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CHINA UTILITY MODEL PATENT: TRASH OR TREASURE – A DATA- BASED ANALYSIS

BINQIANG LIU¹

ABSTRACT

The Chinese Utility Model Patent (CUMP) has existed since the implementation of China's Patent Law in 1985. Previous studies on the CUMP focus on the patentability standards (subject matter, novelty, and non-obviousness), and the nature of the system itself. Data-based empirical studies are not often seen. This paper fills this gap by analyzing the CUMP from the data perspectives of citation, litigation, and finance. Derived conclusions show the growing importance of the CUMP, and its high value, as a treasure to CUMP holders, contrary to the traditional misconception that the CUMP is trash.

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KEYWORDS

China Utility Model Patent, Citation, Litigation, License, Pledge, Data Analysis

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I. INTRODUCTION

Since the implementation of China's Patent System, the CUMP has become one of the most important types of patents. As of the end of 2010, more than 1.71 million utility model patents have been granted, with at least 0.85 million in force during that same time period.²

So far, studies on the CUMP have mainly focused on discussions of the rationality of the CUMP system itself and the patentability evaluation of the CUMP (such as novelty and non-obviousness evaluation);³ empirical studies of the CUMP, based on data, are rarely seen. This paper aims to fill this gap by conducting a data-based investigation of the CUMP, the discussion of which is organized into Sections II-V. Section II sheds light on the CUMP from the citation perspective. For this purpose, the paper will cover PCT international stage citation, patent examiner citation, and applicant citation of non-Chinese, non-PCT patent applications. Section III includes litigation data analysis of the CUMP and a brief discussion of two profiled CUMP litigation cases. Section IV of this paper goes further by investigating CUMP license and pledge data in China from a financial perspective. The last section offers a conclusion of the analysis.

² *Total Grants for Three Kinds of Patents Received from Home and Abroad*, STATE INTELLECTUAL PROPERTY OFFICE OF THE P.R.C., http://english.sipo.gov.cn/statistics/gnwsqb/201101/t20110125_570599.html (last visited Jan. 16, 2014).

³ *Compare* Huaiqin Zhang et al., *Status Quo and Perfection of the China Utility Model System*, 4 *JOURNAL OF TECHNOLOGY INNOVATION AND PRODUCTIVITY* 54, 54–56 (2010), *with* Shuhua Wang et al., *Balancing the Interests: A Comment on Reconstructing the Utility Model Patent System*, 5 *JOURNAL OF SOCIAL SCIENTISTS* 141, 141-42, 146 (2005), Aixi Wang et al., *Pros, Cons and Solutions to the Examination of Utility Model Patents*, 9 *JOURNAL OF INFORMATION* 52, 52–53 (2001), *and* Nan Liu, *Making the Right Patent Protection Decision: Invention or Utility Model*, 4 *JOURNAL OF ELECTRONICS INTELLECTUAL PROPERTY* 42, 42–43 (2004).

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II. CITATION DATA ANALYSIS

While citation based studies are widely accepted as useful,⁴ most literature has focused on United States and European patents, due to the availability of such data. To the knowledge of this writer, no citation-based analysis on the CUMP is available to the public, and this section aims to correct this.

A. **Related Definitions**

There are three types of citations analyzed in this paper. The first type is PCT international stage citations (PCTIS Citations), which are made by PCT applications (or, to be more exact, made by examiners at PCT International Searching Authority, or ISAs)⁵ during the international searching phase (i.e., PCT international phase) when the citations are to CUMPs.

The second is foreign examiner citations (FExam Citations), which are made by patent examiners at non-SIPO patent offices while examining non-PCT applications and, again, when the citations are to CUMPs.⁶

The final type of citation is foreign application citations (FApp Citations), which are produced by non-PCT applications all over the world, except SIPO, and, of course, when the citations are to CUMPs.

⁴ See, e.g., Bronwyn H. Hall et al., *The NBER Patent Citation Data File: Lessons, Insights and Methodological Tools 2–7* (Nat'l Bureau of Econ. Research Working Paper Series, Paper No. w8498, Oct. 2001).

⁵ *Protecting your Inventions Abroad: Frequently Asked Questions About the Patent Cooperation Treaty (PCT)*, WORLD INTELLECTUAL PROPERTY ORGANIZATION 1 (Apr. 2012), http://www.wipo.int/export/sites/www/pct/en/basic_facts/faqs_about_the_pct.pdf.

⁶ Examples of non-SIPO patent offices include the United States Patent and Trademark Office (USPTO), the European Patent Office (EPO), the United Kingdom Intellectual Property Office (UKIPO), the Japan Patent Office (JPO), and the Korean Intellectual Property Office (KIPO).

B. PCTIS Citation Analysis

Using CUMP as the searching element for a citation search, PCTIS Citations are identified. The search result shows that from 1994 to 2010, 7,113 PCT patent applications cited CUMPs; 3,803 of which cited CUMPs as the X or Y type prior art in the international search report.⁷ Of these, 1,980 patent applications contained at least one CUMP citation as type X prior art, while 2,246 patent applications contained CUMP citation as type Y prior art. Still, of the 3,803 PCTs, there are 1,557 that have only CUMP citations as type X prior art, 1,823 take only CUMP citations as type Y prior art, and 423 applications use only CUMP citations both as X and Y type prior art. The overall type X/Y rate of CUMP citation goes as high as 53.5%.

Table I lists the statistics of CUMPs as PCTIS Citations. Figure 1 illustrates the statistics.

Year of application	1994	1995	1996	1997	1998	1999	2000	2001	2002
Number of applications*	26	32	50	47	56	91	137	192	296
Year of application	2003	2004	2005	2006	2007	2008	2009	2010	
Number of applications	375	475	786	959	1430	1458	666	37	

Table I: CUMPs as PCTIS Citations

* Number of applications that have CUMPs as PCTIS Citations.

⁷ The author retrieved and compiled the data using the SIPO internal patent retrieval system. Searches were conducted using internal system search term strings.

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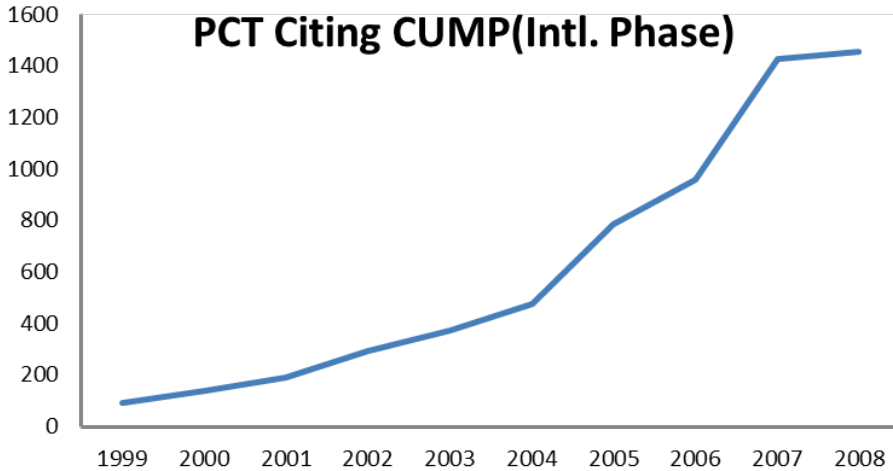


Figure 1: Illustration of CUMPs as PCTIS Citations

Data Source: SIPO Internal Patent Retrieval System (compiled and graphed by the author)

C. PCTIS Citation: A Step Further

Taking into account that the statistical data in Table I may also include citations made by PCT applications claiming an earlier Chinese priority (for such PCT applications, the Chinese Patent Office is normally the ISA), a further exclusion of the 3,803 PCT applications that have PCTIS Citations as type X/Y prior art is made. Due to this process, the number of PCT applications of the same period (1994 to 2010) that have CUMPs as X/Y type PCTIS Citations decreases dramatically down to 278 (nearly 93% drop), of which there are 169 PCT applications with at least one CUMP citation as type X prior art and 123 applications having at least one CUMP citation as type Y prior art. Of the 278 applications, 155 use CUMPs only as type X prior art, 109 use CUMPs only as type Y art, and 14 use CUMPs as both type X and Y prior art. The overall X/Y type prior art rate for CUMPs is 49.6%.

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Table II shows the statistics of PCTIS citations where the PCT application does not require Chinese priority and CUMPs are used as citations in the international stage. Figure 2 illustrates the statistics.

Year of application	1994	1995	1996	1997	1998	1999	2000	2001	2002
Number of applications*	1	0	6	2	1	0	8	9	12
Year of application	2003	2004	2005	2006	2007	2008	2009		
Number of applications	16	28	31	35	68	98	152		

Table II: CUMPs as PCTIS Citations (PCT Applications claim no China priority)

* Number of applications that have CUMP as PCTIS Citations.

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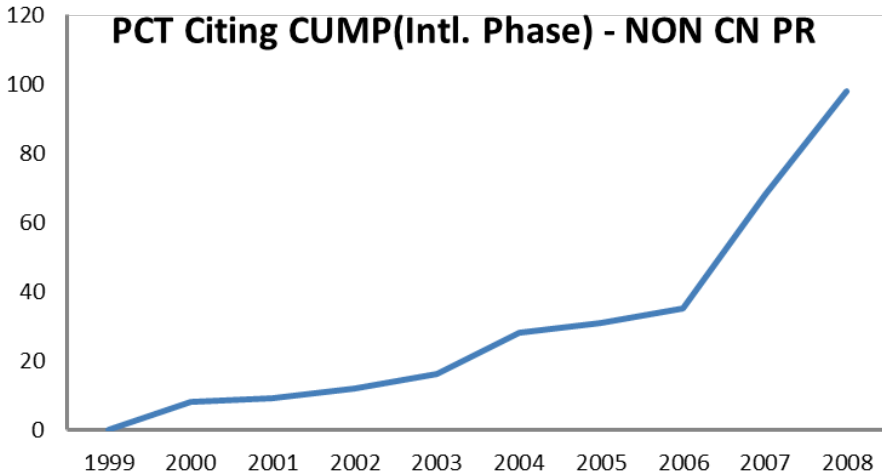


Figure 2: Illustration of CUMPs as PCTIS Citations (PCT Applications claim no China priority)

Data Source: SIPO Internal Patent Retrieval System (compiled and graphed by the author)

Referring to Fig. 1, it is clearly seen that PCT applications having CUMPs as PCTIS Citations grow steadily with a strong increase. Similarly, this is the case when PCT applications claiming former Chinese priority are excluded, though the number of remaining PCT applications is much smaller (See Fig. 2). Due to this exhibition, a basic conclusion can be made that CUMPs are drawing growing attention in the PCT international phase either at the Chinese Patent Office or others (i.e., the other ISAs).

D. FExam Citation Analysis

Using a similar method as in the PCTIS Citation analysis, by excluding PCT and Chinese applications, 1,170 records are targeted that have CUMPs as foreign patent examiner citations by examiners at non-SIPO offices during the application years 1987 to 2010. Of the 1,170 records, 170 have CUMPs as X/Y type prior art, 116 as type X,

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and 56 as type Y. In the meantime, 114 records take CUMPs only as type X literature, 54 only as type Y, and 2 take CUMP citations both as type X and Y prior art. The general ratio of CUMPs as foreign patent examiner citations is 14.5%.

Table III below shows data of CUMPs as foreign examiner citations. Figure 3 illustrates the data

Year of application	1987	1988	1989	1990	1991	1992	1993	1994
Number of applications*	1	0	0	3	3	7	9	14
Year of application	1995	1996	1997	1998	1999	2000	2001	2002
Number of applications*	15	17	19	20	22	14	22	33
Year of application	2003	2004	2005	2006	2007	2008	2009	2010
Number of applications	34	73	93	100	124	224	264	59

Table III: CUMPs as FExam Citations

* Number of applications that have CUMP as FExam Citations.

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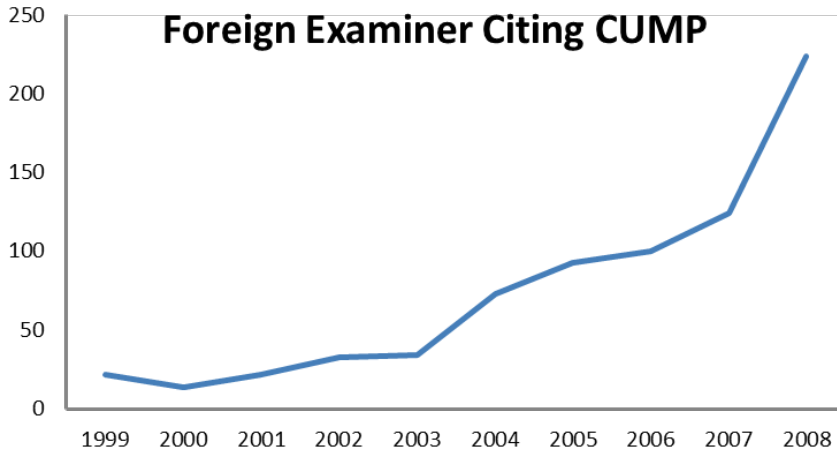


Figure 3: Illustration of CUMPs as FExam Citations

Data Source: SIPO Internal Patent Retrieval System (compiled and graphed by the author)

E. FExam Citation Analysis: A Step Further

Similar to the latter part of the *PCTIS Citation* analysis, patent applications claiming at least one Chinese priority are excluded. After that, 793 records are left that have no less than one CUMP as a patent examiner citation. Table IV shows the statistics and Figure 4 illustrates.

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Year of application	1987	1988	1989	1990	1991	1992	1993	1994
Number of applications*	1	0	0	3	2	4	7	6
Year of application	1995	1996	1997	1998	1999	2000	2001	2002
Number of applications	8	8	10	8	11	1	9	11
Year of application	2003	2004	2005	2006	2007	2008	2009	2010
Number of applications	11	32	38	55	85	192	237	54

Table IV: CUMPs as FExam Citations (Applications claim no Chinese priority)

*Number of applications that have CUMP as FExam Citations.

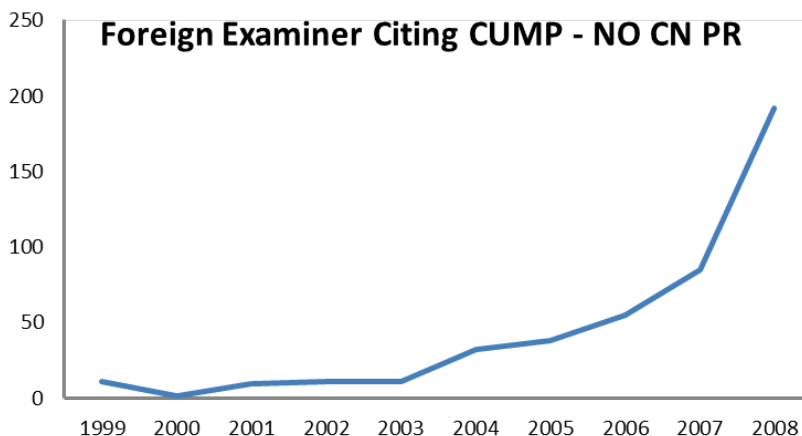
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Figure 4: Illustration of CUMPs as FExam Citations (Applications claim no China priority)

Data Source: SIPO Internal Patent Retrieval System (compiled and graphed by the author)

Not surprisingly, Figures 3 and 4 clearly demonstrate a sharp growth of foreign examiner citations citing CUMPs, either for applications claiming Chinese priority or not, especially after entering the 21st century. Such trends reflect a growing focus on CUMPs by foreign patent offices in their patent examination practice.

In addition, through a statistical analysis of foreign patent agencies that have CUMPs as patent examiner citations, about twenty foreign offices are identified, of which the UKIPO (472), EPO (262), and USPTO (174) comprise the majority (more than 75%).

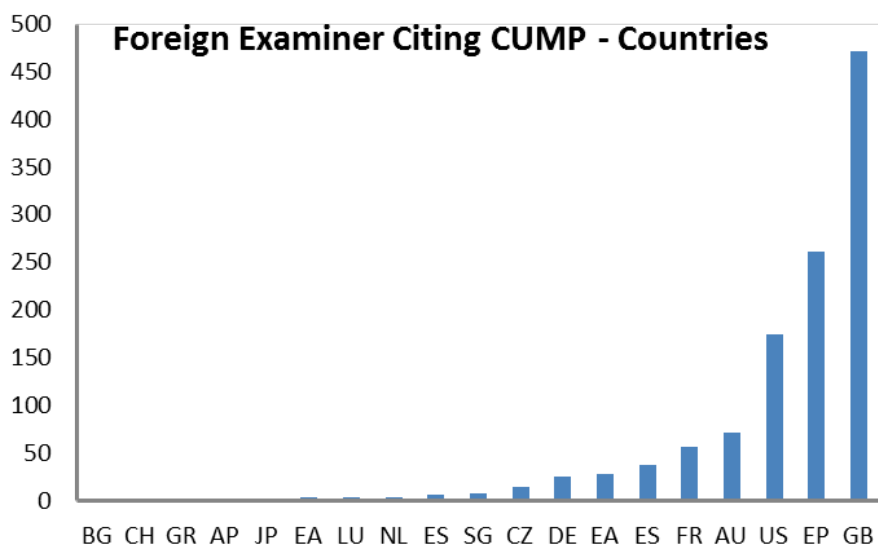
Table V and Figure 5 respectively show the statistics and illustration of the foreign patent offices where CUMPs are used as patent examiner citations.

*China Utility Model Patent***237**

Country/ Region	BG	CH	GR	AP	JP	EA	LU	NL	ES	SG
Number of applications*	1	1	1	2	2	3	3	4	6	7
Country/ Region	CZ	DE	EA	ES	FR	AU	US	EP	GB	
Number of applications	14	25	28	37	57	71	174	262	472	

Table V: Foreign patent offices having CUMP as FExam citations

* Number of applications in foreign patent offices having CUMPs as patent examiner citations

*Figure 5: Illustration of foreign patent offices having CUMPs as FExam citations*

Data Source: SIPO Internal Patent Retrieval System (compiled and graphed by the author)

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F. ***FApp Citation Analysis***

Via a similar measure taken in PCTIS Citation and FExam Citation analysis, where PCT and Chinese applications are excluded, 2,678 records are identified that contain CUMPs as foreign application citations by applicants at non-SIPO offices between the application years of 1995 to 2010. The corresponding data is shown in table VI below and illustrated in figure 6.

Year of application	1995	1996	1997	1998	1999	2000	2001	2002
Number of applications*	2	1	2	8	19	45	55	139
Year of application	2003	2004	2005	2006	2007	2008	2009	2010
Number of applications	223	397	528	531	352	248	101	27

Table VI: CUMPs as FApp Citations in foreign patent offices

* Number of applications having CUMPs as FApp citations in foreign patent offices

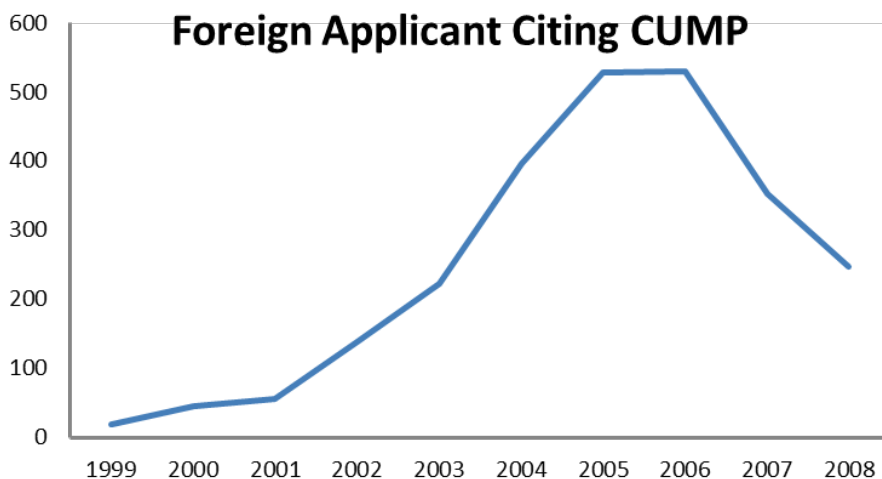


Figure 6: CUMPs as FApp Citations in foreign patent offices

Data Source: SIPO Internal Patent Retrieval System (compiled and graphed by the author)

From the data in Table VI and Figure 6, it is clearly seen that before the year 2000, non-PCT applications in foreign offices rarely cited CUMPs as applicant citations. In contrast, a sharp growing trend begins in 2000 and 2001 and is clearly apparent in 2005 and 2006, when a peak appeared. However, the situation seemed to change again before 2007, when an obvious drop was observed. This paper does not reveal a reason for this drop.⁸

Besides, a further analysis of the non-PCT applications out of the Chinese Patent Office demonstrates that those applications are

⁸ However, the author would like to point out one potential explanation for such a decrease. Around the years of 2006 and 2007, the information disclosure requirement for applicants before the USPTO became less stringent than before, especially with some cases before the Court of Appeals for the Federal Circuit, who denied their inequitable conduct claims as attacks on patent validity. *See, e.g.,* *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1291 (Fed. Cir. 2011).

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mainly submitted in the United States (2,519), German (86), and European patent offices (70). Table VII shows the data.

Country/Region	US	DE	EP	FR
Number of applications*	2519	86	70	3

Table VII: CUMPs as FApp Citations in foreign patent offices

* Number of applications having CUMPs as FApp citations in US/DE/EP/FR patent offices

G. FApp Citation Analysis: A Step Further

In a similar way to the exclusions above, applications claiming China priority were excluded and further analysis was carried out. Resulting statistical data is shown in Table VIII below, and Figure 7 illustrates the trend.

Year of application	1995	1996	1997	1998	1999	2000	2001	2002
Number of applications*	2	1	2	7	10	37	40	116
Year of application	2003	2004	2005	2006	2007	2008	2009	2010
Number of applications	197	321	425	365	237	144	69	14

Table VIII: CUMPs as FApp Citations in foreign patent offices (Applications claiming no China priority application)

* Number of applications having CUMP as FApp citations in foreign patent offices

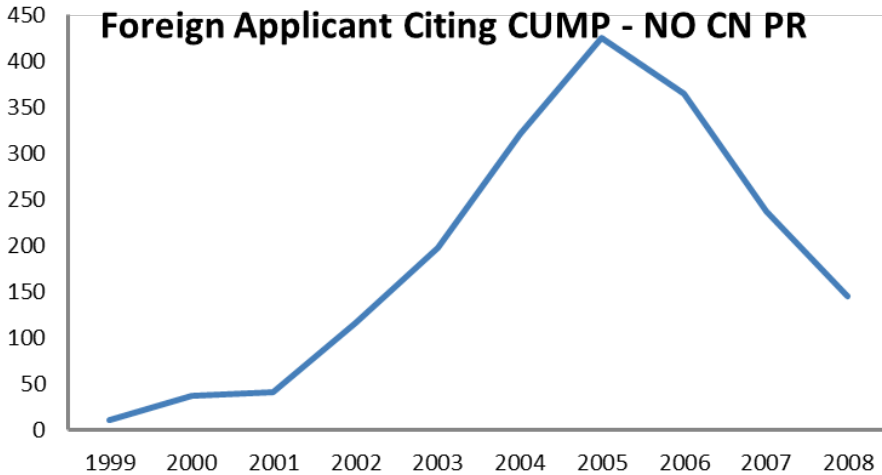


Figure 7: CUMPs as FApp Citations in foreign patent offices (Applications claiming no China priority application)

Data Source: SIPO Internal Patent Retrieval System (compiled and pictured by author)

Again, from Table VIII and Fig. 7, one can easily see a comparable trend as shown in Table VII. In other words, the exclusion of applications claiming Chinese priority does not materially affect the overall trend, and there is a similar apex in 2007 beginning a downward trend, although its cause is unexplained in this thesis.

H. Citation Analysis Conclusion

Citation analysis from different perspectives has clearly shown that the trend of citing CUMPs (PCTIS citations, FExam citations, and FApp citations) is generally growing. The hidden meaning of this growing trend is that either examiners or patent offices outside of China, or applicants submitting applications outside of China, are paying more and more attention to CUMPs. This increased attention

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implies the growing importance of CUMPs in the patent community beyond China.

III. LITIGATION DATA ANALYSIS

It's widely known that litigation is one of the ways to reveal or even measure the value of patents.⁹ On this basis, this paper proceeds on to a litigation analysis of CUMPs, based on related CUMP litigation data, and three highly profiled CUMP litigation cases are introduced in brief.

A. Overall Litigation Trend

According to Judge Jiang Ying,¹⁰ in five recent years, patent litigation trends presented a sharp growth, from a few more than 4,000 cases in 2008 to nearly 10,000 cases in 2012, all over China. And when it comes specifically to Beijing No.1 Intermediate People's Court,¹¹ a relatively stable number of patent cases exist, dominated by design patent disputes; invention and utility model patent cases equal each other.¹² Nevertheless, a continuous CUMP litigation trend is clearly observed. The overall patent litigation trend and situation in the Beijing No.1 Intermediate People's Court is illustrated in Figures 8 and 9.

⁹ Jean O. Lanjouw & Mark Schankerman, *Stylized Facts of Patent Litigation: Value, Scope and Ownership* 1–3 (Nat'l Bureau of Econ. Research, Working Paper No. w6297, 1997).

¹⁰ Judge Jiang Ying, Judicial Trial on Chinese Utility Model Patents, Address at China Intellectual Property Symposium (June 6, 2013).

¹¹ Beijing No. 1 Intermediate People's Court has exclusive jurisdiction over patent related litigated cases within the Beijing jurisdiction. *Court Overview* (法院简介), BEIJING NO. 1 INTERMEDIATE PEOPLE'S COURT (北京市第一中级人民法院) (November 12, 2012, 10:00 AM), <http://bj1zy.chinacourt.org/public/detail.php?id=89>.

¹² See Figure 9.

China Patent Litigation

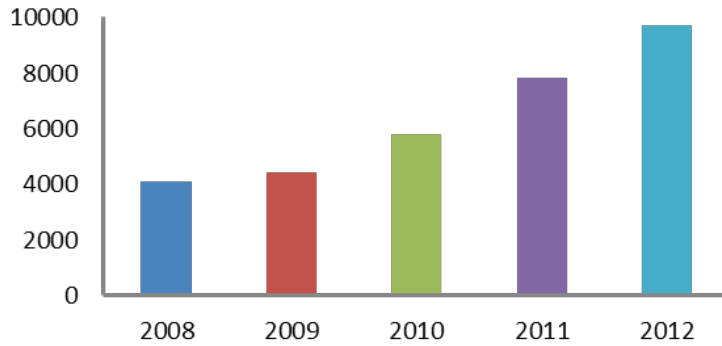
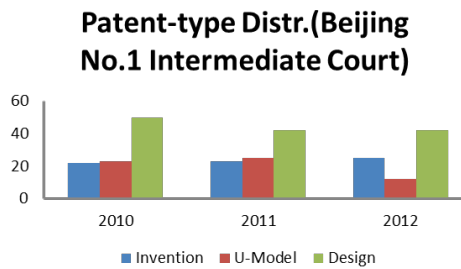


Figure 8: Overall patent litigation trend (2008–2012)

Data Source: Data by Judge Jiang Ying of Beijing No. 1 Intermediate People’s Court (compiled and graphed by the author)



Overall Percentage(3 Type, BJ No.1 Intermediate Court)

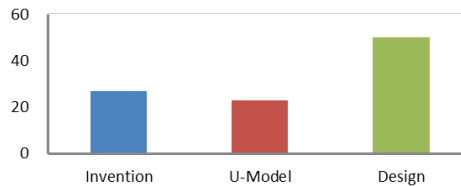


Figure 9: Patent litigation processed at the Beijing No.1 Intermediate People’s Court (2010–2012)

Data Source: Data by Judge Jiang Ying of the Beijing No. 1 Intermediate People’s Court (compiled and graphed by the author)

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B. Highly Profiled CUMP Litigation Cases

To illustrate the fierce battle towards CUMPs, three highly profiled sample cases are briefly introduced below.¹³ The first case is *Chint v. Schneider*,¹⁴ followed by the *Yibin Grace Group Case*,¹⁵ and the *Izumi Case*.¹⁶

Case 1: *Chint v. Schneider*

This case involved a CUMP owned by the plaintiff, Chint, a domestic low-voltage electrical power transmission and electricity distribution company headquartered in Wenzhou, Zhejiang province.¹⁷ The plaintiff sued the defendant, Schneider, a global specialist in energy management and a Global Fortune 500 Company headquartered in Rueil-Malmaison, France, for infringing on its CUMP.¹⁸

¹³ Since court opinions are rarely published in China, citation to the actual opinion text for these cases is not available. Instead, citations to secondary sources have been added. The good news is that Chinese judicial agencies are working on the information disclosure policy and intend to publish decisions in the future. For now, a few case decisions are published without specified requirements.

¹⁴ *Chint Group Corp. v. Schneider Electric Low-Voltage Co.* See *Chint v. Schneider, A Milestone of Patent Enforcement in China*, GENUINEWAYS (Oct. 5, 2009), <http://www.genuineways.com/nr/cont.aspx?itemid=3&id=4>.

¹⁵ See Zhou Yu Lee (周渝利), *Enterprises Should Firmly Grip the Sword of this Patent* (企业应牢牢握紧专利这把利剑) CIPNEWS.COM (Apr. 21, 2010), <http://www.cipnews.com.cn/showArticle.asp?Articleid=15642>.

¹⁶ See *Izumi Co. Utility Patent Infringement Case by Unitalen LLP Selected into the Top 10 Cases of the Beijing High People's Court* (集佳律师事务所代理 (日本) 泉株式会社实用新型专利侵权案入选北京高院十大案例), UNITALEN.COM, <http://www.unitalen.com.cn/html/report/41580-1.htm> (last visited Jan. 16, 2014).

¹⁷ The CUMP related to a high limit, small circuit breaker. CUMP Patent No. ZL97248479. See *Chint v. Schneider, A Milestone of Patent Enforcement in China*, *supra* note 14.

¹⁸ The patent expired on February 20, 2008. See *China Patent Legal Status Search*, CNIPR.COM, <http://search.cnipr.com/pages!legal.action#> (last visited Jan. 16, 2014)

This CUMP litigation became well known mainly because of the high damages award in the trial court and the final settlement amount.¹⁹ The case also involved strategic approaches from both parties, which involved trying to beat each other down in order to prevail.²⁰ This case ended on April 14, 2009, after nearly 28 months of courtroom battle between the two parties.²¹

Case 2: Yibin Grace Group Case

This case involved a CUMP owned by Yibin Grace Group, located in Sichuan Province.²² This case became a high profile case largely because of the complexity of the measures that the patentee took to enforce its patent rights, and the number of defendant parties involved. A brief summary of the proceedings and actions is listed below:

- *Grace v. Helon Co., Ltd.*, a company from Weifang, Shandong

(using 97248479.5 as the application number to retrieve patent legal status information).

¹⁹ The damage award was 335 million CNY and the final settlement amount was 157 million CNY. Because of such unprecedentedly high numbers, this case attracted widespread attention and comments, not only from the business field, but also the governmental areas as well. *Chint v. Schneider, A Milestone of Patent Enforcement in China*, *supra* note 14.

²⁰ For example, in order to fight back, Schneider filed a patent invalidation request in the patent reexamination board of SIPO, appealed to the Beijing No. 1 Intermediate People's Court, and even appealed to both the Beijing Higher People's Court and the Zhejiang Higher People's Court. *Id.*

²¹ See Wu Shu Yang (胡妹阳) *Chint Settled with Schneider, Winning 157 Million Yuan Compensation* (正泰与施耐德和解, 获1.57亿元补偿), SIPO, http://www.sipo.gov.cn/ztzl/ywzt/zwzn/zlss/dxal/201306/t20130604_801814.html (last visited Jan. 16, 2014).

²² CUMP No. ZL00245222.7 related to a semi-continuous centrifugal spinning machine, and expired on February 16, 2011. See *Enterprises Should Firmly Grip the Sword of this Patent*, *supra* note 15; *Chinese Patent Law Status Retrieval*, *supra* note 18 (using “ZL00245222.7” as the search term for patent expiration information).

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Prov.; the proceedings involved invalidation at the patent reexamination board of SIPO and litigation at both the Intermediate People's Court, and the Higher Court.²³

- *Grace v. Jiujiang Chemical Fibre Co. Ltd.*, a company from Jiujiang, Jiangxi Prov.; the proceedings involved invalidation at the patent reexamination board of SIPO and litigation at both the Intermediate People's Court and the Higher Court.²⁴
- *Grace v. Jiujiang Jinyuan Chemical Fibre Co., Ltd.*, another company from Jiujiang, Jiangxi Prov.; the proceedings involved invalidation at the patent reexamination board of SIPO and litigation at both the Intermediate People's Court and the Higher Court.²⁵
- *Grace v. Zhejiang Zhonghui Fur & Leather Co., Ltd.*, a company from Tongxiang, Zhejiang Prov.; the proceedings involved invalidation at the patent reexamination board of SIPO.²⁶

In conclusion, the Grace CUMP endured seven invalidation attacks, was appealed to the Beijing No. 1 Intermediate People's Court three times, and further appealed to the Beijing Higher People's Court three times.²⁷ The damages awarded to Grace totaled about 16 million CNY.²⁸

Judging from these two profiled cases, it is easy to see that comments claiming that the CUMPs are of trivial value, or even worthless, surely do not hold up.

²³ Binqiang Liu, *Empirical study of China Utility Model Patent 55–56* (State Intellectual Prop. Office of the P.R.C., Paper No. Y090303, 2010) (on file with the author).

²⁴ *See id.*

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

²⁸ The patent's validity was confirmed in each instance. *Id.*

Case 3: Izumi Case

This case was recorded as one of the ten most important intellectual property litigation cases in China in 2009.²⁹ The involved patent is a CUMP owned by Izumi-Cosmo Co., Ltd., a Japanese company.³⁰ The patent technology related to a movable screen apparatus, which the patentee accused defendants Grandview Crystal Screen Co., Ltd. and Beijing Renhe Century Technology Co., Ltd. of infringing.³¹ The plaintiff won both the trial at the Beijing No. 1 Intermediate People's Court and the appeal at the Beijing High People's Court.³²

IV. FINANCIAL DATA ANALYSIS

The financial role of patents is becoming widely acknowledged, and licensing and pledging are just two financial monetization methods. For this reason, the status of CUMP license contracts and the status of pledge contracts in China are examined separately. It is anticipated that with such license and pledge information analysis, the financial value of CUMPs can be more readily realized without any prejudice.³³

²⁹ See UNITALEN, *supra* note 16.

³⁰ The application for CUMP number ZL200420042456.6 was filed on Apr. 29, 2004, claiming its Japanese priority date of Oct. 31, 2003, and was granted on Sept. 28, 2005. The most recent legal status shows that the patent was expired on June 19, 2013 due to failure to pay the maintenance fee. *Id.*; see also *Chinese Patent Law Status Retrieval*, *supra* note 18 (using "ZL200420042456.6" as the search term for patent expiration information).

³¹ See UNITALEN, *supra* note 16.

³² Plaintiff was awarded damages and attorney fees, and the defendants were enjoined from further infringement. See *id.*; *Izumi Co. v. Grandview Crystal Screen Co., Ltd.*, No. 941 (Beijing Higher People's Ct. 2008), available at http://www.cnipr.net/article_show.asp?article_id=11712.

³³ It is normally said that CUMPs have trivial financial value due to their non-examined technical nature. See, e.g., Thomas T. Moga, *China's Utility Model Patent System: Innovation Driver or Deterrent*, U.S. CHAMBER OF COMMERCE 10 (Nov. 2012),

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A. License Data Analysis

Licensing a patent is the most direct way to extract a financial value from patents.³⁴ In order to analyze the true financial value of licensed patents, details of licensing agreements are needed, which are not easy to access, and analyzing the specific parameters of CUMP licensing agreements is not viable. However, due to some regulations in Chinese patent law requiring that a patent licensing agreement be registered at the patent office, an alternative method of analyzing the registered patent license contract is possible.

By retrieving patent license contract data from the SIPO website, information about the total number of license contracts and the number of licensed patents (invention, utility model, and design patents) was obtained. With some compilation work, the overall licensing trend, number of licensed patents per year, and the percentage of licensed CUMPs of total licensed patents per year are derived and illustrated as shown in Figure 10.

https://www.uschamber.com/sites/default/files/documents/files/1211_china_patent_aper.pdf.

³⁴ Licensing is one of the most dominant factors reflecting the commercial value of patents. See, e.g., Hui-Chung Che, et al., *Assessment of Patent Legal Value by Regression and Back-Propagation Neural Network*, 1 International Journal of Systematic Innovation 31 (2010).

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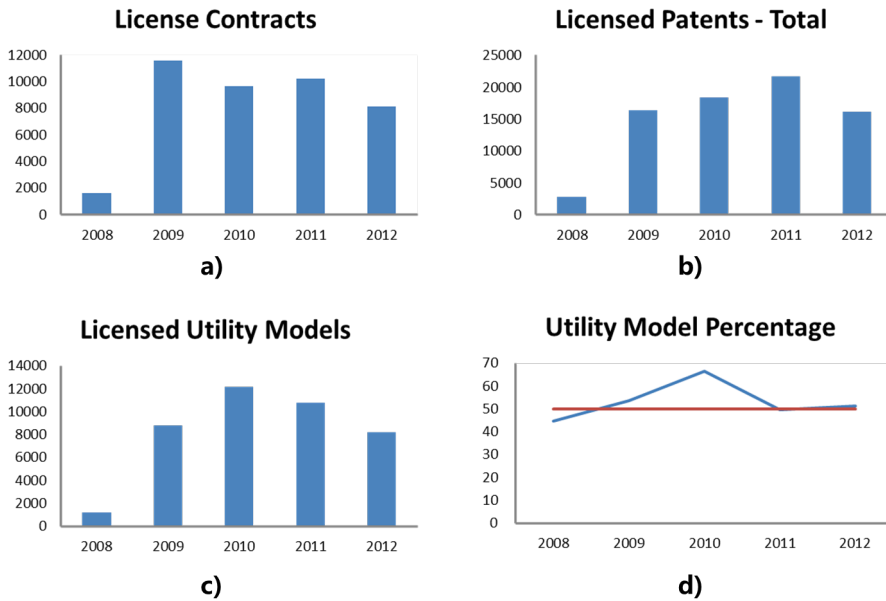


Figure 10: Patent Licensing Status in China (Contract registered, 2008–2012)

Data Source: SIPO website (<http://www.sipo.gov.cn/tjxx/>) (compiled and graphed by the author)

According to Fig. 10, during the years of 2008 to 2012, license contracts registered at SIPO did not change very much, and stayed around 10,000 contracts (Fig. 10a), while at the same time, the total number of patents licensed increased generally (Fig. 10b & 10c). From Fig. 10d, one can easily see that the percentage of licensed CUMPs is almost above 50 percent of all licensed patents, which means that CUMPs comprise the majority, and thus play an active role in licensing.

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B. Pledge Data Analysis

Besides licensing, patent pledging is now becoming more widely used in China. To analyze the CUMP pledging status, patent pledging contracts data was retrieved from the SIPO website and compiled, which is illustrated in Figure 11. For this part, some sample cases disclosing specific pledge numbers are also introduced, in order to observe a much more intuitional impression.

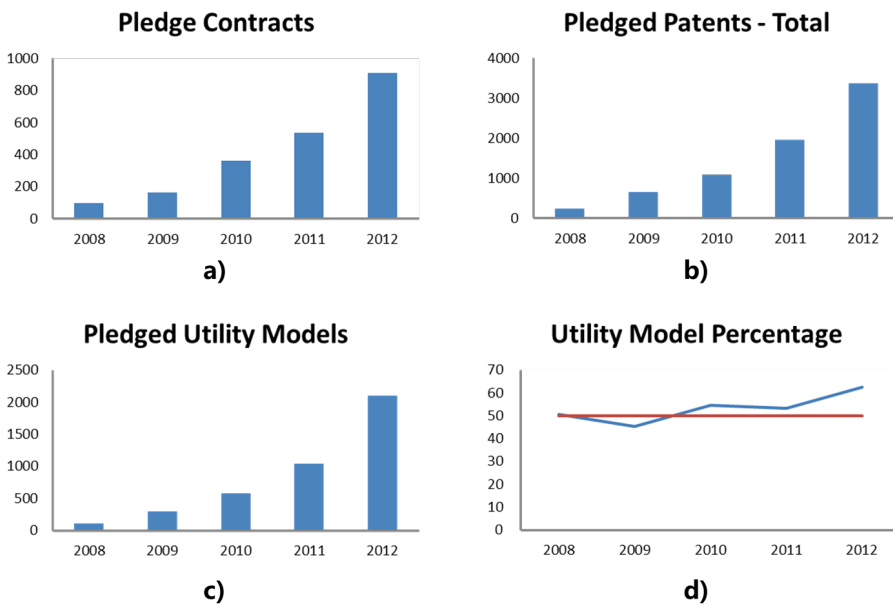


Figure 11: Patent Pledging Status in China (Contract registered, 2008–2012)

Data Source: SIPO website (<http://www.sipo.gov.cn/tjxx/>) (compiled and graphed by the author)

C. Sample CUMP pledging cases

In this part, three real life cases regarding company patentees extracting financial value of their CUMP(s) by pledging are briefly described.

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Case 1: *The Langdi Case*³⁵

In March 2011, Zhejiang Langdi Group packaged six CUMPs and pledged the package for 18 million CNY.³⁶

Case 2: *The Jinsui Milling Case*³⁷

In December 2011, Shandong Jinsui Milling Corporation pledged one CUMP for 1.8 million CNY.³⁸

Case 3: *The Hongwang Petroleum Case*³⁹

In January 2013, Hunan Hongwang Petroleum Corporation pledged seven CUMPs for 5.6 million CNY.⁴⁰

V. CONCLUSION

The Utility Model Patent is one of the three types of patents that were defined at the very outset of Chinese Patent Law.⁴¹ Mistakenly understood (mostly due to its non-substantial examination and limited scope of protectable subject matter), CUMPs are regarded

³⁵ See *Ningbo, Pledge Financing Help SME Growth* (宁波:质押融资助力科技型中小企业成长), SIPO, (Aug. 7, 2013), http://www.sipo.gov.cn/mtjj/2013/201310/t20131023_827958.html.

³⁶ *Id.*

³⁷ See *Intelligent Capital Turned into Financial Capital: Zaozhuang Finance Insitutes Help Solve Financing Difficulties of Small and Micro Enterprises*, PEOPLE.COM.CN (Dec. 1, 2011, 9:49 AM) <http://sd.people.com.cn/GB/216058/216097/16459061.html>.

³⁸ *Id.*

³⁹ See *Patent Pledge Loan in Changde, Hunan Province Achieved Breakthrough* (湖南常德专利权质押贷款实现零的突破), IPR.GOV.CN (Jan. 16, 2013, 2:56 PM), http://www.ipr.gov.cn/gndtarticle/updates/localupdates/201301/1722348_1.html.

⁴⁰ *Id.*

⁴¹ See *Development of China's Utility Model Patent System*, SIPO (Jan. 5, 2013), http://english.sipo.gov.cn/news/official/201301/t20130105_782325.html.

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as trivial innovations and have unobservable value (if not zero value).⁴² Existing CUMP studies focus on the macro level of the CUMP, and primarily discuss the justification of the existence of the Chinese utility patent system, patentability standards, and procurement of such patents.⁴³ Data-based research of the CUMP is rarely seen, and this paper tries to fill this gap.

Patent applications are recently surging in China, with Utility Model Patents leading the trend.⁴⁴ Domestic applicants, however, file the most CUMPs, while foreign counterparts seldom use the CUMP system.

Citation data analysis reveals a growing usage of CUMPs as citations in the PCT international phase, in examination procedures at foreign patent offices, and by non-PCT applications submitted to foreign offices, reflecting the inherent technical value of CUMPs that should no longer be ignored.

Through a preliminary analysis of Chinese patent litigation data from recent years, one can observe a steadily growing trend that patentees are determined to defend their patent rights in order to extract value from their patents. And in such a process, CUMPs have always been an actively litigated target, reflecting the patentees' confidence in their patents' value. Still, from the profiled cases, one can see that CUMPs are naturally enforceable, and high damage awards are expectable.

Lastly, analysis from a financial perspective shows further support that CUMPs are not only useful as an offensive (i.e., litigation) tool, but also as a positive financial measure. The CUMP, as a category, holds a majority (nearly or over one half) of licensed and

⁴² Patti Waldmier, *China Fails to Live Up to its History as a Great Innovator*, THE GLOBE AND MAIL (May 30, 2013, 1:38 PM), <http://www.theglobeandmail.com/report-on-business/breakthrough/china-fails-to-live-up-to-its-history-as-a-great-innovator/article12264028/>.

⁴³ Compare Zhang et al., *supra* note 3, with Wang et al., *supra* note 3.

⁴⁴ Especially after 2009. See, e.g., Dan Prud'homme, *Dulling the Cutting Edge: How Patent-Related Policies and Practices Hamper Innovation in China*, MUNICH PERSONAL REPEC ARCHIVE 43 (August 2012), http://mpr.a.ub.uni-muenchen.de/43299/1/MPRA_paper_43299.pdf.

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pledged patents in China, which exemplifies the growing common sense from both patentees, and economic and financial experts, and even the government as well.

With all of these data-based analyses, and their derived conclusions, one can easily see that CUMPs have increasing technical value (e.g., as prior art), litigation/strategic value, and commercial value (e.g., as shown by licenses). The CUMP is absolutely not trash at all. On the contrary, they, in fact, are definitely treasure. For such a treasured CUMP, if, on one hand, one can take advantage of it, one can leverage and win with it. However, on the other hand, if one wrongly ignores it, one might possibly be disadvantaged.