in court;
- *ltc*: litigation cost, in EUR;
- *lit_p*: the litigation cost that the plaintiff incurs, in EUR;
• *lit_d*: the litigation cost that the defendant incurs, in EUR;

• *duration*: the duration of the proceedings, in months;

• *y2008*: year 2008 dummy.

Table 1 presents the summary statistics for all the variables.

**Table 1. Summary statistics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs.</th>
<th>Mean</th>
<th>Std. dev.</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign</td>
<td>318</td>
<td>0.23</td>
<td>0.42</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>design</td>
<td>318</td>
<td>0.42</td>
<td>0.49</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>inv</td>
<td>318</td>
<td>0.38</td>
<td>0.49</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>claim</td>
<td>316</td>
<td>99,038</td>
<td>284,648</td>
<td>0</td>
<td>3,066,299</td>
</tr>
<tr>
<td>comp</td>
<td>313</td>
<td>14,950</td>
<td>60,878</td>
<td>0</td>
<td>694,003</td>
</tr>
<tr>
<td>ratio</td>
<td>300</td>
<td>0.20</td>
<td>0.27</td>
<td>0</td>
<td>1.2</td>
</tr>
<tr>
<td>success</td>
<td>318</td>
<td>0.66</td>
<td>0.48</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ltc</td>
<td>311</td>
<td>1063</td>
<td>1,912</td>
<td>0</td>
<td>20,125</td>
</tr>
<tr>
<td>lit_p</td>
<td>312</td>
<td>574</td>
<td>1,151</td>
<td>0</td>
<td>9,218</td>
</tr>
</tbody>
</table>
Table 2 shows the proportions of various types of disputed patents. For the entire sample, 42.1 per cent of all proceedings are disputes concerning a design patent, 19.9 per cent a utility model, and 38.0 per cent an invention patent.

**Table 2. Proportion, Mean Claim, Award Ratio, and Duration for Each Type of Disputed Patent**

<table>
<thead>
<tr>
<th>Types of disputes</th>
<th>Proportion of sample</th>
<th>Mean claim (EUR)</th>
<th>Mean award ratio</th>
<th>Mean duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>42.1%</td>
<td>87,365</td>
<td>0.22</td>
<td>7.50</td>
</tr>
<tr>
<td>Utility model</td>
<td>19.9%</td>
<td>104,876</td>
<td>0.17</td>
<td>7.34</td>
</tr>
<tr>
<td>Invention</td>
<td>38.0%</td>
<td>134,017</td>
<td>0.20</td>
<td>7.41</td>
</tr>
</tbody>
</table>

Figure 1 presents the number of proceedings with domestic and foreign plaintiffs, respectively, over the sample time horizon. The numbers grew quickly between 2004 and 2009, but then
declined in 2010 and 2011, mostly because many proceedings remained in progress by the end of 2011.

Fig. 1. Number of Proceedings over the Sample Horizon

FINDINGS

1. Impact of nationality on litigation outcome

Our finding is not consistent with the popular notion that ‘xenophobia’ or ‘domestic protectionism’ dominates in Chinese courts. On the contrary, in econometric analysis, our sample tends to show that foreign right holders enjoy rather ‘favourable treatment’.

(a) ‘Favourable treatment’ of foreign right holders?

We adopt two types of models in the econometric analysis: ordinary least squares (OLS) and Probit. The results are summarised in Table 3. The first row lists the dependent variable and type of model in each regression, while the first column contains the independent variables.
used in the regressions. We report the estimates of parameters in each regression, with standard deviations in parentheses.

Models (1)–(4) are based on OLS, with logged value of plaintiff’s compensation, \( \ln \text{comp} \) as the dependent variable for models (1) and (3), and \( \text{success} \) the dependent variable for models (2) and (4). We use plaintiff’s identity, type of patent, and damages claimed as independent variables in models (1) and (2), while models (3) and (4) further include the costs of court action in the right-hand side variables. Model (5) is based on Probit, in which the plaintiff winning the case is regarded as a probabilistic outcome from the court proceedings.

Table 3. Determinants of winning and the damages award

<table>
<thead>
<tr>
<th></th>
<th>( \ln \text{comp} )</th>
<th>( \text{success} )</th>
<th>( \ln \text{comp} )</th>
<th>( \text{success} )</th>
<th>( \text{success} )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OLS</td>
<td>OLS</td>
<td>OLS</td>
<td>OLS</td>
<td>Probit</td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td></td>
</tr>
<tr>
<td>\text{foreign}, foreign</td>
<td>0.186 (0.206)</td>
<td>0.109* (0.061)</td>
<td>0.017 (0.217)</td>
<td>0.129* (0.069)</td>
<td>0.409* (0.228)</td>
</tr>
<tr>
<td>plaintiff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.243)</td>
<td>(0.069)</td>
<td>(0.267)</td>
<td>(0.078)</td>
<td>(0.246)</td>
</tr>
<tr>
<td>\text{design}, design patent</td>
<td>-0.310 (0.243)</td>
<td>0.289*** (0.069)</td>
<td>-0.205 (0.267)</td>
<td>0.284*** (0.078)</td>
<td>0.920*** (0.246)</td>
</tr>
<tr>
<td>dispute</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(0.273)</td>
<td>(0.071)</td>
<td>(0.293)</td>
<td>(0.077)</td>
<td>(0.227)</td>
</tr>
<tr>
<td>\text{inv}, invention patent</td>
<td>0.484* (0.273)</td>
<td>-0.097 (0.071)</td>
<td>0.574** (0.293)</td>
<td>-0.105 (0.077)</td>
<td>-0.281 (0.227)</td>
</tr>
<tr>
<td>dispute</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.066)</td>
<td>(0.016)</td>
<td>(0.314)</td>
<td>(0.053)</td>
<td>(0.241)</td>
</tr>
<tr>
<td>\text{ln_claim}, claimed</td>
<td>0.696*** (0.066)</td>
<td>0.022 (0.016)</td>
<td>0.044 (0.314)</td>
<td>0.092* (0.053)</td>
<td>0.351 (0.241)</td>
</tr>
<tr>
<td>damage, logged</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.331** -0.011)</td>
<td>-0.030 (0.331** -0.011)</td>
<td>-0.030 (0.331** -0.011)</td>
<td>-0.030 (0.331** -0.011)</td>
<td>-0.030 (0.331** -0.011)</td>
</tr>
</tbody>
</table>
of proceedings, logged (0.136) (0.037) (0.123)

\( \ln_{ltc} \), litigation cost, logged

\[ \begin{array}{c}
0.683^* & -0.099 & -0.384 \\
(0.378) & (0.073) & (0.309) 
\end{array} \]

_\text{cons} \quad 1.579^{**} \quad 0.332^* \quad 2.062^{***} \quad 0.452^{**} \quad -0.199

(0.735) (0.178) (0.777) (0.212) (0.724)

F-test

\[ \begin{array}{c}
47.34 \quad 13.72 \quad 26.56 \quad 9.37 
\end{array} \]

\( \text{Prob} > F \)

\[ \begin{array}{c}
0.000 \quad 0.000 \quad 0.000 \quad 0.000 
\end{array} \]

Adjusted \( R^2 \)

\[ \begin{array}{c}
0.494 \quad 0.145 \quad 0.476 \quad 0.157 
\end{array} \]

LR \( \chi^2 \)

\[ 51.44 \]

\( \text{Prob} > \chi^2 \)

\[ 0.000 \]

Pseudo \( R^2 \)

\[ 0.150 \]

Observations

\[ \begin{array}{c}
191 \quad 300 \quad 170 \quad 270 \quad 270 
\end{array} \]

* significant at 10% level, ** significant at 5% level, *** significant at 1% level.

The results for our sample do not support the popular notion of xenophobia: being a foreign plaintiff has a positive and significant effect on the likelihood of winning the suit (models (2), (4), and (5)); foreign plaintiffs actually enjoy favourable treatment, with an insignificant effect on the damages award (models (1) and (3)). Such a result is favourable for many foreign right holders, as winning the litigation is probably the most desirable outcome where (as is typical) it results in the issue of an injunction to stop the infringing activities: this is an effective way to build a reputation for toughness and send a credible ‘message’ to all the other actual and potential infringers of the plaintiff’s property rights. In contrast, receiving a sufficient damages award to cover the actual losses sustained cannot often be expected. In general, we found that
calculating actual damages is difficult for courts; thus, judges tend to simply award statutory damages, so that the actual compensation awarded is, on average, extremely low. We will discuss this issue further below.

Patent type also affects court outcomes. Claiming in respect of a design patent has a positive and significant impact on the probability of winning (models (2), (4), and (5)), while its impact on the damages award is negative and insignificant (models (1) and (3)). The reason is that design patent infringements are easier to verify than those of utility models or inventions, which need much greater expertise to identify. Therefore, right holders of design patents are more likely to be supported by the courts. Conversely, claiming in respect of an invention patent has a negative, insignificant impact on the probability of winning (models (2), (4), and (5)), while its impact on the damages award is positive and significant (models (1) and (3)). This is because infringements of invention patents are generally the most difficult to verify, while those patents have a comparatively higher market value. Therefore, courts tend to award those right holders higher compensation when they find infringement.

The impacts of the other independent variables are mixed. The damages claimed, \( \ln_{\text{claim}} \), is significant in model (1), but insignificant after we include the court action cost variables \( \ln_{\text{duration}} \) and \( \ln_{\text{ltc}} \) in model (3). In combination, proceedings duration \( (\ln_{\text{duration}}) \) and litigation costs \( (\ln_{\text{ltc}}) \) have a positive and significant impact on the damages award in model (4), reflecting the fact that complex cases requiring lengthier and costlier proceedings also involve patents with higher market values, leading successful plaintiffs to receive higher compensation. Furthermore, the cost variables and the plaintiff’s claimed damages are insignificant for the likelihood of winning in model (5).

We need to note, here, that there is a selection bias in models (1) and (3): by taking
In_comp as a dependent variable, those denied damages are dropped from the sample; therefore, the estimates are biased upwards. In Section IV, we adopt the Heckman selection model to correct selection bias in further investigations of damages awards.

(b) Explaining the Findings

There are least three possible explanations for the phenomenon of foreign plaintiffs receiving more compensation, conflicting with the popular notion of ‘xenophobia’ in adjudication of patent infringement disputes in China.

First, regarding the concentration of jurisdiction over patent cases in China, the legislation stipulates that exclusively learned judges, rather than a jury, must preside over patent infringement disputes. This factor could preclude personal prejudice and bias from swaying decision making. This is obviously different to the patent litigation policy in the U.S., where patents litigated by foreign patentees against domestic infringers may be determined either through jury trial or judicial decisions.45 Prior empirical work from the U.S. suggests that the win rate data evidence jury prejudice against foreign parties.46 In China, however, at


46 Juries favour in-state parties over out-of-state parties. In-state plaintiffs succeeded against out-of-state defendants in 72 per cent of the jury trials. Out-of-state plaintiffs who sue in-state
least three mechanisms have contributed to the impartiality of decision making in patent infringement litigation:

(1) The judicial policy in China provides for the concentration of jurisdiction over patent cases. Until 2013, jurisdiction on first-instance patent disputes lay exclusively with certain Intermediate People’s Courts. This policy has been framed by the SPC via its Interpretative Guidelines since 1992. Initially, the jurisdiction over first-instance patent-dispute trials was assigned to Intermediate People’s Courts in: cities holding seats of the People’s Government of Provinces (23 Provinces, comparable to the level of U.S. states); Autonomous Regions (Guangxi, Tibet, Inner Mongolia, Ningxia, and Xinjiang); and Municipalities under the Central Government (Beijing, Shanghai, Tianjin, and Chongqing). The SPC also directly authorised several other Intermediate Courts to handle such cases. The policy of jurisdiction concentration reflects the cautious and serious attitude of Chinese jurisprudence when dealing with patent cases: Generally, these designated courts have a well-constructed IP tribunal with relatively skilled and experienced judges. This system remained in force until April 2013, when the SPC enacted that, depending on the actual circumstances, it could authorise certain defendants prevailed in only 47 per cent of the jury trials: see K.A. Moore, ‘Xenophobia in American Courts’ (2004) 97 Northwestern University Law Rev. 1542, at. 1510 (Table 1).

grass-roots people’s courts to try first-instance patent cases. Nonetheless, this applies mainly to design and utility model patents, which are basically granted on a registration basis without substantive examination.

(2) It is mandatory that a panel comprising three Intermediate Court judges – instead of a single judge – shall adjudicate patent infringement disputes. Further, in practice, these ‘patent judges’ are trained above the average level both in legal and technological knowledge and skills, and are, therefore, likely to exhibit less bias in their decision making than juries.

(3) Judges are required to articulate all findings of fact and conclusions of law that underlie their judgement in a case. Judicial decisions are, therefore, more easily scrutinised to detect prejudice and bias.


50 Moore, op. cit., n. 47, p. 1510. In China, this has been highlighted by Judge Bisheng Shi at the IP Tribunal of the Beijing Higher People’s Court in his column at <www.zhichanli.com>, essay dated 17 August 2015.

51 C. Zhang, ‘The Structure, Formation and Reasoning of the Court Judgements in Germany
Second, the patents enforced by foreign patentees against domestic infringers are likely to be among the strongest. Although we lack measurable data suggesting differences in the quality of patents tried by foreign and domestic plaintiffs, for example, the patent grant rates and patent enforcement rates, measures commonly used in economics literature to signal originality suggest that foreign litigated patents are stronger than domestic litigated patents. More specifically, in our datasets:

(1) The number of cases involving foreign plaintiffs (Group I) is 28 per cent of that brought by domestic plaintiffs (Group II) during the eight-year sample period, suggesting that foreign right holders seek enforcement far less often, probably due, in part, to anticipating bias. This implies that claims related to foreign party patents actually litigated are particularly strong.

(2) The average damages claimed by foreign plaintiffs in Group I is approximately 2.33 times more than that claimed by domestic plaintiffs. The highest damages claimed by a foreign plaintiff is 2.1 times higher than the equivalent by a domestic right holder. This suggests that the foreign right holders who seek enforcement in China deem their

and the Inspiration for the Judicial Reform in the People’s Republic of China’ (2015) 10 J.

People’s Rule of Law.

52 Moore, op. cit., n. 47, p. 1524.

patents to be more innovative and of higher market value. Prior empirical work also suggests that in cases litigated through to trial, foreign party patents appear to have stronger characteristics in terms of innovation and market value.\textsuperscript{54}

Third, foreign right holders tend to invest more time and money in preparing for litigation. Thus, they are likely to incur much higher costs than domestic plaintiffs. This includes, for example, the translation and notary fees that apply solely to foreign plaintiffs,\textsuperscript{55} higher attorney fees,\textsuperscript{56} overcoming geographic and cultural obstacles, and higher travel and communication expenditure. Consequently, their prepared evidence and statements of claims may be more compelling than those of the domestic plaintiffs in China. In short, this phenomenon could be described as ‘higher investments deserve more gain’.

\textsuperscript{54} Moore, op. cit., n. 47, p. 1523.

\textsuperscript{55} Normally, any evidence originating from abroad shall be notarised by a notary in the respective country and then be verified by the Chinese embassy or consulate in that country: see M. Deng, ‘Patent Examination: a General Outline’ in Patent Law in Greater China, ed. S. Luginbuehl and P. Ganea (2014) 164.

\textsuperscript{56} Under Article 65, Patent Law of the PRC, damages also include reasonable expenses incurred by the plaintiff. These reasonable expenses cover both expenditures to prove the infringement (purchases of infringing products, notary costs, travel expenses, etc.) and attorney fees. While the amount spent to purchase the infringing product is regularly recovered, the compensation awarded for attorney fees typically falls far short of covering the real costs: see Y. Bu, Patentrecht und Technologietransfer in China (2010) 124.
(c) **Foreign right holders’ trade-off**

Nonetheless, the more favourable treatment of foreign right holders in terms of higher likelihood of winning could be counteracted by higher attorney fees and much longer litigation duration.

Litigation involves costs, including (internal and external) attorney fees, court fees, and so on. Litigation costs are an important component of the enforcement costs constituting the trade-off in dispute outcomes. Chinese courts will, in certain circumstances, award legal costs, but claimed costs will be reviewed for reasonableness, and the courts will not award (that is, order the losing party to pay) costs they consider to be excessive. Some, but not all, of the costs incurred through litigating can be recovered by the winning party from its opponent. This means that the prevailing party is not always entitled to recover attorney fees or investigation expenses. Consequently, in several decisions on IPR infringement disputes, the compensation awarded was actually less than the attorney fees and/or investigation expenses paid by the right holders, resulting in poor economic incentives to challenge infringement through expensive litigation. This is especially concerning for foreign patentees, as they generally incur higher attorney fees to represent their interests in a foreign jurisdiction.

Therefore, we must recognise that litigation costs, specifically the share that must be borne by right holders, offset their compensation. This is also a factor that influences right holders’ incentive to sue infringers. In our datasets, we recorded the lawsuit handling fees and the share borne by both parties in every observation.

In our sample, the average litigation costs incurred for foreign plaintiffs is almost twice

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57 Pfaffenzeller, op. cit., n. 33, § G.
that incurred for domestic plaintiffs. However, on average, foreign plaintiffs bear 41 per cent of the total litigation cost, while domestic plaintiffs bear 60 per cent. To specify the trade-off for foreign right holders, the correlation between the damages awarded to the plaintiff and the costs they bear could be indicative. However, this is not articulated by written law in China and is subject to the court’s discretion on a case-by-case basis.

Another cost indicator is the duration of proceedings. As shown in Figure 2, the duration has generally been gradually falling over recent years.

![Fig. 2. Average duration of proceedings per year (months)](image)

This trend reflects the courts’ endeavours to accelerate judicial action to, thereby, reduce right holders’ enforcement costs. In the period of 2004–2006, the litigation duration of several observations deviated seriously from the average duration of the entire sample (7.42 months), far exceeding the SPC-stipulated general civil litigation limitation of six months.  

58 Rule 1, first sentence, Several Rules on Strict Enforcement of the Provisions regarding the Adjudication Duration Limitation of the Supreme People’s Court (SPC), (Zui Gao Ren Min Fa Yuan Guan Yu Yan Ge Zhi Xing An Jian Shen Li Qi Xian Zhi Du De Ruo Gan Gui Ding), adopted by SPC on 14 September 2000, and became effective on 28 September 2000.
Nonetheless, since 2007, the average proceedings duration has been successfully reduced to and maintained at around six months. It should be noted, though, that this average reduction is mainly driven by cases with domestic plaintiffs, while the duration remains significantly longer for cases brought by foreign right holders.

In our sample, the longest proceedings duration was 63.3 months: a lawsuit filed by the Japanese right holder Honda Motor Company, Ltd. and adjudicated by the First Intermediate People’s Court Beijing.59 These extraordinarily long proceedings were caused by adjourning the civil claim while the SIPO’s Patent Re-examination Board scrutinised the patent’s validity. The SIPO’s finding that the patent was valid was, again, challenged before the Beijing Higher People’s Court, which concluded the original administrative litigation procedure, confirming the SIPO’s decision. After completion of all the administrative procedures and the appeal (against its outcome) disputing the patent’s validity, the civil action was finally reopened in the Intermediate People’s Court to decide whether an infringement existed.

To address this problem, an alternative approach has been proposed for the Fourth Amendment, that is, to transfer authority to examine a disputed patent’s validity from the SIPO’s Patent Re-examination Board to the court exercising jurisdiction over the patent infringement dispute.60 Integrating the authority to examine patent validity with jurisdiction over patent infringement disputes would save transaction costs and reduce the length of

59 Decision No. Yi Zhong Min Chu Zi 14465, adjudicated and decided at the First Intermediate People’s Court of Beijing.

litigation proceedings. Whether this proposal will be adopted remains to be seen.

(d) Judges’ fairness concerns

Notwithstanding that the damages award is, on average, fairly low, our sample shows that judges have concerns over fairness in awarding compensation and allocating cost burdens. Lengthier proceedings and higher litigation costs are good indicators of more complex cases with higher materialised damages; the plaintiffs in those cases tend to receive a higher damages award. Further, judges tend to allocate lower litigation costs to plaintiffs whose claims are found to be especially meritorious. Figure 3 plots the correlation between litigation costs paid by the plaintiff and their damages award ratio. We find that the litigation costs borne by the plaintiff are inversely related to plaintiff’s damages award ratio. The correlation coefficient is -0.226, meaning that a 1 per cent increase in the damages award ratio implies a 0.226 per cent fall in the litigation costs paid by the plaintiff. This implicit rule indicates that litigation costs are divided according to the ‘ratio of justice’, as balanced by judges, between the plaintiff and the defendant.

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61 Zhang, id.
Fig. 3. Correlation of damages award ratio and plaintiff’s litigation costs

2. *Damage: is the Third Amendment effective in raising compensatory damages?*

The ‘lengthy proceedings with (extremely) low compensatory damages’ have been criticised both domestically and internationally as ‘unfair’, ‘inefficient’, and, thus, ‘not economically reasonable’ for right holders.\(^6\)\(^2\) For example, in our sample, despite a higher likelihood of winning and a higher damages award ratio, the average litigation duration for foreign right holders is almost twice that for domestic plaintiffs; this is a significant trade-off for foreign plaintiffs contemplating filing a claim in the Chinese courts. Ultimately, a sufficient damages award is the key to addressing such critiques. For this purpose, the Third Amendment doubled the upper limit of awardable statutory damages, giving judges more power to award damages commensurate with the higher losses suffered by some plaintiffs. However, whether this is

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\(^6\)\(^2\) Zhang, id.
effective in practice remains to be determined. In this section, we further investigate the actual damages awards received by plaintiffs.

To investigate the determinants of compensation, a major problem is selection bias: those who were awarded compensation are obviously not randomly chosen; therefore, the subsample of observations awarded compensation will be biased upwards.

To address this sample selection bias problem, in this section, we use the Heckman selection model for our analysis.63 The model comprises two steps: the first step, or, selector equation, defines a binary variable indicating the criteria by which the observations are selected:

\[ S_1^* = x_1 \beta_1 + \epsilon_1 \]

with

\[ S_1 = \begin{cases} 1 & \text{if } S_1^* > 0, \\ 0 & \text{if } S_1^* \leq 0 \end{cases} \]

in which \( S_1^* \) is a latent variable for selection criteria, \( x_1 \) contains the determinants of selection, \( \beta_1 \) is the vector for estimated coefficients, and \( \epsilon_1 \) is error term with standard normal distribution. After estimating \( \beta_1 \) using probit, the second step estimates an OLS regression of log compensation conditional on \( S_1 = 1 \), that is,

\[ E[\ln_{\text{comp}}|S_1 = 1, x_2] = x_2 \beta_2 + E[\epsilon_2|S_1 = 1] \]

in which \( x_2 \) contains explanatory variables, \( \beta_2 \) is the vector for estimated coefficients, and the errors \((e_1, e_2)\) are joint normal.

A well-known impediment in the Heckman selection model is that multicollinearity between independent variables and the inverse Mills ratio may lead to high standard errors of estimated coefficients.\(^{64}\) To effectively deal with this issue, the selection equation needs at least one independent variable to determine the discrete selection but not continuous choice of compensation. Our selection of variables in \( x_1 \) and \( x_2 \) was inspired by the models in subsection 1(a) of this Findings section: the types of patents affect the likelihood of winning cases (which leads to compensation), but not the compensation awarded; therefore, we include the types of patents in the selection equation but not in the second step regression. In the same vein, the court action cost variables affect awarded compensation, but not the likelihood of winning; therefore, we only included these variables in the outcome equation. Table 4 reports the results.

**Table 4.** Determinants of awarded compensation

<table>
<thead>
<tr>
<th></th>
<th>Selection</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>foreign, foreign plaintiff</td>
<td>0.382**</td>
<td>0.449*</td>
</tr>
<tr>
<td>(0.189)</td>
<td>(0.263)</td>
<td></td>
</tr>
</tbody>
</table>

**design**, design patent 0.763***
dispute (0.208)

**inv**, invention patent -0.195
dispute (0.208)

\(\text{ln}\_\text{duration}\), duration of 0.346**
proceedings, logged (0.136)

\(\text{ln}\_\text{claim}\), claimed 0.591***
damage, logged (0.070)

\(y_{2008}\), year 2008 dummy 0.052
(0.176)

\(\_\text{cons}\) -0.107 1.180*
(0.165) (0.708)

Mills \(\lambda\) 1.360***
(0.423)

\(\rho\) 0.901

\(\sigma\) 1.510

Wald \(\chi^2\) 124.35

\(\text{Prob} > \chi^2\) 0.000

Number of observations 300

In the selection equation, the variable \textit{foreign} has a positive and significant impact on selection, confirming the previous finding that \textit{foreign} plaintiffs are more likely to win. The variable \textit{design} also has a positive and significant impact, reflecting that infringements of a
design patent are more easily verified by the courts; thus, plaintiffs have a higher likelihood of winning. Conversely, more expertise is required to identify infringements of invention patents; therefore, the variable inv is insignificant in this selection.

In the outcome equation, being a foreign plaintiff also has positive and significant impact on the damages award. Again, the notion of xenophobia is not supported here. Conversely, a higher damages award also corresponds to costlier litigation, as higher time cost (ln_duration) significantly increases the damages award. At the same time, plaintiffs that suffer higher losses –leading to higher damages claims (ln_claim) – tend to receive higher damage awards, reflecting the fairness concern of judges: those who suffer more shall obtain greater compensation.

However, the most striking result is that the Third Amendment does not seem to work in practice. It was intended to increase actual compensatory damages by doubling the upper limit of awardable statutory damages; however, its impact on the law suits adjudicated after 2008, captured by the dummy variable y2008, is insignificant. We provide further explanation and discussion in the next sections interpreting the facts and results.

3. Why are damages awards so low?

The most prominent fact throughout our sample is that damages awards are very low. On average, a damages award is approximately 20 per cent of the right holder’s total damages claim. In our sample, the highest damages award for a foreign plaintiff is EUR 0.694 million, whereas that for a domestic plaintiff is EUR 0.4 million. Thus, the highest compensation awarded by the Beijing courts was extremely low compared to that awarded by the US courts.
For instance, the largest damages award in a U.S. patent court in 2013 was USD 1 billion. As suggested by our datasets, the median damages award for patent infringement in China is also much lower than in the U.S. For example, according to a 2015 PricewaterhouseCoopers report, the median damages award in U.S. patent cases was USD 5.3 million from 2005 through 2009, and USD 2.9 million from 2010 through 2014. In our sample, the median damages awards were USD 12,207 (2005), USD 100 (2006), USD 1,907 (2007), USD 7,199 (2008), USD 3,693 (2010), and USD 4,645 (2011). The contrast between the PRC and the US in this regard is significant. We propose three possible reasons for the extremely low damages awards by the courts in China.

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65 According to Byrd and Howard, the ten largest damages awards ranged from USD 1 billion – to Monsanto from DuPont for infringement of a patent for genetically modified seeds – to just over USD 15 million, to Tomita from Nintendo for infringement of a video camera image system. Damages generally increased from 2012 to 2013, although headline-stealing damages caused the average damages to increase more (28 per cent) than the median damages (22 per cent): see O. Byrd and B. Howard, LaxMachina 2013 Patent Litigation Year in Review (2013), at <https://www.law.berkeley.edu/files/2013_Patent_Litigation_Year_in_Review_Full_Report_%28MLex_Machina%29.pdf>.

(a)  **Focus on injunctive relief instead of monetary remedy**

In our sample, judges focus more on ceasing infringing activities than on issuing a monetary remedy for materialised damages. In our sample, where a plaintiff’s claims are at least partially acknowledged by the court, the likelihood of being granted injunctive relief was 96 per cent, which is extremely high. It is irrelevant whether the case ultimately resulted in an outright or partial win for the plaintiff. The courts typically only reject injunctive relief claims where the plaintiff has completely lost, namely, when the court does not accept any of the plaintiff’s claims and, therefore, no remedies are granted at all. More interestingly, in our sample, even among the decisions rejecting plaintiffs’ damages claims, 20 per cent of those plaintiffs are, nonetheless, granted injunctive relief, which is, in fact, a partial win for the right holders. This implies the courts’ motivation to cease infringements once they are identified. However, the judges appear generally confused about the methods of calculating compensatory damages for patent infringement.\(^{67}\) This explains their reluctance to grant reasonable compensation. A related key reason could be inherent in problems concerning evidence and proof, to be discussed further below.

(b)  **Difficulties in proof and calculation of damages**

Traditionally, courts ought to adhere to the principle of restoration, a basic value of civil law, in calculating patent right damages. The indemnification obligation of civil law systems

\(^{67}\) C. Zhang, ‘Enhancing the Standards of Civil Damages Remedies to Fight Copyright Piracy in International Trade?’ (2017) 51 *J. World Trade.*
primarily has a compensatory purpose, that is, restoring the injured party’s pre-damage status.\textsuperscript{68} Thus, Article 65, Patent Law of the PRC addresses the ‘actual losses of the infringed’ and the ‘illegal gains of the infringer’ (the latter has been more often applied to date) as the first resort to measure the prejudice suffered by right holders. However, in China, one problem in measuring the ‘actual losses of the infringed’ is that the right holder bears the burden of establishing, with reasonable probability, the causality between the defendant's infringement and the damages suffered by the plaintiff. This can be an extremely difficult task for right holders. The same problem applies to calculating the ‘infringer’s illegal gains’, as the plaintiff needs to prove that the infringer’s revenues are directly attributable to the infringement. Moreover, infringers often do not maintain complete transaction records, rendering the full extent of their gains potentially very difficult to determine.\textsuperscript{69} Therefore, under the current provisions, these two calculation methods are not often applied; instead, statutory damages are the most routine recourse for judges determining the amount of compensation to award.\textsuperscript{70} This also explains why judges are more willing to grant an injunction once the existence of


\textsuperscript{69} Zhang, op. cit., n. 68.

infringing activity is verified, but appear very reluctant to grant appropriate damages awards to right holders.

Further, damages computed under the principle of restoration could be problematic for at least two reasons.

First, to award the plaintiff a sufficient amount to compensate lost profits, it might be assumed that the plaintiff’s sales would have continued at the same rate as that before the infringement began. Such calculations often inadequately consider market evolution regardless of the infringement. Conversely, assuming that the entire loss has resulted from the infringement might overestimate the actual impact. The infringer might have been able to compete effectively and, thus, legitimately acquire some of the patent owner’s prospective or ongoing sales without infringing.71

Second, damages are often calculated based on the infringer’s illegal gains. Since infringers usually sell their illegal copies at a lower price, damages awards based on unjust enrichment are often modest compared to those based on the right holder’s lost profits through lost sales. In this context, the principle of restoration has been increasingly questioned in China, where the courts have frequently resorted to Ex-compensatory damages mechanisms, such as statutory damages. However, the limitation of the highest amount payable in statutory damages could pose the problem of inappropriately low compensation. Thus, hereinafter, we further explore the effect of the Third Amendment regarding, inter alia, the impact on judicial practice 71 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 J. Hausman et al., ‘Patent Damages and Real Options: How Judicial Characterization of Non-Infringing Alternatives Reduces Incentives to Innovate’ (2007) 22 Berkeley Technology Law J. 825.
of increasing the maximum statutory damages award.

(c) Problem of Statutory Damage

Some institutional features in patent litigation also contribute to low damages awards. Article 65, Patent Law of the PRC provides four different methods of damages calculations: (a) compensation of suffered damage; (b) return of unlawful gains; (c) payment of an appropriate multiple of a license fee; or (d) statutory damages. The wording of this provision – ‘when (a) is not applicable, then (b)...when (c) is not applicable, then (d)’ – suggests that the plaintiff cannot choose the method of calculation. Rather, the four methods have to be applied sequentially and the method of ‘statutory damages’ forms the last resort if calculation by all other means has failed. However, a study conducted by the China Patent Agents\(^\text{72}\) revealed that the courts actually imposed statutory damages in 99 per cent of patent infringement cases. In our sample, before the Third Amendment in 2008, cases with the damages award calculated through statutory damages (within the limitation of EUR 67,715 / RMB 500,000\(^\text{73}\)) comprise 95.3 per cent of all disputes with a successful outcome. After the enactment of the Third Amendment, statutory damages within the revised limitation of EUR 135,430 / RMB 1,000,000 were awarded in 96.3 per cent of the successful claims. In none of these decisions


\(^{73}\) This ceiling of payable statutory damages has been framed by Article 21, Interpretation of the Supreme People’s Court on Several Issues Concerning the Application of Law to the Trial of Patent Dispute Cases, adopted on 19 June 2001, at

do the judges’ words precisely address the preconditions of statutory damages, namely, why they felt unable to use ‘return of unlawful gains’ to calculate damages. The judges seem to have adopted one single phrase to substantiate applying statutory damages in a rather indiscreet manner: ‘due to the difficulties of precisely proving the damages amount …’. Therefore, the lack of necessary evidence to specify the damages amount has led to courts routinely applying statutory damages. Thus, the actual prejudice suffered by right holders fails to be sufficiently, objectively, and reasonably considered. In this context, there are no de facto applicable conventions for calculating damages based essentially on investigation, using objective criteria, of how much compensation ought to be payable.74 In response, knowing that the courts are likely to apply statutory damages, plaintiffs tend to claim damages close to the statutory upper limit. Among all 318 disputes, 44 cases claimed damages of exactly RMB 500,000, representing 13.8 per cent of the entire sample.

In addition, it is acknowledged that in civil litigation in China, ‘discovery’ is limited compared to that in the U.S., the UK, Australia, New Zealand, and other common-law jurisdictions.75 In the U.S., for instance, parties to a dispute are entitled to documents from the opposing party’s records that may pertain to the dispute. By contrast, in China, as in other civil law jurisdictions, plaintiffs can only petition the people’s court to ensure that evidence is preserved. Thus, it is fairly difficult for right holders to obtain the required information from infringers to prove the losses they have suffered.

74 Zhang, op. cit., n. 68.

(d) **Effectiveness of the Third Amendment**

As courts often apply statutory damages, a natural way to raise actual damages awards is to increase the maximum statutory damages award. Unfortunately, despite legislators taking this step in the Third Amendment, we find this has barely affected judicial practice.

Through the Third Amendment, Article 65, para. 2, Patent Law of the PRC was introduced, under which the maximum statutory damages award was raised from RMB 500,000 RMB (EUR 67,715) to RMB 1,000,000 (EUR 135,430)\(^76\). Since then, the courts have been able to grant statutory damages of up to RMB 1,000,000 (EUR 135,430) when the patentee’s losses, the infringer’s profits from infringement, or the appropriate exploitation fee are difficult to determine.\(^77\) Despite this well-intentioned new provision, aiming to enhance the damage standards for patent infringements, we find that it has not been effective in practice.

1. The Third Amendment has evidently had little influence on judicial practice in terms


\(^77\) Art. 65 para. 1, Patent Law of the PRC (2008) articulates: ‘Anyone who infringes upon the patent right shall compensate for the actual losses suffered by the right holder, or where the actual losses are difficult to calculate, pay damages on the basis of the unlawful gains of the infringer. The damages shall include the reasonable expenses paid by the right holders for stopping infringement activities’. Art. 65 para. 2, Patent Law of the PRC (2008) provides: ‘Where the actual losses of the right owner or the unlawful gains of the infringer cannot be determined, a court shall, in light of the circumstances of the infringement, award damages not exceeding RMB 1,000,000 (USD 161,110)’. See also European Commission, op. cit., n. 2.
of compensation awards. The new provision has not brought the desired and necessary improvements to enhance the awarded remedies in *de facto* judicial patent right enforcement;

(2) In this sense, right holders seeking to protect their patents in China have gained little from the Third Amendment. This provides a further explanation for the persistent low damages awards, even for the post-2008 subsample.

*Prima facie*, the new provision in the Third Amendment has dramatically encouraged the filing of patent infringement cases, causing an increase in the caseload. The number of cases litigated to a court-determined decision has, as shown in Figure 1, also peaked (at 59 in 2008 and 107 in 2009). However, the outcome of judicial enforcement for right holders, namely, the damages award, has not correspondingly improved. The average damages award ratio remains around 20 per cent in the post-2008 subsample, and no noteworthy shift has emerged to coincide with the Third Amendment’s enactment. In this sense, the legislator’s desire for stronger protection when launching the Third Amendment has failed to be realised in practice.

**IMPLICATIONS FOR THE FOURTH AMENDMENT TO THE PATENT LAW OF THE PRC**

Low damages awards, protracted and expensive proceedings, the conundrum of proof, and calculation of the losses suffered are all challenges for the Fourth Amendment. As the new

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78 The fourth amendment to the Patent Law of the PRC (‘the Fourth Amendment’) was
Chapter 7 in the first draft suggests, the Fourth Amendment aims to enhance the standards of damages to fight counterfeiting and product piracy. Several proposals address the problems found in our study, including, *inter alia*, introducing punitive damages\(^{79}\) and new evidence rules granting the right of information to right holders.\(^{80}\)

1. *The Proposed ‘Punitive Damages’*

Chinese law makers are following the rationale of ex-compensatory damages as a strategy to enhance compensation. A new paragraph concerning ‘punitive damages’ has been proposed, which articulates:

> For patent infringement conducted deliberately, the people's court may, according to the circumstances of the infringement such as [the] nature and degree of the wrongdoing, scale of the infringement and the harm caused, *double or triple* the amount of compensation calculated *according to the preceding two paragraphs*.

The first draft of the Fourth Amendment does not explicitly address how to measure punitive damages. Presumably, Chinese courts will encounter difficulties in assessing an appropriate amount in each case. The wording of the first draft sets a range of punitive damages as ‘*double or triple* the amount calculated according to the preceding paragraphs’, namely the amount computed according to the ‘actual loss of [the] infringed’, the ‘illegal gains of [the] infringer’,

\(^{79}\) Article 65, para 2, first draft of the Fourth Amendment.

\(^{80}\) Article 61, para 2, first draft of the Fourth Amendment.
a ‘reasonable multiple of [the] should-be license fee’, or statutory damages of no more than EUR 135,430 / RMB 1 million. Thus, the scope and parameters for determining punitive damages depend on those of the general damages calculation.\(^{81}\)

Our findings in Section IV indicate that the Third Amendment, despite granting judges more discretionary power by raising the statutory damages ceiling, has barely enhanced damages awards. The proposal to introduce punitive damages will likely not change the \textit{de facto} compensation level if courts continue to lack applicable guidelines, based on objective criteria, for calculating damages. The real power of the law lies in its enforcement. In China, the chasm between legislation and judicial practice accounts for the Third Amendment’s failings and the persistent phenomenon of low damages awards. Leaving aside the debate on punitive damages’ compatibility with the Chinese civil law system,\(^{82}\) the proposed provision


risks being just as inconsequential as the Third Amendment’s failed reform.

2. *The proposed ‘Right of Information for Right Holders’*

The proposed Art. 61, para. 2 in the Fourth Amendment introduces a new provision on the ‘right of information on pirated goods’: at first glance, this seems to offer a significant weapon to combat piracy. According to this new rule, if a right holder has, as far as possible, fulfilled their obligations to provide, and has identified accounting documents or other information related to the infringement in the defendant’s possession, the plaintiff can compel the defendant to deliver them up via a judicial order. If the defendant refuses to comply with this order, the court may regard their refusal as evidence against the alleged infringer and award damages in accordance with the plaintiff’s claim. Manifestly, this provision contains one of the most important but controversial rules in the Fourth Amendment, intending to relieve an infringed party from the unreasonably heavy burden of proving their losses. The new provision, thus, elucidates a possible solution to the problems of proving losses and calculating damages. However, it is noteworthy that the principle of proportionality would have to be considered when applying the provision.

Presumably, application of the ‘right of information’ rule in China would be at the court’s discretion, since the judge is responsible for evaluating whether: (1) the plaintiff has proved their losses as far as possible; and (2) there is, thus, a sufficiently strong reason to order

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83 Li, id Yu, id; Wen and Qiu, id; Jiang, id.

84 Article 61 para 2, first draft of the Fourth Amendment.
the defendant to disclose the required information in their possession.85 This new provision is, 
*prima facie*, an adaptation of the German civil procedural rule ‘*Vorlegungspflicht*’ (‘obligation to submit proof’) in §§ 421-431, German Civil Procedure Law (ZPO), which has previously been adopted into the Japanese Civil Procedure Law, and further into the PRC’s legal regime.86 In Japan, this procedural rule is applied to various modern disputes regarding, for example, product liability, environmental pollution, and so on.87 The Chinese academia of civil procedure law, which has traditionally been extensively influenced by German and Japanese jurisprudence, has contributed to the adoption of this rule into Chinese law.88 Unfortunately, it still lacks a comprehensive analysis, and has frequently been confused with the classic concept of ‘burden of proof’ in German civil procedural theory. Therefore, this provision has been proposed without sufficient consideration of its rationale, effect, and the framework for its implementation. If it becomes law in its current version, it could give rise to severe problems, both substantive and procedural, given that it contains no specification on:

1. the extent to which the plaintiff must first prove their claim;
2. the scope of the information the court could order the defendant to submit; and

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86 Art. 219, Civil Procedure Law of Japan.


(3) whether and to what extent the plaintiff’s application is required for the court’s order;

or

(4) any circumstances the court should consider that could hurt the defendant’s right to privacy or violate data protection law.

These concerns are particularly evident when compared to the provisions regarding the right of information in the EU Enforcement Directive.\(^8{9}\) The new provision adopted in the Fourth Amendment is a significant weapon to combat counterfeiting that, conversely, risks causing tension between patent enforcement and data protection, in addition to jeopardising defendants’ and third persons’ rights to privacy. The comparable provision in the EU Enforcement Directive has raised issues of balancing the right to information with opposing rights of privacy.\(^9{0}\) The most recent case law of the European Court of Justice has reflected its endeavours to carefully balance these interests.\(^9{1}\)

**REMARKS AND CONCLUSIONS**

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This paper is among the first steps toward better understanding the outcomes of patent infringement litigation in China, based on empirical evidence. We acknowledge that our results’ generality may be restricted by the sample size, although our datasets form one of the largest collections of court decisions available to date. On the one hand, court decisions from Beijing allow us to include patent infringements involving many of the giant domestic and multinational firms; on the other hand, so-far unavailable observations from other courts may have better coverage of infringements from certain industries, e.g., manufacturing. We will extend our research once more data becomes available.

As our sample mostly comprises court decisions, our empirical analysis may be subject to missing variables – especially concerning patent strength and impact, as well as plaintiff and defendant characteristics – that can affect court outcomes. Currently, no data are available on patent strength and impact, such as patent family size and the number of claims or citations. We do include variables intended to proxy patent strength, such as damages claimed by plaintiffs. Regarding plaintiff and defendant characteristics, only data on listed firms can be easily sourced. At this stage, it is not clear how these missing variables bias the results; we will review our findings once relevant data become available from other sources.

We also realized that a large proportion of the court decisions in our sample (44%) are approvals of suit withdrawals. This implies that plaintiffs and defendants have often settled claims before the institution of court proceedings. Using settlements to stop infringements and avoid costly court procedure is itself interesting, and working mechanisms of settlements are not yet well understood in empirical research. However, data on settlements is scarce, as little information on settled law suits is documented. Other methods, such as case studies or interviews, may be more effective to investigate this issue. We aim to explore this in future
In sum, the paper investigates two popular notions on patent litigation in Chinese courts: (1) ‘xenophobia’, namely, that foreign status is disadvantageous for a plaintiff as regards winning their lawsuit and obtaining damages; and (2) extremely low compensation, which barely covers plaintiffs’ actual losses. Using decisions from Beijing courts in 2004-2011, we find that the likelihood of winning is higher for foreign than domestic plaintiffs. Controlled for selection, foreign plaintiffs also receive higher compensation awards. The notion of xenophobia is, thus, not supported by our sample.

Damages awards do reflect judges’ concerns regarding fairness; thus, plaintiffs suffering higher losses receive higher compensation. Injunctive orders are issued once infringements are verified. On average, damages awards are fairly low. This reflects the common difficulty of calculating plaintiffs’ incurred losses. Consequently, judges routinely apply statutory damages. However, the legislators’ attempt to enhance compensation by lifting the upper limit of awardable statutory damages did not seem to work in our sample, as post-2008 damages awards did not respond to the Third Amendment. Therefore, legislators should instead focus on the cause of the issue by providing more implementable guidelines for courts to calculate plaintiffs’ incurred losses. In this regard, the Chinese courts need to develop applicable conventions for calculating damages, based on objective criteria of how much compensation ought to be payable, which is also the basis of calculating reasonable statutory damages. Otherwise, the proposal to introduce punitive damages in the Fourth Amendment risks being just as inconsequential as the Third Amendment’s failed reform. The new provision on the ‘right of information’ on pirated goods, as proposed by the Fourth Amendment, would provide a significant weapon to combat counterfeiting that, conversely, risks causing tension
between patent enforcement and privacy/data protection.