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**The Application of the Chinese Anti-monopoly Law to Anti-competitive Practices of
Patent Owners When Exploiting Their Rights**

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Abstract

The thesis will examine the extent to which China's Anti-monopoly Law effectively controls the anti-competitive practices of patent owners when exercising their patent rights. The relationship between intellectual property law and competition law is no longer contradictory but has evolved into a convergent and compatible one. The two bodies of law share the same goals to promote competition, encourage innovation and enhance consumer welfare in different ways. Therefore, it is appropriate and reasonable to apply competition law to regulate the exercise of intellectual property rights in certain circumstances. Given the specificity of patent rights and the legal and economic circumstances of China, the scope of the thesis will be limited to anti-competitive practices of patent owners when exercising their patent rights.

The research demonstrates the necessity and importance for China to apply its own Anti-monopoly Law to address anti-competitive exercise of patent rights. However, China's Anti-monopoly Law came into effect in 2008 and it seems not to work as effectively as it was expected in regulating such conduct. Despite great achievements, there are still deficiencies and uncertainty influencing the effective and efficient competition enforcement in the anti-competitive exercise of patent rights. The problems not only arise from China's internal competition enforcement system but also arise from the lack of clear guidance from the competition enforcement authorities. Facing the challenging competition concerns in the 21st century, there are no effective measures available in China. It is not clear in what circumstances the failure to disclose patent interest in the standard setting process can result in antitrust liabilities and to what extent China's Anti-monopoly Law should intervene. It is also uncertain how to keep a balance between the protection of patent rights and the maintenance of market competition when considering the seeking of injunctions before national courts by the owners of standard essential patents or the reverse payment patent settlement agreements.

Therefore, the thesis aims to provide some solutions to these problems to facilitate and improve the effective application of China's Anti-monopoly Law to the exercise of patent rights. The proposals made in this thesis will be based on the valuable EU and US enforcement experience and case law but give significant consideration to the legal and economic context in China. The Law is stated as at 6 June 2018.

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The Promotion Plan for the in-Depth Implementation of the National Intellectual Property Strategy and the Acceleration of the Building of a Powerful Intellectual Property Nation in 2017 (2017 年深入实施国家知识产权战略加快建设知识产权强国推进计划)

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This work is dedicated to my parents and myself.

Author's Declaration

I declare that, except where explicit reference is made to the contribution of others, that this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution.

Signature: _____

Printed Name: _____ Yuting Wang _____

Abbreviations

ANDA	Abbreviated New Drug Application
AMC	Anti-monopoly Commission
AMEA	Anti-monopoly Enforcement Authority
AML	China's Anti-monopoly Law
CJEU	Court of Justice of the European Union
DOJ	US Department of Justice Antitrust Division
EU	European Union
FRAND	Fair, reasonable and non-discriminatory
FTC	Federal Trade Commission
IP	Intellectual Property
IPR	Intellectual Property Right
ITC	International Trade Commission of the US
MOFCOM	Ministry of Commerce of China
NDRC	National Development and Reform Commission of China
RPPSA	Reverse Payment Patent Settlement Agreement
SAIC	State Administration for Industry and Commerce of China
SAMR	State Administration for Market Regulation of China

SEP	Standard Essential Patents
SSO	Standard Setting Organization
TFEU	Treaty on the Functioning of the European Union
TRIPs	Agreement on Trade-Related Aspects of Intellectual Property Rights
US	United States
WTO	World Trade Organization

Chapter 1 Introduction

1.1 The Thesis

The thesis examines the extent to which China's Anti-monopoly Law effectively controls anti-competitive practices¹ of owners of patent rights.

1.2 The Interface between the Intellectual Property Rights and Competition Law²

The effective control by competition law of anti-competitive practices of intellectual property rights owners, especially patent rights owners, is a rather difficult and complicated issue. In the current knowledge-based economy, both competition law and intellectual property law play a key role in achieving specific objectives. Although competition law is separate from intellectual property (IP) law, they share a common economic goal and are equally important to the economy. On one hand, intellectual property rights (IPRs) encourage inventive activities and promote innovation by conferring exclusive rights on the owners for a limited period of time; on the other hand, competition law aims to maintain the market open by eliminating abuses of dominance and other anti-competitive practices. The exclusivity granted by intellectual property law was regarded as facilitating monopolies and thus gave rise to an inherent tension between competition law and intellectual property law. Over time, the relationship between competition law and intellectual property law has developed from a conflicting one to a congruent and compatible one. It is now globally recognized that competition law and intellectual property law in fact share the same goals, namely the promotion of competition, encouraging innovation and enhancing consumer welfare, but in different ways.

However, the interface between the two bodies of law is still a sensitive and complicated domain, which leads to significant economic and legal issues. 'It is a difficult and delicate matter to determine at what point, if at all, the exercise of an intellectual property right could be so harmful to consumer welfare that competition law should override the position

¹ The terminology and concepts are different in the EU, US and China, and for the purpose of this thesis, the expression 'anti-competitive practices/behaviour/conduct' is used as covering all manners of unlawful conduct that distorts competition.

² For the purpose of the thesis, although the term 'competition' is used in the context of the EU, 'antitrust' is applied in the context of the US and 'anti-monopoly' is adopted in the context of China, this thesis will use all of them as synonyms, unless otherwise specified.

as it would be on the basis of intellectual property law alone.’³ Either too much or too little protection of intellectual property will discourage innovation and slow down economic progress.⁴ Even for the United States (US) with a relatively sound and mature system to cope with the interplay of its antitrust and intellectual property policies, it took the US several decades to overcome various challenges and finally to find the current balance.

From an international perspective, the interplay of protecting IPRs and guaranteeing free competition is of long standing. Before the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs Agreement), the Paris Convention on the Protection of Industrial Property had provided for compulsory licensing as a tool to regulate abuses⁵ of patent rights. In addition, the United Nations Multilaterally Equitable Principles and Rules for the Control of Restrictive Business Practices and some other documents are also applied to problems that arise in the areas of market competition, intellectual property protection and technology transfer. In terms of the TRIPs Agreement, it does not only pay more attention to the protection of IPRs, but it also aims to eliminate the anti-competitive practices of IPRs owners in market competition.

Normally, the exercise of patent rights by patent owners should be excluded from the application of competition law. This is for the reason that patent rights are special rights. They are not ordinary contract rights. They are property rights given by the state, which are granted exclusively to the owner for a definitive number of years. It is a sort of contract between an inventor and the state. When the state takes the decision to give exclusivity to the inventor, it has already concluded that it is good for consumers and also good for the society. For example, ‘[m]ost licence agreements do not restrict competition and create pro-competitive efficiencies.’⁶ The licensing of patent rights will greatly promote the dissemination of technologies. ‘Intellectual property rights promote dynamic competition by encouraging undertakings to invest in developing new or improved products and processes. So does competition by putting pressure on undertakings to innovate.’⁷ ‘In order not to reduce dynamic competition and to maintain the incentive to innovate, the innovator

³ Richard Whish and David Bailey, *Competition Law* (8th edn, Oxford University Press 2015), 813.

⁴ Rudolph J.R. Peritz, ‘Competition within Intellectual Property Regimes: The Instance of Patent Rights’ (2012) New York Law School Legal Studies Research Paper, 5.

⁵ For the purpose of the thesis, the term ‘abuse’ can also be used as the meaning of ‘misuse’ or ‘inappropriate use’ of intellectual property rights in a general manner (this includes but is not limited to all the possible anti-competitive exercise of IPRs), especially in some Chinese legal measures mentioned in the following parts and chapters, unless otherwise specified that it refers to the abuse of a dominant position.

⁶ Guidelines on the Application of Article 101 of the Treaty on the Functioning of the European Union to Technology Transfer Agreements [2014] OJ C 89/3, 9.

⁷ *ibid*, 7.

must not be unduly restricted in the exploitation of intellectual property rights that turn out to be valuable'.⁸ Neither the possession nor the normal exercise of a patent right does in itself infringe competition rules. However, the exclusivity of patent rights does not indicate that they are totally exempted from competition law intervention. In substance, the natural characteristics of IPRs, and their important role in the current knowledge-based economy, mean that the exercise of IPRs can easily be abusive and may distort competition.⁹ Some of the behaviour by inventors may go beyond the rights that the state gives them. The consequences are serious and may impair the public interest, especially when it concerns patent rights. In this situation, competition law should be applied to impose some control. However, it should be only in very exceptional and special circumstances where competition law should intervene and control the exercise of patent rights. This thesis will examine what constitutes 'exceptional and special' circumstances when exercising certain kinds of patent rights.

It may be argued that the public interest has already been taken into account when the state decides whether to grant a patent right. The protection of the IPRs is the result of balancing the long-term economic interest and the short-term restrictive effects on competition. In order to obtain a patent right, the applicant has to demonstrate that the invention satisfies a number of stringent conditions which are considered necessary and are in the public interest, such as the requirements of novelty, creativity, utility, etc. Accordingly, it is argued that the application of competition law in the public interest is not necessary in the area of the exercise of patent rights. However, there is a necessity to stress that the public interest discussed here is a different kind of public interest. It is not the consideration of public interest during the granting process of a patent right, but the consideration of public interest when exercising the right. The intervention by competition law will not influence the ownership of the right. Its purpose is to supervise the patent owners' behaviour when they are exploiting their rights. Therefore, it is essential and appropriate to take account of a public interest factor when determining whether competition law should be applied to regulate the anti-competitive exercise of patent rights.

⁸ *ibid*, 8.

⁹ Xianlin Wang, Bu Shou and Liping Wang, 'Multinationals' Intellectual Rights Abuse' (跨国公司在华知识产权滥用) (2005) 21 *Business Watch Magazine*, 32.

1.3 The Chinese Context

The thesis will focus only on the anti-competitive practices of patent owners, though the analysis in the following chapters may be applicable to other IPRs. For the sake of context, the historical background will be described on the basis of all kinds of IPRs. The thesis will then concentrate on the anti-competitive practices in relation to patent rights. This is for the reason that compared to other IPRs, a patent right grants the owner stronger protection and poses the most threats to fair competition in the market.¹⁰ ‘The longest-standing, best-known, and, arguably, economically most valuable form of protection of rights provided by the law of intellectual property comes in the form of the patent.’¹¹ Therefore, the effective control of anti-competitive practices involving the exercise of patent rights has become a contentious issue. This is so especially in China, whose Anti-monopoly Law (AML) came into effect in 2008 and where the problems seem more pressing.

First, most of the anti-monopoly cases and investigations concerning the exercise of IPRs in China point to patent rights as the most problematic field. In recent years, patent rights have been used beyond their legal scope as a tool to exclude competition in the relevant market.¹² In China, even before the adoption of the 2008 AML, there had been some alleged anti-competitive cases concerning the exercise of patent rights. The cases concerned a range of industries such as DVD production, lighter production, digital cameras and motorcycles.¹³ Since 2008, the National Development and Reform Commission of China (NDRC) as one of the three anti-monopoly enforcement authorities (AMEAs) has carried out a total of 129 price-related investigations (97¹⁴ were conducted between 2008 and 2015 and 32¹⁵ were conducted between 2016 and April 2018). Among all the NDRC investigations, there have been two related to the exercise of IPRs and both of them concerned the anti-competitive exercise of patent rights. One was the investigation

¹⁰ Kexun Xie, *The Legal Regulation of the Abuse of Intellectual Property Rights* (知识产权滥用的法律规制) (Shanghai Academy of Social Sciences 2011), 122.

¹¹ Paul Torremans, *Intellectual Property Law* (7th edn, Oxford University Press 2013) 45.

¹² Guanghai Wu, *The Regulation of the Exercise of Patent by Anti-monopoly Law* (专利权行使的反垄断法规制) (Intellectual Property Publishing House 2012) 2.

¹³ Dezhong Guo, *Applying Anti-monopoly Law to Patent Licensing* (专利许可的反垄断规制) (Intellectual Property Publishing 2007) 1.

¹⁴ Bureau of Price Supervision and Anti-monopoly, ‘Great Progress in Anti-Price-Fixing During the 12th Five-Year-Plan’ (‘十二五’期间反价格垄断取得重大进展) (2016) 03 Price Supervision and Anti-monopoly in China 13, 13.

¹⁵ This data was researched and collected from the published decisions of the NDRC that includes the investigations conducted by both the NDRC and its local price bureaux.

of Qualcomm;¹⁶ and the other one concerned InterDigital Corporation. The latter investigation was suspended on the basis that commitments have been made by InterDigital Corporation.¹⁷ The Ministry of Commerce (MOFCOM) — another of China's AMEA, that is responsible for merger control review, has adopted 36 conditional approval decisions in total and two prohibition decisions, of which at least 10 decisions directly involved the exercise of IPRs.¹⁸ Almost all these 10 decisions imposed conditions on the exercise of patent rights to maintain normal competition in the relevant markets. In addition, in 2014 four Microsoft offices in China were raided by the State Administration for Industry and Commerce (SAIC) for alleged anti-competitive practices involving the exercise of IPRs.¹⁹ The investigation is still in progress.²⁰ In the light of private competition enforcement in China, there has been from 2008 to 2015, a sharp increase in the number of private anti-monopoly actions.²¹ Some of the most noticeable civil anti-monopoly litigation concerns the exercise of patent rights, such as *Huawei vs. InterDigital* which was related to the licencing of standard essential patents (SEPs).²² As a consequence, anti-competitive practices in relation to IPRs in China seem to focus mostly on the exercise of patent rights.

Second, it can be seen from the competition enforcement experience of the European Union (EU) and of the US that most IP-related anti-competitive practices arise in the

¹⁶ *Qualcomm Incorporated*, NDRC Administrative Sanction Decision, FaGaiBanJiaJianChuFa [2015] No. 1 (发改办价监处罚 [2015] 1 号).

¹⁷ The announcement by NDRC <http://www.ndrc.gov.cn/gzdt/201405/t20140522_612466.html>.

¹⁸ MOFCOM announcements <<http://fdj.mofcom.gov.cn/article/ztxx/?>>. The 10 IP-related conditional approval decisions are: Announcement No.44 [2015] of MOFCOM—Announcement on the Conditional Approval Decision on the Proposed Acquisition of Equities of Alcatel Lucent by Nokia; Announcement No.30 [2014] of MOFCOM—Announcement on the Conditional Approval Decision on the Acquisition of AZ Electronic Materials Co., Ltd by Merck KGaA; Announcement No.24 [2014] of MOFCOM—Announcement on the Conditional Approval Decision on the Acquisition of the Equipment and Services Business of Nokia Corp. by Microsoft Inc.; Announcement No.3 [2014] of MOFCOM—Announcement on the Conditional Approval Decision on the Acquisition of Lifei Technology Co., Ltd. by Thermo Fisher Scientific Co., Ltd.; Announcement No.58 [2013] of MOFCOM—Announcement on the Conditional Approval Decision on the Acquisition of Gambro AB by Baxter International Inc.; Announcement No.87 [2012] of MOFCOM—Announcement on the Conditional Approval Decision on the Establishment of a Joint Venture by ARM, G&D and Gemalto; Announcement No.35 [2012] of MOFCOM—Announcement on the Conditional Approval Decision on the Acquisition of Goodrich by UTC; Announcement No.25 [2012] of MOFCOM—Announcement on the Conditional Approval Decision on the Acquisition of Motorola Mobility by Google; Announcement No.82 [2009] of MOFCOM—Announcement on the Conditional Approval Decision on the Acquisition of Sanyo by Panasonic; Announcement No.77 [2009] of MOFCOM—Announcement on the Conditional Approval Decision on the Acquisition of Wyeth by Pfizer.

¹⁹ The announcement by SAIC <http://home.saic.gov.cn/xw/yw/zj/201407/t20140729_210025.html> accessed 10 April 2018.

²⁰ *ibid.*

²¹ Chuang Wang, 'The Overview of Anti-monopoly Civil Litigations in China and Its Future Outlook' (中国反垄断民事诉讼概况及展望) (2016) 02 Competition Policy Research 6, 6.

²² *ibid.* 8.

See Chapter 7 for detailed discussion of SEPs.

licensing of technologies.²³ In the Antitrust Guidelines for the Licensing of Intellectual Property Issued by US Department of Justice and the Federal Trade Commission, most cases provided as examples are on the exercise of patent rights.²⁴ In China, the SAIC Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition establish independent articles on issues concerning patent pools and SEPs, which are two of the most debated anti-competitive practices in IPR area.²⁵ This demonstrates the specificity and importance of the anti-competitive exercise of patent rights in competition enforcement from another aspect.

Third, in the era of knowledge-based economy, China, as a developing country, is still in the position of importing most advanced technologies from developed countries.²⁶ In this context, many transnational companies have made use of the increased patent protection to exercise their patent rights abusively and set up technology barriers to restrict Chinese companies from entering the relevant markets. Accordingly, the question of regulating effectively anti-competitive practices of patent owners seems to be more important for China at this stage of developing its competition enforcement regime.

Therefore, the focus of the thesis is on the anti-competitive practices in the exercise of patent rights by patent owners in China.

1.4 The Importance of the Topic

In order to be consistent with the TRIPs Agreement, significant improvements were made by China in patent protection before and after China formally became a WTO member in 2001. Just around 2000, there were a series of anti-competitive cases concerning the exercise of patent rights, such as *the DVD patent royalties case*,²⁷ *Cisco Systems, Inc. v. Huawei Technologies, Co.*,²⁸ and *Sichuan Dexian Technology Co., Ltd. v. Shanghai*

²³ Guidelines [2014] OJ C 89/3; Regulation 316/2014 on the Application of Article 101(3) of the Treaty on the Functioning of the European Union to Categories of Technology Transfer Agreements [2014] OJ L 93/17; Antitrust Guidelines for the Licensing of Intellectual Property by US Department of Justice and the Federal Trade Commission (US Antitrust Guidelines on IPRs).

²⁴ Many examples are provided in the US Antitrust Guidelines on IPRs.

²⁵ Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition (国家工商行政管理总局令第 74 号 关于禁止滥用知识产权排除、限制竞争行为的规定).

²⁶ Xiaoye Wang, *Anti-monopoly Law (反垄断法)* (Law Press. China 2011) 190.

²⁷ 'The DVD Case Related to Intellectual Property Rights' (DVD 知识产权案) *China.com.cn* (23rd June 2003) <<http://www.china.com.cn/chinese/zhuanli/wtobg2003/351820.htm>> accessed 17 April 2018.

See also Chapter 2, Section 2.3.1.

²⁸ *Cisco Systems, Inc. v. Huawei Technologies, Co.* 266 F. Supp.2d 551 (E.D.Tex. 2003).

See also Chapter 2, Section 2.3.2.

Suoguang Electronics Co., Ltd. and Sony Corporation,²⁹ which attracted the attention of the relevant competition authorities and experts in the field. The failure and helplessness of Chinese manufacturers in the aforesaid cases indicate the ineffectiveness of the pre-2008 Chinese laws and regulations in controlling anti-competitive practices by patent rights owners.³⁰ Moreover, it is likely that anti-competitive practices of owners of patent rights will become more common in China's domestic market. As a result, China will need to prevent anti-competitive practices of patent owners in the market by enforcing its own competition law.

However, China's 2008 AML does not work as effectively as it was expected in controlling anti-competitive harm that arises from some exercises of patent rights, though a number of achievements have been made since its promulgation. In substance, Article 55 of China's AML confirms that the legal exploitation of IPRs should be outside the scope of the AML; but an abuse of IPRs which eliminates or restricts competition will fall within its scope.³¹ Nevertheless, as stated by Xianlin Wang, Article 55 is a general and declarative principle, not an appropriate provision to be applied as a legal basis to determine the legality or illegality of the exercise of IPRs.³² China's AML took many of its features from EU competition law. However, unlike the position in the EU, until 2015 there were no complementary instructions or guidelines in China to explain or facilitate the application of Article 55 to the exercise of IPRs. As a consequence, the NDRC published its first decision concerning an anti-competitive exercise of patent rights only in 2015. In 2013 the Guangdong Higher People's Court rendered two final judgments on an anti-competitive case between Huawei and InterDigital. Although the two cases mentioned above are milestones in China's anti-monopoly enforcement history, they exposed serious problems in applying China's AML to anti-competitive practices of patent owners. These problems were presented from both the perspective of regulating rules and the perspective of specific enforcement.³³

²⁹ *Sichuan Dexian Technology Co., Ltd. vs. Shanghai Suoguang Electronics Co., Ltd. and Sony Corporation*, Shanghai No.1 Intermediate People's Court, (2004) Hu Yizhong Minwu (Zhi) Chuizi No. 223 ((2004) 沪一中民五(知)初字第223号).

See also Chapter 2, Section 2.3.3.

³⁰ See also Chapters 2 and 3.

³¹ Anti-monopoly Law of the People's Republic of China (中华人民共和国反垄断法), Article 55.

³² Xianlin Wang, 'Rethinking the Application of China's Antimonopoly Law in the Area of Intellectual Property Rights' (我国反垄断法适用于知识产权领域的再思考) (2013) 1 Journal of Nanjing University (Philosophy, Humanities and Social Sciences) 34, 38.

³³ See further in Chapter 4.

The SAIC issued Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition (Provisions) in 2015.³⁴ However, it has not been applied in any investigation since its enactment. Furthermore, the NDRC and the SAIC released draft anti-monopoly guidelines on the abuse of IPRs (consultation paper) at the end of 2015 and at the beginning of 2016 respectively. In March 2017, after collecting public comments on the two NDRC and SAIC draft guidelines, the Anti-monopoly Commission (AMC) released unified draft IPRs guidelines for public comment (the AMC draft IPRs guidelines).³⁵ Compared to the NDRC and SAIC drafts, the AMC draft IPRs guidelines are much more principled and leave a significant amount of discretion for the AMEAs to exercise. Once the guidelines are finally promulgated, together with the previous SAIC Provisions, they will hopefully provide certainty and instructions on the interplay of competition enforcement and patent protection. However, it has to be admitted that from the current components of the adopted SAIC Provisions and the draft guidelines (consultation paper), some urgent problems still need to be addressed. For instance, there are serious concerns on how the SAIC Provisions will influence competition enforcement by other AMEAs in dealing with the anti-competitive exercise of IPRs in similar circumstances. What is the relationship between the published SAIC Provisions and the anticipated guidelines of the AMC? Faced with the globally debated competition concerns, there are no effective measures available to be taken. It is confusing in what circumstances the failure to disclose patent interest in the standard setting process can result in antitrust liabilities and to what extent the AML should intervene.³⁶ In addition, how to keep a balance between patent protection and free competition when considering under the AML the seeking of injunctions by the owners of SEPs³⁷ who have committed to license their patents on fair, reasonable and non-discriminatory (FRAND) terms, is another serious problem waiting to be resolved.³⁸ In recent years, reverse payment patent settlement agreements (RPPSAs)³⁹ have attracted the attention from competition authorities in many

³⁴ The Provisions came into effect on 1 August 2015.

³⁵ Anti-monopoly Guidelines of the Anti-monopoly Commission of the State Council for the Abuse of Intellectual Property Rights (Draft for Comments) (关于滥用知识产权的反垄断指南（征求意见稿）), available at: <http://fldj.mofcom.gov.cn/article/zcfb/201703/20170302539418.shtml>.

³⁶ See also Chapter 7, Section 7.3.

³⁷ ‘SEPs are patents essential to implement a specific industry standard.’ Commission, ‘Antitrust Decisions on Standard Essential Patents and Samsung Electronics’ Memo/14/322, 29 April 2014.

³⁸ See also Chapter 7, Section 7.4.

³⁹ Reverse payment patent settlement agreements (the so-called pay-for-delay agreements) are normally concluded between brand-name drug manufacturers and generic drug manufacturers in the context of settling a patent dispute, in which the brand-name pharmaceutical company owning a patent on a drug provides monetary payments or other forms of value to the generic competitor in exchange for the latter’s commitment of delaying its market entry with competitive generic versions.—Margherita Colangelo, ‘Reverse Payment

countries. Despite no case arising at the moment, the legal and economic context in China indicates that the seemingly legal RPPSAs have a potential to raise serious competition concerns.⁴⁰ However, no effective and efficient preparation is being undertaken in China.

On 17 March 2018, the 13th National People's Congress adopted the Institutional Reform Plan of the State Council.⁴¹ One important part of this Institutional Reform Plan is that all the anti-monopoly responsibilities of the three AMEAs are merged into a newly established single and independent organization — the State Administration for Market Regulation (SAMR). This means that the tripartite enforcement system in China comes to an end. The merger of the multiple AMEAs will, to a great extent, resolve most of the problems in competition enforcement caused by the overlapping enforcement powers, and will improve the enforcement efficiency. However, it is not the complete answer to all the potential problems that can arise. There are still some problems left that can seriously impair the effective and efficient application of the AML, especially in the exercise of patent rights, such as the confusion as to legal bases, the relationship between public and private enforcement, the coordination between the SAMR and relevant sectoral regulators and the lack of professionalism and transparency.⁴² Moreover, it is not clear in what manner the new single SAMR will discharge its anti-monopoly responsibilities, especially in the area of the exercise of patent rights.

Although improvements and progress made in prohibiting anti-competitive practices of patent owners can be identified, the unresolved problems and the uncertainty have made a contribution to the ineffectiveness of applying China's AML. This ineffectiveness may discourage innovation and impede competition in China's domestic market. It means that ineffectiveness will be a hindrance to China on the way to becoming a country with strong independent IPRs and will stifle China's economic progress. Free competition and the protection of patent rights are both of considerable importance in the economic development of one country, especially a developing country like China. Therefore, the

Patent Settlement Agreements in the Pharmaceutical Sector Under the EU and US Competition Laws: A Comparative Analysis' (2017) 40(3) World Competition 471, 472.

⁴⁰ See also Chapter 8.

⁴¹ The Institutional Reform Plan of the State Council (国务院机构改革方案), available at <http://www.gov.cn/guowuyuan/2018-03/17/content_5275116.htm> accessed 20 March 2018. The Plan will reduce the number of ministerial-level entities by eight and reduce the number of vice-ministerial-level entities by seven. As a result, there will be totally 26 ministries and commissions in the State Council after it is reshuffled.

⁴² See also Chapter 6.

effective application of China's AML to regulate anti-competitive practices in exploiting patent rights is an urgent problem to be resolved.

The thesis examines the relevant problems from a more overall and comprehensive perspective than other academic work. The discussion in this thesis provides both theoretical and practical bases for the necessity and appropriateness of the application of the AML to the anti-competitive practices in the exercise of patent rights. The thesis systematically introduces the development of China's anti-monopoly enforcement in the area of exercise of patent rights. The thesis adds to the literature by offering a detailed and comprehensive analysis of China's anti-monopoly enforcement system including both the regulating rules and the regulating authorities, in a general but patent rights-specific manner, and then focusing on two noticeable challenges concerning the exercise of patent rights suffered by the global competition authorities in the 21st Century: SEPs and RPPSAs. More importantly, based on comparative studies of the EU and US approaches, the thesis contributes critical and effective proposals to resolve identified problems and improve competition enforcement in the exercise of patent rights in the context of China's specific legal and economic circumstances.

1.5 Research Questions

As stated above, the main research question of the thesis is to examine the extent to which China's AML effectively controls anti-competitive practices of owners of patent rights with the view to make suitable proposals for reform. In order to answer that main question, several sub-research questions have been identified:

1. Why is it necessary to apply competition law to the exercise of patent rights?
2. What role do the rules under the current legal system in China play in regulating anti-competitive practices of patent owners and in what manner they are or will be applied in practice?
3. Whether the current arrangement for the structure and duties of Chinese competition authorities result in problems in competition enforcement, especially that concerns the exercise of patent rights?

4. What are the most noticeable problems in the 21st century challenging China in competition enforcement where the anti-competitive practices concern the exercise of patent rights?
5. How do more mature regimes of competition/antitrust laws exercise control over the anti-competitive practices of patent owners?
6. What measures can be taken for Chinese authorities to improve the effectiveness of China's AML in regulating anti-competitive practices of owners of patent rights?

1.6 Methodology

In this thesis, the doctrinal method is followed mainly relying on primary sources, such as Chinese legislation and legislation and case-law of some other relevant countries; as well as secondary sources, namely relevant literature.⁴³ In order to evaluate the Chinese system and make effective proposals for the relevant authorities to improve competition enforcement concerning the exercise of patent rights, comparative analysis with the EU and US will also be undertaken in this research. In terms of the overlapping field of competition law and patent law, countries like the US, the UK and the EU have faced the issues identified in the thesis for quite a long time and they have significant experience both in practice and in theory. On the contrary, the relevant literature in China was firstly introduced around 2000, no more than 20 years ago. Therefore, the analysis of the thesis will be on the basis of the extensive work by experts and scholars either from China or foreign countries. The thesis will examine and compare the relevant EU and US legislation according to the different focal points in each chapter. The examination and comparison will specifically focus on the rules that are applicable to the exercise of patent rights with anti-competitive effects which are also present in China. In addition, case studies play an important role in the undertaken research. The cases and investigations conducted by Chinese courts and authorities are chosen to display the development of competition enforcement in China, especially in the area of exercising patent rights. Of course, not all the cases and investigations will be discussed. Cases have been selected on the basis of their relevance to the assessment of the application of China's AML to anti-competitive exercise of patent rights. The thesis also compares the relevant EU and US case law to

⁴³ Some Chinese literature used in the thesis does not contain English titles within themselves, so some titles are translated by the author of the thesis. In order to make sure the certainty of these Chinese sources, the author also keeps the original Chinese titles when citing them in the thesis.

establish how their competition authorities deal with similar anti-competitive practices concerning the exercise of patent rights. The EU and US case law provide robust foundations for the further proposals to make sure of an effective application of China's AML to the anti-competitive exercise of patent rights.

1.7 Structure

The whole thesis is divided into 9 chapters. Chapter 1 is the basic chapter to introduce the thesis generally. Chapter 9 aims at answering the sixth research question and concludes the thesis by gathering the findings and proposing specific solutions to the problems identified in each chapter. The fifth research question will be answered throughout the whole thesis in accordance with the focal point of each chapter.

Chapter 2 provides a historical context and a theoretical basis for the appropriateness of applying China's AML to the anti-competitive practices in the exercise of patent rights. The relationship between patent rights and anti-monopoly law will be discussed first. Then, the necessity and context for China to apply its AML to regulate anti-competitive practices of patent rights owners will be analysed. Several influential Chinese cases before 2008 will be examined to illustrate how Chinese laws or regulations were applied to the anti-competitive exercise of patent rights. Thus, Chapter 2 will address the first research question.

As to the second research question, Chapters 3-5 help to understand the Chinese legal system.

In Chapter 3, the Chinese legislation that is applicable to regulate anti-competitive practices of owners of patent rights will be analysed. Following from Chapter 2, this is to further demonstrate the appropriateness and necessity to apply China's own Anti-monopoly Law to such conduct. Both the pre-2008 competition-related rules and the 2008 AML will be considered. In this chapter, the existing deficiencies and ineffectiveness in the current Chinese legal system will be identified, though progress and improvements will also be acknowledged.

In Chapter 4, case studies will be developed on the basis of *Huawei vs. InterDigital* and the *Qualcomm* investigation. As discussed in Chapter 3, the pre-2008 legal rules are

ineffective in regulating the anti-competitive exercise of patent rights. Although the AML came into effect in 2008, without clear and detailed guidance, the only general article cannot be applied appropriately in practice. The analysis of these two noticeable cases in Chapter 4 aims to show the manner in which the AMEAs and the Chinese courts apply the law to anti-competitive practices of patentees in exercising their patent rights. The problems unresolved will be identified and discussed.

In Chapter 5, the 2015 Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition issued by China's SAIC will be analysed. Previous chapters will show the necessity and importance to adopt clear guidance to facilitate the application of China's AML to regulate the anti-competitive exercise of patent rights. Then, this chapter will discuss how China proceeded with the anti-monopoly guidelines on IPRs and what kind of guidance has been adopted. The main body of Chapter 5 will be divided into 7 parts according to the different aims and functions of the rules. The deficiencies and uncertainty of the Provisions will be identified and the achievements will also be acknowledged.

In Chapter 6, the two-level and tripartite administrative anti-monopoly enforcement structure in China will be examined. This seeks to answer the third research question. Previous chapters have discussed the role of the relevant legal rules in prohibiting the anti-competitive practices in the exercise of patent rights. In addition, whether the anti-competitive practices can be effectively regulated depends on whether there is effective and efficient anti-monopoly enforcement. In order to understand the manner in which China's AML is applied, the institutional framework of China's anti-monopoly enforcement will be elaborated. The main focus of this chapter will be on the analysis of the problems that have arisen from the current two-level and tripartite enforcement structure. These problems to some extent indicate the reason for the ineffectiveness and inefficiency of competition enforcement in the exercise of patent rights. In the context of establishing a single and independent SAMR, Chapter 6 will conclude by pointing out which problems will be alleviated and which problems will remain post the structural reform of the enforcement agencies.

The aforesaid chapters have discussed the problems and uncertainty of the Chinese anti-monopoly enforcement system in regulating the anti-competitive exercise of patent rights, from the perspective of both regulating rules and enforcement authorities. The situation

may be particularly difficult when it comes to the exercise of patent rights in certain special circumstances. Chapters 7 and 8 seek to provide answers to the fourth research question, which discuss two major problems concerning anti-competitive practices of patent owners when exercising their rights in the 21st century. Chapter 7 discusses two noticeable concerns arising from the licensing of SEPs. One concerns the situation in which the competition rules can be applied to the failure of patent owners to disclose patent interest in the standard setting process. The other is about the circumstances in which and the extent to which the seeking of injunctions by FRAND-encumbered SEP owners should be limited. In order to understand the development of the competition enforcement in these two areas, the analysis and comments in this chapter are based on the case law in the EU and US. In addition, the relevant enforcement environment in China will also be commented on. The discussion and analysis in this chapter provides reasoning and support for the proposals to improve the application of China's AML in these two aspects. Chapter 8 examines the likely illegality of RPPSAs in the pharmaceutical industry in order to understand how the US and the EU authorities deal with this problem and to explain the reasons why Chinese AMEAs should pay attention to such conduct. The analysis is on the basis of the US and EU competition enforcement and relevant academic literature. The selected US cases are *re Cardizem CD Antitrust Litigation*,⁴⁴ *Valley Drug Co. v. Geneva Pharmaceuticals, Inc.*,⁴⁵ *Schering-Plough Corp. v. F.T.C.*,⁴⁶ *Re K-Dur Antitrust Litigation*,⁴⁷ *Watson*⁴⁸ and *Actavis*.⁴⁹ The cases decided by the European Commission and the EU courts are *Lundbeck*,⁵⁰ *Fentanyl*⁵¹ and in *Servier*.⁵² The comparison of different approaches of the EU and US and the discussion of the changes in China's pharmaceutical industry in Chapter 8 provide robust basis for the proposals set out in the final concluding chapter on how the AML should be applied to regulate such problematic agreements.

In Chapter 9, the conclusion of the thesis as a whole will be presented. Some proposals will be made here to improve the effective application of China's AML in controlling anti-

⁴⁴ *In Re Cardizem CD Antitrust Litigation*, 332 F. 3d 896 (6th Cir. 2003).

⁴⁵ *Valley Drug Co. v. Geneva Pharmaceuticals, Inc.*, 344 F. 3d 1294 (11th Cir. 2003).

⁴⁶ *Schering-Plough Corp. v. F.T.C.*, 402 f. 3d 1056 (11th Cir. 2005).

⁴⁷ *In Re K-Dur Antitrust Litigation*, 686 F. 3d 197 (3rd Cir. 2012).

⁴⁸ *F.T.C. v. Watson Pharmaceuticals, Inc.*, 677 F. 3d 1298 (11th Cir. 2012), Watson was then acquired and known as Actavis.

⁴⁹ *Federal Trade Commission v. Actavis Inc. et al.*, 133 S. Ct. 2223 (2013).

⁵⁰ *Lundbeck* (Case AT.39226) Commission Decision C (2013) 3803 final; Case T-472/13 *Lundbeck v Commission* EU: T: 2016: 449.

⁵¹ *Fentanyl* (Case AT. 39685) Commission Decision C (2013) 8870 final.

⁵² *Perindopril (Servier)* (Case AT. 39612) Commission Decision C (2014) 4955 final.

competitive practices of patent owners when exercising their patent rights. The proposals will seek to provide appropriate answers to the last research question.

The Law is stated as at 6 June 2018.

Chapter 2 The Relationship between Patent Law and Anti-monopoly Law¹

2.1 Introduction

Patent Law grants exclusive rights to the owners of patents aiming to encourage innovation and enhance technology. The exclusive rights allow patent owners to exclude others' unauthorised exploitation of their patents for a limited period of time, which can confer on the patentees an advantageous or even dominant position. Patent law protects the normal exercise of the granted exclusive rights though in some circumstances the exercise of these exclusive rights may lead to anti-competitive effects. However, the main goal of anti-monopoly law is to remove the anti-competitive behaviour in the market to guarantee fair and free competition. In this context, the objectives of patent law seem to be contradictory to those of anti-monopoly law. Their relationship had been tough and strained for some time. Nevertheless, there is actually some harmony in the two branches of the law which pursues the same goal. The relationship between the two fields of law is no longer totally contrary but has gradually converged. This kind of compatible relationship can facilitate the application of anti-monopoly law to the regulation of anti-competitive practices undertaken by patent owners when they exercise patent rights.

Since joining the World Trade Organization (WTO) in 2001, China, as one of the largest countries in the world, has played an important role in the international trade. In order to comply with international standards, China has amended its Patent Law to improve the standard of protection of patents to an internationally accepted level. However, in the era of knowledge-based economy, as a developing country, China is still in the position of importing most advanced technologies from developed countries.² In this situation, many transnational companies have made use of the increased patent protection to exercise their patent rights inappropriately and set up technology barriers to restrict Chinese companies from entering the markets. Undoubtedly, this has had a detrimental effect on the development of relevant industries or companies in China. Although some rules adopted before 2008 are available to be applied to the anti-competitive practices concerning intellectual property rights in China, they are scattered in several different laws and

¹ For the purpose of the thesis and the consistency of this chapter, the term 'anti-monopoly law' is generally synonymous with EU 'competition law', US 'antitrust law' and the term 'anti-monopoly law' used in China, unless otherwise specified.

² Xiaoye Wang, *Anti-monopoly Law* (反垄断法) (Law Press, China 2011) 190.

regulations and have seldom been referred to in practice.³ Therefore, in order to regulate effectively the anti-competitive exercise of patent rights, it is necessary for China to apply its Anti-monopoly Law.

In this chapter, the relationship between Patent and Anti-monopoly Laws will be examined first. Then, the necessity and appropriateness for China to apply its Anti-monopoly Law (AML) to regulate the anti-competitive exercise of patent rights by patentees will be analysed. The analysis will be established on the basis of several influential cases taking place before the adoption of the 2008 AML to illustrate how Chinese laws were applied to such behaviour. Finally, some conclusions or observations will be made.

2.2 The Relationship between Patent Law and Anti-monopoly Law

What is the relationship between anti-monopoly law and patent law? Whether they are fundamentally contradictory with each other or they pursue the same objective just in different ways? The interaction between anti-monopoly law and intellectual property law, especially patent law, has become a contentious issue in legal studies all around the world. Traditionally, the relationship between the protection of patent rights and the protection of competition has been considered complicated owing to the seemingly contradictory objectives of these two independent bodies of law. On one hand, patent law is a kind of private law, which strives to encourage and promote innovation. It grants patentees exclusive rights to exploit their patents and impede others from exploitation without consent. The exclusivity to some extent is a kind of legal monopoly and restricts the activities of other competitors or potential competitors. On the other hand, the objective of anti-monopoly law is to remove anti-competitive behaviour and ensure the maintenance of unfettered and effective competition on the market. From this respect, the incompatibility between patent law and anti-monopoly law seems to be logical and reasonable. However, the alleged conflict and contradiction is only on the surface. In fact, competition authorities in the EU and US no longer hold this traditional conflicting view.⁴ From a modern point of view, the relationship between anti-monopoly law and patent law is no longer a black-and-white question. There are overlapping objectives shared by the two sets of law—promoting innovation, encouraging competition and improving consumer welfare. Nowadays, it appears to be generally accepted that anti-monopoly law and patent law are

³ These rules will be discussed in Chapter 3.

⁴ H. Stephen Harris and others, *Anti-monopoly Law and Practice in China* (Oxford University Press 2011) 210.

complementary and they just try to achieve the same final goals through different means. Therefore, patentees should not be perceived as enjoying the monopoly power for just possessing patent rights; on the contrary, the ownership of patent rights does not absolutely exempt patent right holders from the application of anti-monopoly law.⁵ The existence of conflicts between the two bodies of law cannot be avoided, however, it is not the whole issue. The common points should not be ignored and the complementary nature of the relationship should be confirmed.

2.2.1 The Nature of Patent Law

‘The longest-standing, best-known, and, arguably, economically most valuable form of protection of rights provided by the law of intellectual property comes in the form of the patent.’⁶ Basically, a patent grants the patent owner certain exclusive rights over the innovative and inventive product or process to exclude others from making, using, offering for sale, selling, or importing the subject product or from exploiting the subject process itself without the consent of the patentee.⁷ The origins of a patent have a close relation to ‘monopoly’. In the early stage, the concept of monopoly rights was considered to be firstly developed by the German miners of the Alps in their innovative process traced back to thirteenth century.⁸ However, the first patent scheme all around the world which is the closest to the modern one was created by a Decree of 1474 in Venice, in which a limited monopoly was granted to the inventors of the new objects.⁹ This patent system has become a classic. It has been followed by and developed into the modern patent law but it was not a complete patent law. During the evolutionary process of patent law, a number of characteristics have been changed fundamentally but what has not been changed is the nature of monopoly.

In the old days in Europe, patents did not completely aim to encourage innovation and invention but more for a reward for the loyalty of royal supporters.¹⁰ However, in modern society, patent law is fundamentally designed for two main purposes, one of which is to grant a reward to the inventor for his or her investment and hard work and more important is to provide an incentive for innovation. According to China’s Patent Law, ‘this law is

⁵ *ibid.*

⁶ Paul Torremans, *Intellectual Property Law* (7th edn, Oxford University Press 2013) 45.

⁷ Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), Article 28.

⁸ Torremans (n 6) 2-3.

⁹ *ibid* 45.

¹⁰ *ibid* 46.

enacted for the purpose of protecting the legitimate rights and interests of patentees, encouraging inventions, giving an impetus to the application of inventions, improving the innovative capabilities, and promoting scientific and technological progress as well as the economic and social development.’¹¹ It is widely acknowledged that during the process of invention and creation, the inventor normally has to invest a lot of time, money, hard work or relevant skill in the innovation process. At the same time, the inventor has to bear the risk of failure in which all the investment could be sunk. Therefore, the costs and risks to innovate are considerably high. If the state did not provide some exclusive rights to protect and reward these inventors, the trouble of ‘free ride’ would come into being.¹²

In this situation, everyone in the society could take advantage of others’ intellectual achievements for free and inventors’ innovative results could be invaded or occupied unlimitedly. As a consequence, inventors cannot reap enough benefits from their inventions or creations and have to afford all the costs of the innovative and creative activities by themselves. Moreover, they have to bear the consequence of sharing their achievements with others for free. If things carried on like this, the incentives and motivations for inventors and investors to undertake innovative and creative activities would be substantially undermined and lessened. The concern then arises that almost no one would be willing to invest and engage in research and development without the appropriate protection form patent law.¹³ In this situation, what the competitors in the market would do would be simply to wait for the achievements of others without bearing any cost for innovative activities or any risk of failure.¹⁴ Consequently, the development of the society would be hampered and the economy would not function well.¹⁵ From this perspective, patent law which grants exclusive rights to patentees and offers them protection will, to a great extent, spur both individuals and undertakings to invest in innovative and creative activities and at the same time makes a contribution to the promotion of innovation and the enhancement of social welfare. On one hand, the protection of patent rights by patent law has the same aim as the protection of normal property rights, which is to prevent the deprivation of others’ property illegally and to

¹¹ Patent Law of People’s Republic of China (中国专利法), Article 1.

¹² Wang, *Anti-monopoly Law* (n 2) 159.

¹³ *ibid* 159.

This does not mean that without the patent system, there would be no innovative and creative activity. However, without patent law to encourage innovation, innovative and creative activities may be significantly diminished.

¹⁴ Torremans (n 6) 13-14.

¹⁵ *ibid* 14.

preclude the use of others' property without consent.¹⁶ On the other hand, patent law allows right owners to charge royalties for the use of their patents as a reward for their efforts and investment, which provides material incentives for individuals and enterprises to undertake and invest more in research and development. Although patent rights will not be conferred on inventors for all innovations and there are really some inventors who are stimulated to invest in research and development just for their interest, patent law at least provides a chance or a hope to encourage innovators to pursue their goals.

The other main purpose of patent law that must be taken into account is to facilitate the dissemination of knowledge and technology and finally to benefit the public. Patent law not only aims to protect the interest of inventors but also to guarantee consumer welfare. Pursuant to the United States Constitution, the Congress shall have the power “to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writing and discoveries.”¹⁷ In general, the legal monopoly given by patent law to patentees will only last for a limited period of time, normally no more than 20 years. However, the legal monopoly is on condition that when the term of patent rights expires, the knowledge should be available to the public to produce products or use processes protected by the patent. In addition, patentees are entitled by patent law to license their rights. In this way, licensing enables the combination of an intangible property—the innovative technology of the licensor with the other productive elements of licensees to maximise the efficiency and profits.¹⁸ It can be imagined that without the protection of patent law, most inventors would endeavour to keep their inventions or creations secret, which to some extent would impede the spread of knowledge. Licensing makes it possible to save social resources by removing repeated research and development work; simultaneously, the royalties from licensing provides further motivations for the original inventors to go on with their innovative activities. Licensing facilitates the dispersal of innovation by allowing others to exploit the patents, simplifies the follow-on innovation and smooths the realization of the commercial value of patent rights. Undoubtedly, this will eventually benefit consumer welfare by providing more innovative and better goods with lower prices.

¹⁶ Wang, *Anti-monopoly Law* (n 2)159.

¹⁷ The United States Constitution, Article 1, s 8.

¹⁸ Philip Lowe and Luc Peepkorn, ‘Intellectual Property: How Special is its Competition Case?’ in Claus Dieter Ehlermann and Isabela Atanasiu (eds), *European Competition Law Annual 2005: The Interaction between Competition Law and Intellectual Property Law* (Hart Publishing 2006), 93.

Overall, patent law is generally regarded as an important tool to encourage innovation, facilitate the dissemination of knowledge and promote consumer welfare by granting patentees a legal monopoly for a limited period of time over their inventions.

2.2.2 The Nature of Anti-monopoly Law

‘The basis of a free market is competition between firms.’¹⁹ However, a free market economy should not mean completely and absolutely unbridled competition for all the participants in any industry.²⁰ Anti-monopoly law is adopted to prevent undertakings from distorting or restricting competition and to ensure the optimal functioning of the market. It represents the coercive power of the state and is regarded as the ‘economic constitution’.²¹ Although it seems to be a little ironic that free competition will be achieved by competition law through controlling and interfering the liberty of undertakings’ behaviour, regulatory rules are necessary to resolve the imperfections of the market in the background of competition.²² Accordingly, it is imperative to apply anti-monopoly law to the correction of anti-competitive practices in the market.

Basically, the objectives of anti-monopoly law differ in different countries according to their individual circumstances, such as the economic policy and environment, the judicial interpretation and so on. Even in the same country, the goals of its anti-monopoly law will vary during different development stages.²³ For example, the purpose of the Act Against Unfair Competition of Germany in 1896 (*Gesetz gegen den Unlauteren Wettbewerb*) simply focused on the protection of competitors, such as prohibiting false advertising and counterfeiting trademarks.²⁴ While after several amendments, its aims have extended to the protection of consumers and public interests as well. In addition, according to different situations of each country, anti-monopoly law usually strives for multiple objectives not a single one.²⁵ Accordingly, there is not a fixed and definite objective properly designed for all the countries and the debate on the purposes of anti-monopoly law remains a contentious issue. For instance, the popular attitude among German scholars is that what anti-monopoly law pursues is to remove monopolies and ensure effective market

¹⁹ Alison Jones and Brenda Sufrin, *EU Competition Law* (6th edn, Oxford University Press 2016) 2.

²⁰ *ibid.*

²¹ Wang, *Anti-monopoly Law* (n 2) 39.

²² Jones and Sufrin, *EU Competition Law* (6th edn) (n 19) 2-3.

²³ Wang, *Anti-monopoly Law* (n 2) 27.

²⁴ *ibid.* 25.

²⁵ Alison Jones and Brenda Sufrin, *EU Competition Law* (5th edn, Oxford University Press 2014) 15.

competition; while the Chicago School in the US holds the opinion that the promotion of economic efficiency is the purpose of antitrust law, which has greatly decreased the intervention of the US on mergers since 1980s.²⁶

Although there is a controversy in the legislative objectives of anti-monopoly law around the world, the same basic goals have been generally accepted as forbidding monopolistic behaviour²⁷ and guaranteeing market competition on one hand and promoting economic efficiency and enhancing consumer welfare on the other hand.²⁸ For example, Article 1 of China's AML clearly sets down that this anti-monopoly law is designed for 'preventing and restraining monopolistic conduct, protecting fair market competition, enhancing economic efficiency, safeguarding the interests of consumers and the interests of the society as a whole, and promoting the healthy development of socialist market economy.'²⁹ Similarly, the EU competition law pursues both welfare and efficiency. In the words of the European Commission, Article 101 of the Treaty on the Functioning of the European Union as a whole aims to protect the market competition and ultimately achieve the promotion of consumer welfare and allocative efficiency.³⁰ Market competition can effectively optimize the allocation of resources in the market through the price mechanism.³¹ At the same time, it also plays a significant role in realizing the productive efficiency by fostering undertakings to produce goods at the lowest possible cost in a dynamic process. In this sense, the economic efficiency as a whole will be achieved and promoted. From a macroeconomic perspective, market competition is like an 'invisible hand' which leads individuals aiming for their own interests to simultaneously contributing to the wealth of the society as a whole.³² In other words, individuals are just focusing on their own interests under market competition, however, in this context they can make more contributions to the society as a whole than they intend to do. As a result, consumers will also benefit from market competition, as they have more product choices with higher

²⁶ Xiaoye Wang, *The Evolution of China's Anti-monopoly Law* (Edward Elgar Publishing 2014) 157.

²⁷ For the purpose of the thesis, 'monopolistic behaviour/conduct/practices' cover all anti-competitive behaviour in the EU and antitrust behaviour in the US. This has been chosen because this is the term which is commonly used in Chinese literature.

²⁸ Wang, *The Evolution of China's Anti-monopoly Law* (n 26) 157.

²⁹ Anti-monopoly Law of the People's Republic of China (反垄断法), Article 1.

³⁰ Guidelines on the Application of Article 101 of the Treaty on the Functioning of the European Union to Technology Transfer Agreements [2014] OJ C 89/3 (Guidelines [2014] OJ C 89/3), 5.

³¹ Wang, *The Evolution of China's Anti-monopoly Law* (n 26) 4.

³² Adam Smith, *The Wealth of Nations*, Book IV (1776, reprinted Penguin 1999) 456.

quality and lower prices. Efficiency is not the end of the story, while it is the start of the process to maximise welfare.³³

Therefore, although the objectives of anti-monopoly law may diverge in different countries and may change over time, in modern society, its basic goals seem to be the same—to remove the monopolies which distort and restrain market competition and to promote economic efficiency and consumer welfare.

2.2.3 Conflicts and Similarities between Patent Law and Anti-monopoly Law

On the basis of the analysis of the nature of the two sets of law, it is apparent that the conflicts and tensions between patent law and anti-monopoly law are inevitable. First, patent law prioritises the protection of the interest of individual innovators, which is a matter of a private law; while anti-monopoly law pays more attention to the protection of market competition and public interest, which belongs to the sphere of public law. Moreover, in order to encourage investment in research and development, patent law grants patentees a legal monopoly for a limited period to exclude others from exploiting their achievements without consent. This to some extent may provide the right holders with a market advantage. If inappropriately used, obstacles may be posed to market competition. To stimulate innovation and creation, patent law seems to allow and even motivate monopoly. In contrast, anti-monopoly law aims to remove anti-competitive conduct in the market to encourage competition among competitors. Anti-monopoly law does not permit the monopolistic practices that can distort competition. From this perspective, the monopoly nature of patent rights seems to go in the diametrically opposite direction to what is pursued in anti-monopoly law and reflects potential conflicts. It would be possible for anti-monopoly law to deprive patentees of the protection provided by patent law.

Although the conflicts and tensions between patent law and anti-monopoly law are inevitable, they are only on the surface and it is not reasonable to regard patent rights as incompatible with the principles of anti-monopoly law. In essence, the relationship between the two bodies of law is complementary and they share the same ultimate objectives which are to motivate innovation and competition and promote consumer

³³ Jones and Sufrin, *EU Competition Law* (5th edn) (n 25) 4.

welfare.³⁴ Before elaborating the complementary and dialectical relationship, it is necessary to clarify that the ‘monopoly’ appearing in the two bodies of law has different meanings. On one hand, the ‘monopoly’ we mentioned in patent law refers to the exclusivity of patent rights and it is similar to normal property rights by nature, like ownership.³⁵ This ‘monopoly’ is obtained legally through patent law and should not be construed as what is understood under anti-monopoly law. On the other hand, according to Donald (1980), ‘monopoly’ in anti-monopoly law should be interpreted as a kind of illegal behaviour, which aims to deprive people of something.³⁶ These predatory practices include, but, are, not limited to, monopoly agreements, abuse of a dominant position and so on. However, inventors not only take nothing away from the public but contribute a lot to the society and enrich the current knowledge with their innovation. Therefore, in a normal situation, the protection for patent rights does not fall within the scope of anti-monopoly law.

Anti-monopoly law pursues its final goal through protecting effective competition in the market. In order not to be knocked out of the market, competitors endeavour to improve the product quality and lower the price by innovation. Ultimately, consumers can benefit. Patent law aims to encourage innovation to enhance the technology and bring benefits to consumers. With the emergence of various kinds of innovative technologies, competition in the technology or innovation market will also be promoted. As early as in 1942, it had been suggested that public interest was the ultimate objective of both patent law and anti-monopoly law.³⁷ Moreover, the idea has also been reflected in *Atari Games Corp. v. Nintendo of Am.*³⁸ It is stated that although the goals and objectives of the two sets of law might be at odds at the beginning, the relationship between patent law and anti-monopoly law was in principle complementary as a result of their same aims to promote innovation, industry and competition.³⁹ Additionally, the Antitrust Guidelines for the Licensing of Intellectual Property issued by the US Department of Justice and the Federal Trade Commission highlights that ‘[t]he intellectual property laws and the antitrust laws share the

³⁴ Lowe and Peeperkorn (n 18) 91-92.

³⁵ Young Huang and Zhe Zhang, ‘Anti-monopoly Law’ in Rohan Kariyawasam (ed), *Chinese Intellectual Property and Technology Laws* (Edward Elgar 2011) 320.

³⁶ Donald W. Rupert, ‘The Relationship of Patent Law to Antitrust Law’ (1980) 49 (2) *Antitrust Law Journal* 755, 755.

³⁷ Giles S. Rich, ‘The Relation between Patent Practices and the Anti-Monopoly Laws’ (2004) 14 (1) *Federal Circuit Bar Journal* 5, 32.

³⁸ *Atari Games Corp. v. Nintendo of Am., Inc.*, 897 F. 2d 1572 (Fed. Cir. 1990), 1576.

³⁹ *ibid.*

common purpose of promoting innovation and enhancing consumer welfare.’⁴⁰ The European Commission holds a very similar view that intellectual property laws and competition law ultimately pursue the same basic goal to enhance consumer welfare and achieve the allocation efficiency of resources.⁴¹ In addition, Article 2 of the Provisions on the Prohibition of the Abuse⁴² of Intellectual Property Rights to Eliminate or Restrict Competition adopted by the SAIC states that ‘[a]nti-monopoly and intellectual property rights protection share common goals, namely to promote competition and innovation, to enhance economic efficiency, and to safeguard consumer and public interests.’⁴³

In terms of encouraging innovation, there is no doubt that patent law provides an incentive for inventors by granting them some exclusive rights for a limited period over their inventions. From the perspective of anti-monopoly law, the promotion of innovation is achieved through market competition. Fair and free competition provides undertakings with a good environment and platform in which they may produce innovative and better products. To some extent, innovation and creation can be considered as the outcome of market competition as well as the tool to compete. In order to occupy and maintain a position in a market, enterprises have to compete with each other. The best way they can adopt to stand out in the competition seems to develop innovative technologies to lower the price as well as to improve the quality of products. In this context, market competition fosters manufacturers to innovate and develop new technologies so that they can find out and satisfy the needs of consumers.

With regard to the promotion of competition, anti-monopoly law is designed to protect market competition through removing anti-competitive practices from the market. Any monopolistic conduct that has the potential to distort or eliminate competition in the market is prohibited by anti-monopoly law. From the perspective of patent law, despite the exclusivity and monopoly of patent rights, it does not mean that patent rights are incompatible with competition like oil and water. Patent rights can also make a contribution to promoting competition. First, like competition as a driving force for

⁴⁰ Antitrust Guidelines for the Licensing of Intellectual Property by the US Department of Justice and the Federal Trade Commission, 1.0.

⁴¹ Guidelines [2014] OJ C 89/3, 7.

⁴² For the purpose of the thesis, the term ‘abuse’ can also be used as the meaning of ‘misuse’ or ‘inappropriate use’ of intellectual property rights in a general manner (this includes but is not limited to all the possible anti-competitive exercise of IPRs), especially in some Chinese legal measures, unless otherwise specified that it refers to the abuse of a dominant position.

⁴³ Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition (国家工商行政管理总局令第 74 号 关于禁止滥用知识产权排除、限制竞争行为的规定), Article 2.

undertakings to innovate, patent rights on the other side act as an incentive to promote dynamic competition.⁴⁴ Basically, innovation and creation have played a significant role in a competitive free market economy and they make great contribution to economic growth and prosperity.⁴⁵ It is believed that limitations on competition at one level may be essential for the promotion of competition at another level.⁴⁶ For example, although the exclusivity of patent rights may pose restraints to the competition in the production stage, it enhances at the same time competition in the innovative stage. In order to obtain the advantageous position in the market provided by a patent, undertakings invest in research and development for new or improved products or processes to compete with each other. In this situation, innovative competition will be encouraged. In addition, patent law allows the right holders to license others to exploit their patents. This not only stimulates the diffusion of knowledge but also 'create competition on downstream product markets.'⁴⁷ Furthermore, patent rights are not absolute. The limitations listed in patent law not only reflect the restrictions on monopoly but also demonstrate the confirmation and admission of the value of competition. Specifically, the term of patent rights only lasts for a limited period of time, generally no more than 20 years. When the term of a patent expires, the patent has to be disclosed to the public. At that time, anyone in this area is permitted to exploit this patent. In other words, the influence of the restraints on competition is short-term and it is only a leverage used to exchange for long-term public welfare. As the court expressed in *Bonito Boats, Inc. v. Thunder Graft Boats, Inc.*,⁴⁸ the constraint on the duration of patent rights in patent law itself depicted the balance between the need for motivating innovation and the avoidance of the unnecessary monopolies that would not only restrain competition but also had no positive influence on the progress of technology and science. In addition to the limited term, patent rights are only conferred to those substantially creative inventions under the rigorous requirements such as creativity, novelty and utility. Not all the inventions can be granted patent. If common sense or the ideas which are easy to obtain were granted patents, it would prevent others from exploiting them and restrict competition on the market. Accordingly, strict requirements for granting patent rights are essential to avoid the unnecessary limitations on competition in the market. Moreover, compulsory licensing is also available in patent law in most countries to protect the public interest. The doctrine of compulsory licensing as a remedy may enable other competitors to operate in

⁴⁴ Guidelines [2014] OJ C 89/3, 7.

⁴⁵ Torremans (n 6) 14.

⁴⁶ *ibid* 15.

⁴⁷ Lowe and Peeperkorn (n 18) 93.

⁴⁸ *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 109 S. Ct. 971 (1989), 975.

the market when patent right holders seek to exclude them from the market by refusing to license. Therefore, all the limitations to patent rights themselves in patent law system seem to protect and promote market competition in a different way.

In the matter of improving consumer welfare, effective competition between enterprises enables consumers to enjoy the best product at the lowest price. At the same time, innovation can lead to the appearance of new technology and the production of new products, which will be able to satisfy various kinds of needs of consumers and bring a great deal of convenience to them. Innovation enables undertakings to produce goods or provide services at a low cost and effective competition will finally lower their price. At last, consumers will benefit most. Accordingly, no matter what means is adopted, the final results of both competition and innovation are to improve consumer welfare.

In summary, the relationship between patent law and anti-monopoly law should not be a question of black-and-white. Patent law mainly aims to provide an incentive for innovation by granting exclusive rights and legal monopoly to patentees; while the main task of anti-monopoly law is to encourage competition by removing unlawful behaviour on the market that restricts or eliminates competition. Although there are some inevitable conflicts and tensions between the two bodies of law, they have the same ultimate goals to promote innovation, enhance competition and improve consumer welfare. They just achieve the same objectives through different means. In essence, their relationship is a dialectical and complementary one, which is not opposite.

With this theoretical basis of the relationship between patent law and anti-monopoly law, it will be appropriate and justifiable to apply anti-monopoly law to regulate the anti-competitive practices in the exercise of patent rights by patent owners in some situations. Although patent law imposes some restraints on the exclusive rights of patentees, it is still easy for rights holders to abuse the advantageous or even dominant position obtained from their patent rights to distort competition. In this situation, patent law itself seems to be inadequate to cope with the abuse. Once the exercise of patent rights has anti-competitive effects on the market, anti-monopoly law will be necessary and reasonable to be applied to such conduct.⁴⁹ This is particularly so, as such investigations are costly and complicated. Only the State can afford the high costs in both labour and materials to investigate and

⁴⁹ See also the analysis of the situation in China in Section 2.3.

tackle such anti-competitive issues.⁵⁰ In general, the possession of patent rights should not be taken as an excuse for patentees to be exempted from the regulation of anti-monopoly law; however, the patent right itself does not automatically constitute a monopoly that is prohibited by anti-monopoly law. The situations where anti-monopoly law can be applied to regulate the conduct of patent owners are very exceptional. As long as the exercise of patent rights is within the legal scope of the patent and does not result in substantially adverse effects on market competition, anti-monopoly law will not be triggered.

2.3 The Necessity and Context for China to Apply Its Anti-monopoly Law to Regulating the Anti-competitive Exercise of Patent Rights

Before and after China formally became a member of the WTO in 2001, the protection of patent rights in China was significantly improved to be consistent with the TRIPS Agreement. However, as a developing country which is mainly dependent on importing advanced technologies from developed countries, the consequence for China has been a high number of disputes involving foreign companies concerning alleged infringement of patent rights. Among these disputes, there are also some situations where transnational companies have used their patent rights to impede competition and set up technical barriers for Chinese undertakings. This was particularly so before the adoption of the AML in 2008. The Chinese rules prior to 2008 were not effective to deal with anti-competitive practices resulting from the exercise of patent rights.⁵¹ The consequence was that Chinese undertakings had no means to protect their legitimate rights when faced with such practices of foreign companies. Three cases that took place before 2008 will be discussed below to demonstrate the necessity and analyze the context for China to apply its AML to the exercise of patent rights and the need for further implementing measures.

2.3.1 The DVD Patent Royalties Case

When it comes to the exercise of patent rights by foreign undertakings that allegedly restricts or eliminates competition from Chinese companies, the case that must be taken into account is *the DVD patent royalties case*.

⁵⁰ Rich (n 37) 40.

⁵¹ This problem will be discussed in Chapter 3, Section 3.2.

The production of DVD players in China has developed so quickly that according to the statistics, the production amount was increased by a factor of 400, from only 50,000 in 1997 to approximately 19,945,000 in 2001.⁵² China had been the largest country to manufacture DVD players around the world, whose output had constituted about 80% of all the DVD players.⁵³ The exportation share then of the DVD players made in China accounted for about 20%-25% in the relevant market and most of them were exported to European countries and the US.⁵⁴ The DVD products from China have the features of high output, high quality and low price compared to the like products in other markets. Accordingly, Chinese DVD manufacturers stood out soon among all the competitors. However, Chinese undertakings did not own those essential technologies in manufacturing DVD products. So when the main Chinese DVD manufacturers posed a threat to the dominant position of foreign producers, the latter began to take advantage of their patent rights to impose pressure on the Chinese companies.

In June of 1999, the DVD 6C Patent Pool issued a statement of “DVD Patent Pool Licensing” to the world stating that the DVD 6C owned the essential patented technologies to produce DVD products and that all the DVD producers around the world would be required to pay royalties to DVD 6C.⁵⁵ In November 2000, the DVD 6C Patent Pool put forward a motivated plan of patent licensing and began to negotiate patent royalties with Chinese DVD manufacturers (most of which were represented by the China Audio Industry Association). However, in January 2002, the negotiations broke down and 3864 DVD players exported to the United Kingdom by Shenzhen Pudi Corporation were seized by the local customs.⁵⁶ Furthermore, the German customs also seized DVD players exported by Huizhou Desai Corporation in February 2002.⁵⁷ These two events forced Chinese DVD manufacturers to face seriously patent licensing problems. In March 2002,

⁵² ‘The DVD Case Related to Intellectual Property Rights’ (DVD 知识产权案) *China.com.cn* (23rd June 2003) <<http://www.china.com.cn/chinese/zhuanti/ztobg2003/351820.htm>> accessed 17 April 2018.

⁵³ Ying Zhan and Xuezhong Zhu, ‘Intellectual Property Right Abuses in the Patent Licensing of Technology Standards from Developed Countries to Developing Countries: A Study of Some Typical Cases from China’ (2007) 10 (3/4) *The Journal of World Intellectual Property* 187-200, 192.

⁵⁴ Chifeng Han, ‘Legal Considerations About the abuse of Intellectual Property Rights in the DVD Case’ (对 DVD 事件中知识产权滥用的法律思考) (2005) 3 *Studies in Law and Business* 66-75, 66.

⁵⁵ DVD 6C was a patent pool consisting of Hitachi Consumer Electronics Co., Ltd., JVC KENWOOD Corporation, Mitsubishi Electric Corporation, Panasonic Corporation, Toshiba Corporation and Time Warner, each of which ‘contributed one or more of its patents related to DVD technology to the pool to form a collection of patents ‘essential’ to DVD production’.—Christopher R. Leslie, *Antitrust Law and Intellectual Property Rights: Cases and Materials* (Oxford University Press 2011) 317.

⁵⁶ ‘The Dispute of DVD Patent Royalties: the Shame of Chinese Manufacturing Industry’ (DVD 专利费之争：中国制造业的蒙羞) *Sina Finance* (31st May 2007) <<http://finance.sina.com.cn/leadership/case/20070531/15593649402.shtml>> accessed 13 April 2018.

⁵⁷ *ibid.*

the DVD 6C Patent Pool issued the last warning that with the failure of the negotiations, all DVD producers in China had to enter an agreement with the DVD 6C Patent Pool with regard to patent royalties or they would be sued for infringing patent rights.⁵⁸ At that time, the patent royalties required by the DVD 6C Patent Pool were 20 dollars per DVD, which made up more than half of the total profit gained by Chinese enterprises—200 RMB.⁵⁹ However, in April 2002, after repeated negotiations, the China Audio Industry Association finally reached an agreement with the DVD 6C, 3C (Philips, Sony Corporation, Pioneer Corporation and LG Electronics) and other patent pools. It was agreed that the total average patent royalties per exported DVD player paid by the Chinese manufactures would be about 19.6 dollars including 4 dollars for the 6C, 5 dollars for the 3C, 2 dollars for the 1C (Thomson), 4 dollars for MPEG-LA (a packager of patent pools) and about 1.5 dollars for Dolby.⁶⁰

At this stage, the dispute with respect to the patent royalties of DVD players seemed to come to an end, however, this was just a beginning. Normally, it is legal and reasonable for patent owners to charge some fees for the use of their patents. Nevertheless, the average patent royalties in this case accounted for almost 40% of the production costs of each DVD player, which was well beyond the international customary level of 5%.⁶¹ The price experienced a continued decline but the patent royalties were not reduced.⁶² Such excessively high patent royalties did hit the DVD industry in China so heavily that many DVD manufacturers were bankrupt or left the DVD market as a result of the poor profits or debts. In addition, the DVD 6C and 3C patent pools charged patent royalties from Chinese manufacturers on the basis of nearly 3,000 invention patents. However, only 10% of these were the essential technologies to produce DVD players.⁶³ Most of the patents on the basis of which royalties were calculated had expired or not been granted patent rights in China or invalid or unnecessary. Such patent licensing agreements could amount to tying or bundling if the licensees were forced to accept the one-stop package licence. Although many DVD producers such as two large Chinese enterprises Changhong and Jiangkui had

⁵⁸ *ibid.*

⁵⁹ *ibid.*

⁶⁰ Xiangjun Kong, Jianying Wu and Zeyu Liu, *WTO Rules And China's Intellectual Property Law: Principles-Rule-Case (WTO 规则与中国知识产权法: 原理·规则·案例)* (Tsinghua University Press 2008) 168.

⁶¹ Zhan and Zhu (n 53) 194.

⁶² *ibid.*

⁶³ 'DVD Patent Royalties "Fire" Chinese Manufacturers "Made in China"' (DVD 专利费“火烧”中国厂商“中国制造”) *National Intellectual-Property Strategy* (Beijing, 19th May 2010) <<http://www.nipso.cn/oneas.asp?id=516>> accessed 4th March 2015.

tried to negotiate with the members of the DVD 6C Patent Pool to request independent licensing from them, they were refused unreasonably.

Therefore, in 2005, two Chinese DVD makers, Wuxi Multimedia Ltd and Wuxi Orient Power Technology Ltd, brought an action against the DVD 3C Patent Pool in the Southern District Court of California in the US. The allegations of the plaintiffs were that the DVD 3C Patent Pool abused their patent rights in patent licensing in order to restrict or exclude competition in the relevant market by requiring excessively high patent royalties, illegally tying and bundling in package licensing and refusing to license without justifiable reasons.⁶⁴ They claimed that these practices breached the rules prescribed in the Sherman Act and other US antitrust laws. Unfortunately, the claims of the two Chinese producers were rejected by the court for lack of evidence. This result really let all the Chinese manufacturers down. It was estimated that the loss suffered by the Chinese manufacturers in terms of the patent royalties to produce DVD players was about 20 billion RMB and the DVD industry had been damaged heavily.⁶⁵ Many DVD manufacturers had financial deficits and went bankrupt or turned to other industries. There was also a sharp decrease in the output and in the exportation of DVD players made in China. What is worse is that the detrimental effects of the DVD case had also been extended to other production industries, such as digital cameras, televisions, motorbikes and so on.⁶⁶

Although patent pools are designed to remove obstacles to obtaining patent licence, to reduce patent royalties and to contribute to the benefits of customers, they also have the potential to create anti-competitive barriers. For example, patent pools might restrict or eliminate competition in the market through exercising patent rights, such as charging excessively high patent royalties, tying or bundling or refusing to license without justifiable reasons. Normally, the patentees of the patent pool are required to license their patents fair, reasonable and non-discrimination (FRAND) terms and potential licensees should be able to obtain independent licences from the members of the patent pool. However, in practice, as demonstrated by the DVD case, the obligations for the patent holders of patent pools seem to be meaningless and ignored. In general, the possession of patent rights and the dominant position themselves do not give rise to anti-competitive

⁶⁴ Marius Meland, 'Chinese DVD Makers Target Patent Pool With Class-Action Suit' *Law 360* (New York, 19th January 2005) <<http://www.law360.com/articles/2864/chinese-dvd-makers-target-patent-pool-with-class-action-suit>> accessed 4th March 2015.

⁶⁵ Han (n 54) 67.

⁶⁶ Dezhong Guo, *Applying Anti-monopoly Law to Patent Licensing* (专利许可的反垄断规制) (Intellectual Property Publishing 2007) 1.

effects. However, when the rights are abused, especially in respect of technology standards, technical barriers to limit competition will be established and anti-competitive effects will emerge. Faced with the anti-competitive practices in the exercise of patent rights, developed countries such as the US and the EU have applied antitrust law to these practices. In addition, a very similar case has also arisen in Taiwan where the CD-R producers filed an antitrust lawsuit against the CD-R Patent Pool alleging unfair trade practices and Taiwan's Fair Trade Commission supported most allegations.⁶⁷

2.3.2 Cisco Systems, Inc. v. Huawei Technologies, Co.

Another influential case that must be considered concerns a foreign company who attempted to use its patent rights to exclude Chinese company from the relevant market. This is the case of Cisco Systems Incorporation (Cisco) which was brought against Huawei Incorporation (Huawei).

In January 2003, one of the world's largest network and telecom equipment producer Cisco instituted legal proceedings in the Eastern District Court of Texas in the US against China's largest telecom equipment manufacturer Huawei and its two wholly owned subsidiaries.⁶⁸ Cisco accused Huawei of infringing its intellectual property rights. Cisco claimed that the Quidway product of Huawei was copied from the source code of Cisco's Internetwork Operation System (IOS), duplicated some other Cisco's copyrighted documentations and infringed several Cisco's patent rights.⁶⁹ However, Huawei defended that it did not infringe Cisco's patent rights or copyrights and alleged that the real purpose of this lawsuit raised by Cisco was to exclude Huawei from the market and keep its dominant or monopolistic position in the market.⁷⁰ Finally, in October 2003, the two companies agreed to stop the action for a process of independent review. Then in July 2004, Cisco and Huawei came to an agreement and the legal proceedings were terminated by the court.

In this case, Huawei claimed that it had not infringed any intellectual property right of Cisco, though Huawei admitted that in order to satisfy the requirements of a customer, it

⁶⁷ Zhan and Zhu (n 53) 193.

⁶⁸ *Cisco Systems, Inc. v. Huawei Technologies, Co.* 266 F. Supp.2d 551 (E.D.Tex. 2003).

⁶⁹ Xin Yan, 'Discussion on the Regulation of the Abuse of Intellectual Property Rights by the Anti-monopoly Law—from the case between Cisco and Huawei' (论知识产权滥用的反垄断法规制--“由思科诉华为案谈起”) (Master thesis, China University of Political Science And Law 2004) 4.

⁷⁰ Zhan and Zhu (n 53) 190.

had provided the equipment with the proprietary protocol of Cisco which was the main reason for this lawsuit. ‘Proprietary protocol is a non-standard communication format and language developed by a single enterprise or organization.’⁷¹ The Cisco’s proprietary protocols could be regarded as a kind of *de facto* standards for router products. To some extent, with the *de facto* standards, Cisco enjoyed a dominant position in the market.⁷² In order to keep its market power, Cisco reserved its rights and refused to license. Despite the later international standard of the Internet Engineering Task Force, the proprietary protocols of Cisco were still of great importance and had great influence on the relevant market. Consequently, other manufacturers had to leave the market without a licence from Cisco or take the risk of infringing Cisco’s intellectual property rights. Thus, most competitors were kept out of the market and resulted in the monopolistic position of Cisco.

2.3.3 *Sichuan Dexian Technology Co., Ltd. v. Shanghai Suoguang Electronics Co., Ltd. and Sony Corporation*

In 2004, Sichuan Dexian Technology Co., Ltd. (Dexian) initiated litigation against Shanghai Suoguang Electronics Co., Ltd. and Sony Corporation (collectively called Sony here) to No.1 Intermediate People’s Court of Shanghai Municipality. Due to the refusal of Sony to accept the summons, the litigation was delayed and the first evidence exchange only happened at the beginning of 2006. Dexian claimed that Sony had abused its dominant position in the market by bundling its patented technology—Infolithium to its products, which resulted in unfair competition and violated Articles 2 and 12 of China’s Law against Unfair Competition.⁷³ Dexian requested that Sony should stop applying the patented technology Infolithium when it manufactured digital videos (DV), digital cameras and the lithium battery for these digital products.⁷⁴

⁷¹ *ibid.*

⁷² *ibid* 190-191.

⁷³ *Sichuan Dexian Technology Co., Ltd. vs. Shanghai Suoguang Electronics Co., Ltd. and Sony Corporation*, Shanghai No.1 Intermediate People’s Court, (2004) Hu Yizhong Minwu (Zhi) Chuizi No. 223 ((2004) 沪一中民五(知)初字第223号).

Some rules in the Law against Unfair Competition that overlapped with the ones in the AML have been removed from the newly amended version that has come into effect since January 2018. Because the case took place before 2018, the rules mentioned here refer to what existed in the old version of the Law against Unfair Competition.

⁷⁴ *ibid.*

According to the SAIC investigation, transnational companies had dominant positions in many product markets, including the DVs and digital cameras.⁷⁵ At that time, the market for DVs and digital cameras had a classic oligopolistic structure and there was enough evidence to show that Sony had enjoyed a dominant position in this field.⁷⁶ In fact, the dominant position and the legal monopoly provided by the intellectual property rights themselves did not have detrimental effects on the competition. However, in this case, Sony was accused of abusing its patented technology Infolithium to set up an exclusively dependent relationship between its DVs and digital cameras and its lithium battery. Within this exclusively dependent relationship, the DVs and digital cameras produced by Sony could only be compatible with Sony's own lithium battery and the lithium battery from other manufacturers could not be compatible with Sony's digital products. The digital products and the lithium battery should constitute two separate markets. However, Sony had used its patented technology Infolithium to exclude the lithium battery of other manufacturers from the battery market. The behaviour of Sony might be regarded as a kind of bundling, however, it was a little different from normal bundling conduct. Sony did not bundle its lithium battery to its digital products directly, but achieved its purpose through establishing an exclusively dependent relationship between its digital products and its lithium battery. In this situation, if customers buy the DVs or digital cameras of Sony, they will have no choice but to buy the lithium battery of Sony. With this advantage, the price of the lithium battery of Sony was 2 or 3 times higher than that of other producers.⁷⁷ To some extent, this seriously limited the competition in the lithium battery market, especially when Sony enjoyed a dominant position in the relevant product market.

Nevertheless, Sony argued that the reason to apply the patented technology Infolithium was that they had received a large number of complaints from customers of accidents with imitated batteries. For the safety of customers, Sony chose to use the patented technology Infolithium to encourage customers to buy the lithium battery from Sony. The response of Sony caused significant doubts. It was believed that the method adopted by Sony to safeguard the safety of customers was not the only way to achieve the objective and there

⁷⁵ Anti-monopoly Office of Fair Trade of SAIC, 'Anti-competitive Practices of Transnational Companies in China and the Relevant Resolutions' (在华跨国公司限制竞争行为表现及对策) (2004) 5 Biweekly of Administration for Industry and Commerce.

⁷⁶ Bo Zhang, 'The Monopoly Case of Dexian v. Sony and Its Inspirations—The Empirical Analysis of the Regulation of the Abuse of Intellectual Property Rights By Anti-monopoly Law' (德先诉索尼垄断案及其启示—知识产权滥用反垄断规制之实证分析) (2006) 4 Intellectual Property 50, 52.

⁷⁷ Xianlin Wang, 'Preliminary Observation And Thought About the First Anti-monopolistic Litigation in China' (关于中国反垄断诉讼第一案的初步观察与思考) (2006) 2 Oriental Law.

were other potential and effective ways that could be resorted to which were less harmful.⁷⁸ Moreover, China was the only country where the patented technology Infolithium was applied. Sony did not have the right to restrict or even eliminate competition in the relevant market by exercising its patent rights in an anti-competitive manner.

This case was considered as the first case in China concerning the anti-competitive practices in the exercise of patent rights.⁷⁹ The case also provided an opportunity for Chinese companies to fight against the monopoly of transnational giants. It seems that Sony's exercise of its patented technology to force customers to use the lithium battery of Sony could probably constitute an abuse of a dominant position and keep other competitors out of the battery market. Without an anti-monopoly law, Dexian had to rely on China's Law against Unfair Competition. However, Article 2 of Law against Unfair Competition was too general to be taken as a legal basis for a judgment. The resort to the Law against Unfair Competition in this case seemed to lack certainty and efficiency.⁸⁰ As a result, Dexian found it impossible to find appropriate legal support for its allegation. The case ended with the failure of Dexian. The Court concluded that the plaintiff could not demonstrate that the defendant had conducted the alleged unfair competitive practices.⁸¹ The unanswered question is whether the result would have been totally different if the AML in China had applied?

2.3.4 Comments

In summary, these cases discussed above all illustrate the urgent necessity for China to apply its own AML to anti-competitive practices in the exercise of intellectual property rights, especially patent rights which are more monopolistic than others. With the completion and improvement of the protection of the Patent Law in China, patent owners have obtained more protection for their patents. However, at the same time the inappropriate exercise of patent rights have become more serious, which has impeded the development of Chinese industry and enterprises. In some situations, it can raise serious

⁷⁸ Liming Xiao and Guanbin Xie, 'The Regulation of the Abuse of Intellectual Property Rights by Anti-monopoly Law From the View of the Case Between Dexian and Sony' (从德先诉索尼案看知识产权滥用的反垄断规制) (2007) 8 *Electronics Intellectual Property* 47, 47.

⁷⁹ Zhang (n 76) 50.

⁸⁰ *ibid* 56.

⁸¹ *Sichuan Dexian Technology Co., Ltd. vs. Shanghai Suoguang Electronics Co., Ltd. and Sony Corporation* (n 73).

competition concerns. *The DVD patent royalties case* is a good example. For the first time, the relevant competition authorities were forced to face the problem and think of solutions to address it. Normally, the nature of a patent right determines that the right owner can enjoy certain exclusivities. The patent rights obtained legally should be respected and protected in order to promote innovation. However, the protection of patent rights is a double-edged sword since excessive protection may facilitate the abuse of the rights and lead to anti-competitive effects. If patent rights are used to restrict or eliminate competition, it will absolutely go beyond the scope of patent protection and should be prohibited.

Before the adoption of the Anti-monopoly Law, there were indeed some rules available to control the anti-competitive exercise of patent rights.⁸² However, private law remedies are not as effective as public ones in regulating such conduct. Although the Law against Unfair Competition belongs to the category of public law, it only regulates tying or bundling and certainty and efficiency are limited. What is more, these rules are spread over different laws and regulations and they mainly consist of general principles. It is difficult for judges in practice to take decisions on the basis of these regulations or laws which are categorised as ‘soft law’.⁸³ Besides, the scope of the rules is limited to specific areas, so their influence is also limited.⁸⁴ In terms of Patent Law, despite having the possibility of a compulsory licence as a remedy for the abuse of patent rights, the word ‘abuse’ had not been formally adopted by Chinese laws until the 2008 Anti-monopoly Law. As a consequence, no rules showed the relation between compulsory licensing and monopolistic practices before 2008. Compulsory licensing was not connected to anti-competitive practices in the exercise of patent rights. In addition, the thresholds to apply compulsory licensing are too high to be satisfied in practice. Until now, there have been no compulsory licences being issued in any case in China. Therefore, before the enacting of the Anti-monopoly Law, Chinese companies had not had effective tools to protect their legitimate rights. Mostly, they were in a passive position and were easily exploited. It was quite difficult for Chinese manufacturers to bring an anti-monopoly action in China against competition concerns caused by the exercise of IPRs, especially patent rights. For example, in *Cisco Systems, Inc. v. Huawei Technologies, Co.*, Huawei could have raised an anti-monopoly lawsuit alleging that Cisco’s refusal to license the *de facto* standard was an abuse of a dominant position

⁸² See further discussion in Chapter 3, Section 3.2.

⁸³ Shiyang Xu, ‘Intellectual Property Protection And Competition Law’ in Rohan Kariyawasam (ed), *Chinese Intellectual Property and Technology Laws* (Edward Elgar 2011) 340.

⁸⁴ The rules in the Regulation on Technology Import and Export Administration and the Foreign Trade Law are good examples that will be examined in Chapter 3, Sections 3.2.5 and 3.2.6.

and impeded competition. However, there were no appropriate Chinese regulations or laws governing the anti-competitive exercise of intellectual property rights at that time. Although some market operators stood up and fought against the industry giants, they had to go abroad to file a lawsuit, as for example in *the DVD case*. The process was difficult and expensive with unpredictable results. Moreover, the experience of the EU and US has shown that competition/antitrust laws have played a rather important role in regulating the anti-competitive exercise of intellectual property rights.⁸⁵ Therefore, it is really necessary and urgent for China to apply its own AML to anti-competitive practices in the exercise of patent rights and keep a good balance between the protection and control of patent rights.

2.4 Conclusion

In the fast-paced modern society, the ownership of a patent has become a strategic leverage for some undertakings to compete on the market. With patent rights, competitors may obtain an advantageous or even a dominant position in the relevant market. In essence, the dominance itself does not violate anti-monopoly law. Anti-monopoly law can only be applied to the exercise of patent rights in some exceptional cases. Patent law is no longer incompatible with anti-monopoly law. Although there are some inevitable conflicts between them, their ultimate objectives are the same which are to encourage innovation, protect competition and improve consumer welfare. Their relationship is complementary and dialectical not completely contrary. Therefore, if patent rights are exercised beyond their scope in an anti-competitive manner which causes detrimental influence on the effective competition, it will be appropriate and necessary for anti-monopoly law to be applied.

Since China joined the WTO in 2001, the protection for patent owners in China has been improved to a higher level. However, China is still a developing country who has to import advanced technologies from developed countries. In this context, some transnational companies took advantage of their patent rights to distort competition in Chinese markets before 2008, which resulted in adverse effects on the development of relevant industries in China. Although there had been some rules available to be applied to the anti-competitive conduct in the exercise of intellectual property rights before the promulgation of China's Anti-monopoly Law, they are separated in different laws or regulations and not effective in practice.

⁸⁵ This can also be seen from the comparative analysis of specific competition concerns in Chapters 7 and 8.

China finally promulgated its AML in 2008 with high expectations. However, it was not the end of the matter but the beginning of the long journey. There is only one general article in China's AML that concerns the abuse of intellectual property rights.⁸⁶ Further guidelines to apply the AML to the regulation of abuses of patent rights are in great need. Without the further explanations, the general principle stated in Article 55 will either become a mere inapplicable formality or give rise to confusion owing to different standards of enforcement.⁸⁷ Despite the SAIC Provisions coming into effect since 1 August 2015 to guide the application of AML to abuses of Intellectual property rights, there are still a huge number of problems left.⁸⁸ In addition, the effects are unpredictable because there has not been any case applying the rules of the SAIC Provisions. Only a few anti-monopoly cases/investigations in relation to the exercise of intellectual property rights have been raised since the adoption of the AML. This does not seem normal and Jie Yang, an official of the SAIC, said that the reason for this was likely to be that most companies do not realize the existence of abuses of intellectual property rights.⁸⁹ Therefore, in the following chapter, the ineffectiveness of the applicable legislation will be examined. In order to improve the predictability and certainty of the application of the AML in the exercise of IPRs, especially patent rights, it is also necessary to adopt integrated effective and specific guidelines to facilitate the competition enforcement in China.

⁸⁶ The AML, Article 55, '[t]his law is not applicable to undertakings who exercise their intellectual property rights in accordance with the laws and administrative regulations on intellectual property rights; however, this Law shall be applicable to the undertakings who eliminate or restrict market competition by abusing their intellectual property rights.'

⁸⁷ The analysis of Article 55 of China's AML will be undertaken in Chapter 3, Section 3.3.

⁸⁸ See detailed discussion in Chapter 5.

⁸⁹ Dandong Han (ed), 'No Anti-monopoly Case concerning IPRs in China' (中国尚无一起知产反垄断案) *Legal Daily* (Beijing, 16th August 2012) <http://www.legaldaily.com.cn/index_article/content/2012-08/16/content_3773666.htm?node=6148> accessed 13 April 2018.

Chapter 3 Chinese Legislation Applicable to Anti-Competitive Practices of Patent Owners

3.1 Introduction

Chapter 2 has discussed the relationship between patent law and anti-monopoly law to provide a theoretical basis for the application of an anti-monopoly law to control the anti-competitive exercise of patent rights. Then, the analysis of some influential cases taking place in China before 2008 has shown the necessity and urgency for China to adopt its own anti-monopoly law to regulate such conduct. In order to reinforce the appropriateness and necessity to apply an anti-monopoly law, this chapter will examine the ineffectiveness and inefficiency of the applicable legal rules in China.

Generally, prohibiting the abuse¹ of a right is a legal rule or principle in the context of modern law. As private rights confer exclusivity, intellectual property rights (IPRs) have the potential risk of being exercised in an abusive manner,² especially patent rights. With the globalization of the economy, tariff barriers and general non-tariff barriers to trade have been substantially removed but technological barriers are rising considerably. Patent rights have played a significant role in a competitive market and in the economy of a State. Due to the special nature and characteristics of patent rights,³ their exercise by patent owners can easily be considered anti-competitive. The anti-competitive exercise of patent rights may not only impede the dispersal of technologies but also may distort competition in the market. Therefore, it is essential to manage effectively the abusive exercise of patent rights and protect market competition. This is evident in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs). For instance, it is stated in TRIPs that ‘the protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and

¹ For the purpose of the thesis, the term ‘abuse’ can also be used as the meaning of ‘misuse’ or ‘inappropriate use’ in a general manner. The expression ‘abuse of intellectual property rights’ used in the thesis includes but is not limited to all the possible anti-competitive exercise of IPRs, which is so especially in some Chinese legal measures, unless otherwise specified that it refers to the abuse of a dominant position.

² Sheng Qiao and Xuxiang Tao, ‘A Lawyer’s Consideration of the Ban on Abuse of Intellectual Property Rights in China’ (我国限制知识产权滥用的法律思考) (2015) 01 Modern Law Science 112, 115.

³ See Chapter 2, Section 2.2.1.

obligations.’⁴ At the same time, TRIPs confers on its Members the right to take appropriate measures to prevent the abusive exercise of IPRs which have adverse effects on international trade or on the transfer of technology.⁵

As a developing country, China has suffered for many years from the consequences of anti-competitive practices of patentees in exercising patent rights. China lacked a complete Anti-monopoly Law and still lacks a specific and effective anti-monopoly system to focus on the anti-competitive exercise of patent rights by patent owners. It is true that there are some rules adopted before 2008 which are applicable to the anti-competitive practices of patent owners when exercising their patent rights, most of which are still in effect. They are scattered in various laws or regulations and seemed not to have controlled such behaviour effectively and consistently.⁶ In this context, they should and have to be prohibited by the Anti-monopoly Law. In 2008, China’s Anti-monopoly Law (AML) finally came into effect and for the first time the relationship between the protection of intellectual property rights and anti-monopoly enforcement is delineated in Article 55. Nevertheless, the general rule in Article 55 is not effective by itself and relevant guidance or explanations are required.

In this chapter, pre 2008 legislation that is applicable to the anti-competitive practices of owners of patent rights and the 2008 AML will be examined and analysed, and their effects will also be summarized in the relevant section.

3.2 Pre-2008 Relevant Chinese Laws⁷

There were seven laws or regulations adopted before 2008 in China that could be applied to anti-competitive practices of patentees in exercising their patent rights, namely the Constitution, General Principles of the Civil Law, Patent Law, Contract Law, Regulations on Administration of Import and Export of Technologies, Foreign Trade Law and Law against Unfair Competition. They range from a basic law of a state, the Constitution, to

⁴ Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs), Article 7.

⁵ TRIPs, Article 8 ‘appropriate measures, provided that they are consistent with the provisions of this Agreement, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology.’

⁶ This has also been shown in Chapter 2, Section 2.3.

⁷ For the purpose of this section to show the legal situation in China before 2008, the rules of the laws discussed in this section are the ones that were adopted before 2008, though some of them have been revised and amended after 2008. For the sake of certainty and clarity, the author will make some explanations in the footnotes in the relevant sub-sections to tell which laws have been amended.

several laws or administrative regulations focusing on specific areas. None of them however concentrates specifically on dealing with anti-competitive issues. Moreover, these applicable rules are found in different laws or policies lack of certainties or predictabilities. Therefore, in this section, the rules applicable to the control of anti-competitive practices of patent owners in the exercise of patent rights, adopted before the 2008 AML, will be set out and examined. Then, the deficiencies and problems that exist in these pre-2008 rules will be identified and discussed.

3.2.1 The 1982 Constitution⁸ and the 1986 General Principles of the Civil Law⁹

Under the 1982 Constitution, Article 51 expressly states that individual rights are subordinate to the interest of the state and the public and their exercise shall not infringe other citizens' legal rights.¹⁰ Similarly, this kind of principle is also emphasized in Article 7 of the General Principles of the Civil Law.¹¹ In addition, the principles of voluntariness, fairness, making compensation for equal value, honesty and credibility is confirmed in Article 4 of the General Principles of the Civil Law.¹²

Moreover, Article 58 prescribed several types of civil activities that shall be null and void. Two of them may be applicable to the anti-competitive practices of patent owners, namely the activities 'that performed through malicious collusion are detrimental to the interest of the state, a collective or a third party' as well as those civil activities breaching the law or the public interest.¹³

The rules specified above demonstrate the negative attitude of Chinese legislators to abuses of general rights. As civil rights, the exercise of patent rights comes within the scope of these rules. In the absence of clear and specific rules to regulate the anti-competitive

⁸ Constitution of the People's Republic of China (中华人民共和国宪法), it has been revised twice separately in 2004 and 2018 since its adoption in 1982.

⁹ General Principles of Civil Law of the People's Republic of China (中华人民共和国民法通则), it has been revised in 2009 since its adoption in 1986.

Although 'principles' is the word used in the English translation of this law, this is China's Civil Law which is a code or statute and not just principles.

¹⁰ The Constitution, Article 51. The amendment in 2018 did not touch this article and Article 51 is kept and remains effective.

¹¹ General Principles of Civil Law (1986 version), Article 7. The main meaning of this article is kept in the 2009 version but the word 'undermine state economic plans' was removed.

¹² *ibid*, Article 4. This article was not amended in the 2009 version.

¹³ *ibid* (1986 version), Article 58.1(4) and (5).

The only change of this article in the 2009 version is to remove the sixth category of conduct.

exercise of patent rights before 2008, these civil rules seemed to have some effects. However, the prohibition of abuses of civil rights aims at maintaining a balance between the private interest and the general public interest; to some extent, the principled rules in the Constitution and the Civil Law are only applied to compensate for the deficiencies or the blank of the laws in certain situations.¹⁴ These rules are general and abstract. As a consequence, they seem to be impractical and ineffective in controlling abuses of patent rights which have an adverse impact on competition.¹⁵ For instance, these principled rules do not explain what activities can be regarded as abuses of patent rights, what provisions shall be considered as restrictive terms in patent licensing agreements or what legal remedies are available. Furthermore, it is hard to apply the principled rules directly in practice as main legal bases.¹⁶ This is particularly so where the average level of expertise of Chinese judges is not very high and the discretionary power of Chinese judges is seriously restricted.¹⁷ The only situation where they may be applied is where all other relevant substantive rules have failed to address the abuses. However, even so, litigants usually have no confidence in pleading civil principles as a legal basis when alleging that abuses of patent rights are likely to eliminate or restrict competition. This is clearly illustrated below *the DVD case* and the case between Cisco and Huawei mentioned in the previous chapter.¹⁸ Therefore, the principled rules of the Constitution and the Civil Law are not able to address effectively the anti-competitive problems caused by abuses of patent rights.

There are also specific laws which are relevant to the pre-2008 situation. These are the 1984 Patent Law, the 1999 Contract Law, the 2001 Regulations on Administration of Import and Export of Technologies, the 1994 Foreign Trade Law and the 1993 Law against Unfair Competition. The relevant provisions of each one of these laws will be considered below.

¹⁴ Xianlin Wang, 'The Abuse of IPRs and Its Legal Management' (知识产权滥用及其法律规制) (2004) 03 Law Science 107, 109.

¹⁵ Yao Ma, 'The Regulation of the Restrictions on Competition in Patent Licensing by Anti-monopoly Law' (专利许可中限制竞争的反垄断规制) (Master thesis, Graduate School of Chinese Academy of Social Sciences 2012) 19.

¹⁶ Wang, 'The Abuse of IPRs and Its Legal Management' (n 14) 109.

¹⁷ Qiao and Tao (n 2) 116.

¹⁸ See Chapter 2, Sections 2.3.1 and 2.3.2.

3.2.2 The 1984 Patent Law (2008 Revision)¹⁹

The purpose of the Patent Law is not only to protect the legitimate rights and interests of the owners but also to encourage the development of technologies and to promote the progress of society. Patent Law grants a competent inventor a patent right and provides protection for that legal right. At the same time, Patent Law itself also tries to regulate the exercise of patent rights by the owners where the rights might be abused. Although China's Patent Law does not clearly explain the concept of 'abuses of patent rights', it lays down some binding rules that require the patent owners to exercise their patent rights properly in a defined range. In this section, not all the restrictive rules will be considered. The main focus will be on the rules that are applicable to regulate the anti-competitive practices in exercising patent rights.

Like Patent Laws in many other countries, China's Patent Law imposes limitations on the duration, the scope, the object and some other aspects of patent rights.²⁰ After the protected period, the invention will be available for the benefit of society. Any claim beyond the protected scope of patent rights shall not be protected by the Patent Law. Furthermore, Chapter V of the Patent Law also stipulates the situation of termination and invalidation of patents to ensure a normal and correct exercise of patent rights.²¹ In fact, the aforesaid limitations to some extent focus on the existence and the scope of a patent right. For the control of the exercise of patent rights, the following rules seem to play an important role.

Article 69 of the Patent Law sets out several exceptions that shall be exempted from being deemed as an infringement of a patent right. One of the exceptions is the rule of priority. It means that if identical products have existed or identical processes have been used or preparations are ready for the making or using before the application date, the continuous conduct of carrying out these activities within their original scope should not infringe the patent right.²² Normally, the first applicant filling an application will be granted the patent and will enjoy the patent right. However, sometimes others may have already made use of the invention independently before the application date. If the patent owner seeks to restrict the original use of the prior user on the basis of the later granted patent right, the action of the patent owner may violate the principle of fairness. Hence, the priority rule to some

¹⁹ Patent Law of the People's Republic of China (中华人民共和国专利法 (2008 修订本)).

²⁰ *ibid*, e.g. Articles 2 (object), 42 (duration), 59 (scope).

²¹ *ibid*, Chapter V: Articles 42-47.

²² *ibid*, Article 69 (2).

extent keeps a balance between the interest of prior users and that of the patent owners. It avoids excessive unfairness. The rule restricts the exercise of patent rights but ensures a patent is used to its best and encourages technology innovation.

According to Article 69 (1) of China's Patent Law, a patent owner will lose the exclusive control of patented products or products directly made through a patented process once they are legally sold and placed on the market for the first time.²³ This rule is called the exhaustion of rights. The rule aims to facilitate the free movement of patented products within the market. Once the patented products are placed in circulation, the original patent owner is not able to intervene in the resale or in the reuse of them by the new owner. This requirement can avoid the negative effects caused by the undue exercise of patent rights on the free movement of patented products or on the dissemination of technologies.

In addition, owners of patent rights cannot allege infringement on patent rights if the products or processes protected by the patents are used for temporarily passing through, scientific research or administrative examination and approval.²⁴

The exclusivity of patent rights ownership is not absolute and in some circumstances, it should be limited. The most powerful rule to be applied to an abuse of patent rights in the Patent Law is the compulsory licensing system set out in Chapter VI (Articles 48-58). Under the compulsory licensing system, the relevant authorities are permitted to license the patent right to the eligible applicant without the agreement of the patent owner but in accordance with the legal process. Given a compulsory licence, the licensee should pay reasonable royalties to the patent owner. Compulsory licences can be imposed in several limited situations. In particular, the amendment of the Patent Law in 2008 establishes a relationship with China's 2008 AML that a compulsory licence can be issued in order to eliminate or alleviate anti-competitive effects in situations where the exercise of the patent rights is determined as illegal monopolistic conduct.²⁵ Moreover, the Measures for Compulsory Licence for Patent Exploitation (2012)²⁶ and Chapter V of the Detailed Rules

²³ *ibid*, Article 69 (1).

²⁴ *ibid*, Article 69 (3)-(5).

²⁵ *ibid*, Article 48 (2).

For the purpose of the thesis, 'monopolistic behaviour/conduct/practices' cover all anti-competitive behaviour in the EU and antitrust behaviour in the US. This has been chosen because this is the term which is commonly used in Chinese literature.

²⁶ Measures for Compulsory Licence for Patent Exploitation (2012) (专利实施强制许可办法 (2012)).

for the Implementation of the Patent Law (2010 Revision)²⁷ lay down specific rules and processes to further facilitate the issue of compulsory licence. The 2008 amendment gives a signal that Chinese Patent Law no longer focuses only on the protection of patent rights. It is trying to keep a balance between the interest of patentees and that of the public.

However, the current rules concerning the compulsory licensing are too general to provide exact and precise guidance.²⁸ It lacks the detailed implementation rules that can be applied precisely in practice. For instance, the rules of Measures for Compulsory Licence for Patent Exploitation (2012) mainly concentrate on the procedural issues and only Article 5 seems to be the extension of Article 48 of the Patent Law. Nevertheless, this ‘extension’ just repeats what Article 48 stipulates and does not include meaningful explanations or guidance on the situations in which the exercise of patent rights will go beyond the protection of Patent Law and shall be determined as an illegal monopoly prohibited by the AML. Despite the establishment of the relationship between compulsory licensing and monopolistic behaviour, it is still not clear how the Patent Law and the AML can interact/influence with each other. Chapter V of the Detailed Rules for the Implementation of the Patent Law examines nothing about the compulsory licensing for anti-competitive practices, either. Moreover, the threshold for compulsory licensing is too high and the conditions and requirements are too strict.²⁹ As a consequence, it seems difficult to apply the compulsory licensing system to remedy the anti-competitive exercise of patent rights. No compulsory licence has been issued in China until now. Additionally, there is no effective punishment system in the Patent Law so that the Patent Law cannot provide enough deterrent effects to prohibit anti-competitive practices in exercising patent rights. In other words, the cost of exercising patent rights anti-competitively and violating the Patent Law is much lower than the ‘benefits’ achieved. Besides, the Patent Law does not include specific rules to prohibit the restrictive terms in patent licensing agreements nor sets out relevant interpretations; what is more, it does not take into account the detrimental effects brought by the restrictive terms on competition.³⁰ Therefore, Patent Law itself may not be able to control effectively complicated abuses of patent rights, particularly those that

²⁷ Detailed Rules for the Implementation of the Patent Law (2010 Revision) (专利法实施细则 (2010 修订)).

²⁸ Wanlin Wang, ‘Anti-monopoly Regulation on the Abuse of Patent Rights’ (试论专利权滥用的反垄断法规制) (Master thesis, China University of Political Science And Law 2011) 35.

²⁹ *ibid.*

³⁰ Ma (n 15) 18.

may eliminate or restrict competition, though it does have some effects on controlling the general exercise of patent rights.

3.2.3 The 1999 Contract Law³¹

One of the most important ways to exercise a patent right is to issue a licence to allow others to manufacture and use the invention. This is also where most of the anti-competitive practices of patent owners take place. A patent is normally licensed through a written contract, so the rules in the Contract Law play a role in the control of anti-competitive practices by patent owners in exploiting their patent rights. In China's Contract Law, the rules of Chapter XVIII on Technology Contracts are applicable to the licensing of patent rights. It is stated that technology contracts should contribute to the development of science and technology and at the same time should advance the conversion, application and dispersal of scientific and technological results.³² Distorting competition in the technology market by technology contracts is strictly forbidden by the Contract Law. Article 343 emphasizes the principle that the scope of the exercise of a patent can be set out in the technology transfer contract but the scope must neither restrict competition nor the development of technology.³³ Article 329 of the Contract Law generally articulates the invalidation of the technology contract that aims to monopolize technology illegally, block the advancement of technology or commit a breach of others' technological achievements.³⁴ Article 329 protects the normal competition order in the technology market. However, Article 329 is too general and is hard to be applied in practice. It does not identify under what circumstances the patent licensing contract may block the technological progress and distort competition. As a result, the Supreme People's Court of China adopted the Interpretation of the Supreme People's Court concerning Some Issues on Application of Law for the Trial of Cases on Disputes over Technology Contracts in 2004 (the 2004 Interpretation).³⁵ Six circumstances are listed that shall be determined as 'illegally monopolizing technology and impairing technological progress' in accordance with Article 329 of the Contract Law, namely, restricting improvements to the original technology made by the licensees or demanding unfair grant-back clauses, limiting

³¹ Contract Law of the People's Republic of China (中华人民共和国合同法).

³² *ibid*, Article 323.

³³ *ibid*, Article 343.

³⁴ *ibid*, Article 329.

³⁵ Interpretation of the Supreme People's Court concerning Some Issues on Application of Law for the Trial of Cases on Disputes over Technology Contracts (最高人民法院关于审理技术合同纠纷案件适用法律若干问题的解释).

the transactions with others, obstructing the exploitation of the concerned technology by licensees in a normal manner, unreasonably tying-in, imposing unreasonable conditions, and imposing non-challenging clauses.³⁶

Articles 323, 329 and 343 of the Contract Law are generally applicable to abuses of patent rights that have adverse effects on competition in transferring or licensing technologies. To some extent, the provisions make a contribution to regulating the exercise of patent rights. However, they are principled rules that only clarify the general legislative and enforcement objectives. Although Article 10 of the 2004 Interpretation³⁷ provides some supplementary explanations to the meaning of Article 329 of the Contract Law, both Article 329 and the 2004 Interpretation have dealt with the problems from the perspective of the validation of the concerned licensing contracts not from the perspective of prohibiting anti-competitive practices. As a consequence, the rules in the Contract Law and the 2004 Interpretation resolve some competition concerns in respect of patent licensing in form but not in nature. In addition, the scope of the restrictive clauses listed in the 2004 Interpretation is very limited, which may not cover the complicated anti-competitive practices in patent licensing. For example, there are no rules concerning excessive pricing, discriminatory treatment or unjustifiable refusal to license, which are all common clauses in patent licences that may block the advancement of technology and distort the competition in the technology market. Moreover, Contract Law is also a civil measure so that it lacks a deterrent and effective punishment mechanism to guarantee its proper observance.

3.2.4 The 2001 Regulations on Administration of Import and Export of Technologies³⁸

In accordance with Article 29 of the Regulations on Administration of Import and Export of Technologies (the Regulations), seven types of restrictive clauses are prohibited in a technology import contract. They are: unreasonable tying; requiring royalties from invalid patents; impeding licensees from making improvements to the licensed technology or from using the improved technology; limiting transactions with others; imposing unnecessary and unjustifiable conditions; restricting the quantity, types or price of the concerned

³⁶ *ibid*, Article 10.

³⁷ *ibid*.

³⁸ Regulations of the People's Republic of China on Administration of Import and Export of Technologies (技术进出口管理条例) (Regulations), the Regulations was revised in 2011 but there was no substantive change to the content of the rules.

products; and restricting export channels.³⁹ Although Article 29 to some extent is contrary to the principle ‘freedom of contract’, it is of great importance to prevent the licensor from exercising their patent rights anti-competitively. It can be seen that most of the prohibited restrictive clauses in Article 29 have also been included in the 2004 Interpretation of the Supreme People's Court concerning Some Issues on Application of Law for the Trial of Cases on Disputes over Technology Contracts. Thus, there is something of an overlap between these two documents. However, Article 29 is only applicable to contracts importing technologies from territories outside of China. It means that the prohibition in Article 29 does not apply to the situation in which technologies are transferred within the territory of China. In addition, Article 17 of the Regulations provides that a contract registration system shall be applied for the technology that may be freely imported.⁴⁰ Pursuant to the contract registration system, only procedural issues will be implemented.⁴¹ Authorities are not required to examine the technology itself or whether restricted clauses prohibited by Article 29 are included in an importing contract. Within this system, the only thing that licensors and licensees need to do is to complete the procedural registration. Accordingly, a blank space is left in the process of examining technology import contracts. The contracts with restrictive clauses are likely to escape from the prohibition of the Regulations. Besides, Article 29 does not provide punishment to the licensors who impose restrictive clauses in technology import contracts and, therefore, has no deterrent effects on potential violators. Neither does Article 29 clarify the validity of such technology import contracts. These deficiencies give rise to impracticability and ineffectiveness of Article 29.

3.2.5 The 1994 Foreign Trade Law (2004 Revision)⁴²

China's Foreign Trade Law was revised in 2004 and the previous version incorporates the rules concerning the protection of foreign trade-related aspects of IPRs. However, the newly added chapter in 2004 not only emphasizes the importance of protecting the foreign trade-related IPRs but also stresses the significance of regulating the inappropriate exploitation of these intellectual property rights. In accordance with Article 30 of the Foreign Trade Law, three types of behaviour are prohibited in licensing agreements which

³⁹ *ibid*, Article 29.

⁴⁰ Regulations (n 38), Article 17.

⁴¹ Hongju Xu, ‘Under the IPRs Integration, the lags and improvements of the Specifications on the Technology Transfer in China’ (知识产权一体化下我国技术转移规范的滞后和改进) 2011 (01) *Journal of International Economic Law* 162, 177.

⁴² Foreign Trade Law of the People's Republic of China (2004 Revision) (中华人民共和国对外贸易法 (修订)) (Foreign Trade Law), this law was revised again in 2016 but only concerned the second paragraph of Article 10 that has no effects on the discussion in this section.

have detrimental effects on fair competition in foreign trade. Article 30 prohibits the IPRs owners from impeding licensees from challenging the validity of the IPRs, requiring packaging licensing against the willingness of licensees and including exclusive grant-back terms.⁴³ Additionally, Articles 32 and 33 respectively prescribe a ban on the monopolistic conduct and on unfair competition behaviour in foreign trade activities, which impair the order of foreign trade.⁴⁴ Since it was revised in 2004, the Foreign Trade Law has transferred some of its attention from the protection of IPRs to the control of the anti-competitive practices in exploiting IPRs. The Revision aimed to keep a balance between private and public interests. Actually, these rules respond to the prohibition on the abuses of IPRs in the international measure, TRIPs.⁴⁵

However, the scope of the Foreign Trade Law is limited to the field of foreign trade and the protection of foreign-trade-related aspects of IPRs.⁴⁶ In other words, the rules in the Foreign Trade Law are not applicable to the anti-competitive practices in the exercise of patent rights undertaken in domestic trade activities. Moreover, the scope of Article 30 is limited to the listed three prohibited restrictive practices. For other anti-competitive practices in the exercise of patent rights such as the abuse of a dominant position, unjustifiable tying-in or imposing unreasonable conditions, the legal effects of the Foreign Trade Law seems unpredictable. In addition, though Article 32 shows the negative attitude to monopolistic conduct, it does not explain what ‘monopolistic conduct’ means. At the time when Article 32 was introduced, China did not have an anti-monopoly law, so before 2008 this rule existed only in theory. Furthermore, Articles 30, 32 and 33 all state that the department for foreign trade under the State Council shall adopt necessary measures to remove the adverse effects, however, no one knows what can be considered as ‘necessary’ and there is no explanation to date. In particular, the terms ‘necessary measures’ and ‘the laws and administrative regulations against monopoly’ appear together in Article 32 but the relationship between them is considerably uncertain.⁴⁷ Are they referring to the same

⁴³ *ibid*, Article 30.

⁴⁴ *ibid*, Article 32, ‘In foreign trade activities, monopolistic behaviour in violation of the provisions of the laws and administrative regulations against monopoly is not allowed. [...]’
Article 33, ‘In foreign trade activities, no one may engage in unfair competition, such as selling commodities at unreasonably low prices, colluding with another person in a tender, publishing false advertisements and practising commercial bribery. [...]’

⁴⁵ Xin Yan, ‘Discussion on the Regulation of the Abuse of Intellectual Property Rights by the Anti-monopoly Law—from the case between Cisco and Huawei’ (论知识产权滥用的反垄断法规制--“由思科诉华为案谈起”) (Master thesis, China University of Political Science And Law 2004) 43.

⁴⁶ Foreign Trade Law (2004 Revision), Article 2.

⁴⁷ Liping Chen, ‘Legal Regulation on Patent Abuse’ (论专利权滥用行为的法律规制) 2005 20 (2) Legal Forum 78, 84.

legal documents? If not, which one should be given priority? The same situation arises in Article 33, in which ‘necessary measures’ and ‘the laws and administrative regulations against unfair competition’ appear together. Therefore, the rules in the Foreign Trade Law seem difficult to be applied to regulate the anti-competitive exercise of patent rights effectively.

3.2.6 The 1993 Law against Unfair Competition⁴⁸

Article 2 of the Law against Unfair Competition firstly emphasizes the principles of voluntariness, equality, fairness, honesty, credibility and business ethics.⁴⁹ Then, Articles 6, 12 and 15⁵⁰ respectively prohibited the monopolistic operation, unjustifiable tying and collusion in bidding contracts which undermine fair competition. Although these rules were not specifically set out to regulate the exercise of IPRs that had anti-competitive effects, they were applicable to illegal behaviour related to the exercise of all IPRs,⁵¹ especially Article 12 concerning tying. Other articles of this law mainly concentrate on preventing unfair means adopted during the competition and on the infringement of trade secrets. Most of them seemed not to engage in punishing anti-competitive exercise of IPRs but to protect the legitimate interests of the owners of IPRs.⁵² Before the adoption of the AML, the Law against Unfair Competition had been regarded as the last resort weapon for the victims of the anti-competitive exercise of patent rights.⁵³ This is because that, as a public law, it has the characteristic of ‘mandatory’. It seems more powerful in comparison with the civil rules mentioned above. In particular, the relevant authority is entitled to investigate on their own initiative the illegal practices prohibited by the Law against Unfair Competition. While, in terms of the other laws or regulations mentioned above, mostly, undertakings or persons concerned have to lodge a complaint and apply for judicial remedies themselves.

⁴⁸ Law of the People’s Republic of China Against Unfair Competition (中华人民共和国反不正当竞争法), this law was revised in 2017 and one of its amendments is to remove the rules overlapping with those in the 2008 AML.

⁴⁹ *ibid* (1993 version), Article 2, the words of this article were amended a little bit in 2017 but the meaning of this principle is the same with the previous version.

⁵⁰ These three articles have been removed from the currently effective Law of the People’s Republic of China against Unfair Competition (2017 version).

⁵¹ Xianlin Wang, *Intellectual Property and Antimonopoly Law (Study on Antimonopoly Issues of Abuse of Intellectual Property Rights)* (知识产权与反垄断法: 知识产权滥用的反垄断问题研究) (Law Press. China 2008) 353.

⁵² Chunling Zhang, ‘Analysis on the Management of the Anti-competitive Behaviours in Abusing IPRs’ (试析知识产权滥用的反竞争行为规制) (2005) 10 Commercial Research 145.

⁵³ Ma (n 15) 19.

However, the Law against Unfair Competition did not work effectively in the area of anti-competitive practices in the exercise of patent rights.⁵⁴ Again, the only applicable three articles were quite general and their scope was limited. Only the conduct of unjustifiably tying was clearly identified to be illegal in Article 12. Nothing was stated concerning the other popular anti-competitive practices in exercising patent rights. Furthermore, the Law against Unfair Competition cannot impose enough deterrent effects on the potential violators as a public law should have done. It is merely a basic economic law to secure fair competition in the market and to protect basic legitimate rights of undertakings and consumers. In regulating the anti-competitive practices of patent owners in exercising their patent rights, the Law against Unfair Competition seemed to make little contribution. In addition, the adoption of the 2008 AML had given rise to some overlaps and inconsistent standards on similar issues between these two laws. In order to resolve the relevant confusion, provide certainties and increase significantly the penalties to adapt to the current economic environment, the Law against Unfair competition was revised in 2017. What had been prescribed in Articles 6, 12 and 15 were removed from the current effective Law against Unfair Competition.

3.2.7 Summary

In summary, the protection of patent rights in China was fully developed and improved to an international level after China joined the WTO in 2001.⁵⁵ However, the effective control over anti-competitive practices of patent owners when exploiting their patent rights did not raise enough attention in the pre-2008 laws and regulations. Although there are some rules applicable to such anti-competitive practices in the pre-2008 legislation, the deficiencies in themselves undermined their effective application and updates and improvements were significantly needed.⁵⁶ On one hand, these rules are scattered in different laws or regulations, and there was not a complete and integrated system established to cope with the anti-competitive exercise of patent rights before 2008. In fact, each of these laws or regulations has its own objectives and functions. None of them is designed to focus specifically on adjusting competition order or ever regulating the exercise of patent rights that may distort competition in the market. In other words, none of them can control the anti-competitive exploitation of patent rights from the perspective of competition

⁵⁴ This can be seen from the cases discussed in Chapter 2, Section 2.3.

⁵⁵ Kexun Xie, *The Legal Regulation of the Abuse of Intellectual Property Rights* (知识产权滥用的法律规制) (Shanghai Academy of Social Sciences 2011) 178.

⁵⁶ Wang, 'The Abuse of IPRs and Its Legal Management' (n 14) 111.

enforcement. This seemed not to be consistent with international practice. On the other hand, most of the relevant rules mentioned above are general and principled ones. They are neither clear nor detailed. As a consequence, the vagueness resulted in their impracticability. No specific interpretations were available before 2008 to provide guidance as to under what circumstances the exercise of patent rights shall be determined as anti-competitive and shall be prohibited under these principles. Without clear and explicit interpretations, some undertakings or individuals may have no idea that they are suffering damage as a result of the anti-competitive exercise of patent rights. Even the term 'abuse' had not appeared in the laws or regulations before 2008. Despite some detailed provisions like those in the Regulations on Administration of Import and Export of Technologies, they are only applicable to foreign trade activities.

In addition, most of the aforesaid rules and articles are in the category of private laws or regulations, so they are not as powerful as public laws like the AML. Within civil rules, only civil compensation can be sought for damages caused by anti-competitive practices in the exercise of patent rights. However, for anti-competitive effects or damages on the relevant market, no punitive and mandatory measures are provided under the civil laws or regulations. This may lead to the result that the cost of infringing the laws is much less than the illegal profits gained. Accordingly, the low cost results in a lack of deterrent influence on the potential violators. Although the Law against Unfair Competition and the Foreign Trade can be attributed to the category of public law or have characteristics of public law, the scope of their application was rather limited, just for tying and foreign trade activities. Moreover, the prescribed remedies in these two laws are full of uncertainties. For instance, the Foreign Trade Law states that 'necessary measures' shall be taken to regulate the anti-competitive practices, but what the necessary measures should be is not identified explicitly. Despite compulsory licensing in the Patent Law being available to regulate abuses of patent rights that have detrimental effects on competition, it has not to date been activated in any situation, probably owing to its ambiguity and strictness. The control over the exercise of patent rights by the Patent Law has not satisfied the needs of the society. Furthermore, before 2008 there was no authority that was specifically responsible for investigating and managing anti-competitive behaviour. In spite of some relevant departments or organizations having such authorization, they seemed not to have the expertise in this complicated field, especially when it was related to the exercise of patent rights. More importantly, the relevant departments seldom actively carried out an

anti-monopoly investigation on their own initiative before 2008. The victims had to lodge a complaint by themselves before a competent court.⁵⁷

Therefore, the pre-2008 legislation in China was not effective or practical to regulate the exploitation of patent rights that may eliminate or restrict competition.⁵⁸

3.3 2008 China's Anti-Monopoly Law⁵⁹

After a long time of preparation and full of expectations from various domains, the AML of China was finally adopted on 30th August 2007 and came into effect on 1st August 2008. In June 2008, Outline of the National Intellectual Property Strategy⁶⁰ (the Outline) was adopted. It fully states the objective of the intellectual property strategy and provides guidance on the improvement of the intellectual property system, on the creation of intellectual property, and on the application, protection and management of intellectual property rights (IPRs). At the same time, it points out the fact in its preface that there have been some cases concerning the anti-competitive exploitation of IPRs.⁶¹ Then, the prevention of the abusive exercise of IPRs is seriously emphasized in the important points of the strategy. Paragraph 14 of the Outline provides programmatic guidance on the methods and objectives of regulating the anti-competitive exercise of IPRs. Relevant laws and regulations are to be drafted to define the scope of IPRs, prohibit abuses of IPRs and protect the market order of fair competition and the legitimate public interest.⁶² Accordingly, the prevention of the anti-competitive practices in the exercise of IPRs is formally set out as a goal in the intellectual property strategy.

The application of an anti-monopoly law to anti-competitive practices in the exercise of IPRs, especially patent rights, follows the preferred international tool. The successful enforcement experience of the EU and US in this respect is strong evidence of its appropriateness. However, during formulating the AML, there appeared different voices in

⁵⁷ Three anti-monopoly enforcement authorities had been specified since China's AML came into effect, namely the NDRC, SAIC and MOFCOM. However, their anti-monopoly responsibilities will be merged into a newly established single authority—SAMR. The issues related to China's anti-monopoly enforcement authorities will be examined in Chapter 6.

⁵⁸ Wang, *Intellectual Property and Antimonopoly Law (Study on Antimonopoly Issues of Abuse of Intellectual Property Rights)* (n 51) 347.

⁵⁹ Antimonopoly Law of the People's Republic of China (中华人民共和国反垄断法) (The AML).

⁶⁰ Outline of the National Intellectual Property Strategy (国家知识产权战略纲要).

⁶¹ *ibid*, Preface (3).

⁶² *ibid*, Paragraph 14. This has been partially put into action through the adoption of the 2015 Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition by the SAIC.

the field of IP-related monopolistic conduct. On one hand, it was suggested that the AML should not intervene the exercise of IPRs or should just clarify that IPRs fall outside its application scope; on the other hand, it was advised that detailed and strict anti-monopoly rules should be made to control the exercise of IPRs.⁶³ In the 2008 AML, Article 55 finally states that '[t]his law is not applicable to undertakings who exercise their intellectual property rights in accordance with the laws and administrative regulations on intellectual property rights; however, this Law shall be applicable to the undertakings who eliminate or restrict market competition by abusing their intellectual property rights.'⁶⁴ The insertion of Article 55 indicates that China not only sets up its own anti-monopoly system but also establishes the principle that the abusive exercise of IPRs with anti-competitive effects shall fall within the scope of the AML.⁶⁵ It provides a legal basis for anti-monopoly enforcement authorities (AMEAs) to deal with the anti-competitive practices of patent owners in exercising their patent rights. It is also for the first time that the expression 'abuse of IPRs' is adopted in a formal law.⁶⁶ Therefore, Article 55 has become a meaningful step in the process of regulating abuses of patent rights that may eliminate or restrict competition.

Though Article 55 shows the full respect of the AML to the protection of IPRs that the proper exercise will be exempted from its application, it also clearly expresses the negative attitude of China to the exercise of patent rights that may eliminate or restrict competition. However, only Article 55 is about the exercise of IPRs in the AML and it is made up of two general sentences. It does not provide guidance on how to apply the AML to the management of anti-competitive practices of IPRs owners in exploiting IPRs, especially patent rights. Neither does it explain the meaning of 'abuses of IPRs' within the scope of Article 55. It is not clear in what circumstances the exploitation of IPRs should be determined as anti-competitive and should be prohibited by the AML. The lack of further guidance or interpretations may result in different understandings of Article 55 in academia.⁶⁷ It can be questioned whether it is only the abusive exercise of IPRs beyond the

⁶³ Xianlin Wang, 'Rethinking the Application of China's Antimonopoly Law in the Area of Intellectual Property Rights' (我国反垄断法适用于知识产权领域的再思考) (2013) 1 Journal of Nanjing University (Philosophy, Humanities and Social Sciences) 34, 37.

⁶⁴ The AML, Article 55.

⁶⁵ Wang, *Intellectual Property and Antimonopoly Law (Study on Antimonopoly Issues of Abuse of Intellectual Property Rights)* (n 51) 355.

⁶⁶ Wang, 'Rethinking the Application of China's Antimonopoly Law in the Area of Intellectual Property Rights' (n 63) 38-39.

⁶⁷ Tao Wu and others, 'Comments on the Research Achievements on Competition Law and Policy of China' (中国竞争法律与政策学术研究成果述评) in *The Committee of Competition Policy and Law of the*

protection of intellectual property laws that should be controlled by the AML.⁶⁸ Min Zhang believes that it is inappropriate to make a conclusion from Article 55 that the legal exercise of IPRs within the protection of intellectual property laws is an absolute exception to the application of the AML or the anti-monopoly enforcement concerning IPRs should apply special principles.⁶⁹ In the case between Huawei and InterDigital, the behaviour of InterDigital charging excessive royalty fees and seeking an injunction on Huawei was legal under a patent law, while it was finally determined as an abuse of a dominant position by the AML.⁷⁰ It can be seen that there is a problem in the application of the first sentence of Article 55.⁷¹ Consequently, Article 55 seems not to be applied effectively and explicitly to the IP-related anti-competitive practices.

In fact, it is reasonable to establish only a general principle concerning the anti-competitive exercise of IPRs in the AML.⁷² This is because the anti-competitive practices in the exploitation of IPRs are very complicated and they could not be addressed fully by the AML itself. It is necessary for AMEAs in China to draw up detailed guidelines to further explain Article 55 and facilitate its application in practice. These guidelines should be updated regularly in accordance with different circumstances in different periods. However, to date, only the SAIC published the Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition in April 2015, which is merely applicable to non-price related monopolistic behaviour.⁷³ The draft of the relevant guidelines is still under review without a specific publish date. Since the AML came into effect in 2008, litigation concerning the exercise of patent rights that has anti-competitive effects have seldom been initiated. This seems not because there are no such abusive practices distorting competition in China's markets but mainly because there are no clear instructions available either for parties to institute proceedings or for anti-monopoly authorities to apply Article 55 of the AML in their investigations. In some situations, the

Institute of WTO in China (eds), *Report on Competition Law and Policy of China 2014* (中国竞争法律与政策研究报告 2014 年) (Law Press.China) 203, 248.

⁶⁸ Xiaoye Wang, 'On the Antitrust Lawsuits concerning Standard Essential Patents' (标准必要专利反垄断诉讼问题研究) (2015) 06 China Legal Science 217, 237.

⁶⁹ Min Zhang, 'the Application of the Anti-monopoly Law in the Field of Intellectual Property Rights—Commenting on Article 55 of China's Anti-monopoly Law' (反垄断法在知识产权领域的适用—兼评我国《反垄断法》第 55 条) (2013) 03 Economic and Social Development 143, 145-146.

⁷⁰ *Huawei vs. InterDigital*, Guangdong Higher People's Court, (2013) Yue Higher Court Civil Division III Final No.306 and No.305 ((2013) 粤高法民三终字第 306 号, 305 号). *Huawei vs. InterDigital* will be fully analysed in Chapter 4.

⁷¹ Wang (n 68) 237.

⁷² Wang, *Intellectual Property and Antimonopoly Law* (Study on Antimonopoly Issues of Abuse of Intellectual Property Rights) (n 51) 355.

⁷³ The SAIC Provisions will be analysed in Chapter 5.

victims even do not realize that their legitimate rights have already been violated by the owners of IPRs.⁷⁴ Therefore, it is essential and urgent to provide guidance on the application of Article 55. In Chapter 4, two noticeable cases will be introduced to show the manner in which Chinese AMEAs and courts, without clear guidance, deal with the anti-competitive practices undertaken by patent owners when exercising their patent rights.

⁷⁴ Dandong Han (Editorial), 'There has not been any Anti-monopoly Case Related to Intellectual Property Rights in China Until Now' (中国尚无一起知产反垄断案) *Legal Daily* (Beijing, 16th August 2012) <http://www.legaldaily.com.cn/index_article/content/2012-08/16/content_3773666.htm?node=6148> accessed 13 April 2018.

Chapter 4 Case Studies: *Huawei vs. InterDigital* and *Qualcomm*

4.1 Introduction

Chapter 3 discussed the ineffectiveness of China's pre-2008 legal rules to regulate the anti-competitive exercise of patent rights. Despite the promulgation of China's 2008 Anti-monopoly Law (AML), there is only one general article concerning the exercise of intellectual property rights. For lack of clear instructions and guidance, it cannot be applied appropriately in practice. Within China's legal circumstances analysed in Chapter 3, two influential cases concerning the anti-competitive conduct in the exercise of patent rights have been concluded since 2008.

One of them concerns the dispute between Huawei and InterDigital, which is regarded as the first anti-monopoly case addressed by a Chinese court on standard essential patents¹ and the first case in the world determining the licence rate of SEP portfolio under the Fair, Reasonable and Non-discriminatory (FRAND) terms;² the other one is the *Qualcomm* investigation undertaken by NDRC, which imposed the highest fine in the history of anti-monopoly enforcement in China. In both cases, SEPs play a considerably important role in analysing and determining the relevant issues. According to the definition from the International Standardization Organization, 'a standard is a document established by consensus and approved by a recognized body that provides for common and repeated use rules, guidelines or characteristics or their results, aimed at the achievement of the optimum degree of order in a given context.'³ Some standards may incorporate technologies, some of which might be patented technologies, especially in the domain of wireless communication. The patents that must be applied and cannot be designed around when implementing certain standard are called standard essential patents (SEPs).⁴ Once a patent is included into a technical standard and becomes a SEP, the exclusivity of a patent and the block effects of a standard can lead to the uniqueness and irreplaceability of a

¹ Xiaoye Wang, 'On the Antitrust Lawsuits concerning Standard Essential Patents' (标准必要专利反垄断诉讼问题研究) (2015) 06 China Legal Science 217, 218.

² Youwei Suo and Jinbiao Lin, 'Guangdong Higher People's Court for the First Time Explains the Dispute between Huawei and IDC about the SEPs' (广东高院首次解读华为与美国 IDC 标准必要专利之争) *China News* (Beijing, 17 April 2014) <<http://www.chinanews.com/fz/2014/04-17/6077194.shtml>> accessed 12 May 2018.

³ ISO/IEC Guide 2:2004, 3.2, available at <<https://www.iso.org/obp/ui/#iso:std:iso-iec:guide:2:ed-8:v1:en:sec:3.2>>.

⁴ Xiaoye Wang, 'Discussion on the Specificity of Standard Essential Patents' (论标准必要专利的特殊性) (2015) 10 Price Supervision and Anti-monopoly in China 20, 20.

SEP.⁵ Undertakings who would like to implement the relevant technical standard will have to obtain the licences of all the SEPs in this standard and they are not able to design around. The main body of this chapter will be divided into two sections and these two important cases will be separately examined in detail.

4.2 *Huawei vs. InterDigital*

4.2.1 Factual Background

In October 2013, the Guangdong Higher People's Court rendered two final judgments to affirm the decisions of the Shenzhen Intermediate People's Court. On one hand, it was affirmed that InterDigital abused its dominant position in the relevant market violating China's AML and the company was ordered to pay Huawei a compensation of 20 million RMB for its economic losses.⁶ On the other hand, the appellate court set down a royalty rate of 0.019% under the FRAND terms for InterDigital to license its portfolio of 2G, 3G and 4G SEPs to Huawei.⁷

Huawei is a China-based leading global provider of information and communications technology solutions. Huawei produces telecom network equipment, IT products and solutions, and smart devices. InterDigital Inc. is a US wireless technologies developer, who is in possession of a number of SEPs and SEP applications under the 2G, 3G and 4G⁸ wireless communication standards in many countries including China and the US. However, InterDigital does not engage in substantive production activities and its main revenues are from patent royalty fees. If Huawei manufactures products that comply with the relevant telecommunication standards, it will have to obtain a licence of InterDigital's SEPs. Since 2008, Huawei and InterDigital had conducted several negotiations over royalties for the patents concerned, but no agreement had been reached.

⁵ Ruosi Ye, Jianjun Zhu and Wenquan Chen, 'The Monopoly Determination of the Abuse of Dominance by Owners of Standard Essential Patents—Commenting on the Monopoly Dispute between Huawei and IDC' (标准必要专利权人滥用市场支配地位构成垄断的认定—评华为公司诉美国 IDC 公司垄断纠纷案) (2013) 03 Electronics Intellectual Property 46, 50.

⁶ *Huawei vs. InterDigital*, Guangdong Higher People's Court, (2013) Yue Higher Court Civil Division III Final No.306 ((2013) 粤高法民三终字第 306 号)

⁷ *ibid*, No.305 ((2013) 粤高法民三终字第 305 号).

⁸ 2G, 3G and 4G are technical standards in modern mobile telecommunication industry. The main 2G standards are GSM and CDMA; the main 3G standards are WCDMA, CDMA2000 and TD-SCDMA; and the main 4G standard is LTE. 3G standards are made by 3GPP (The 3rd Generation Partnership Project) and 3GPP2 (The 3rd Generation Partnership Project 2). China Communications Standards Association (CCSA) is the member of both 3GPP and 3GPP2.

Nevertheless, in July 2011, when the two companies were still negotiating, InterDigital suddenly lodged infringement litigation against Huawei in the Delaware District Court in the US; at the same time, InterDigital also made an application to the International Trade Commission of the US (ITC) to start a 337 investigation⁹ against Huawei,¹⁰ claiming that Huawei had infringed its seven patents and requesting Huawei to stop exporting its infringing products into the US.¹¹ Then, the battle between Huawei and InterDigital started.

In December 2011, Huawei initiated two parallel proceedings against InterDigital before the Shenzhen Intermediate People's Court. In the case concerning an abuse of a dominant market position, Huawei sued three defendants: InterDigital Technology Corporation, InterDigital Communications, Inc. and InterDigital, Inc (hereinafter referred as InterDigital). Huawei claimed that InterDigital had abused its dominant position in the licensing market of 3G wireless communication SEPs by charging excessive and discriminatory royalty fees, bundling, imposing unreasonable conditions and refusing to license. Huawei requested the court to prohibit the defendants' monopolistic practices¹² and asked for a compensation of 20 million RMB by joint liabilities. In February 2013, the Shenzhen Intermediate People's Court supported most of Huawei's claims and ordered InterDigital to cease its monopolistic behaviour and pay Huawei 20 million RMB in damages.¹³

In the case concerning the SEP royalty fees, Huawei sued InterDigital Communications, Inc, InterDigital Technology Corporation, InterDigital Patent Holdings Inc. and IPR Licensing Inc. (hereinafter referred as InterDigital) and alleged that InterDigital had breached its obligation of FRAND terms in deciding the level of the patent royalty fees. Huawei requested the court to determine the royalty rate or range for InterDigital to license

⁹ Section 337 investigations conducted by the US International Trade Commission most often involve claims regarding intellectual property rights, including allegations of patent infringement and trademark infringement by imported goods. Full information is available at the official website of the United States International Trade Commission, https://www.usitc.gov/intellectual_property/about_section_337.htm.

¹⁰ Investigation No. 337-TA-800.

¹¹ 'Guangdong Higher People's Court Judged the Dispute between Huawei and IDC concerning the Abuse of Dominant Position' (广东高院审结华为公司与美国 IDC 公司滥用市场地位垄断纠纷案) (1st November 2013)

<<http://www.gdcourts.gov.cn/ecdomain/framework/gdcourt/monehpcnabjcbboekklboafjdjkbjmc/cohhkcfaabjdbboekklboafjdjkbjmc.do?isfloat=1&fileid=20131101104516982014&moduleIDPage=cohhkcfaabjdbboekklboafjdjkbjmc&siteIDPage=gdcourt&ischeck=false&infoChecked=0&keyword=&dateFrom=&dateTo=>> accessed 13 December 2015.

¹² For the purpose of the thesis, 'monopolistic behaviour/conduct/practices' cover all anti-competitive behaviour in the EU and antitrust behaviour in the US. This has been chosen because this is the term which is commonly used in Chinese literature.

¹³ *Huawei vs. InterDigital*, Shenzhen Intermediate People's Court, (2011) Shen Intermediate Court Intellectual Property Civil First No. 858 ((2011) 深中法知民初字第 858 号) (Shen No.858).

its SEPs and SEP applications of 2G, 3G and 4G standards in China. Then, in the first instance, the Shenzhen Intermediate People's Court in February 2013 held that InterDigital had not observed the FRAND terms in deciding the level of the royalty fees and set down a royalty rate of 0.019%.¹⁴

Both Huawei and InterDigital questioned the decision on the abuse of a dominant position and appealed to the Guangdong Higher People's Court. In addition, InterDigital was not satisfied with the first instance judgment on the SEP royalty rate and appealed. Finally, the Guangdong Higher People's Court affirmed the two judgments delivered by the Shenzhen Intermediate People's Court and dismissed the appeals.¹⁵

After the Shenzhen Intermediate People's Court rendered the first instance judgments in February 2013, the ITC in June 2013 made an initial determination in the investigation against Huawei that there was no infringement of the patents and several rights of three of the patents concerned were found invalid.¹⁶ InterDigital disagreed with this judgment and sought review by the ITC.¹⁷ Again, the ITC finally determined to affirm its initial decision in December 2013, two months after the final judgments of the Guangdong Higher People's Court. Then, Huawei and InterDigital entered into a reconciliation agreement in January 2014.¹⁸

In addition, Huawei reported to the NDRC in May 2013 that InterDigital had abused its dominant position in the relevant market by charging excessive and discriminatory royalty fees. Then, the NDRC initiated an anti-monopoly investigation against InterDigital in June 2013. However, in May 2014, the NDRC announced that it had accepted the commitments made by InterDigital concerning its SEP licensing practices and suspended the anti-monopoly investigation of InterDigital.¹⁹

¹⁴ *Huawei vs. InterDigital*, Shenzhen Intermediate People's Court, (2011) Shen Intermediate Court Intellectual Property Civil First No. 857 ((2011) 深中法知民初字第 857 号) (Shen No. 857); Yue No.305 (n 7).

¹⁵ Yue No.306 (n 6); Yue No.305 (n 7).

¹⁶ Ruixue Ran, Sheng Huang and Cairu Huang, 'Inspirations from the Dispute between Huanwei and InterDigital—New Way for 337 Investigation' (华为与 InterDigital 纠纷案的启示—应对 337 调查案的反客为主新思路) (2014) 08 Chinese Lawyer 40, 41.

¹⁷ *ibid.*

¹⁸ *ibid.* 40.

¹⁹ The announcement by NDRC <http://www.ndrc.gov.cn/gzdt/201405/t20140522_612466.html> accessed 22 April 2018.

The dispute between Huawei and InterDigital is considered as the first anti-monopoly litigation concerning the SEPs considered by a Chinese court.²⁰ It is also the first case in the world in which a specific royalty rate was settled under the FRAND terms by a court.²¹ The judgments over the disputes between Huawei and InterDigital are milestones in the history of China's anti-monopoly enforcement, especially in the field of regulating the anti-competitive practices in the exercise of patent rights. The judgment clarified how to define the relevant market for SEPs in determining the abuse of a dominant position. It also provided a precedent for Chinese courts to determine a FRAND royalty rate. '[A] decision made in one jurisdiction on the F/RAND licen[c]e terms of a peculiar SEP will exert a substantial influence on the F/RAND licen[c]e terms of the said SEP in other jurisdictions.'²² Accordingly, the two judgments of the Chinese courts can have important effects on enforcement in other jurisdictions. The following section will focus on analysing the contentious issues raised in these two cases.

4.2.2 Analysis

4.2.2.1 The Case concerning InterDigital's Abuse of a Dominant Position²³

One of the three prohibited monopolistic conduct in China's AML is the abuse of a dominant position in the relevant market. In this case, Huawei accused InterDigital of abusing its dominant position in the licensing market of 3G SEPs by charging excessive and discriminatory royalty fees, imposing unreasonable conditions, bundling and refusing to license. The controversial points in this case are: (a) how to define the relevant market concerned; (b) whether InterDigital had a dominant position in the relevant market; (c) if the dominance of InterDigital was confirmed, whether its alleged abusive conduct existed and how to determine the corresponding legal responsibilities.²⁴

(a) The Definition of the Relevant Market

Before determining whether InterDigital had abused its dominant position in the relevant market, the first step is to reasonably and scientifically define the relevant market. This is

²⁰ Wang, 'Discussion on the Specificity of Standard Essential Patents' (n 4) 20.

²¹ Leon B. Greenfield, Hartmut Schneider and Joseph J. Mueller, 'SEP Enforcement Disputes Beyond the Water's Edge: A Survey of Recent Non-U.S. Decisions' (2013) 27 (03) Antitrust 50, 53.

²² Guangliang Zhang, 'Enforcement of F/RAND and Antitrust Intervention Discussion from the Huawei Decisions in China' (2014) 2 (06) China Legal Science 3, 5.

²³ Shen No. 858 (n 13); Yue No.306 (n 6).

²⁴ Yue No.306 (n 6).

also the most controversial issue, especially the relevant product market. At the beginning of the case, it was asserted by Huawei that the relevant product market was the combined licensing market of the 3G SEPs owned by InterDigital; the relevant geographic market was the SEPs licensing markets in both China and the US.²⁵ Both the Shenzhen Intermediate People's Court and the Guangdong Higher People's Court confirmed that each SEP licensing market within the 3G wireless communication standards (WCDMA, CDMA2000 and TD-SCDMA) constituted a separate relevant product market. The judgment established a precedent on how to define a relevant product market concerning SEPs, which provides experience for the later *Qualcomm* investigation and also makes up for the lack of clarification of a technology market in China's AML.²⁶ In fact, this kind of definition of the relevant technology/product market has already been confirmed in *Google v. Motorola Mobility*.²⁷ The EU Commission has concluded that 'each SEP constitutes a separate relevant technology market on its own.'²⁸ The way in which Chinese courts defined the relevant market for SEPs licensing followed a popular international model.

Huawei and InterDigital are both the members of the European Telecommunications Standards Institute (ETSI). InterDigital has declared that it possesses a number of SEPs and patent applications of 2G, 3G and 4G standards in the field of wireless communication technologies, including those in the US and equivalent ones in the same patent family in China.²⁹ There is no doubt about the fact that the InterDigital's SEPs declared before ETSI are essential for Chinese standard implementers to comply with the technical standards for mobile terminals and equipment in the field of telecommunication in China.³⁰ Therefore, InterDigital possesses the SEPs in the 3G wireless communication standard.

Article 12 of China's AML and Articles 3-7 of Guide of the Anti-monopoly Commission of the State Council for the Definition of the Relevant Market enumerate some main factors that should be taken into account in defining the relevant market, such as the demand substitution, supply substitution and so on.³¹ As it was stated in *Google v.*

²⁵ *ibid.*

²⁶ The concept of 'technology market' was adopted later in Article 3 of the SAIC Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition and we will see where the final integrated anti-monopoly IPRs guidelines will go. See Chapter 5, Section 5.2.

²⁷ *Google/Motorola Mobility* (Case COMP/M.6381) Commission Decision C (2012) 1068.

http://ec.europa.eu/competition/mergers/cases/decisions/m6381_20120213_20310_2277480_EN.pdf.

²⁸ *Google/Motorola Mobility* (n 27), para.54 and 56.

²⁹ Yue No.306 (n 6).

³⁰ *ibid.*

³¹ Guide of the Anti-monopoly Commission of the State Council for the Definition of the Relevant Market (国务院反垄断委员会关于相关市场界定的指南), Articles 3-7.

Motorola Mobility, ‘the specificity of SEPs is that they have to be implemented in order to comply with a standard and thus cannot be designed around, i.e. there is by definition no alternative or substitute for each such patent.’³² If Huawei wants to manufacture the products complying with the 3G wireless communication standard, each SEP under this standard is necessary for Huawei. The refusal to license any SEP will definitely give rise to Huawei’s failure to make standard-satisfied products and will exclude Huawei from the competition in the targeted market. In the area of wireless communication, the process of setting up a standard is a process to eliminate competition.³³ In other words, once a patent is chosen as a SEP, it will become unique and irreplaceable and there is little competition among similar technologies. In addition, there is no evidence to show that there is any substitute technology owned by others except InterDigital available for Huawei to manufacture satisfied products and equipment. Accordingly, InterDigital is the only supplier of the SEPs concerned. Furthermore, it was impossible for Huawei to transfer from one wireless communication standard into another one at that stage. This is because a great number of resources had been devoted and the costs to transfer were considerably high. The potential risks for the transfer were also not predictable. Moreover, 2G, 3G and 4G standards are technical upgrading. Each SEP under these standards is unique and irreplaceable. The technologies under 2G and 4G should not be attributed to substitute technologies for 3G standard. This view was supported in *Samsung-Enforcement of UMTS standard essential patents* that ‘(i) UMTS, which is the standard for 3G mobile telecommunication technology in the EEA, cannot be substituted by mobile standards of other generations, such as GSM (2G technology) or LTE (4G technology); (ii) UMTS cannot be substituted by other 3G standards’ and ‘(iii) UMTS cannot be implemented without having access to each of Samsung’s UMTS SEPs reading on the UMTS standard.’³⁴ In this case, Huawei has no choice but to get the combined licence of the relevant SEPs of the 3G wireless communication standard from InterDigital. Therefore, it is reasonable and justifiable to conclude that each SEP licensing market under the 3G wireless communication standard constitutes a separate relevant product market.

Anti-monopoly Law of the People’s Republic of China (中国反垄断法) (the AML), Article 12.

³² *Google/Motorola Mobility* (n 27), para.54.

³³ Haitang Xiao, ‘The Case of Huawei Suing InterDigital about its Abuse of Dominant Position’ (华为公司诉交互数字滥用市场支配地位案) in The Committee of Competition Policy and Law of the Institute of WTO in China (eds), *Report on Competition Law and Policy of China 2014* (中国竞争法律与政策研究报告 2014 年) (Law Press.China), 353.

³⁴ *Samsung-Enforcement UMTS standard essential patents* (Case AT. 39939) Commission Decision C (2014) 2891 final.

However, InterDigital did not agree with the definition of the relevant product market and claimed that according to the specificity of SEPs, it was not able to produce qualified terminal products only with the SEPs owned by InterDigital.³⁵ In the view of InterDigital, it took the terminal products covered by 3G standard as the relevant products. Nevertheless, the assertion of InterDigital was not reliable. It is true that InterDigital did not possess all of the SEPs under 3G standard, but the lack of any SEP owned by InterDigital will definitely result in the failure to manufacture standard-satisfied products. Additionally, the dispute was between Huawei and InterDigital concerning the SEPs licensing and the demander is Huawei; it was not proper to regard terminal consumers as the demander and involve terminal products in defining the relevant market.³⁶ The analysis approach adopted by the Court in defining the relevant product market in this case is clear and scientific.³⁷ Each SEP licensing market under the 3G wireless communication standard constitutes a separate relevant product market.

(b) The Determination of a Dominant Position

In terms of determining the dominant position of InterDigital in the relevant market, several factors that must be taken into account are set out in Articles 18 and 19 of China's AML, such as the market shares, the power to control the market, the financial and technical conditions, to what extent other undertakings depend on the undertaking concerned, the difficulty of market entrance and so on.³⁸ Due to the exclusivity of a patent, especially a SEP, it is impossible for other undertakings to develop the same or similar SEPs at issue in a short time.³⁹ As a result, InterDigital is the only supplier for its SEPs and the uniqueness and irreplaceability of SEPs determine that InterDigital enjoys the full market shares in each SEP licensing market. In addition in determining the dominance of the undertaking concerned in the market, countervailing power of the buyers works as a negative factor. The consideration of countervailing power in this case is regarded as a great complement or interpretation of Article 18 of China's AML.⁴⁰ However, InterDigital itself does not engage in substantive production activities and its revenue is mainly from

³⁵ Shen No. 858 (n 13).

³⁶ Wang, 'On the Antitrust Lawsuits concerning Standard Essential Patents' (n 1) 221.

³⁷ *ibid.*

³⁸ The AML, Articles 18 and 19.

³⁹ Wenhui Zhu, 'The Determination of the Abuse of Dominant Position by SEP Holders—Commenting on the Appeal of the Case between Huawei and InterDigital' (标准必要专利权人滥用市场支配地位的判断—兼评华为诉美国交互数字公司上诉案) (2014) 09 Electronics Intellectual Property 37, 39.

⁴⁰ Guangyao Xu and Jia Liu, 'On the Abuse of Dominance in the Standard Essential Patent Licensing' (论标准必要专利许可中支配地位的滥用) (2014) 10 Price: Theory & Practice 26, 27.

the royalties of patent licensing.⁴¹ InterDigital does not need to rely on the cross licensing of others' SEPs. Accordingly, there is no countervailing power from other undertakings to InterDigital in its SEPs licensing. That means InterDigital has the power to control the relevant market and it is significantly difficult for others to enter into the market. The dominance of InterDigital in the relevant market cannot be effectively restricted. Therefore, InterDigital has fulfilled all the requirements of a dominant position and the Court finally determined that InterDigital had a dominant position in the relevant market concerned.

(c) Abuses of Dominance and Corresponding Legal Responsibilities

With respect to the abuse of a dominant position by InterDigital, the Shenzhen Intermediate People's Court (the Court) supported most of Huawei's claims and the Guangdong Higher People's Court later affirmed the judgment. The rule of reason approach was adopted in examining and judging whether InterDigital had abused its dominance. First, InterDigital did not follow the FRAND rules and charged excessive and discriminatory royalties. The Court compared the licensing conditions in which InterDigital licensed its SEPs concerned to Apple and Samsung, with those offered to Huawei in the negotiations. The royalty rate offered for Huawei was nearly one hundred times that for Apple and around ten times that for Samsung.⁴² In the ultimatum from InterDigital to Huawei, InterDigital charged a royalty rate of 2% based on Huawei's sale amount from 2009 to 2016; while, the profit rate of general industrial product was only around 3%.⁴³ If Huawei agreed to this royalty rate, InterDigital, one of all the licensors, would take most of Huawei's profits. To defend, InterDigital asserted that it was not reasonable to compare the royalty fees calculated in different methods and they were incomparable.⁴⁴ InterDigital claimed that the royalty fees for Apple and Samsung were charged by a lump sum payment; while those for Huawei were calculated by a royalty rate. However, InterDigital refused to provide the relevant patent licensing contracts to the Court; neither did InterDigital inform the Court of the patent royalty rate charged to other companies. Therefore, it seems justifiable that the Court confirmed InterDigital's abuse of dominance by charging excessive and discriminatory royalty fees on the basis of the evidence and information available. In addition, InterDigital required free grant-back of all

⁴¹ Yue No.306 (n 6).

⁴² Suo and Lin (n 2).

⁴³ *ibid.*

⁴⁴ Yue No.306 (n 6).

of Huawei's patents, which is a further way to increase the royalty fees.⁴⁵ Moreover, the Court supported Huawei's allegation that InterDigital abused its dominance by bundling SEPs with non-SEPs unreasonably. In fact, the bundling in accordance with the commercial practice is usually permitted by laws; however, if the bundling does not create enough efficiency to make up for the harms it brings, this kind of bundling will be determined as illegal.⁴⁶ In this case, no justifiable reasons are found to support the bundling by InterDigital; on the contrary it was verified that the bundling by InterDigital was against the willingness of Huawei.

However, the Court dismissed Huawei's other claims. The Court did not rule that the litigations raised by InterDigital in the US should be regarded as a refusal to license; but it should be considered as a way to force Huawei to accept the excessive patent licensing terms. Generally, seeking injunctions is a part of exercising IPRs and itself cannot constitute an abuse of a dominant position, but in exceptional circumstances it can be taken as abusive conduct.⁴⁷ If a standard is generally and widely implemented in one industry, the owners of SEPs will have a greater chance of becoming dominant in the relevant market and the SEPs will be important for public interest. At this time, if there is no restriction on the seeking of injunctions for SEPs, there will be a possibility that the right to seek injunctions will be used as a tool by patent owners to force potential licensees to accept unjustifiable licensing fees.⁴⁸ However, if there are too many restrictions or there is a prohibition on seeking injunctions for SEPs, there will be a possibility that the legal interests of the patent owners will be damaged by potential licensees.⁴⁹ Accordingly, the seeking and implementation of injunctions in the field of SEPs licensing has become a contentious issue in the anti-monopoly enforcement.⁵⁰ China's AML does not regard the seeking of injunctions by an IPR owner as an abuse of dominance. In this case, the Court concluded that the seeking of injunctions by InterDigital in the US was seemingly the exercise of legal rights but actually a way to force Huawei to accept unreasonable licensing terms and conditions, which did not follow the FRAND rules.⁵¹ The Court did not clearly refer the unjustifiable seeking injunctions as an abuse of dominance but generally concluded that it was not proper conduct and should be prohibited. Although this judgment

⁴⁵ Zhu (n 39) 42.

⁴⁶ Xu and Liu (n 40) 27.

⁴⁷ *Samsung-Enforcement UMTS standard essential patents* (n 34), paras.55 and 56.

⁴⁸ Wang, 'On the Antitrust Lawsuits concerning Standard Essential Patents' (n 1) 232.

⁴⁹ *ibid* 233.

⁵⁰ The competition concerns of seeking injunctions on SEPs will be discussed in Chapter 7, Section 7.4.

⁵¹ Yue No.306 (n 6).

followed the international practice in the light of seeking injunctions for SEPs, it leaves confusion as to in what circumstances the seeking of injunctions cannot be regarded as a legitimate exercise of IPRs and should constitute an abuse of dominance. In addition, the preconditions for patent owners to seek injunctions for their SEPs and the preconditions for potential licensees to raise objections to the seeking of injunctions are not clarified. The lack of interpretation and instructions as to how to seek and implement injunctions for SEPs will result in an unbalanced relationship between IPRs protection and competition. Therefore, clear guidance is necessary for the seeking and enforcement of injunctions on SEPs by dominant owners.⁵²

Then, the Court confirmed that InterDigital's package licensing of its SEPs of 2G, 3G and 4G globally is an international acceptable practice. Finally, the Guangdong Higher People's Court affirmed that InterDigital had abused its dominant position in the relevant market by charging excessive and discriminatory royalties and unreasonable bundling, and, therefore, the conduct violated China's AML. InterDigital was ordered to cease all of its monopolistic conduct and to pay Huawei a compensation of 20 million RMB.

4.2.2.2 The Case concerning the SEP Royalty Fees⁵³

In this case, the two most controversial issues are whether the FRAND rules could be directly invoked and applied by Chinese courts in their judgments and whether the royalty rate of 0.019% settled under FRAND rules is reasonable.

According to the Interim Provisions on the Administration of National Standards Involving Patents adopted by the Standardization Administration of China and the State Intellectual Property Office, the licensing declarations committed on the patents concerned in an international standard of ISO or IEC will be equally applicable to the national standard set on the basis of the international standard.⁵⁴ Accordingly, the first controversial issue seems not to be a problem any more.

For the other controversial issue, what are the FRAND rules, how they are explained in the IPR policy of relevant standard organizations and why it was determined that InterDigital

⁵² Proposals will be made to regulate the seeking of injunctions on SEPs within the AML in Chapter 9, Section 9.3.

⁵³ Shen No. 857 (n 14); Yue No.305 (n 7).

⁵⁴ Interim Provisions on the Administration of National Standards Involving Patents (国家标准涉及专利的管理规定 (暂行)), coming into effect on 1st January 2014, Article 18.

had breached the obligations under the FRAND rules will not be discussed in detail. What will be emphasized in this section is the method adopted by the Chinese courts in fixing the royalty rate under the FRAND rules. There are four factors that should be taken into account when determining the royalty rate: (a) the profits gained from exploiting the patent concerned or similar patents and its ratio in the sale profits of relevant products; (b) the contribution made by the patentee is from the innovative technology and the patentee is only allowed to benefit from the patent rights but not from the advantage of the standard; (c) standard implementers shall only be liable to pay for SEPs but not for non-SEPs; (d) the royalty fees should not exceed a limited proportion of the product profits and should be reasonably distributed among all the patentees concerned.⁵⁵ Technologies, capital, personnel and many other factors all contribute to the profits of the relevant products. It is not only the SEPs themselves that make the product successful. Accordingly, the first element set a maximum for the patent royalty fees, which should not exceed what they have earned. Even between different patentees, their contribution is different owing to their respective patents. In addition, it was established that licensors should not obtain extra fees or income from the advantages of involving their patents into a standard and they should only benefit from the patent itself. However, a technical product in reality may involve hundreds of standards and one standard may contain thousands of SEPs; and, there is little practical experience in evaluating the quality and the contribution of each SEP.⁵⁶ Therefore, the Court realized that these factors were helpful in analysing whether the patent licensing was fair and reasonable; but it was idealized to fix the patent royalty fees on the basis of them.⁵⁷

In this situation, the Court mainly focused on comparing the royalty fees in which InterDigital licensed its SEPs to other undertakings, to see whether InterDigital observed the non-discriminatory principle under the FRAND rules and then to fix the reasonable royalty rate for Huawei. As a member of relevant standardization organizations, InterDigital is obliged to license its SEPs in accordance with the FRAND rules. However, different potential licensees are in different situations, so the FRAND rules do not mean that all the licensing royalty rates or conditions are completely the same.⁵⁸ If the licensees

⁵⁵ Yue No.305 (n 7).

⁵⁶ Jianjun Zhu and Wenquan Chen, 'The Dispute about the SEP Royalty Rate Has the Possibility to Be Sued' (标准必要专利使用费率纠纷具有可诉性) (2014) 04 People's Judicature 4, 9.

⁵⁷ Wang, 'On the Antitrust Lawsuits concerning Standard Essential Patents' (n 1) 224.

⁵⁸ Zhu and Chen (n 56) 9.

are in similar conditions, their patent royalty rates should be generally similar.⁵⁹ Then, the Court concluded the patent royalty rate of 0.019% for Huawei through comparing with the royalty fees for Apple and Samsung. It is true that the calculating methods of royalty fees for the compared undertakings were different, but in the lack of relevant information about the royalty fees and rates offered by InterDigital, this was the only choice for the Court to determine the reasonable royalty rate in accordance with the FRAND rules for the dispute. Although the details on how to determine the final royalty rate of 0.019% were not disclosed, from the method it adopted, the result seems reasonable.

This case not only confirms the application of the FRAND rules by the Chinese courts but also provides a model for the later disputes concerning the SEP royalty fees, especially in the anti-monopoly enforcement. However, there is another problem waiting to be resolved. If InterDigital did not license its SEPs to other undertakings and there was no reference model to compare the royal fees with, how would the Court fix the royalty fees or rate for Huawei under the FRAND rules?⁶⁰ Maybe there are some doubts about whether the Court should intervene in the determination of a royalty rate between parties and to what extent this can restrict the freedom to make a contract. This problem will be discussed and answered in Section 9.3.3 of Chapter 9.

4.2.3 Summary of Huawei vs. InterDigital

To sum up, the two cases are considered as a milestone in the history of China's anti-monopoly enforcement concerning the exercise of patent rights. They coped with the difficult challenges in the intersection of patent protection and anti-monopoly enforcement, especially concerning the complicated SEPs. One of the judgments makes it clear how to define a relevant product market when it concerns the licensing of SEPs. This provides the basis for the later *Qualcomm* investigation. The other judgment provides a meaningful method to determine the reasonable royalty fees under the FRAND rules. However, there are some new problems arising. For example, whether the concept of technology market in patent licensing should be clearly elaborated in future guidelines? As a patentee, InterDigital has the right under the Patent Law to charge royalty fees for its SEPs and to seek injunctions to prevent its SEPs from being infringed, which should generally be exempted from the application of the AML. However, in this case the seeking of

⁵⁹ *ibid.*

⁶⁰ Wang, 'On the Antitrust Lawsuits concerning Standard Essential Patents' (n 1) 237.

injunctions was determined as an improper activity and should be prohibited. Owing to the specificity of SEPs, in some countries, the seeking of injunctions for SEPs is even regarded as an abuse of a dominant position violating competition rules.⁶¹ While, different countries establish different preconditions for the seeking of injunctions for SEPs. Further explanations and guidance are needed to clarify under what circumstances the seeking of injunctions on SEPs is consistent with the Patent Law, and in what circumstances it is an abuse of dominance where potential licensees can raise objections to it.⁶² Another problem that must be taken into account is how to fix a reasonable royalty rate under the FRAND rules for a SEP dispute. Although this case has established a model and provided some experience for future cases, it is still unclear how to set the royalty rate in the lack of a reference model to compare with. In addition, how to put into practice the four factors raised by the Court in determining the reasonable royalty rate under the FRAND rules is also a problem waiting to be resolved.⁶³ Therefore, further guidelines should be provided to ensure the predictability and certainty in the anti-monopoly enforcement.

4.3 The *Qualcomm* Investigation

On 10th February 2015, NDRC published the result of the investigation into the activities of Qualcomm Incorporated (Qualcomm), a US chipmaker. NDRC concluded that Qualcomm had abused its dominant market position by seeking to eliminate competitors and restrict competition.

Qualcomm was ordered to stop the infringement of China's AML. A fine of 6.088 billion Chinese Yuan Renminbi (RMB) (\$975 million) was imposed. This amounts to 8% of Qualcomm's 2013 revenue in China.⁶⁴ The fine imposed on Qualcomm is the highest in the history of China's anti-monopoly enforcement. In the NDRC's Administrative Sanction Decision (the Decision), it was confirmed that Qualcomm had a dominant position in two broad markets, namely, the market for licensing CDMA, WCDMA and LTE wireless communication standard essential patents (SEPs) and the market for baseband chips. Qualcomm was found to have abused its dominance by charging

⁶¹ See also the analysis in Chapter 7, Section 7.4.3.

⁶² These problems are discussed further in Chapter 9, Section 9.3.

⁶³ The methodologies to determine a specific FRAND-compliant royalty rate are not the focus of the thesis and will not be examined. But who is in an appropriate position to address this issue will be analysed in Chapter 9, Section 9.3.3.

⁶⁴ 'The NDRC Ordered Qualcomm Incorporation to Rectify Its Monopolistic Behaviours and Imposed a Fine of 6 Billion Yuan' (国家发展改革委员会对高通公司垄断行为责令整改并罚款 60 亿元) <http://www.sdpc.gov.cn/xwzx/xwfb/201502/t20150210_663822.html> accessed 9 May 2018.

excessively high royalty fees, bundling SEPs with non-SEPs with no justifiable reasons and imposing unreasonable conditions on baseband chips sale.⁶⁵ After the NDRC closed this anti-monopoly investigation and published the result, Qualcomm immediately announced its agreement to pay the fine and simultaneously announced that it would not appeal.⁶⁶ In addition, Qualcomm disclosed an abstract of its rectification plan which made some changes to its business activities in China in order to comply with the requirements of the Decision. As a result, a case which lasted nearly 15 months was brought to an end without an appeal to a court.

Since the anti-monopoly investigation against Qualcomm was launched in 2013, it has attracted a lot of attention, not only within China. The *Qualcomm* Decision is a landmark case not just for its record fine in China's anti-monopoly enforcement history but also for its far-reaching and profound influence on the control of the abuse⁶⁷ of patent rights in China by the AML. The application of an anti-monopoly law to abuses of patent rights that eliminate or restrict market competition is a complicated and difficult domain. Even for the EU and US who have much experience in this field, it is still problematic. So is it for China, whose AML is only 10 years old and who has less experience in competition enforcement in this field. Qualcomm had been investigated in many countries and China took the lead in finding the conduct of Qualcomm to be unlawful. Therefore, to some extent it can provide some guidance and experience for other antitrust authorities. In particular, the investigation of Qualcomm has posed a challenge to NDRC in balancing the protection of patent rights and the prevention of their abuse. There is no doubt that patent rights should be protected properly, even though, to some extent the protection amounts to a legal monopoly. However, excessive protection of patents rights may result in an abuse which will eliminate or limit market competition, impede innovation and finally impair consumer welfare. Therefore, it is necessary to make full use of an anti-monopoly law to regulate and eliminate the anti-competitive practices of patent owners when they exploit their patent rights. The conflict and co-ordination between the Patent law and the AML have been sharply reflected in the *Qualcomm* investigation and it provided China's AMEAs with

⁶⁵ *ibid.*

⁶⁶ 'Qualcomm and China's National Development and Reform Commission Reach Resolution - NDRC Accepts Qualcomm's Rectification Plan - - Qualcomm Raises Midpoints of Fiscal 2015 Revenue and Non-GAAP EPS Guidance -' (Rectification Plan), available at http://files.shareholder.com/downloads/QCOM/3864235320x0x808060/382E59E5-B9AA-4D59-ABFF-BDFB9AB8F1E9/Qualcomm_and_China_NDRC_Resolution_final.pdf accessed 13 May 2018.

⁶⁷ For the purpose of the thesis, the term 'abuse' can also be used as the meaning of 'misuse' or 'inappropriate use' in a general manner. The expression 'abuse of intellectual property rights' used in this thesis includes but is not limited to all the possible anti-competitive exercise of IPRs, which is so especially in some Chinese legal measures, unless otherwise specified that it refers to the abuse of a dominant position.

valuable enforcement experience in this field. This important anti-monopoly investigation has also gained commendation, though some ambiguities and deficiencies remain. The *Qualcomm* investigation is just the first step and a beginning for China's AMEAs to exercise control over the abuse of patent rights which undermines market competition. No doubt, more efforts and further measures will have to be adopted in the future. The result of the *Qualcomm* investigation not only shows China's determination to deal with monopolistic practices but also depicts the development and progress of China's anti-monopoly enforcement. The details of the *Qualcomm* investigation will be examined and analysed in the following section.

4.3.1 Factual Background

Qualcomm founded in 1985 is a US-based wireless communication technology company, which is now a giant in both patent licensing and chip manufacture. It is the largest chip supplier for wireless communication terminal devices in the world.⁶⁸ In addition, the importance of the patents owned by Qualcomm determines the high reliance of almost all the mobile phone manufacturers on Qualcomm's patent licensing. In particular, in the field of CDMA, WCDMA and LTE cellular standards, Qualcomm owns the SEPs that are imperative for all wireless communication terminal devices to enter into and connect with the network. It is argued that Qualcomm is a company whose major profit model is charging patent royalty fees.⁶⁹ In 2013 fiscal year, nearly 70% of Qualcomm's net profits were from patent licensing and this is a unique business model worldwide.⁷⁰ Qualcomm charged its patent royalty fees on the basis of the net selling price of a device with a royalty rate of up to 5%, which was known in the industry as the 'Qualcomm Tax'.⁷¹ In addition, Qualcomm bundled the sales of baseband chips with patent licensing, which meant that if manufacturers wanted to buy the necessary chips, they would have to first be on the patent

⁶⁸ Lipeng Mei, 'IP-Related Anti-monopoly and Anti-unfair Competition Enforcement in China' (2014-2015) 10 E Practicing Intellectual Property Law in Asia: Litigation, Enforcement, and Business Management 50, 60.

⁶⁹ Lili Qu, 'Behind the "Excessively High Fine" for Qualcomm: A Monopoly Hard to Break?' (高通“天价罚单”背后：难以打破的垄断？) *China Business Journal* (Beijing, 28 February 2015) <<http://www.cb.com.cn/index.php?m=content&c=index&a=show&catid=22&id=1114830&all>> accessed 13 May 2018.

⁷⁰ Min Tan, 'The Fine for Qualcomm Started the New Normal Attitude to Anti-monopoly' (高通罚单开启反垄断新常态) *Guangzhou Daily* (Guangzhou, 11 February 2015) <http://www.xinhuanet.com/comments/2015-02/11/c_1114327829.htm> accessed 13 May 2018.

⁷¹ Yanxia Yang (ed), 'The Investigation of Qualcomm Stepped into "Deep Water" Comment: Creating Fair Market Environment' (高通反垄断调查进入“深水区”：评 要创造公平市场环境) *China National Radio* (Beijing, 24 July 2014) <http://finance.cnr.cn/jjpl/201407/t20140724_516030829.shtml> accessed 13 May 2018.

licensing list.⁷² The business model of Qualcomm has been subjected to significant doubts and criticism in many countries and regions. In the EU, Qualcomm was accused in 2005 of charging monopolistic high prices but the investigation was closed in 2009 on account of the withdrawal of the complaint by the complainant.⁷³ In Japan, in 2009, Qualcomm was alleged to abuse its dominant market position and the Fair Trade Commission ordered Qualcomm to rectify its practices within limited time.⁷⁴ In Korea, the Korean Fair Trade Commission found also in 2009 that Qualcomm charged discriminatory royalties and imposed a fine of \$208 million.⁷⁵ Antitrust investigations of the activities of Qualcomm and litigation concerning the exercise of their IPRs have never stopped. This time, the company was accused of abusing its dominant position to eliminate and restrict market competition in China.

In 2009, there were two American companies complaining about Qualcomm's monopolistic practices.⁷⁶ From then on, more and more complaints from both Chinese and foreign enterprises emerged. On 25th November 2013, it was stated that NDRC had initiated inspections to the offices of Qualcomm in Beijing and Shanghai and obtained relevant documents and information.⁷⁷ At the same time, the NDRC issued a notice addressed to relevant mobile phone manufacturers and chip makers from home and abroad to seek for their co-operation with the investigation. On 19th February 2014, the NDRC made an official announcement that on the basis of the complaints from the industry association and relevant undertakings about the alleged monopolistic and other anti-competitive practices of Qualcomm, an anti-monopoly investigation had been initiated.⁷⁸ In May 2014, on a second 'visit', the CEO of Qualcomm presented to the NDRC a

⁷² Liqin Guo, 'The Qualcomm Anti-monopoly Investigation: Not Confiscating All the Illegal Gains Maybe Because of Supporting Joint-Venture' (高通反垄断案: 未没收全部违法所得或因为支持合资) *China Business News* (Shanghai, 12 June 2015) <<http://finance.sina.com.cn/chanjing/gsnews/20150612/034522413661.shtml>> accessed 13 May 2018.

⁷³ Commission, 'Antitrust: Commission closes formal proceedings against Qualcomm' MEMO/09/516.

⁷⁴ Haiyang Ren and Jingwei Wu, 'Regulating the Abuse of Dominant Market Position and Protecting fair Competition Order—Analysing the First Case in China to Apply the Anti-monopoly Law to Regulate the Abuse of Intellectual Property Rights' (规制滥用市场地位 维护公平竞争秩序——透析我国滥用知识产权反垄断执法第一案之高通案) (2015) 02 *Price Theory & Practice* 35, 35.

⁷⁵ *ibid.*

⁷⁶ *ibid.* 36.

⁷⁷ Qiuyun Luo, Feng Tian and Yan Bai, 'The first anti-monopoly case in 2014: the investigation of Qualcomm' (2014 反垄断第一案: 调查高通) (2014) 02 *IT Time Weekly* 30, 32.

⁷⁸ 'The NDRC's Regular Press Release to Introduce the Situation of Price Regulation and Anti-monopoly' (国家发展改革委举行例行新闻发布会 介绍价格监管与反垄断工作情况) <http://www.ndrc.gov.cn/xwzx/xwfb/201402/t20140219_579522.html> accessed 13 May 2018.

document claiming that the company was ‘not guilty.’⁷⁹ In August 2014, the monopolistic facts of Qualcomm were confirmed by the NDRC and then Qualcomm sought rectification of the problems in order to reach a final resolution.⁸⁰ However, on 10th February 2015, the NDRC announced its Decision, finding Qualcomm abused its dominant position to eliminate and restrict competition. The highest fine in the history of China’s anti-monopoly enforcement was then imposed on Qualcomm. The official sanction Decision was published later on 2nd March 2015.⁸¹

4.3.2 Analysis in the *Qualcomm* Decision

Basically, the Decision was divided into three parts. The first part demonstrates the dominance of Qualcomm in the relevant SEPs licensing market and in the relevant baseband chip market; the second part illustrates the abusive practices of Qualcomm in this case; and the last part elaborates the basis of the Decision.

4.3.2.1 The Dominance in the Relevant Market

In the first part, the NDRC respectively illustrated the dominant position of Qualcomm in the markets for CDMA, WCDMA and LTE wireless communication SEPs licensing and in the market for CDMA, WCDMA and LTE wireless communication terminal baseband chip. There are four detailed main reasons for the uniqueness and irreplaceability of the wireless SEPs, which demonstrate Qualcomm’s dominance in the wireless SEPs licensing market. First, each SEP licensing market constitutes a separate relevant product market in this case and Qualcomm enjoyed 100% market shares in each SEP licensing market.⁸² As Qualcomm possessed a great number of SEPs within CDMA, WCDMA and LTE wireless communication technical standards, Qualcomm enjoyed 100% market shares in the combined SEPs licensing market.⁸³ There was no competition in that market, so Qualcomm held a dominant position in the relevant market according to Article 19 of

⁷⁹ Rui Zhou, ‘Revealing the highest fine in the history of China’s antimonopoly: 9 confrontations between the NDRC and Qualcomm’ (揭秘反垄断最大罚单：发改委高通曾九轮交锋) *China News* (Beijing, 10 February 2015) <<http://finance.chinanews.com/cj/2015/02-10/7049441.shtml>> accessed 13 May 2018. The second author of the document, Zhang Xinzhu, was one of the consulting experts of the Anti-monopoly Commission of the State Council. However, Xinzhu Zhang was dismissed later for the reason that he had received a large payment from Qualcomm and this violated his duties.

⁸⁰ Ren and Wu (n 74) 35.

⁸¹ *Qualcomm Incorporated*, NDRC Administrative Sanction Decision, FaGaiBanJiaJianChuFa [2015] No. 1 (发改办价监处罚 [2015] 1 号) (The *Qualcomm* Decision).

⁸² *ibid.*

⁸³ *ibid.*

China's AML.⁸⁴ Second, Qualcomm had strong power to control the wireless SEPs licensing markets; third, wireless communication terminal manufacturers were highly dependent on the licence of Qualcomm's wireless SEPs package; and fourth, it was found that it was difficult for other undertakings to enter into the relevant market.⁸⁵

There were also justifications to explain why Qualcomm was dominant in CDMA, WCDMA and LTE baseband chip markets. First, Qualcomm's market shares in each baseband chip market mentioned above were respectively 93.1% (CDMA), 53.9% (WCDMA), and 96% (LTE), all exceeding 50% and raising a presumption of dominance within Article 19 of China's AML; next, it was examined in detail in the NDRC's Decision that Qualcomm was able to control each relevant baseband chip market; third, due to its various advantages and market shares, the baseband chips of Qualcomm attracted high reliance of main wireless communication terminal manufacturers; and finally, there were rigid and difficult barriers for potential undertakings to enter into the baseband chip market concerned.⁸⁶

As a consequence, as prescribed by Article 18 of the AML, Qualcomm was found to be dominant in both SEPs licensing market and the baseband chip market.

4.3.2.2 The Abuses of a Dominant Position

In the second part of the Decision, the market conduct by which Qualcomm abused its dominant market position was set forth and individually demonstrated. It was established that Qualcomm abused its dominance in the wireless SEPs licensing market by charging unfair high royalty fees.⁸⁷ For example, licensees had to pay for Qualcomm's expired wireless SEPs. Additionally, they were required to grant back their own non-SEPs for free and Qualcomm did not deduct the corresponding value of the patents owned by licensees from the required royalty fees. The value of the patents of these licensees was ignored by Qualcomm.⁸⁸ Generally, it is not illegal for licensors to seek for the grant-back of the patents owned by licensees, but it is not the reason to obtain free grant-back in all circumstances.⁸⁹ The royalty-free granting back can raise detrimental influence on the

⁸⁴ *ibid.*

⁸⁵ *ibid.*

⁸⁶ *ibid.*

⁸⁷ *ibid.*

⁸⁸ Ren and Wu (n 74) 36.

⁸⁹ The *Qualcomm* Decision (n 81).

motivation of licensees to innovate, and impede the research and development in the wireless communication field. From this aspect, fair competition was eliminated or restricted.⁹⁰ More importantly, the patent royalty fees charged by Qualcomm were on the basis of the wholesale net selling price of terminal devices.⁹¹ In other words, licensees were not only charged royalties on the SEPs but also on other parts of the wireless communication terminal devices, which were not within the scope of the SEPs. As a consequence, the excessively high royalty fees increased the costs of wireless communication terminal devices and finally impaired the consumer welfare.⁹²

In addition, it was confirmed that Qualcomm abused its dominance by bundling SEPs with non-SEPs without reasonable and justifiable reasons.⁹³ Qualcomm did not measure what the bundled non-SEPs meant to licensees and just unilaterally offered a package licensing. In order to hide what they were doing, Qualcomm did not provide licensees with a patent list. There is no doubt that this unreasonable bundling inevitably threatened the competition in the non-SEPs licensing market.⁹⁴

Moreover, the NDRC ascertained that Qualcomm abused its dominant position in the baseband chip market in order to eliminate and restrict competition by imposing unreasonable conditions on baseband chip sales.⁹⁵ For instance, Qualcomm established preconditions for licensees to buy their necessary baseband chips that signing the patent licensing agreement with unreasonable constraints and waiving the legal right to challenge the agreement.

Therefore, as identified by Article 17 of China's AML, the aforesaid practices by Qualcomm constituted the abuses of its dominance in the relevant markets.

4.3.2.3 The Basis of the Decision

In the third part, the Decision set out the justifications of the punishment on the basis of Articles 47 and 49 of the AML. On one hand, Qualcomm was ordered to cease the abusive practices in the relevant markets: to present the patent list to licensees and not to charge

⁹⁰ *ibid.*

⁹¹ *ibid.*

⁹² *ibid.*

⁹³ *ibid.*

⁹⁴ *ibid.*

⁹⁵ *ibid.*

Chinese wireless communication terminal manufacturers for the expired patents, not to force licensees to grant back their non-SEPs or relevant patents without justifiable payments, not to charge excessively high royalties on the wireless communication terminal devices used in China and not to base the wireless SEPs royalty fees on the wholesale net selling price of terminal devices, not to bundle SEPs with non-SEPs without justifiable reasons, and not to impose unreasonable conditions on the sales of baseband chips.⁹⁶ On the other hand, taking into account of the related elements, the NDRC imposed a fine of 8% of Qualcomm's sales in China in 2013, which amounted to 6.088 billion RMB, the highest fine in the history of Chinese anti-monopoly enforcement.

4.3.3 Comment

4.3.3.1 Positive Effects of the Qualcomm Investigation

As the first case dealt with by China's AMEAs concerning an abuse of IPRs, the *Qualcomm* investigation has brought about a substantial number of positive consequences. First, the influence of the *Qualcomm* investigation has extended to other jurisdictions. As a giant in the wireless communication area, Qualcomm owned a number of significant IPRs and its business model has already raised complaints in many countries and regions.⁹⁷ However, whether the behaviour of Qualcomm amounts to illegal monopolistic conduct and damages the market competition is not easy to be established. As a result, many anti-monopoly investigations involving Qualcomm had no final result. But now, the Chinese Decision imposing an administrative penalty on Qualcomm will to some extent play a guidance role. After the start of the anti-monopoly investigation to Qualcomm by the NDRC, both the EU and Korea declared that the investigation of Qualcomm's conduct would be launched again⁹⁸ and in fact Qualcomm was later investigated by competition authorities in the US,⁹⁹ Korea¹⁰⁰ and EU.¹⁰¹

⁹⁶ *ibid.*

⁹⁷ Zhisong Deng and Jianmin Dai, 'The Record Fine by the NDRC Which Rewrote the World Anti-monopoly Map—A Comment on the *Qualcomm* Investigation' (国家发展改革委创纪录罚单改写世界反垄断版图—高通案件述评) (2015) 03 Price Supervision and Anti-monopoly in China 13, 14.

⁹⁸ *ibid.*

⁹⁹ See details at <<https://www.ftc.gov/competition/section-5>> accessed 3 May 2018.

¹⁰⁰ Details available at

<http://www.ftc.go.kr/solution/skin/doc.html?fn=50ba93a6149acc5be3cae03dc2f4de97e254681689def7a42b2e4ae6eaf1924&rs=/fileupload/data/result/BBSMSTR_000000002402/> accessed 03 May 2018.

Additionally, the *Qualcomm* Decision has made an important step in the development of China's AML in prohibiting anti-competitive practices of patent owners in exercising their patent rights. In the era of knowledge-driven economy, IPRs are playing an important role, especially in the field of high technology like wireless communication technology. In this context, patent owners are likely to abuse their legal 'monopoly' of their patent rights to set up technical barriers to eliminate and restrict market competition.¹⁰² However, national patent laws themselves cannot solve the problem perfectly and the application of an anti-monopoly law has become a popular practice to cope with these challenges. This is important for China in particular, as it is still a developing country. Currently, China has low innovation ability and has to import most advanced technologies from developed countries, which makes it necessary for China to effectively regulate the anti-competitive behaviour of the patent licensors like those transnational companies by the AML.¹⁰³ China's AML was adopted in 2008, which is nearly one century later than that of the US. Although China has begun to pay more attention to anti-monopoly investigations since 2013 and many industries have been investigated and punished, the anti-monopoly enforcement in the exercise of IPRs has been seldom because this is a considerably contentious and complicated area.¹⁰⁴ Moreover, there is only one article in China's AML that mentions the anti-competitive exercise of intellectual property rights, and it is very general in nature.¹⁰⁵ As a consequence, the *Qualcomm* Decision shows the attitude of Chinese AMEAs that a balance should be maintained between the protection of IPRs and the anti-monopoly enforcement in the exercise of IPRs. The NDRC faced a number of sophisticated and difficult problems when they dealt with the *Qualcomm* investigation, many of which they had never met before. The progress made by China's AMEAs is obvious and dramatic. The *Qualcomm* investigation has made up for the shortage of Chinese decisions in this area and has opened a new chapter. The Decision published by the NDRC is the longest one with more than 10,000 words.¹⁰⁶ This contributed to the

¹⁰¹ Details available at

<http://ec.europa.eu/competition/elojade/isef/index.cfm?fuseaction=dsp_result&policy_area_id=1,2,3&case_title=Qualcomm> accessed 3 May 2018.

¹⁰² Xianlin Wang, 'The Abuse of IPRs and Its Legal Management' (知识产权滥用及其法律规制) (2004) 03 Law Science 107, 107.

¹⁰³ Xianlin Wang, 'Rethinking the Application of China's Antimonopoly Law in the Area of Intellectual Property Rights' (我国反垄断法适用于知识产权领域的再思考) (2013) 1 Journal of Nanjing University (Philosophy, Humanities and Social Sciences) 34, 42.

¹⁰⁴ Lei Zhong, 'The first antimonopoly case in China: the comment and analysis of the Qualcomm anti-monopoly case' (中国反垄断第一大案：高通反垄断案评析) (2015) 07 Practice in Foreign Economic Relations and Trade 75, 77.

¹⁰⁵ Article 55 of the AML was examined in Chapter 3, Section 3.3.

¹⁰⁶ Peichu Li, 'Thinking on the Qualcomm Monopoly Case' (对高通公司垄断案的思考) (2015) 04 Price Supervision and Anti-monopoly in China 50.

improvement of transparency and certainty of China's anti-monopoly enforcement. The *Qualcomm* investigation is so meaningful in China's anti-monopoly enforcement history that as a precedent it can provide experience and make a contribution to future cases.

4.3.3.2 Deficiencies and Ambiguities of the Qualcomm Investigation

Although the conclusion of the *Qualcomm* investigation has displayed improvements and progress made by China's AMEAs, there are still deficiencies and ambiguities left. The fine imposed by the NDRC seemed to be too high at nearly one billion dollars. However, it is only a drop in the ocean for such a giant undertaking operating in the SEPs licensing market and in the baseband chip market.¹⁰⁷ It probably does not impose enough deterrent effects on Qualcomm. According to Article 47 of China's AML, the undertaking abusing its dominance in the relevant market shall be ordered to cease its monopolistic conduct; its unlawful gains shall be confiscated and a fine shall be imposed by the relevant anti-monopoly enforcement authority.¹⁰⁸ In the NDRC Decision, Qualcomm was imposed on a fine of 8% of its 2013 revenue in China but its unlawful gains from the monopolistic conduct were not confiscated. No further official explanations were published to elaborate why the unlawful gains were not confiscated. Moreover, the NDRC did not base the fine on the sales of Qualcomm all around the world but only on the sales amount in China, which did not take the same practice as the EU. In this situation, the NDRC seemed not to make full use of the AML to impose enough deterrent influence on both Qualcomm and the other potential violators.

In addition, the NDRC Decision stated that Qualcomm was prohibited from taking the wholesale net selling price of the devices as the basis to charge a high royalty rate for the wireless SEPs.¹⁰⁹ In order to meet the requirements of the Decision, Qualcomm promised in its brief rectification plan that '[f]or licenses of Qualcomm's 3G and 4G essential Chinese patents for branded devices sold for use in China, Qualcomm will charge royalties of 5% for 3G devices (including multimode 3G/4G devices) and 3.5% for 4G devices (including 3-mode LTE-TDD devices) that do not implement CDMA or WCDMA, in each case using a royalty base of 65% of the net selling price of the device.'¹¹⁰ On its face, the rectification plan seemed to satisfy the NDRC order. However, it did not make any change

¹⁰⁷ Qu (n 69).

¹⁰⁸ The AML, Article 47.

¹⁰⁹ The *Qualcomm* Decision (n 81).

¹¹⁰ Rectification Plan (n 66).

to the original charging model of Qualcomm. Charging patent royalty fees on the basis of the wholesale selling price of the devices means that not only the chip itself but also the other parts of the devices that have nothing to do with the patents being licensed will all be taken as a part of the basic amount. This charging method obviously violated the FRAND rules and unreasonably expands the basic amount of patent royalty fees.¹¹¹ For instance, if two mobile phones adopted the same baseband chips from Qualcomm, one of which was decorated with some expensive diamonds and labelled a high selling price, then the two mobile phones with the same chips would be charged different royalties under the current charging model of Qualcomm. However, when it comes to the Qualcomm rectification plan, it only reduced the basic amount of patent royalty fees to 65% but it did not aim to modify the unfair charging model. This is more like a discount. The rectification plan did not change the actual charging model, so the wireless communication terminal devices manufacturers would still have to pay royalties for the other parts of devices, not only for the chip. Actually, the most ideal charging model would be that the chip makers pay for the patents to Qualcomm and then the mobile phone manufacturers buy the chips directly from the chip makers without paying royalties to Qualcomm.¹¹² This model would considerably reduce the patent licensing fees, because in this situation the basic amount just focuses on the chip and patents concerned, excluding other non-patented parts of the devices. In fact, as stated by Xiaoye Wang, who is one of the experts of the State Council's Anti-monopoly Commission and participated in the last drafts of the Decision, the earlier version of the Decision adopted the smallest patent unit for sale as the charging basis; however, in the final version this idea was dropped and no specific solution to this problem is provided in detail.¹¹³ Besides, the Decision emphasized that Qualcomm was forbidden to force licensees to agree to unreasonable and unfair terms as a precondition to sell baseband chips to them.¹¹⁴ However, this order did not lead to any amendment to the core business model 'chip + patent licensing'.¹¹⁵ If the wireless communication terminal devices manufactures want to purchase the chips, they would still have to seek for the licences of the relevant patents by Qualcomm first. Therefore, potential risks are not substantially removed that licensees are still likely to be charged excessively high by Qualcomm for the patents.

¹¹¹ 'Chinese Anti-monopoly Expert Xiaoye Wang: the Way Charging Patent Royalties by Qualcomm is Not Reasonable' (中国反垄断专家王晓晔: 高通专利费计算方式不合理) *The Paper* (Shanghai, 5 August 2014) <http://www.thepaper.cn/newsDetail_forward_1259921> accessed 13 May 2018.

¹¹² Guo (n 72).

¹¹³ *ibid.*

¹¹⁴ The *Qualcomm* Decision (n 81).

¹¹⁵ Guo (n 72).

Although the Decision did not completely overturn the original patent licensing charging model, it has made important progress in influencing the model.

Moreover, the ban imposed by the NDRC on forcing licensees to grant back their non-SEPs without paying reasonable royalties has both a positive and a negative impact on the Chinese mobile phone manufacture industry. On one hand, the ban will bring benefits to those manufacturers owning a number of patents. In recent years, Chinese telecoms equipment companies like Huawei and ZTE Corporation have accumulated a number of core patents in the field of the wireless communication.¹¹⁶ Before the Decision was issued, the value of the patents owned by Chinese companies was usually paid little attention.¹¹⁷ The Chinese companies were compelled to grant back their patents for free and were prohibited to initiate litigation to protect their own patents under the agreement with Qualcomm.¹¹⁸ However, the Decision brought them a hope and encouraged the research and development of those undertakings owning important patents. The Decision will facilitate Chinese undertakings to gain a bargaining position when negotiating a licensing agreement with Qualcomm and may significantly reduce their manufacture costs through cross licensing.¹¹⁹ Although the future is bright and promising, there appears to be another problematic issue —whether the relevant royalty fees should be decided by the NDRC or be negotiated between undertakings themselves. Normally, what the government can and should do is to supervise the market and ensure that it operates competitively. Only in the situation where there is no agreement achieved, the relevant governmental organization or courts should intervene by request. This issue will be discussed fully in Section 9.3.3 of Chapter 9.

On the other hand, for those small companies with few patents, the ban on the free grant-back seems to be a nightmare. The ban will deprive those small undertakings with few patents of the sharing umbrella of Qualcomm and this means they will not be able to use the patents of other companies for free any more.¹²⁰ Accordingly, the costs of their products will increase considerably and the price advantage will no longer exist. This seems to be a serious attack to their development but it is the result of normal competition. From this point, an earth-shaking change will take place to the structure of Chinese mobile

¹¹⁶ Ren and Wu (n 74) 38.

¹¹⁷ Guo (n 72).

¹¹⁸ The *Qualcomm* Decision (n 81).

¹¹⁹ Ren and Wu (n 74) 38.

¹²⁰ *ibid.*

phone manufacture industry.¹²¹ The answer to how these small companies can survive in this battle seems to be intellectual property rights. Therefore, in order to strengthen the competing power, Chinese companies have to improve their own ability and develop innovative technologies, though this will take a lot of time and money.

Another ambiguity that must be considered is that Qualcomm did not put its entire rectification plan in public and this may lead to uncertainty and confusion for potential licensees. To satisfy the requirements of the NDRC Decision, Qualcomm handed in a rectification plan to the NDRC, and it was then accepted. However, in Qualcomm's announcement to the public, the rectification plan was very brief and only included a few paragraphs. The reason was given as to why the complete plan was not released. Qualcomm stated that the full rectification plan was available, but the NDRC said that it was Qualcomm itself who required keeping the rectification plan a secret.¹²² The failure to make the Qualcomm rectification plan full public will bring uncertainties to potential licensees. For example, they will have no knowledge of specific terms of the plan so that they cannot identify whether the agreement they have made with Qualcomm is consistent with the rectification plan and the NDRC Decision.¹²³ Therefore, there is a great need and necessity for the NDRC to supervise Qualcomm's enforcement of the Decision.

An additional factor that should be taken into account is whether the NDRC was the right authority to investigate Qualcomm's conduct. There are three AMEAs in China, namely NDRC (price-related monopolistic conduct), SAIC (non-price related anti-competitive practices) and MOFCOM (merger control).¹²⁴ The *Qualcomm* investigation involved both price monopoly and the abuse of a dominant position in the market, especially the latter one. From the duties and responsibilities of the three Chinese authorities, it seems that both the NDRC and the SAIC should have the power to investigate Qualcomm, but there is no evidence that the SAIC was involved in the case. Why the NDRC but not the SAIC? It is not clear that how the investigation and duties are allocated if one case falls within the scope of more than one of the three authorities. In addition, the SAIC published the Provisions on Prohibition of Abuse of Intellectual Property Rights to Exclude and Restrict Competition (Provisions) on 7 April 2015. If this case had happened after the adoption of the Provisions, would the enforcement authority be different? Or could the rules in the

¹²¹ *ibid.*

¹²² Guo (n 72).

¹²³ *ibid.*

¹²⁴ See further in Chapter 6, Section 6.2.1.

Provisions be applied to the monopolistic conduct of Qualcomm in this case? There is still much uncertainty in the allocation of the responsibilities between China's three AMEAs¹²⁵ and relevant guidelines or instructions are in great need.¹²⁶

4.3.4 Summary

As a milestone, the *Qualcomm* investigation presented the new goal of China's anti-monopoly enforcement—the prohibition of the anti-competitive exercise of IPRs. This case has made a record in China's anti-monopoly enforcement history, not only for that it has been the highest fine imposed by an AMEA but also for its meaning for anti-monopoly enforcement. It shows a signal that an important step has been made by China to apply its AML to regulate the anti-competitive exercise of patent rights, from a general provision to a specific application and from knowledge on paper to enforcement in practice. The efforts made by China's AMEAs can be seen. At the same time, the attitude of China is expressed clearly that the protection of IPRs and the prevention of their anti-competitive exercise are both of great importance. In spite of the improvements and the progress, there are still a number of deficiencies and ambiguities left that will bring uncertainty and confusion, such as how to impose enough deterrent effects on the potential violators, the settlement of the SEPs royalty fees under the FRAND rules and the allocation of the responsibilities between the three AMEAs. With the adoption by the SAIC of the Provisions on Prohibition of Abuse of Intellectual Property Rights to Exclude and Restrict Competition, the abuse of IPRs will be supervised and managed more carefully and rigorously. However, the contentious issues as to the application of the Provisions have appeared.¹²⁷ The Provisions will be fully examined in Chapter 5. China is still a novice in the field of competition enforcement, especially in controlling the anti-competitive exercise of IPRs, and has much to learn. No matter how well the law prohibits the anti-competitive practices of patent owners in exercising their patent rights, the most effective way to resolve the passive situation in China is to enhance innovation and get rid of the reliance on the advanced technologies of foreign undertakings.

¹²⁵ The problems of overlapping anti-monopoly responsibilities will be discussed in Chapter 6, Section 6.3.2.

¹²⁶ The proposals for China's enforcement authority will be made in Chapter 9, Section 9.1.

¹²⁷ See details in Chapter 5.

Chapter 5 The 2015 SAIC Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition

5.1 Introduction

Case studies in Chapter 4 showed both the achievements and ineffectiveness of China's anti-monopoly enforcement in the anti-competitive exercise of patent rights. It also showed the necessity to adopt clear guidance to facilitate the implementation of Article 55 of China's Anti-monopoly Law (AML)¹ to cope effectively with the complicated IP-related anti-competitive practices. The next step is to examine how China proceeded with the anti-monopoly guidelines on IPRs and what kind of guidance has been adopted.

The State Administration for Industry and Commerce (SAIC) in 2009 commenced work on drafting guidelines on prohibiting the abuse² of intellectual property rights (IPRs) that eliminates or restricts competition. This was carried out by the SAIC on behalf of the Anti-monopoly Commission of China's State Council (AMC) which is the organization above the three anti-monopoly enforcement authorities (AMEAs) aiming to coordinate anti-monopoly work and is conferred by the AML with the power to formulate and adopt anti-monopoly guidelines.³

The interface between the protection of IPRs and the anti-monopoly enforcement is a sensitive and complicated area. China's AML has been in effect for a very short period of time, and it does not have much enforcement experience in the IP-related area. It seemed to be too early or without enough preparation, to promulgate systematic and sound guidelines on prohibiting the abuse of IPRs that may eliminate or restrict competition at that time.⁴ However, there is indeed a need for a regulation or some specific rules to be adopted to

¹ Antimonopoly Law of the People's Republic of China (The AML), Article 55: '[t]his law is not applicable to undertakings who exercise their intellectual property rights in accordance with the laws and administrative regulations on intellectual property rights; however, this Law shall be applicable to the undertakings who eliminate or restrict market competition by abusing their intellectual property rights.'

² For the purpose of the thesis, the term 'abuse' can also be used as the meaning of 'misuse' or 'inappropriate use' in a general manner. The expression 'abuse of intellectual property rights' used in this thesis includes but is not limited to all the possible anti-competitive exercise of IPRs, which is so especially in some Chinese legal measures, unless otherwise specified that it refers to the abuse of a dominant position.

³ The AML, Article 9.

The institutional structure of China's AMEAs will be introduced in Chapter 6, Section 6.2.

⁴ Airong Ren, 'The Initial Exploration of the Control of Abuses of IPRs to Eliminate and Restrict Competition' (滥用知识产权排除、限制竞争行为规制的初步探索) (2013) 104 (4) Science Technology and Law 3.

facilitate the application of Article 55 to control the anti-competitive practices of patent owners in exercising their patent rights. As a result, the SAIC decided to change the original plan of drafting the overall IP-related anti-monopoly guidelines (non-binding) on behalf of the AMC and decided to adopt its own guidance first. The SAIC, therefore, adopted the regulation in accordance with its own responsibilities on 7 April 2015, which is known as Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition (Provisions) and came into effect on 1 August 2015.⁵ The Provisions are regarded as the first legal measure in China that clarifies and facilitates the application of the AML to the abuse of IPRs that may eliminate or restrict competition. The promulgation of such rules or provisions had been expected for quite a long time. The SAIC Provisions to a great extent elaborates the principle laid down in Article 55 of China's AML. Most importantly, the Provisions make it clear that the abusive exercise of IPRs shall not be necessarily regarded as a violation of the AML; neither is it definitely equal to an abuse of a dominant position. Only if the conduct eliminates or restricts competition will it be regulated by the AML. In addition, the Provisions clarify that the exercise of IPRs to eliminate or restrict competition is not new or separate monopolistic conduct⁶ and it should be treated as the exercise of IPRs to carry out monopolistic conduct, such as monopoly agreements or abuse of a dominant market position. At the same time, the Provisions play a positive role in providing certainty to the enforcement of SAIC in investigating IP-related anti-competitive practices, and in providing predictability of the AML to undertakings owning substantial IPRs.

Although greater certainty has been provided by the SAIC Provisions, it is inevitable that some important issues and relationships remain unclear. The SAIC Provisions are only concerned with non-price related anti-competitive behaviour related to the exercise of IPRs and are followed only by the SAIC itself. The SAIC Provisions are not binding on any other AMEA such as the National Development and Reform Commission (NDRC) or the Ministry of Commerce (MOFCOM). This means that both the price-related anti-competitive conduct and the concentration of undertakings involving IPRs do not fall within the scope of the SAIC Provisions. At the same time, neither the NDRC nor the MOFCOM has adopted their own specific regulation to manage the IP-related anti-

⁵ Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition (国家工商行政管理总局令第 74 号 关于禁止滥用知识产权排除、限制竞争行为的规定) (The SAIC Provisions).

⁶ For the purpose of the thesis, 'monopolistic behaviour/conduct/practices' cover all anti-competitive behaviour in the EU and antitrust behaviour in the US. This has been chosen because this is the term which is commonly used in Chinese literature.

competitive conduct. Therefore, in order to keep consistent enforcement in this complicated field and provide clear guidance, the overall IP-related anti-monopoly guidelines are put on the schedule again by the AMC. The AMC entrusted the three AMEAs (namely SAIC, NDRC and MOFCOM) and the State Intellectual Property Office (the SIPO) to draft respectively the anti-monopoly guidelines on the exercise of IPRs with anti-competitive effects; and the AMC will finally adopt and publish the integrated guidelines in this field. SAIC and NDRC had drafted and released two sets of anti-monopoly IPRs guidelines for public comment on 5 February 2016 (the SAIC draft IPRs guidelines)⁷ and on 31 December 2015 (the NDRC draft IPRs guidelines).⁸ Then, in March 2017, the AMC published unified draft IPRs guidelines for public comment (the AMC draft IPRs guidelines).⁹ However, the AMC has not yet adopted any integrated IP-related anti-monopoly guidelines. This is to say that at the moment the SAIC Provisions are the only rules specifically focusing on IP-related anti-competitive behaviour, with no idea of their effects on the future enforcement of the newly established independent SAMR.

In this chapter, the SAIC Provisions will be analysed in detail; while, the draft anti-monopoly guidelines on the abuse of IPRs with anti-competitive influence will only be briefly mentioned owing to its non-promulgation. Totally, there are 19 articles laid down in the Provisions, two of which concerns the promulgation authority and the starting date of the Provisions. The remaining 17 articles can be roughly divided into 7 parts, namely the aims and scope (Articles 1-3), the prohibition on monopolistic agreements concerning the exercise of IPRs and the safe harbour (Articles 4-5), the prohibition on the abuse of a dominant position related to the exploitation of IPRs (Articles 6-11), the rule managing the anti-competitive behaviour of a patent pool (Article 12), the rule governing the anti-competitive exercise of IPRs concerning the setting and implementing of a standard (Article 13), the procedures and approaches in analysing IP-related anti-competitive practices (Articles 14-16) and the punishment for the violation of the Provisions (Article 17). Finally, a summary of this chapter will be put forward.

⁷ Guidelines for Anti-monopoly Law Enforcement against the Abuse of Intellectual Property Rights (7th Draft of the SAIC) (关于滥用知识产权的反垄断执法指南 (国家工商总局第七稿)) <http://www.saic.gov.cn/zwgk/zyfb/qt/fld/201602/t20160204_166506.html>.

⁸ Anti-monopoly Guidelines of the Anti-monopoly Commission of the State Council for the Abuse of Intellectual Property Rights (Draft for Comments by NDRC) (关于滥用知识产权的反垄断指南 (国家发改委征求意见稿)) <http://www.sdpc.gov.cn/gzdt/201512/t20151231_770313.html>.

⁹ Anti-monopoly Guidelines of the Anti-monopoly Commission of the State Council for the Abuse of Intellectual Property Rights (Draft for Comments) (关于滥用知识产权的反垄断指南 (征求意见稿)) <<http://fdj.mofcom.gov.cn/article/zcfb/201703/20170302539418.shtml>>.

5.2 Aims and Scope

The aims of the SAIC Provisions are to protect fair competition in the market and to encourage innovation as described in Article 1.¹⁰

Then, Article 2 of the Provisions clarifies the relationship between the protection of IPRs and the anti-monopoly enforcement that they have common goals to promote competition and innovation, to advance economic efficiency and to protect consumer welfare and public interests.¹¹ It is believed that they achieve the same goals through different ways.¹² As a result, Article 2 is treated as an official acknowledgement of the complementary relationship between the protection of IPRs and the prohibition on IP-related anti-competitive behaviour.

In addition, what has been stated in Article 55 of the AML is emphasized again in Paragraph 2, Article 2 of the SAIC Provisions. Since Article 55 of the AML is a general and declarative principle, it is not appropriate to be applied directly to specific cases. Without detailed guidance, it had led to a lot of queries and doubts as to what kind of exploitation of IPRs shall be considered as ‘the abuse of IPRs’ within the scope of Article 55 and how to treat such ‘abuse of IPRs’ under the AML.¹³ Different countries with different legal systems in different periods may have different understandings of ‘the abuse of IPRs’ in accordance with their own circumstances.¹⁴ Accordingly, SAIC, within its enforcement power, provides an official definition in Article 3 of the Provisions that ‘[a]buse of intellectual property rights to eliminate or restrict competition in the Provisions refers to the exercises of intellectual property rights by an undertaking to engage in monopolistic conducts, such as monopoly agreements or abuse of a dominant market position, which are in violation of the Antimonopoly Law (except for price monopolistic conducts).’¹⁵ It is stated that even if the abuse of IPRs can be regarded as a monopolistic act within the scope of Article 55, it shall not be treated as a separate fourth kind of monopolistic act besides the monopoly agreement, the abuse of a dominant position and

¹⁰ The SAIC Provisions, Article 1.

¹¹ *ibid*, Article 2.

¹² This has been illustrated in Chapter 2, Section 2.2.

¹³ Article 55 of the AML has been analysed in Chapter 3, Section 3.3.

¹⁴ Weijun Zhang, ‘The Meaning of “Abuse of IPRs” in China’s Anti-monopoly Law—the Answer to the Doubts Raised by the EU in the Council for TRIPS’ (滥用知识产权在中国《反垄断法》中的含义—对欧盟在 TRIPS 理事会提出的质疑的回答) (2008) 03 World Trade Organisation Focus 17, 19.

¹⁵ The SAIC Provisions, Article 3.

the anti-competitive concentration of undertakings.¹⁶ It may be presumed to constitute each of the three kinds of monopolistic conduct identified above respectively or constitute several of them at the same time.¹⁷ According to Article 3 of the Provisions, an abuse of IPRs should not be treated as a monopolistic practice within the AML in all circumstances; only the abuse that may eliminate or restrict competition shall be prohibited. Other kinds of abuse of IPRs may violate relevant intellectual property laws and shall be regulated within that scope. Moreover, the abuse of IPRs with anti-competitive effects does not equal precisely an abuse of dominance under the AML, because it has the possibility of constituting the other two kinds of monopolistic acts such as monopoly agreements or anti-competitive concentration of undertakings.¹⁸

However, the Provisions are formulated by the SAIC within its responsibilities, so they are only applicable to non-price related anti-competitive monopoly agreements and non-price related abuse of dominance involving the exercise of IPRs. This limitation seemed to result in confusion and uncertainty in the anti-monopoly enforcement by the three AMEAs.¹⁹ As NDRC and MOFCOM are not obliged to observe the SAIC Provisions, worries arise on the potential differentiated enforcement standards. At times, the monopolistic behaviour of one undertaking may fall within the responsibilities of both NDRC and SAIC. In this context, if it is the NDRC that is in charge of the anti-monopoly investigation, there will be a potential risk that the undertaking concerned may be treated differently as it will be in the investigation controlled by the SAIC.²⁰ It is unclear whether NDRC will analyze such cases generally under the rules of the AML or it will choose not to intervene as a result of the special rules in the SAIC Provisions. The result is hard to be predicted. Moreover, as the merger of the anti-monopoly responsibilities into a single and independent SAMR, there is no idea of to what extent the SAIC Provisions will work.

Furthermore, the concept of ‘the relevant technology market’ is set out at the end of Article 3 of the Provisions. The insertion of a definition ‘the relevant technology market’ means that there is a full consideration of the special features of IPRs. In investigating IP-related anti-competitive practices, the adoption of a relevant technology market sometimes shows

¹⁶ Xianlin Wang, ‘The New Development of the Anti-monopoly Rules in the Field of IPRs in China—the Introduction and Comments on Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition’ (我国知识产权领域反垄断规则的新发展—对《关于禁止滥用知识产权排除、限制竞争行为的规定》的介评) *China Industry & Commerce News* (Beijing, 21 May 2015) 003.

¹⁷ *ibid.*

¹⁸ *ibid.*

¹⁹ See details also in Chapter 6, Sections 6.3.1 and 6.3.2.2.

²⁰ This problem will be further elaborated in Chapter 6, Section 6.3.2.2.

the competitive significance in the market much better than that of the relevant product market does.²¹ For example, the SAIC is launching an anti-monopoly investigation on an alleged abuse of a dominant position by Microsoft in China and the determination of its dominance in the relevant market has become a contentious issue. Because of the high piracy rate of Microsoft's Windows operating system and its Office software in the Chinese market, the market share of Microsoft's legitimate products cannot precisely reflect its real dominance in the relevant market.²² However, if the operating system of Microsoft is defined as a separate technology market, Microsoft will be determined to have a dominant position.²³ The definition of a relevant technology market can substantially reflect the situation in analysing the IP-related behaviour and will significantly reduce the controversy. In the dispute between *Huawei and InterDigital*,²⁴ InterDigital had doubted the definition of the relevant market that each SEP constituted a separate relevant product market. If this case had taken place after the adoption of the SAIC Provisions and had been investigated by the SAIC, Article 3 of the Provisions would have been the legal basis.

Another controversial concept in defining the relevant market is 'the innovation market' (referring to the research and development market), which has been adopted in the 1995 Antitrust Guidelines for the Licensing of Intellectual Property by the U.S. Department of Justice and the Federal Trade Commission.²⁵ In the previous draft provisions of the SAIC, the concept of 'the innovation market' was mentioned but it was finally removed from the June 2014 Draft.²⁶ This was mainly for the reason that controversy exists in the definition of and the approach to presume 'the innovation market' all around the world; and it is believed that this concept mostly appears in merger control cases.²⁷ At the current stage of the anti-monopoly enforcement in China, the definition of innovation market cannot be explained well or function well. Therefore, the SAIC did not adopt it in the final version of the Provisions.

²¹ Jiang Wan, *China Competition Law: Theory, Practice & Comparative Law* (中国反垄断法: 理论与实践与国际比较) (China Legal Publishing House 2015) 183.

²² *ibid.*

²³ *ibid.*

²⁴ *Huawei vs. InterDigital*, Guangdong Higher People's Court, (2013) Yue Higher Court Civil Division III Final No.306 and No.305 ((2013) 粤高法民三终字第 306 号, 305 号). *Huawei vs. InterDigital* is fully analysed in Chapter 4.

²⁵ Antitrust Guidelines for the Licensing of Intellectual Property by the U.S. Department of Justice and the Federal Trade Commission (US Antitrust Guidelines for IPRs).

²⁶ Zhaofeng Zhou, 'New Chinese Rules on Abusing IPRs: What Does It Mean for the Exercise of IPRs after the Qualcomm Case' (2015) 38 (4) *World Competition* 597-616, 603.

²⁷ Wang (n 16).

5.3 The Safe Harbour Rule

Article 15 of the AML provides general exemptions to Articles 13 and 14 which prohibit monopoly agreements, and the preconditions of the exemptions listed in this article are from the perspective of the purpose of the concluded agreements.²⁸ Article 4 of the Provisions confirms the applicability of Articles 13, 14 and 15 of the AML to the monopoly agreements arising from the exercise of IPRs. Then, Article 5 of the Provisions sets up a ‘safe harbour’. Under the safe harbour, the agreements may not fall within the scope of Article 13.1.6 or Article 14.3 of the AML if one of the following circumstances where an undertaking exercise its IPRs is satisfied (except the case where contrary evidence is available to prove that the agreement concerned is restrictive and anti-competitive): (1) the combined market shares of the competing undertakings in the relevant market which is affected by the act do not exceed 20%, or at least four other independently-controlled substitutable technologies in the relevant market may be available at reasonable costs; or (2) neither the market shares of the undertaking nor that of the trading counterpart in the relevant market respectively exceed 30%, or at least two other independently-controlled substitutable technologies in the relevant market may be available at reasonable costs.²⁹ It should be noted that the fulfilment of the thresholds will lead to the application of an exemption; however, this does not mean that an agreement above the thresholds will be presumed to infringe the AML or to be unable to satisfy the terms of Article 15 of the AML on an individual basis. This is the first time for the safe harbour rule to appear in Chinese anti-monopoly measures. On one hand, it improves considerably the certainty and predictability of the implementation of the AML in IP-related area; on the other hand, it will facilitate the anti-monopoly enforcement and promote the enforcement efficiency by SAIC in practice.

The establishment of the safe harbour rule to some extent demonstrates that during the enforcement, the SAIC will analyse the influence of the IPRs agreements on competition in accordance with the rule of reason but not the *per se* rule.³⁰ The safe harbour rule also transfers the burden of proof from the undertakings concerned to the SAIC itself, which relieves the business operators.³¹ Within Article 15 of the AML, the burden of proof is on

²⁸ The AML, Article 15.

²⁹ The SAIC Provisions, Article 5.

³⁰ Annie Xue, ‘China Patents: Rules on IP Rights Abuse Issued’ (Managing Intellectual Property, 26 May 2015) <<http://www.managingip.com/Article/3456744/China-Patents-Rules-on-IP-rights-abuse-issued.html>> accessed 9 May 2018.

³¹ *ibid.*

the undertaking concerned to show that it satisfies Article 15 and shall be exempted. In the light of the safe harbour rule of Article 5 of the SAIC Provisions, it is the SAIC that must provide convincing evidence to demonstrate the anti-competitive effects of the IPRs agreement to block the exemption even if the market share or the substitutable technology thresholds are satisfied.

5.3.1 The Scope of the Safe Harbour Rule

The safe harbour in the SAIC Provisions is not applicable to the monopoly agreements obviously listed in Article 13.1.1-13.1.5 and Article 14.1-14.2 of the AML, which concern fixing price, restricting product amount, dividing the market, boycotting, maintaining resale price, and restricting the minimum resale price. The application scope of Article 5 of the Provisions is limited only to ‘other monopoly agreements confirmed by the anti-monopoly authorities’. The limited scope of Article 5 of the Provisions invisibly differentiates the monopoly agreements with hard-core restrictions from other types of agreements which can apply the safe harbour rule, though the term ‘hard-core restrictions’ has not been formally adopted in Chinese legislation.³² Then, a problem arises. Until now, neither SAIC nor NDRC has determined an agreement as ‘other monopoly agreements confirmed by the anti-monopoly authorities’ in their published decisions. There is no guidance on what other monopoly agreements shall be like. This leaves flexibility for the enforcement by the AMEAs, but leaves unpredictability for the undertakings in the market. In this situation, whether the safe harbour rule can be effectively and successfully applied is a matter for future investigations.

5.3.2 Substantial Differences between the SAIC Provisions and the Draft IPRs Guidelines in Applying the Safe Harbour Rule

The safe harbour rule in Article 5 of the Provisions is an example to show how China develops its own anti-monopoly rules by learning from best global practices.³³ Article 5 of the Provisions combines the market share thresholds used in the EU Commission Regulation 316/2014³⁴ and the approach on the substitutable technology used in the US

³² Zhou (n 26) 606.

³³ *ibid.*

³⁴ Commission Regulation (EU) No 316/2014 on the application of Article 101 (3) of the Treaty on the Functioning of the European Union to categories of technology transfer agreements [2014] OJ L 93/17, Article 3.

1995 Antitrust Guidelines for the Licensing of Intellectual Property.³⁵ However, substantial differences exist in the thresholds of applying the safe harbour rule between the SAIC draft guidelines on IPRs³⁶ and the NDRC draft guidelines on IPRs.³⁷

In the SAIC draft guidelines on IPRs, it maintains the market share thresholds and the substitutable technology thresholds of the safe harbour rule in Article 5 of its current Provisions; while, the NDRC draft IPRs guidelines do not involve the substitutable technology thresholds and simultaneously chose lower market share thresholds than those in the SAIC Provisions. This difference led to the controversy as to which thresholds would be finally adopted in the integrated guidelines by the AMC. Whether the AMC will adopt both the market share and the substitutable technology thresholds as the SAIC does or it will only adopt the market share thresholds, has become a contentious issue. In addition, whether the lower market share thresholds in the NDRC draft IPRs guidelines will be used in the final integrated guidelines or the ones adopted in the SAIC Provisions, is also full of controversy.

It is submitted that that the Chinese market is a large and complicated one and the adoption of both the market share threshold and the substitutable technology threshold to apply the safe harbour rule will reflect accurately the competitive significance in the relevant Chinese market. In addition, the application of the safe harbour rule means that certain anti-competitive effects arising from the concluded agreements will be exempted from the AML. Thus, the application of the safe harbour rule should be limited by strict conditions. However, too strict conditions may put the exemption rules in a decorative position without practical effects. As a result, an appropriate balance needs to be kept. The European Commission has rich enforcement experience in this aspect. The market share thresholds to apply exemptions adopted in the EU Commission Regulation 316/2014 have been in place for a long time and have been proven to function well. The SAIC Provisions has adopted the same market share thresholds as the EU Commission Regulation 316/2014 does. In order to reduce the detrimental effects on the market competition to the lowest level and to make the safe harbour rule practical, a higher market share threshold to apply the safe harbour rule as that in the SAIC Provisions should be adopted in the final integrated guidelines by the AMC.

³⁵ US Antitrust Guidelines for IPRs, Article 4.3.

³⁶ 7th Draft of the SAIC (n 7).

³⁷ Draft for Comments by NDRC (n 8).

Currently, the AMC involved both the market share threshold and the substitutable technologies threshold in its latest 2017 draft IPRs guidelines. The AMC maintains the same market share thresholds (less than 20% for competing undertakings and respectively less than 30% for each non-competing undertaking) as the SAIC.³⁸ However, different from the SAIC, the AMC drafted a general substitutable technology threshold of at least four independently-controlled substitutable technologies in the market owned by other undertakings, no matter whether the undertakings concerned are competitors or not.³⁹ In addition, the AMC draft IPRs guidelines followed the US Antitrust Guidelines for the Licensing of Intellectual Property to require that the substitutable technology threshold should be only applicable if the market share data is unavailable or cannot accurately indicate the competitive significance of undertakings.⁴⁰ Nevertheless, this premise is not required by Article 5 of the SAIC Provisions and this means that there is a greater scope for the application of the safe harbour rule in the SAIC Provisions. It is still waiting to be answered whether this wider scope will work effectively under the circumstances in China and whether the final integrated anti-monopoly guidelines adopted by the AMC will maintain what it has drafted in the 2017 AMC draft IPRs guidelines. If the different substitutable technology threshold were adopted in the final integrated guidelines, there would be a conflict between the safe harbour thresholds in the SAIC Provisions and the final guidelines. It means a problem of the compatibility of these two anti-monopoly measures with different standards will arise.⁴¹ Moreover, there are no clear interpretations to guide the AMEAs to calculate the market shares of the undertakings concerned to apply the safe harbour of the SAIC Provisions. If specific calculating approaches are clearly adopted in future legal measures just as has been done in the EU Commission Regulation 316/2014 and its relevant guidelines, enforcement efficiency of the anti-monopoly authorities will be improved substantially.

5.4 The Prohibition on the Abuse of A Dominant Position

5.4.1 The Relationship between Dominance and the Possession of IPRs

Another breakthrough made in the SAIC Provisions is Article 6 which elaborates on the relationship between the possession of IPRs and dominance. It is emphasized that the

³⁸ Draft for Comments (n 9), Article 12.

³⁹ *ibid.*

⁴⁰ *ibid.*; US Antitrust Guidelines for IPRs, Article 4.3.

⁴¹ Solutions will be provided for this problem in Chapter 9, Section 9.1.1.

possession of IPRs by undertakings is merely one element to be considered in establishing a dominant position; it shall be not presumed that the undertaking is dominant in the relevant market solely because of its ownership of IPRs.⁴² This article has been challenged by those who hold the view that IP owners should be presumed to be dominant in the relevant market and the burden should be imposed on them to show otherwise.⁴³ However, this argument cannot be agreed in this thesis. The method mentioned above is too strict for IPRs owners, which will discourage innovation. Excessive antitrust enforcement is no longer appropriate in the current knowledge-based society. Indeed, it has been abolished in the US since 1980s. It is not sensible for China to follow an approach that has already been demonstrated to be harmful. Accordingly, what Article 6 stipulates complies with international practice and should be supported. It is believed that Article 6 provides a defence for standard essential patent holders and the burden of proof on dominance will be borne by the SAIC.⁴⁴ There is no doubt that the ownership of IPRs is a key and important element that must be taken into account in determining whether the undertaking concerned is dominant in the relevant market. However, intellectual property rights should be treated in the same way as other property rights and should not be discriminatorily treated as a result of its legal exclusivity.

5.4.2 The Abuse of Dominance by Refusing to License an IPR

In accordance with Article 17 of the AML (the prohibition on dominant undertakings from abusing their dominant market position), Articles 7-11 of the SAIC Provisions respectively prohibit the abuse of dominance when exploiting IPRs by refusing to license, by limiting transactions, by tying and bundling, by imposing unreasonable conditions, and by applying differential treatment. The SAIC Provisions do not incorporate rules on the price-related abuse of dominance such as unfair pricing and predatory price which fall within the enforcement scope of the NDRC. Within the responsibilities of the SAIC, Articles 7-11 identify specific circumstances under which the exercise of IPRs shall be determined as an abuse of a dominant position. Among these rules, Article 7 of the SAIC Provisions, the prohibition on the abuse of dominance by refusing to license when undertakings exercise their IPRs, is the most controversial. When the draft SAIC Provisions were soliciting public comment, some foreign governments and the representatives of undertakings

⁴² The SAIC Provisions, Article 6.

⁴³ Minkang Gu, 'Anti-abuse of Intellectual Property Rights under the Anti-monopoly Law: China's Approaches' (2015) 10 (3) *Frontiers of Law in China* 488, 500.

⁴⁴ Xue (n 30).

strongly recommended dropping this rule because it might deprive IPR owners of the substance of their exclusive rights and significantly discourage innovation.⁴⁵ However, Article 17 of the AML clearly states that an abuse of dominance by refusing to deal shall be prohibited. And the refusal to license an IPR is one manifestation of refusal to deal, which has the possibility of violating the AML. As a result, it has been kept in the SAIC Provisions but its application is limited to exceptional circumstances.

In order to encourage innovation and promote research and development, intellectual property laws usually confer exclusive rights on IPR owners to allow them to exercise their IPRs freely subject to the legal scope. The refusal to license is a way in which the IPR owners exploit freely their exclusive rights. Indeed, even undertakings with no IPRs or dominance are free to choose their counterparts in one transaction. The mere unilateral and non-discriminatory or unconditional refusal to license an IPR itself generally does not constitute a violation of the AML. Even if the undertaking has a dominant position in the market, the AML does not oblige it to license its IPRs in return for royalties. If the AMEAs compelled undertakings to make a deal, it might undermine their willingness to invest and innovate.⁴⁶ Therefore, only in exceptional circumstances will the refusal to license an IPR by a dominant undertaking be considered as an abuse violating the AML.

Article 7 of the SAIC Provisions adopts the ‘essential facility’ as the exceptional condition, which is consistent with the approach adopted in the EU competition law. This is the first time for a Chinese AMEA to take the essential facility rule into account. Within this rule, the dominant IPR owner has an obligation to license its IPRs to other undertakings, provided that such IPRs constitute an essential facility. Then, the question arises as to what conditions should be satisfied in establishing an essential facility. Article 7 of the Provisions prescribes that an undertaking with a dominant position in the market, without justifiable reasons, shall be prohibited from refusing to license its IPRs to other business operators on reasonable conditions for the purpose of eliminating or restricting competition, if the IPRs concerned are essential facilities for manufacturing and business operating activities; in determining the aforesaid behaviour, all the following factors should be taken into account: (1) the IPRs concerned cannot be reasonably substituted in the relevant market and are essential for other undertakings to compete in the relevant market; (2) the refusal to license the IPRs concerned will have negative effects on the competition or on

⁴⁵ Wang (n 16).

⁴⁶ Wan (n 21) 125.

innovation in the relevant market, and will impair consumers or public interests; and (3) the licence of the IPRs concerned will not unjustifiably undermine the interests of the dominant licensor.⁴⁷

However, the US seems to be sceptical of the essential facility rule and the US antitrust law has never justified the application of the essential facility rule to IPRs.⁴⁸ It is even stated that if the essential facility rule were jettisoned and the general rule of refusal to deal were adjusted a little bit to fill any gap, the antitrust world would be better improved.⁴⁹ It is believed by the US Supreme Court that even dominant undertakings may have the right to choose with whom they would like to deal and it should be very cautious in identifying exceptions.⁵⁰ The *Trinko* decision of the Supreme Court placed rigorous limitations on future essential facility claims and ‘not many essential facility claims will survive these severe requirements’.⁵¹ In addition, the US Supreme Court held that the obligation to share assets may not comply with the purpose of the antitrust laws.⁵² On one hand, forced sharing will require price administration by the court to avoid the monopoly charges by the owner of the essential facility, which will turn the court into a kind of regulatory agency.⁵³ On the other hand, forced sharing will discourage other competitors or potential competitors to invest and develop alternative sources of supply, which is not consistent with the general antitrust goals.⁵⁴ Therefore, it can be seen that the US antitrust authorities and courts are very cautious in supervising and regulating the refusal to deal. In particular, it is still a considerably contentious issue in the US as to how to deal with the refusal to license an IPR by a dominant undertaking from the view of the antitrust enforcement.

The EU seems to hold a different view from the US. The essential facility rule is recognized in the EU competition law but has been applied very strictly in practice. Paragraphs 75-90 of the Commission’s Guidance on Article 102 Enforcement Priorities in detail construe the approach and criteria in dealing with the refusal to supply, as well as the

⁴⁷ The SAIC Provisions, Article 7.

⁴⁸ Yuanshi Bu, ‘Anti-monopoly Provisions in the Field of Intellectual Property Rights in China: Disputes and Solutions—Comments on Provisions on Prohibition of Abuse of Intellectual Property Rights to Preclude or Restrict Competition’ (2016) 01 China Patents & Trademarks 66, 75.

⁴⁹ Herbert Hovenkamp, *Federal Antitrust Policy: The Law of Competition and its Practice* (4th edn, West Publishing 2011) 336.

⁵⁰ *Version Communications Inc. v. Law Office of Curtis V. Trinko, LLP*, 124 S.Ct. 872 (2004), 872.

⁵¹ Hovenkamp (n 49) 337.

⁵² *Version Communications Inc. v. Law Office of Curtis V. Trinko, LLP* (n 50) 879.

⁵³ Hovenkamp (n 49) 339-340.

⁵⁴ *ibid.*

refusal to license IPRs.⁵⁵ The Commission will regard the refusal as an enforcement priority if the following three conditions are satisfied: ‘(a) the refusal relates to a product or service that is objectively necessary to be able to compete effectively on a downstream market; (b) the refusal is likely to lead to the elimination of effective competition on the downstream market; and (c) the refusal is likely to lead to consumer harm.’⁵⁶ On one hand, the European Court of Justice kept a strict and conventional attitude in *Renault*⁵⁷ and in *Volvo v. Erik Veng*.⁵⁸ It is ruled that the refusal to license itself generally cannot constitute an abuse of a dominant position.⁵⁹ This is for the reason that the enforced duty to grant a licence to third parties may impair the substance of the exclusive rights conferred by intellectual property laws.⁶⁰ On the other hand, once the exceptional circumstances are satisfied, the application of Article 102 TFEU will impose an obligation to license on the relevant dominant undertaking. In considering the exceptional circumstances, the essential facility rule is applied to the IPRs. For instance, in both the *Magill* case⁶¹ and the *IMS Health v NDC Health*,⁶² the copyrights concerned were found essential for undertakings to develop a new product in the secondary market with a potential consumer demand; and the refusal to license these copyrights by the dominant undertakings in these two cases would exclude all the effective competition in the downstream market and damage consumer interests. Additionally, in the *Microsoft* case, the Court concluded that the necessary interoperability information should be available to the market on reasonable conditions because the interoperability information concerned is indispensable to be able to compete effectively on the downstream market.⁶³ The refusal to license such information would eliminate all the effective competition in the secondary market.⁶⁴ Moreover, the refusal might result in the restriction on technical development and give rise to detrimental effects on consumer interests. The cases addressed by the EU authorities as to the refusal to license an IPR by a dominant undertaking demonstrate the applicability and possibility of the essential facility rule in determining the exceptional circumstances to impose

⁵⁵ Commission, ‘Guidance on the Commission’s Enforcement Priorities in Applying Article [102] of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings’ [2009] OJ C 45/7 (Guidance on the Commission’s Enforcement Priorities).

⁵⁶ *ibid*, para 81.

⁵⁷ Case 53/87 *Conzorzio Italiano della Componentistica di Ricambio per Autoveicoli and Maxicar v Regie National des Usines Renault* [1998] ECR 6039.

⁵⁸ Case 238/87 *AB Volvo v Erik Veng* [1988] ECR 6211.

⁵⁹ *ibid*, para 8.

⁶⁰ *ibid*, para 8.

⁶¹ *Magill TV Guide/ITP, BBC and RTE* (Case IV/31.851) Commission Decision 89/205/EEC [1989] OJ L 78/43; Case T-69/89 etc *RTE v Commission* [1991] ECR II-485, upheld by the Court of Justice Cases C-241/91 P etc *RTE and ITP v Commission* [1995] ECR I-743.

⁶² Case C-418/01 *IMS Health GmbH & Co OHG v NDC Health GmbH & Co KG* [2004] ECR I-5039.

⁶³ Case T-201/04 *Microsoft Corp v Commission* [2007] ECR II-3601, paras 808-810 and 369-436.

⁶⁴ *ibid*, paras 479-620.

compulsory licence on a dominant undertaking. However, it is also emphasized that cautious and strict requirements are needed in applying the essential facility rule to the refusal to license IPRs.

Taking into account China's own economic and legal circumstances, Article 7 of the SAIC Provisions adopts very similar approaches as the EU in coping with the abuse of dominance by refusing to license an IPR. Compared with the conditions listed in the Commission's Guidance on Article 102 Enforcement Priorities,⁶⁵ the standards for 'essential facility' established in Article 7 of the Provisions seem to be more specific. They try to reduce the detrimental influence on licensors as much as possible that unreasonable harm caused by the forced sharing on the IPR owners is proscribed. However, Article 7 of the Provisions does not clearly articulate the application of the compulsory licensing in the Patent Law to the abuse of dominance by refusing to license. In this situation, the relevant parties have to first obtain an anti-monopoly decision of such abuse of dominance and then apply to a court for compulsory licensing by themselves (only if the IPR concerned is a patent). More convenience and certainty will be brought if the relevant anti-monopoly authorities can clearly state the relationship between the determination of the abuse of dominance by refusing to license and the application of compulsory licensing in their future integrated guidelines.

In spite of many concerns on the adoption of the essential facility rule in the SAIC Provisions, the Chinese AMEAs are trying to adopt the best way or approach in accordance with the practical circumstances in China. Until now, there has not been a case settled in China on the abuse of dominance by refusing to license IPRs within the scope of Article 7 of the Provisions. It is submitted that the enforcement experience of the EU in this area should be taken as the basis and reference for China's future anti-monopoly enforcement.

5.4.3 The Abuse of Dominance by Imposing Unreasonable Conditions

Article 17.5 of the AML generally prohibits the abuse of dominance by imposing unreasonable conditions on transactions. However, it does not construe what conditions or terms shall be determined as unreasonable within the scope of the AML, which leaves confusion in its application in practice. Article 10 of the SAIC Provisions to some extent

⁶⁵ Guidance on the Commission's Enforcement Priorities, para 81.

alleviates this confusion. It prohibits five specific unreasonable conditions in exercising IPRs by a dominant undertaking, namely requiring the exclusive grant-back of the improved technology, non-challenge to the validity of the IPRs, restricting the use of competing products or technologies without infringing the IPRs concerned after the expiry of the licensing agreement, continuing to exercise expired or invalid IPRs, and impeding the counterparties from dealing with third parties.⁶⁶ Article 10 of the SAIC Provisions provides clear guidance to the anti-monopoly enforcement of the SAIC in determining the unreasonable conditions imposed by a dominant undertaking when exercising IPRs.

However, in previous practice, most of the investigations concerning an abuse of dominance by imposing unreasonable conditions were handled by NDRC, such as the *Qualcomm* investigation discussed in Chapter 4. Even if the abuse of dominance is non-price related, NDRC can exercise its enforcement power over the case as long as some of the investigated issues are falling within its responsibilities. Obviously, NDRC will not directly apply the rules of the SAIC and to what extent the SAIC Provisions can influence the enforcement of NDRC is hard to be seen. In this context, it is likely to obtain different enforcement results for similar conduct. For example, the dominant licensor is clearly prohibited from requiring the licensees to exclusively grant back their improved technology without justifiable reasons in the context of the SAIC Provisions; however, NDRC may not absolutely regard the exclusive grant-back requirement as an abuse of dominance violating the AML if considering the factors such as whether the dominant licensor obtained the exclusive grant-back on reasonable conditions, the importance of the improved technology on the relevant market, whether the incentives of the licensees to further innovate were substantially undermined and so on.

Technically speaking, Article 10 of the Provisions forbids all kinds of exclusively granting back agreements without justifiable reasons, involving those both gratuitous and non-gratuitous. Then, the confusion arises as to whether the grant-back term with reasonable compensation can be regarded as a justifiable condition to exclude such agreements from the application of Article 10.1 of the SAIC Provisions. Though the reasonable compensation to some extent makes the exclusive grant-back term justifiable, within the meaning of Article 10 of the SAIC Provisions it currently seems not to be a decisive element. It is submitted that whether the exclusive grant-back term should be determined

⁶⁶ The SAIC Provisions, Article 10.

as unjustifiable and be prohibited should be analysed on the basis of the rule of reason and take all the relevant elements into account.

5.5 Patent Pool

The beginning of Article 12 of the SAIC Provisions confirms the applicability of the prohibition in Articles 13 and 14 as well as the exemption in Article 15 of the AML to monopoly agreements among members of a patent pool.⁶⁷ In addition, Article 12 of the SAIC Provisions identifies specific behaviour as constituting an abuse of dominance by the management organisation of a patent pool with a dominant position, namely restricting its members from licensing as an independent licensor outside the patent pool, restricting its members or licensees from developing competing technologies independently or jointly with third parties, requiring exclusive grant-back of the improved or developed technology, prohibiting licensees from challenging the validity of the patents in the pool, applying discriminatory treatment to its members or licensees who are on an equal footing and other kinds of abuse of dominance determined by the SAIC.⁶⁸ This article provides certainty and predictability to both the patent pool itself and its members. At the same time, it provides some useful guidance on the enforcement of the SAIC in dealing with investigations concerning the abuse of dominance by a patent pool. These prohibitions are laid down pursuant to the duties of the SAIC, so they are all about non-price related behaviour. However, one of the most popular abusive behaviour of a patent pool is excessive pricing, such as happened in the *DVD 6C* case discussed in Chapter 2. In this situation, the current SAIC Provisions have nothing to do with the excessive pricing by a dominant patent pool.

Compared to the practices of the US and the EU in supervising the behaviour of a patent pool, the SAIC Provisions establishes the control from the perspective of prohibitive conduct; while the US and the EU aim to provide guidance on what kind of conduct can be exempted from examination.⁶⁹ This shows the different regulatory idea between different enforcement authorities in different countries. There seems not to be a best approach for all the countries as each country will have its own different circumstances; each country should adopt the most appropriate approach to meet its needs.

⁶⁷ The SAIC Provisions, Article 12.

⁶⁸ *ibid.*

⁶⁹ Wan (n 21) 188.

5.6 Standard Essential Patents (SEPs)

SEPs have become a contentious issue in the global antitrust enforcement in recent years. The combination of a standard and a patent on one hand makes great contribution to the consumer and public interests, but on the other hand may give rise to serious anti-competitive problems. Article 13 of the SAIC Provisions deals with the anti-competitive issues appearing in the process of setting and implementing standards and two kinds of typical anti-competitive practices are identified in Article 13.2 of the SAIC Provisions. Under Article 13.2, dominant undertakings, without justifiable reasons, are prohibited from engaging in the following actions that eliminate or restrict competition during the process of setting and implementing standards: (1) when participating in the standard setting process, deliberately not disclosing their rights information to the standard setting organization or expressly waiving their rights but claiming them against the implementers of the standards after its patent has been involved in the standard; or (2) after their patents become SEPs, violating the fair, reasonable and non-discriminatory (FRAND) rules to engage in any conduct that eliminates or restricts competition, such as refusing to license, bundling or imposing other unreasonable trading conditions.⁷⁰ Article 13.3 of the SAIC Provisions explains that a SEP is the indispensable patent to implement the standard concerned.⁷¹ In fact, Article 13 seeks to reduce patent ambushes which are caused by the failure to disclose rights information and by false promises in setting and formulating a standard; at the same time, it prohibits patentees from abusing their dominance obtained from the involvement of their patents into a standard.

However, the wording in this article leaves some concerns as to its practical application. It can be seen that the dominance of the undertaking concerned is a premise for the application of Article 13 to relevant anti-competitive actions. This means that, Article 13 will have no legal effect on the deliberate failure to disclose or the false promises to eliminate or restrict competition by a non-dominant participant in the process of formulating a standard, but who later becomes dominant in the relevant market because its patent has been adopted by the standard setting organisation.⁷² In this context, the non-disclosure by the non-dominant patent owner in the standard setting process will fall outside of the scope of the AML even if the owner later becomes dominant. In most cases,

⁷⁰ The SAIC Provisions, Article 13.2.

⁷¹ *ibid*, Article 13.3.

⁷² The competition concerns arising from the failure to disclose in the standard setting process will be fully analysed in Chapter 7, Section 7.3 and relevant proposals will be provided in Chapter 9, Section 9.2.

a patent owner may not have a strong market power before the patent is incorporated into a standard. However, the incorporation of the patent into a standard may significantly increase the owner's market power.⁷³ Article 13 does not consider the market power that results from a patent becoming a SEP. Bu (2016) argues that the scope of Article 13 should not be limited only to dominant undertakings but should also extend its scope to those non-dominant undertakings who later become dominant as a consequence of the inclusion of their patents into a standard.⁷⁴

In addition, concerns are raised in the vague expression of FRAND rules in Article 13.2.2 of the Provisions.⁷⁵ The insertion of 'FRAND rules' here, without specific instructions, develops the confusion as to whether the anti-competitive practices by a dominant SEP owner, such as the refusal to license, tying-in or imposing other unreasonable conditions, should be examined under the general anti-monopoly analysis approach or under the unclear 'FRAND rules'.⁷⁶ The Provisions neither explain what FRAND rules are nor clarify the relationship between the FRAND rules and competition rules. When it comes to SEPs and the FRAND rules, one of the most controversial issues that must be considered is whether the seeking of injunctions for SEPs should be regarded as an abuse of a dominant position and be prohibited by the AML. Since the abuse of the rights to seek injunctions for SEPs may have serious negative effects on competition,⁷⁷ China's AMEAs have already paid attention to this field in their early anti-monopoly enforcement.⁷⁸ However, it is difficult to keep a balance between the protection of a legal exercise of patent rights and the protection of fair competition. Until now, there has not been any rule adopted to regulate the seeking of injunctions by SEP owners from the perspective of anti-monopoly enforcement. Even the latest SAIC Provisions do not touch this problematic area. Therefore, it is necessary to make efforts to propose effective solutions to resolve the competition concerns caused by the injunctive relief by SEP owners and facilitate the anti-monopoly enforcement in this area.⁷⁹

⁷³ Bu (n 48) 76.

⁷⁴ *ibid.*

⁷⁵ Gu (n 43) 505.

⁷⁶ Wan (n 21) 198.

⁷⁷ The competition concerns as to the seeking of injunctions by SEP owners will be fully developed in Chapter 7, Section 7.4.

⁷⁸ See details in Chapter 7, Section 7.4.5.

⁷⁹ Proposals will be available in Chapter 9, Section 9.3.

5.7 Analysis Approach

Articles 14-16 list the analysis approach and the factors that should be taken into account when the SAIC and its provincial counterparts examine the anti-competitive exercise of IPRs. These rules provide certainty and clear guidance on the anti-monopoly enforcement by the SAIC.

5.8 Punishment

Article 17 lays down the punishment by the SAIC to non-price related monopoly agreements and abuse of dominance when exercising IPRs, which is consistent with those in the AML. The maximum fine on the undertaking concerned is 10% of the sales achieved in the previous year. However, there is no clear guidance on the scope of the sales achieved in the previous year in either the AML or in the SAIC Provisions.⁸⁰ Whether it refers to the global sales or the sales in a specific geography is also not identified. The Chinese AMEAs usually limit the sales achieved into a relevant geographic market in practice. For example, in the *Qualcomm* investigation⁸¹ the NDRC calculated the fine on the basis of the sales in China. Nevertheless, limiting the sales into a specific geography when calculating fines does not have enough deterrent effects on the giant companies like Qualcomm.⁸² Accordingly, it is submitted that Chinese AMEAs should adopt the international practice, like what has been done in the EU, to calculate the relevant fines on the basis of the global turnover.

5.9 Conclusion

The SAIC has devoted quite a lot of resources and time to developing specific rules to facilitate the anti-monopoly enforcement in the abuse of IPRs that may eliminate or restrict competition. The promulgation of the SAIC Provisions provides certainty and guidance to both the AMEAs and the undertakings owning IPRs. It is the first legal regulation in China dealing with the complicated and sensitive interface between the anti-monopoly enforcement and the protection of IPRs. The rules in the SAIC Provisions are greatly consistent with the international practices and simultaneously take into account of the

⁸⁰ Zhou (n 26) 615.

⁸¹ 'The NDRC Ordered Qualcomm Incorporation to Rectify Its Monopolistic Behaviours and Imposed a Fine of 6 Billion Yuan' (国家发展改革委员会对高通公司垄断行为责令整改并罚款 60 亿元) <http://www.sdpc.gov.cn/xwzx/xwfb/201502/t20150210_663822.html> accessed 9 May 2018.

⁸² See also in Chapter 4, Section 4.3.3.2.

specific circumstances in China. It is acknowledged that the SAIC Provisions are a milestone in the development of the anti-monopoly enforcement in China.

However, the adoption of the SAIC Provisions is the beginning but not the end of China's anti-monopoly enforcement in respect of the abuse of IPRs. There is still uncertainty and confusion left in this contentious area. One of the most serious concerns is on the scope of the SAIC Provisions. All the rules in the SAIC Provisions are only applicable to non-price related monopoly agreements or non-price related abuse of dominance when undertakings exercise their IPRs. This is because the SAIC Provisions were established within the responsibilities of the SAIC itself. The problem then arises as to what effects the SAIC Provisions will have on the enforcement of the other two AMEAs, especially that of the NDRC. In terms of the refusal to license IPRs that eliminate or restrict competition, the Provisions do not set up a clear connection with the application of compulsory licensing in Patent Law. In addition, the SAIC Provisions do not provide any guidance on the conditions in which the seeking of injunctions by a dominant SEP owner will be determined as an abuse of dominance violating the AML. It is of great importance to keep a balance between the protection of IPRs and free competition when coping with this challenge. Moreover, the relationship between the SAIC Provisions and the future integrated IP-related anti-monopoly guidelines is another concern. There is no idea of whether the Provisions will be abolished or to what extent it can influence the enforcement of the newly established single and independent anti-monopoly enforcement authority—SAMR. Whatever the situation is, the SAIC Provisions provide a good basis for the further integrated guidelines which will be adopted by the AMC. The final integrated IPRs guidelines should maintain the effective and meaningful rules established in the SAIC Provisions and provide specific guidance to those contentious and unresolved problems.⁸³ After analysing the relevant legal measures, the thesis will come to the functioning of China's AMEAs in Chapter 6.

⁸³ Proposals for the future integrated guidelines will be made in Chapter 9.

Chapter 6 Chinese Anti-monopoly Enforcement Authorities

6.1 Introduction

Chapter 5 has examined the only legal measure that is available to facilitate the application of China's Anti-monopoly Law (AML) to the anti-competitive practices in the exercise of intellectual property rights. Although the SAIC Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition provide some guidance, the uncertainty and deficiencies of the Provisions hinder the effective application of the AML. In addition to detailed and clear guidelines, whether China's AML can be effectively applied and achieve its original objectives depends on whether there is effective and efficient competition enforcement. In this chapter, China's anti-monopoly enforcement structure will be discussed.

China has adopted a two-level and tripartite administrative enforcement structure of its AML. On the surface, the boundaries and responsibilities are clearly defined by the enforcement powers of each of the three anti-monopoly enforcement authorities (AMEAs). However, the two-level and tripartite administrative enforcement structure inevitably results in conflicts and uncertainties amongst the AMEAs. The tripartite enforcement system leads to overlapping powers, different enforcement rules, low level of efficiency, insufficient specialized staff and even a lack of authority and independence. In addition, some relevant sectoral regulators under the State Council are empowered by various existing sectoral regulations to investigate anti-competitive practices falling within their scope. As a result, ambiguities and conflicts may also arise between the three AMEAs and the relevant sectoral regulators. Furthermore, the relationship between public enforcement and private enforcement is another serious problem waiting to be resolved. All of these indicate the ineffectiveness and inefficiency in enforcing China's AML.

The problems raised by the multi-authority are likely to be particularly harmful in the competition enforcement in the exercise of patent rights. Licensing agreements normally clarify the ways to exploit patent rights, the scope of the licence, the duration and other basic obligations. In order to protect the interests of the licensor and/or the licensee, some constraints are likely to be included in the licensing agreements, such as market sharing, restricting production, fixing prices and exclusive grant-back. These restrictions may be found to be anti-competitive in certain circumstances and such patent licensing agreements have more potential to induce jurisdiction problems between multiple authorities. They

may trigger the responsibilities of more than one AMEA by involving both pricing and non-pricing issues. In addition, the specificity and complexity of competition enforcement in the exercise of patent rights will impose higher requirements on the relevant AMEA and aggravate the multi-authority problems.

In the legislative process of adopting China's AML, the advocacy to establish a single and independent high-level AMEA was not successful, and the multi-authority enforcement model has been maintained. This model is not a reasonable allocation of enforcement powers; neither is it useful in providing checks and balances between each AMEA. The two-level and tripartite enforcement structure is a compromise driven by political and economic factors. However, it has to be admitted that the two-level and tripartite enforcement system took into account the practicability at that time and made sure that the AML can be applied instantly.¹ It was believed to be the best way within the context and circumstances of China at that time.²

However, the multiple-authority model comes to an end and an independent single AMEA is finally established in 2018. On 13 March 2018, the Institutional Reform Plan of the State Council (the Plan) was submitted to the first session of the 13th National People's Congress for deliberation and was formally passed on 17th March 2018.³ In this Plan, a State Administration for Market Regulation (SAMR) is newly set up to discharge the responsibilities of comprehensive market supervision and management, market entity registration, market order maintenance, anti-monopoly enforcement, etc.⁴ The State Administration for Industry and Commerce (SAIC), the General Administration of Quality Supervision, Inspection and Quarantine, and the China Food and Drug Administration will be dismantled and all their functions and responsibilities will be fully transferred to the SAMR. In addition, the anti-monopoly duties of the NDRC and MOFCOM will be divested and transferred to the SAMR. That is to say, the SAMR will become the only AMEA in China to deal with competition issues after the institutional reform. The anti-

¹ Jianzhong Shi, *The Anti-monopoly Law—Reviews and Comments on the Code and the Exploration of the Theories* (反垄断法—法典释评与学理探源) (China Renmin University Press 2008) 103.

² Jessica Su and Xiaoye Wang, 'China, The Competition Law System and the Country's Norms' in Eleanor M Fox and Michael J Trebilcock (eds), *The Design of Competition Law Institutions: Global Norms, Local Choices* (Oxford University Press 2013) 227.

³ The Institutional Reform Plan of the State Council (国务院机构改革方案) <http://www.gov.cn/guowuyuan/2018-03/17/content_5275116.htm> accessed 20 March 2018. The Plan will reduce the number of ministerial-level entities by eight and reduce the number of vice-ministerial-level entities by seven. As a result, there will be totally 26 ministries and commissions in the State Council after it is reshuffled.

⁴ The official website of the State Administration for Market Regulation is available at <<http://samr.saic.gov.cn/>> accessed 10 April 2018.

monopoly duties and functions of the three AMEAs will all be combined into a single centralised authority—SAMR.⁵ The Anti-monopoly Commission will be maintained but its work will now be done by the SAMR.

The establishment of the SAMR can to a great extent resolve the problems caused by the multi-authority model in the anti-monopoly enforcement. However, there are still some serious issues which can impair the effective application of the AML, especially when the alleged anti-competitive conduct concerns the exercise of patent rights. The problems caused by the tripartite enforcement system can be regarded as a part of the basic reasons for the ineffective and not fully developed anti-monopoly enforcement in the area of IPRs. They are also an important part of the development of China's anti-monopoly enforcement since 2008. In addition, the way in which the SAMR will discharge its anti-monopoly duties have not been published, such as the internal institution structure, the make-up of the relevant staff, the allocation of resources and the transition period. There may also need to be some amendments or revisions to the current legal rules. It will take time before the SAMR formally comes into operation. Therefore, the analysis and criticisms of the multiple-authority model in this thesis are still relevant and important in providing effective solutions to address competition issues in the exercise of IPRs.

This chapter is primarily descriptive of the AMEAs' general jurisdiction which applies to alleged anti-competitive practices in all fields of economic activities. Therefore, it is relevant also for the exercise of patent rights. Likewise, the problems facing the competition authorities arise in almost all industries and are not unique to matters related to the exercise of patent rights. As a consequence, much of the analysis and examination in the chapter is undertaken in a general manner, but it is necessary to provide this description given its relevance to the exercise of patent rights which is the focus of the thesis.

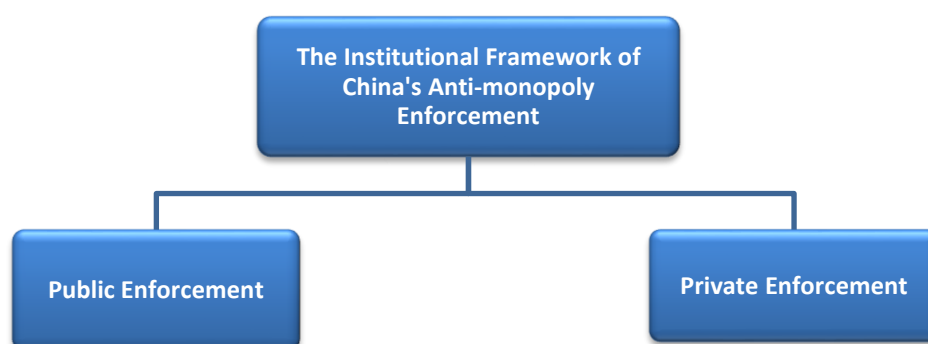
This chapter will be divided into three main parts. The first part Section 6.2 will describe and introduce the two-level and tripartite enforcement framework in China; then, in Section 6.3, the problems that exist in China's anti-monopoly enforcement system will be examined and analysed. Section 6.4 will conclude the chapter by identifying the problems which will be resolved by the establishment of the SAMR and the challenges that remain in respect of the anti-monopoly enforcement in the IP-related area.

⁵ Of course, in addition to the anti-monopoly duties, the SAMR will also have other duties.

6.2 The Institutional Framework of Chinese Anti-monopoly Enforcement

During the legislative process of adopting China's AML, the institutional framework of the anti-monopoly enforcement mechanism was the most contentious issue and the one most heavily debated.⁶ Different schools have different ideologies. The mainstream thinking led by academics Xiaoye Wang⁷ and Xianlin Wang⁸ was to establish a single and independent AMEA which was perceived practically and politically impossible at that time and was denied. As a result, China adopted a two-level and tripartite administrative enforcement structure. The arrangement maintained the pre-existing multi-authority enforcement model but a few changes were made. At the first level, a high-level consultative and coordinating organisation—the Anti-monopoly Commission (AMC) was created by China's State Council in accordance with Article 9 of the AML. At the second level, the duties of implementing China's AML are discharged by the three AMEAs, namely the National Development and Reform Commission (NDRC), the State Administration for Industry and Commerce (SAIC) and the Ministry of Commerce (MOFCOM).

The competition enforcement of China's AML can be classified into public enforcement and private enforcement. The responsibilities for public enforcement are mainly born by the three AMEAs. In addition, some relevant sectoral regulations contain some competition-related articles and authorize the relevant sectoral regulators to investigate the anti-competitive practices within their authorities. However, the relevant sectoral regulators are not perceived as AMEAs according to the AML. The people's courts are also empowered to hear private enforcement litigation.

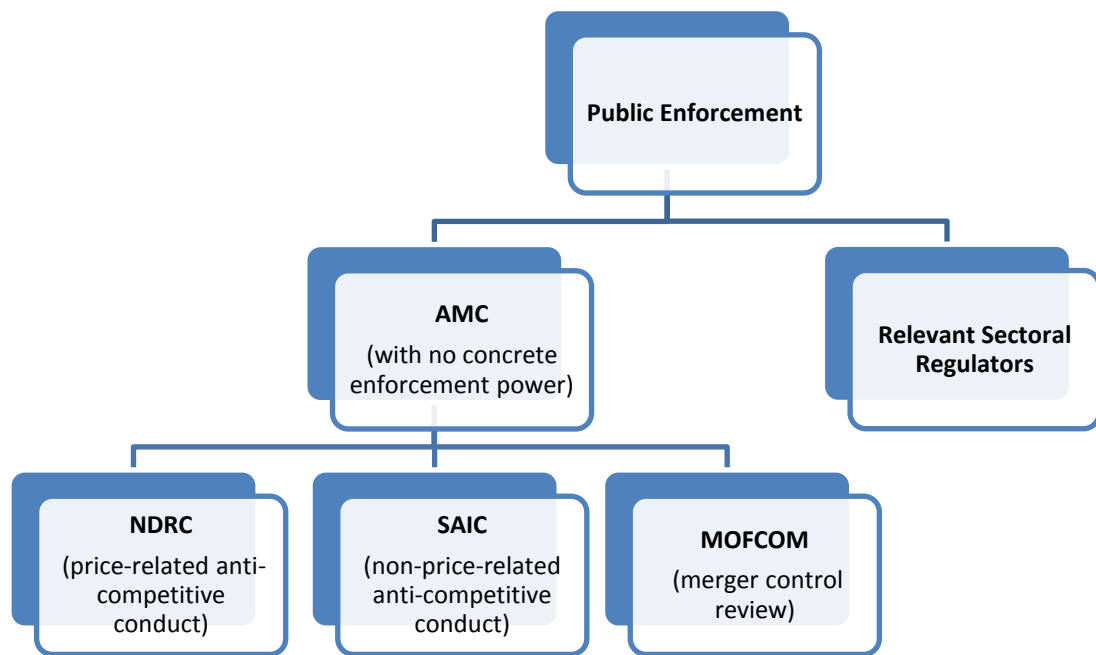


⁶ Su and Wang (n 2) 200.

⁷ Xiaoye Wang, 'The Analysis of Several Problems concerning China's Anti-monopoly Enforcement Authorities' (关于我国反垄断执法机构的几个问题) (2007) 01 Dongyue Tribune.

⁸ Xianlin Wang, 'An Approach to Antimonopoly Law Enforcement Authority and Its Responsibilities' (关于中国反垄断执法机构的设置与职责问题的探讨) (2000) 08 Chinese Public Administration.

6.2.1 The Institutional Arrangements for Public Enforcement



Articles 9 and 10 of China’s AML confirm the basic administrative enforcement model of two levels—the AMC and the AMEAs.

According to Article 9, the AMC’s responsibilities are limited to policy and guidance issues which include: ‘(1) studying and drafting policies on competition; (2) organizing investigation and assessment of competition on the market as a whole and publishing assessment reports; (3) formulating and releasing anti-monopoly guidelines; (4) coordinating administrative enforcement of the Anti-monopoly Law; and (5) other duties as prescribed by the State Council.’⁹ Technically, the AMC can play a role of coordinator when overlapping powers or unclear boundaries arise in the enforcement work of the AMEAs. However, a high-level consultative and coordinating organisation, AMC does not have the power to engage in concrete competition enforcement. Although the AMC was created in accordance with the AML, it does not have a separate office. The office of the AMC is located within the Anti-monopoly Bureau of MOFCOM and its daily work is carried out by MOFCOM.¹⁰ The AMC is headed by China’s Vice Premier and it is composed of the senior officials from 16 relevant ministries of the State Council, such as the NDRC, the SAIC, the MOFCOM, the Ministry of Finance, the Ministry of Industry

⁹ Antimonopoly Law of the People’s Republic of China (中华人民共和国反垄断法) (The AML), Article 9.

¹⁰ The work of the AMC will be taken over by the SAMR once the institutional reform is formally enforced.

and Information Technology.¹¹ In addition, an advisory group of experts was set up by the AMC to provide consultative proposals.

Article 10 of the AML articulates that the AMEAs at the national level are specified by China's State Council. Where a need arises, the specified AMEAs can delegate their duties to the corresponding authorities at a provincial level to implement the AML.¹² The State Council then confirmed that NDRC, SAIC and MOFCOM have parallel powers in competition enforcement. The boundaries of the enforcement powers of each of the three AMEAs are determined on the basis of the nature of the specific anti-competitive behaviour. NDRC is responsible for price-related anti-competitive behaviour, such as price-related restrictive agreements, price-related abuse of dominance and price-related administrative monopoly.¹³ It is the Bureau of Price Supervision and Anti-monopoly within the NDRC that specifically focuses on the anti-monopoly work.¹⁴ Pursuant to the NDRC Regulations on the Administrative Procedures for Law Enforcement against Price Fixing, NDRC generally authorizes the corresponding price control departments at provincial level to be responsible for the prohibition of price-related anti-competitive behaviour occurring within their respective administrative territories.¹⁵ SAIC is in charge of non-price-related anti-competitive practices such as non-price-related restrictive agreements, non-price-related abuse of dominance and non-price-related abuse of administrative power to eliminate or restrict competition.¹⁶ Within the SAIC, the Anti-monopoly and Anti-unfair Competition Enforcement Bureau is set up to deal with anti-competitive issues that fall within the scope of the SAIC.¹⁷ The SAIC Provisions on the Procedures for the Administrative Departments for Industry and Commerce to Investigate and Handle Cases of Monopolization Agreements and Abuse of Dominant Market Position further state that the SAIC may empower its provincial departments to investigate the anti-competitive conduct that occurs or mainly occurs within their administrative regions.¹⁸ However, the manner in which the SAIC delegates its enforcement power to provincial

¹¹ Jiang Wan, *China Competition Law: Theory, Practice & Comparative Law* (中国反垄断法: 理论与实践与国际比较) (China Legal Publishing House 2015) 294-295.

¹² The AML, Article 10.

¹³ Main Functions of the NDRC <<http://en.ndrc.gov.cn/mfndrc/>> accessed 13 May 2018.

¹⁴ Bureau of Price Supervision and Anti-monopoly under the NDRC <http://en.ndrc.gov.cn/mfod/201207/t20120719_492595.html> accessed 13 May 2018.

¹⁵ Regulations on the Administrative Procedures for Law Enforcement against Price Fixing (反价格垄断行政执法程序规定), Article 3.

¹⁶ Mission of the SAIC <<http://home.saic.gov.cn/english/aboutus/Mission/>> accessed 13 May 2018.

¹⁷ Departments of the SAIC <<http://home.saic.gov.cn/english/aboutus/Departments/>> accessed 13 May 2018.

¹⁸ Provisions on the Procedures for the Administrative Departments for Industry and Commerce to Investigate and Handle Cases of Monopolization Agreements and Abuse of Dominant Market Position (工商行政管理机关查处垄断协议、滥用市场支配地位案件程序规定), Article 3.

departments is a little different from that of the NDRC. The NDRC authorizes generally, while the SAIC delegates on a case-by-case basis. Another AMEA is MOFCOM which alone is responsible for examining the concentration of undertakings in accordance with China's AML.¹⁹ It is the Anti-monopoly Bureau within the MOFCOM that is solely responsible for the competition enforcement activity.²⁰ MOFCOM does not authorize local departments to investigate or handle merger control issues.

Moreover, the AML confirms the right of parties to challenge the decisions of the three AMEAs. If the undertaking concerned is not satisfied with the decision made by MOFCOM and wish to challenge it, it must first apply for administrative review (this is a prerequisite of raising an administrative action against the MOFCOM decision); then if the party still disagrees with the result of an administrative review, it can initiate administrative litigation with a competent people's court.²¹ If the undertaking concerned disagrees with the decisions taken by NDRC or by SAIC, it can choose either to apply for administrative review or to file an administrative appeal against their decisions (if the party first choose administrative review and is dissatisfied with the result, it can then still bring an administrative appeal against the decisions taken by NDRC or SAIC).²²

Prior to the 2008 AML, there had been some competition-related rules provided in the relevant sectoral regulations or measures to control anti-competitive practices and most of them are still in effect even after the AML was adopted. As a result, in addition to the three AMEAs specified by the State Council, some relevant sectoral regulators can enjoy concurrent enforcement jurisdiction if the anti-competitive behaviour concerns their respective sectors. However, China's AML does not explain the relationship between the AMEAs and the relevant sectoral regulators in terms of competition enforcement powers. Neither are the relevant sectoral regulators perceived as AMEAs according to laws or regulations. Therefore, it is still confusing as to which agency will be in charge of the anti-competitive conduct that falls within the responsibilities of both an AMEA and a sectoral regulator.

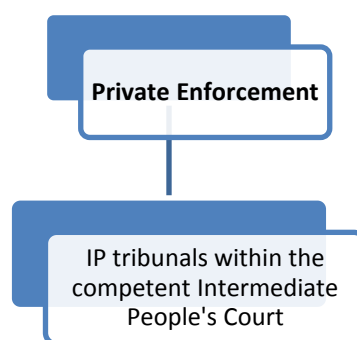
¹⁹ Mission of the MOFCOM <<http://english.mofcom.gov.cn/column/mission2010.shtml>> accessed 13 May 2018.

²⁰ Functions of the Anti-monopoly Bureau of the MOFCOM <<http://english.mofcom.gov.cn/departments/fldj2/>> accessed 13 May 2018.

²¹ The AML, Article 53.

²² *ibid.*

6.2.2 The Institutional Arrangements for Private Enforcement



The other way to implement China's AML is by private enforcement. Article 50 of China's AML confirms that the undertakings that engage in anti-competitive conduct which has caused losses to others shall bear the corresponding civil liability.²³ In 2012, the Supreme People's Court published the Provisions on Several Issues Concerning the Application of Law in the Trial of Civil Dispute Cases Arising from Monopolistic Conduct (the Supreme People's Court Provisions).²⁴ The document further elaborates, *inter alia*, the standing of plaintiffs in civil anti-monopoly cases, the relevant burden of proof, and the statute of limitations. The document provides guidance to the parties who suffer losses caused by anti-competitive behaviour on how to bring an action for civil damages. Moreover, the Supreme People's Court Provisions confirm the jurisdiction of the relevant Intermediate People's Courts for the first instance litigation in civil anti-monopoly cases. These cases are usually complex and have an important impact, some of which concern intellectual property rights (IPRs). As a result, these anti-monopoly cases are assigned to the IP tribunals within the relevant Intermediate People's Courts.²⁵

The AML itself does not specify the nature of the AMEAs but confers this power on the State Council. It is the State Council that later confirmed the status of the NDRC, the SAIC and the MOFCOM as AMEAs.²⁶ The current anti-monopoly enforcement structure, to some extent, contributes to the efficiency and quality of China's competition enforcement work. The tripartite enforcement system may create a degree of competition between different AMEAs, which can promote incentives for each AMEA to be efficient in their

²³ *ibid*, Article 50.

²⁴ Provisions of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Civil Dispute Cases Arising from Monopolistic Conduct (最高人民法院关于审理因垄断行为引发的民事纠纷案件应用法律若干问题的规定) (Supreme People's Court Provisions on Monopolistic Conduct).

²⁵ Notice on Carefully Studying and Implementing China's Anti-monopoly Law (最高人民法院关于认真学习 and 贯彻《中华人民共和国反垄断法》的通知) <http://www.law-lib.com/law/law_view.asp?id=261527> accessed 17 July 2017.

²⁶ See Section 6.1 about the establishment of a new single SAMR.

enforcement procedures and benefit the public.²⁷ The three AMEAs influence each other and reinforce their competition enforcement work. For example, the active role played by the MOFCOM in merger control review puts pressure on the other two AMEAs.²⁸ Furthermore, since 2013, the SAIC began to publish its anti-monopoly sanction decisions in full which placed pressure on the NDRC to develop more transparent competition enforcement; indeed, the NDRC began to publish since September 2014 some of its sanction decisions.²⁹ The tripartite structure to some extent decentralizes competition enforcement power and avoids the negative and ineffective enforcement and corruption often caused by monopolistic power of a centralized agency.³⁰ Moreover, the separation of competition enforcement powers amongst the agencies enables relevant AMEAs to develop and accumulate a high degree of expertise specializing in certain areas or industries.³¹ This means that the limited enforcement resources have the possibility to be allocated more efficiently. Thus, competition enforcement is expected to be greatly improved.

6.3 Existing Problems in the Anti-monopoly Enforcement Structure

Although the two-level and tripartite anti-monopoly enforcement system has its own advantages, the structure inevitably gives rise to serious problems when it comes to enforcement. This section will focus on the following enforcement issues: legal bases, conflicts between the AMEAs, the role of the AMC, the relationship between the AMEAs and sectoral regulators, public and private enforcement and the lack of independence, professionalism and transparency.

6.3.1 Confusion as to the Legal Bases of the Competition Enforcement of the Three AMEAs

The promulgation of China's AML to a great extent alleviates the problems of scattered and fragmented competition-related rules before 2008 and establishes unified principles.³² However, the AML does not abolish the pre-existing competition rules to be found in other laws or regulations, neither does it clarify the relationship between the new AML and the

²⁷ Angela Huyue Zhang, 'The Enforcement of the Anti-monopoly Law in China: An Institutional Design Perspective' (2011) 56 (3) *Antitrust Bulletin*, 644.

²⁸ Wan (n 11) 296.

²⁹ *ibid.*

³⁰ William Blumenthal, 'Models for Merging the US Antitrust Agencies' (2013) 1 (1): 24-51 *Journal of Antitrust Enforcement*, 32.

³¹ *ibid* 31-32.

³² See details of the pre-2008 rules in Chapter 3.

pre-existing competition rules. Although China's Legislation Law provides some guidance on the hierarchy of Chinese legal measures, conflicts and uncertainties do exist. According to the principles set out in China's Legislation Law, in a situation of conflicts, laws prevail over other legal measures; new laws prevail over old ones; and special rules prevail over general ones.³³ In this context, the AML adopted by People's Congress will prevail in most conflicting cases.

However, nothing can prohibit the application of the previous competition rules if they are applied in a way consistent with China's AML. To some extent, this leads to uncertainty to both AMEAs and undertakings. On one hand, the AMEAs will be uncertain as to which law shall be invoked as the legal basis for the sanction decision without relevant interpretations, though in recent NDRC decisions they are mainly based on the AML. Sometimes, invoking different legal bases means different determinations on the nature of the conduct concerned. For instance, the rules on working collaboratively to control market price, predatory pricing and discriminative pricing in the Price Law may overlap with the rules managing the restrictive agreements and the abuse of dominance in the AML. These practices probably appear in the licensing agreements of patent rights. In some situations, the price-related conduct will be illegal under the examination by the Price Law; however, within the reasonable analysis of an individual investigation by the AML, the same conduct may not impair competition seriously and thus be excluded from the sanction by the AML.³⁴ On this occasion, the NDRC should take into account the relevant factors comprehensively when exercising its discretion to take a reasonable decision, given it is not feasible to determine mechanically here that the AML will prevail over the Price Law.³⁵

On the other hand, the concerned undertakings will be uncertain as to which law they should consider when assessing their anti-monopoly compliance and what kind of role other rules play in anti-monopoly investigations. This increases the burden on undertakings. An example will be given in the context of fines. The NDRC can fine an undertaking for conducting price fixing no more than five times its illegal gains under the Price Law³⁶ and the Provisions on the Administrative Punishment of Price-related Violation (provisions

³³ Legislation Law of the People's Republic of China (立法法), Articles 87-100.

³⁴ Yong Huang and Yannan Liu, 'Reconsideration of the Relationship between the Price Law and the Anti-monopoly Law and the Coordination of Their Enforcement' (《价格法》与《反垄断法》关系的再认识以及执法协调) (2013) 04 Price: Theory & Practice 19, 21.

³⁵ *ibid.*

³⁶ Price Law of the People's Republic of China (价格法), Article 40.

adopted to facilitate the application of the Price Law)³⁷ as long as the fine does not exceed the one required by the AML; while under the AML, the fine imposed on price fixing shall be between one to ten per cent of the previous year's sale revenues.³⁸ This means that there are different bases and methods under different laws to calculate the fine imposed for the same anti-competitive conduct established by the same AMEA. Which method will prevail in practice is hard to predict and totally depends on the choice of the relevant AMEA. Even if the two legal measures impose the same amount of a fine on the anti-competitive practice of an industrial association, NDRC chose to invoke the Provisions on the Administrative Punishment of Price-related Violation, instead of the AML, as the legal basis in a price fixing case.³⁹ In addition, in a price cartel case, the NDRC invoked all the Price Law, the Provisions on the Administrative Punishment of Price-related Violation and the AML.⁴⁰ Considerable doubts arise as to the legal bases of the NDRC competition enforcement in this case.

Besides, after the confirmation that there would be three AMEAs, they respectively published some their own regulations to facilitate their competition enforcement. Each of the three AMEAs only discharges its duties in accordance with its own rules and is not responsible for the regulations published by other AMEAs. This aggravates the confusion and uncertainty as to the legal bases for competition enforcement.

This uncertainty is particularly noticeable in the exploitation of patent rights. As discussed in Chapter 3, there are rules pre-2008 applicable to the anti-competitive practices in the exercise of patent rights, ranging from principled rules in basic laws to rules focusing on specific areas. Although Article 55 confirms the applicability of China's AML to IP-related anti-competitive practices, it does not clarify the status of previous rules on competition enforcement. Additionally, in consideration of the complexity of patent rights, the anti-competitive practices in the exercise of patent rights may trigger the responsibilities of more than one AMEA in one investigation. Which legal measures will be relied on as the legal bases will depend on which AMEA is carrying out the

³⁷ Provisions on the Administrative Punishment of Price-related Violation (价格违法行为行政处罚规定), Article 5

³⁸ The AML, Article 46.

³⁹ The Paper-Manufacturing Association in Fuyang of Zhejiang Province Was Imposed A Harsh Fine for Its Organizing Undertakings to Achieve Price Fixing Agreement (浙江省富阳市造纸行业协会组织经营者达成价格垄断协议受到严厉处罚)

<http://www.sdpc.gov.cn/fzgggz/jggl/zhd/201101/t20110104_389454.html> accessed 13 May 2018.

⁴⁰ Some Rice Noodle Manufacturers in Guangxi Province Received High Fines for Their Collusion on the Price Increase (广西部分米粉生产厂家串通涨价被严厉查处)

<http://xwzx.ndrc.gov.cn/mtfy/wlmt/201004/t20100414_340570.html> accessed 13 May 2018.

investigation. For example, the SAIC has adopted Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition as one of its legal bases to regulate the anti-competitive exercise of IPRs; while the NDRC does not adopt such rules.⁴¹ Accordingly, the uncertainty faced by patent rights owners in terms of legal bases in competition enforcement is not only from the various scattered rules but also from the practices within the three AMEAs. Thus, the scope and sources of the uncertainty are much wider and complicated.

The problems that emerge from the legal bases of competition enforcement will reduce to a significant extent the deterrent role of the AML and may increase the burden and pressure on the undertakings concerned. Multiple parallel legal bases for competition enforcement will discourage the implementation of China's AML and delay its further promotion and development. Additionally, it will disadvantage the consolidated competition enforcement all around China. As a consequence, the uncertainties in the legal bases of competition enforcement will form an inner obstacle within the anti-monopoly enforcement system to effectively implement the AML and finally give rise to negative influence on fair market competition.

6.3.2 The Overlap and Conflict between the Three AMEAs

As stated above, there seems to be clear boundaries between the competition enforcement powers of each of China's three AMEAs and exclusive domains have been allocated to them. However, the enforcement responsibilities of the three AMEAs are based on the nature of the specific anti-competitive conduct which inevitably leads to overlapping powers and gives rise to frictions. These frictions may result in the ineffectiveness and inefficiency of competition enforcement in China and, simultaneously, cause confusion and uncertainties to undertakings under investigation. The burden and pressure on undertakings to comply with the AML may be increased. There is also a possibility that the overlapping jurisdiction may lead to institution rivalry over important and influential cases, and to non-action over trivial cases.

This is particularly harmful in the exploitation of patent rights. Normally, the grant of patents will encourage innovation, strengthen the incentive for original research and

⁴¹ See details in Section 6.3.2.2.

development and then stimulate competition.⁴² The licensing of patent rights facilitates the dissemination of technologies and promotes economic efficiency which, in the majority cases, is pro-competitive.⁴³ It is acknowledged that patent licensing will benefit the licensor, the licensee, the consumer and society by sharing costs and risk, broadening the reach of patent and generating revenue, increasing market penetration, reducing costs, improving efficiency and obtaining competitive advantages.⁴⁴ Therefore, the exercise of patent rights will only be controlled by competition law in very exceptional and special circumstances where it restricts or eliminates market competition. In these circumstances, licensing agreements can probably involve some restrictive terms or conditions of pricing issues, non-pricing issues, dominant issues or a combination of all of them.⁴⁵ Such patent licensing agreements may fall within the enforcement jurisdiction of more than one AMEA and will have more potential to induce the jurisdiction problems between multiple authorities. In addition, the specificity and complexity of the exercise of patent rights will require that the relevant AMEA have professional staff to undertake high quality competition enforcement, which will to some extent aggravate the multi-authority problems.

The problems and uncertainty caused by the two-level and tripartite enforcement structure may not only impact on the application of China's AML to regulate anti-competitive practices in the exercise of patent rights, but may also impair the positive role of patent rights. On one hand, negative competition enforcement will diminish the deterrence of China's AML. It can discourage parties from observing the AML, encourage patent owners to exercise their patent rights beyond the legal scope of the patent and, consequently, distort competition. On the other hand, excessive competition enforcement will create too much deterrence on patent owners, unduly intervene in the exploitation of patent rights and reduce innovation in the market. In addition, in China, there has not been an authority or organisation appointed to specifically handle anti-competitive practices in the exercise of patent rights. Therefore, it is necessary to consider an effective enforcement mechanism for matters related to the exercise of patent rights.

⁴² Guidelines on the Application of Article 101 of the Treaty on the Functioning of the European Union to Technology Transfer Agreements [2014] OJ C 89/3, 7.

⁴³ *ibid* 17.

⁴⁴ Guidance: Licensing Intellectual Property <<https://www.gov.uk/guidance/licensing-intellectual-property>> accessed 13 May 2018.

⁴⁵ For example, these constraints may involve dividing the relevant market, restricting production, fixing prices and exclusive grant-back.

6.3.2.1 The Overlaps between NDRC and SAIC

The relationship between NDRC and SAIC is particularly relevant. The boundary of the jurisdiction between NDRC and SAIC depends on whether the conduct is price-related. However, price-related anti-competitive conduct usually co-exists with non-price-related conduct. For instance, undertakings may fix prices by an agreement and simultaneously restrict the amount of goods and the share of the market in the same agreement. Moreover, undertakings may abuse their dominant position by both charging excessive prices and unjustifiably tying-in products. Some practical example investigations are displayed in the following table, which are solely undertaken and concluded by the NDRC but concern both price and non-price related anti-competitive behaviour.

Case number	Relevant anti-competitive practices	Relevant Law
NDRC Administrative Sanction Decision FaGaiBanJiaJianChuFa [2015] No.1 ⁴⁶	<ul style="list-style-type: none"> Abuse of dominance by charging unfair high patent royalty fees; Abuse of dominance by tying standard essential patents with non-standard essential patents Abuse of dominance by imposing unreasonable conditions 	Subparagraphs 1 and 5, Paragraph 1 of Article 17 of China's AML
NDRC Administrative Sanction Decisions [2015] No.1-8	<ul style="list-style-type: none"> Reach and implement the restrictive agreement to fix price Reach and implement the restrictive agreement to divide the relevant market 	Subparagraphs 1 and 3, Paragraph 1 of Article 13 of China's AML
NDRC Administrative Sanction Decisions [2016] No.1-4	<ul style="list-style-type: none"> Reach and implement the restrictive agreement to fix price Reach and implement the restrictive agreement to divide the relevant market 	Subparagraphs 1 and 3, Paragraph 1 of Article 13 of China's AML
NDRC Administrative Sanction Decisions [2016] No.5-7	<ul style="list-style-type: none"> Reach and implement the restrictive agreement to fix price Reach and implement the restrictive agreement to joint boycott transactions 	Subparagraphs 1 and 5, Paragraph 1 of Article 13 of China's AML ⁴⁷

Moreover, a 2010 NDRC announcement published made the allocation of enforcement powers between NDRC and SAIC even more ambiguous. A provincial NDRC office, the Hubei Province Price Bureau, investigated an undertaking for the alleged abuse of

⁴⁶ This decision is also known as the *Qualcomm* investigation, analysed in detail in Chapter 4, Section 4.3.

⁴⁷ These decisions listed above are from the announcements released by NDRC on their official website. NDRC has not released all the investigated cases or concluded decisions. The decisions concluded by the provincial Price Bureaus are not included in this table.

dominance by unjustifiable bundling.⁴⁸ The provincial office suspended the investigation by accepting commitments offered from the undertaking concerned.⁴⁹ Pursuant to the division of enforcement duties, there is no doubt that the SAIC has sole jurisdiction over purely non-price-related bundling; however, in this investigation, it was the NDRC's provincial bureau that led the investigation and took the suspension decision. There was no further announcement to clarify why NDRC instead of SAIC dealt with an investigation of abuse of dominance by non-price-related bundling. Neither did SAIC respond. Therefore, doubts arise as to whether the AMEAs will always act within the scope of their own enforcement competences.⁵⁰

As a consequence, anti-competitive practices in one investigation may trigger the responsibilities of more than one AMEA. In this situation, if both NDRC and SAIC are involved in the same investigation, and separately responsible, there is a waste of enforcement resources and an increase of enforcement costs. For instance, in December 2014 the SAIC authorized its provincial department in Chongqing to initiate an investigation on QingYangYaoYe, a pharmaceutical undertaking and concluded in October 2015 that the undertaking had abused its dominance by refusing to deal and so violated the AML.⁵¹ Then, NDRC opened a file in October 2015 to investigate QingYangYaoYe and three other pharmaceutical companies for the same series of practices. The NDRC concluded that they had been parties to a restrictive agreement to fix prices and to divide the relevant market, which was prohibited by Article 13 of the AML.⁵² In fact, both investigations involved QingYangYaoYe concerning the same anti-competitive practices. However, they were investigated by different AMEAs with no further guidance or instructions for the public. As Blumenthal has commented, multiple enforcement agencies give rise to 'duplication of effort, at least to some degree, and duplication of fixed costs.'⁵³ Even if the AMEAs can themselves coordinate their overlapping jurisdiction, without clear instructions, the consequences are unpredictable. Likewise, in the US, the Antitrust Division of the Department of Justice (DOJ) and the Federal Trade Commission (FTC) have concurrent antitrust enforcement powers. In order to avoid conflicts, these two agencies have established a clearance mechanism. Even so, cooperation between the DOJ

⁴⁸ Hubei Province Price Bureau Investigated the Branch in Wuchang of Hubei Salt Group Limited for Its Unjustifiable Bundling (湖北省物价局依法查处武昌盐业分公司强制搭售案件)
<http://www.sdpc.gov.cn/fzgggz/jggl/zhd/201011/t20101115_380425.html> accessed 13 May 2018.

⁴⁹ *ibid.*

⁵⁰ Zhang (n 27) 644.

⁵¹ *QingYangYaoYe*, SAIC Competition Enforcement Announcement No. 12 of 2015, YuGongShangJingChuZi [2015] No.15 (渝工商经处字 [2015] 15 号).

⁵² *QingYangYaoYe and others*, NDRC Administrative Sanction Decisions [2016] No.1-4,

⁵³ Blumenthal (n 30) 302.

and the FTC can be costly and the compliance costs borne by undertakings can also increase.⁵⁴ It has been pointed out that ‘clearance disputes impose substantial costs in a small but meaningful number of mergers.’⁵⁵ To some extent, the Chinese AMEAs may suffer similar problems as the US agencies which are caused by multiple enforcement agencies, though the problems are not necessarily in the same enforcement areas.

In addition, if the anti-competitive practices in one investigation fall within both the scope of the NDRC and the scope of the SAIC and they only settle the issues from their own respect, negative enforcement will appear and the deterrence of the AML will be badly influenced. It has been stated that in an investigation led by Anhui Administration for Industry and Commerce (one of the SAIC’s provincial departments) in 2016 on Sunyard System Engineering Company and other two companies,⁵⁶ there should have been an investigation of three agreements at issue, a horizontal agreement to fix prices and the other two related to the division of relevant sales market and of the raw material market.⁵⁷ However, the SAIC’s provincial department only dealt with one horizontal monopolistic agreement to divide the relevant sales market and left the other two alleged restrictive agreements unresolved. There was no further action taken by either the SAIC or the NDRC as far as the other two kinds of alleged restrictive agreements were concerned. Consequently, it can be seen from this example that the anti-monopoly enforcement in this case was not fully developed and there were still some anti-competitive practices being left to threaten the fair competition in the relevant market. To a great extent, this kind of situation is raised by the overlapping jurisdiction between the SAIC and the NDRC.

Until now, there has been no guidance provided to manage the situation in which NDRC and SAIC have concurrent competition enforcement powers over an investigation. It is sometimes rumoured that in practice an AMEA can exercise its enforcement power over anti-competitive conduct as long as some of the conduct falls within its responsibility. Once one of the AMEAs accepts the complaint, the other AMEAs should refuse to

⁵⁴ Zhang (n 27) 645.

⁵⁵ Antitrust Modernisation Commission, Antitrust Modernisation Commission Report and Recommendations (2007) (Report 2007), 134 <https://govinfo.library.unt.edu/amc/report_recommendation/toc.htm> accessed 13 May 2018.

⁵⁶ *Sunyard System Engineering Company and Others*, Anhui Administration for Industry and Commerce, WanGongShangGongChuZi [2016] No.1-3 (皖工商公处字 [2016] 1-3 号).

⁵⁷ ‘The Coordination between Anti-monopoly Enforcement Authorities and Their Negative Enforcement—from the Respective of the Case on Sunyard’ <<https://mp.weixin.qq.com/s/saVZbJTP-ifpkgVnn-hqQ>> accessed 13 May 2018.

investigate the same complaint.⁵⁸ However, it is not clear to how to define ‘the same complaint’. Sometimes, different complaints may focus on different alleged anti-competitive practices, but they appear in the same situation. In addition, if complainants do not inform the relevant AMEAs in advance, it is hard for them to know that more than one AMEA is investigating the case.⁵⁹ As a consequence, it poses a risk that the overlapping jurisdiction will enable both NDRC and SAIC to strive for the leading role or to deny jurisdiction.⁶⁰ From another aspect, it is generally admitted that in practice, owing to the specific circumstances in China, the NDRC usually has priority in competition enforcement where there is overlapping jurisdiction. This seems to make the anti-monopoly enforcement in China even more confusing and ambiguous.

When overlaps arise, which AMEA can conduct the investigation should be determined on the basis of the objective factors such as expertise and staff availability. This would have been the appropriate way to resolve the jurisdiction problem when there are multiple enforcement authorities. What is going on with the clearance procedures between the DOJ and the FTC in the US can provide good guidance. However, the allocation of enforcement powers on the basis of whether the conduct is price-related is neither wise nor appropriate. The coordination of AMEAs’ overlapping jurisdictions does not constitute an effective system and it lacks transparency, which is mystifying for both the AMEAs and the undertakings concerned.

This risk is especially presented in the area of patent licensing. The most common anti-competitive practices when exercising patent rights are fixing prices, dividing the market, limiting production, refusing to license, tying-in, charging excessive patent royalties, exclusive grant-back, non-challenge clauses and patent pools. The exercise of patent rights is normally achieved through licensing agreements. On one hand, the licensing of patent rights will facilitate the diffusion of technologies and contribute to economic efficiency; on the other hand, it allows patent owners to get some monetary rewards for their risks and investments in the research and development. Accordingly, when licensing agreements are

⁵⁸ Xiaoye Wang, ‘The Three-Year Anti-monopoly Enforcement and The Ruling by Law’ (中国反垄断执法三年和依法治国) in The Committee of Competition Policy and Law of the Institute of WTO in China (eds), *Report on Competition Law and Policy of China 2011* (中国竞争法律与政策研究报告 2011 年) (Law Press.China 2012), 33.

⁵⁹ Wen Lin and Mi Gan, ‘Analysis Report on Big Data of China’s Anti-monopoly Administrative Enforcement (2008-2015)’ (中国反垄断行政执法大数据分析报告 (2008-2015)) in Xianlin Wang (ed), *Competition Law and Policy Review* (竞争法律与政策评论) (Shanghai Jiao Tong University Press 2016) 197-291, 203-204.

⁶⁰ Mingzhi Chen, ‘The Research on Administrative Enforcement Mechanism of Anti-monopoly in China’ (论我国反垄断行政执法机制) (Master thesis, Shandong University 2016) 20.

related to conduct that eliminates or restricts competition, they probably contain more than one restriction, which can be both price and non-price related. Taking into account the complexity of patent rights, the conflicts of jurisdiction between the two AMEAs seem to be more prominent in patent-related investigations. For example, the *Qualcomm* investigation in China, which involved the abuse of dominance by charging excessive royalty fees, by bundling standard essential patents with non-standard essential patents and by imposing unjustifiable conditions, was carried out by the NDRC and not by the SAIC.⁶¹ In fact, both the NDRC and the SAIC had jurisdiction over the *Qualcomm* investigation pursuant to their respective anti-monopoly competences. It is rumoured that the *Qualcomm* investigation was first initiated by the SAIC, then transferred to the NDRC, and concluded by the NDRC. However, no official announcement was released to explain the manner in which both authorities were involved. There was also no official explanation to clarify why it was the NDRC but not the SAIC that carried out the *Qualcomm* investigation or how these two AMEAs coordinated or transferred the investigations. Uncertainties, therefore, exist in the sensitive area of patent rights licensing.

Furthermore, where the alleged anti-competitive practices are non-price-related in the light of its content, but they are price-related in terms of their final purpose, the situation seems to be even more uncertain. For example, a restriction on the output of products in an agreement can be perceived as non-price-related because it does not directly fix the price. However, the restriction can be regarded as price-related in terms of its indirect influence on the price.⁶² The same analysis may also apply to the introduction of a joint boycott. This kind of analysis gives rise to doubts from another perspective that have already appeared in some investigations. For example, the NDRC has penalized three pharmaceutical undertakings for their achieving and implementing a restrictive agreement to eliminate competition by fixing prices and boycotting.⁶³ In the NDRC decision, it concluded that the purpose of the conduct of boycotting was to exclude other competitors in the relevant market and then to increase the price.⁶⁴ This seems to mean that the boycotting conduct in this case is a way to achieve the aim of increasing the price, so it should be investigated by the NDRC. However, according to the allocated enforcement powers, the SAIC should have the concurrent power to investigate this case owing to the restrictive conduct of

⁶¹ 'The NDRC Ordered Qualcomm Incorporation to Rectify Its Monopolistic Behaviours and Imposed a Fine of 6 Billion Yuan' (国家发展改革委员会对高通公司垄断行为责令整改并罚款 60 亿元) <http://www.sdpc.gov.cn/xwzx/xwfb/201502/t20150210_663822.html> accessed 15 November 2016.

⁶² Su and Wang (n 2) 216.

⁶³ *Huazhong Pharmaceutical Company and others*, NDRC Administrative Sanction Decision [2016] No.5-7.

⁶⁴ *ibid.*

boycotting. It is hard to predict whether the NDRC has handled the whole investigation and put forward a conclusion for the consideration of the indirect influence on price of joint boycott. If so, the NDRC would have the discretion to decide by itself whether it will control the investigation. Given the lack of clear guidance, the potential tension between the NDRC and the SAIC seems to be grave.

Under the logics set up in the NDRC's decision on boycotting mentioned above, the SAIC should be able to be in charge of an investigation on price-related conduct if this conduct is regarded as a leverage to achieve the final non-price-related purpose. Here will take the refusal to deal as an example. Basically, the refusal to deal falls within the scope of the SAIC. In order to refuse to deal, undertakings may deliberately propose unacceptable conditions, including requiring excessive price, to force the other party to give up the transaction.⁶⁵ In this scenario, increasing price is not the real purpose, but the way to achieve the refusal to deal. Xu believes that it is the main purpose of the conduct concerned that should be emphasized and considered when allocating the overlapping jurisdictions.⁶⁶ However, according to Article 13 of Provisions against Price Fixing, this kind of refusal to deal should be managed by the NDRC. Article 13 articulates that dominant undertakings should not refuse to deal in a disguised form by requiring excessive sale price or extremely low purchasing price.⁶⁷ Then, it comes to the conflict of jurisdiction between the NDRC and the SAIC. It seems to be that as long as the relevant enforcement authority is willing to take the investigation, they can do that. The allocation standard of whether the conduct is price-related or not seems not to function effectively as it should be. This confusion may also lessen the advantageous effect brought by the decentralisation of enforcement powers that a high degree of expertise specializing in certain areas or industries can be developed. In terms of the exercise of patent rights, it is much more doubtful whether the competition enforcement will be effectively undertaken without a clear and strong standard.

6.3.2.2 The Potential for Enforcement Rules to Diverge

In addition, there is a danger of potential divergent enforcement rules being applied in similar cases. This is undesirable as it gives rise to legal uncertainty for market operators.

⁶⁵Guangyao Xu, 'The Allocation and Coordination of the Jurisdiction of the Enforcement Authorities under China's Anti-monopoly Law' (《反垄断法》执法机构的管辖权划分与协调) (2013) (02) Price: Theory & Practice, 82.

⁶⁶ *ibid.*

⁶⁷ Provisions against Price Fixing (反价格垄断规定), Article 13, which was adopted by the NDRC on the basis of the Anti-monopoly Law.

In particular, when multiple AMEAs have discretion, the risk of different enforcement results is increased. Different AMEAs with overlapping enforcement powers may deviate from each other on how to interpret and implement the AML.⁶⁸ It has even been contended that multiple AMEAs can lead to inconsistent antitrust policies, impose additional pressure on undertakings and finally undermine the fairness and efficiency of competition enforcement.⁶⁹

There is a risk that the application of different rules may lead to different outcomes on similar practices. Like most competition law regimes, the Chinese AML stipulates rules of principle and then leaves it to the AMEAs themselves to adopt specific guidelines or regulations to facilitate the enforcement process. Accordingly, the three Chinese AMEAs respectively publish their own separate regulations on their enforcement policy. Each AMEA conforms only to its own rules and is not liable for the rules adopted by the other AMEAs. In this context, there is a substantial risk that the AMEAs may adopt different enforcement rules which are then applied to similar practices. For example, Article 46.2 of the AML articulates a leniency policy which enables the penalty imposed on the undertaking that first reports the existence of a restrictive agreement and provides material evidence to a relevant AMEA, to be mitigated or immune at the AMEAs' discretion.⁷⁰ Both the NDRC and the SAIC specify this policy in their individual regulations, but there are differences. It is stated by the NDRC that the first undertaking which contacts the NDRC with the relevant information, and provides important evidence, may be exempted from punishment.⁷¹ Other reporters can be given a reduction of the punishment by more than or less than 50%, in the light of different situations.⁷² Pursuant to SAIC's provisions, the same exemption is granted to the first reporter.⁷³ However, the SAIC, unlike the NDRC, does not adopt a threshold of 50% for other reporters, and the reduction of the punishment is on the basis of specific situations at the SAIC's discretion.⁷⁴ In addition, SAIC's Provisions on the Procedures for the Administrative Departments for Industry and Commerce to Investigate and Handle Cases of Monopolization Agreements and Abuse of Dominant Market Position, stipulate that their leniency policy shall not be applicable to the

⁶⁸ Blumenthal (n 30) 30.

⁶⁹ Report 2007 (n 55) 129.

⁷⁰ The AML, Article 46.

⁷¹ Regulations on the Administrative Procedures for Law Enforcement against Price Fixing, Article 14.

⁷² *ibid.*

⁷³ Provisions for the Industry and Commerce Administrations on the Prohibition of Monopolistic Agreements (工商行政管理机关禁止垄断协议行为的规定), Articles 11 and 12.

⁷⁴ *ibid.*

main offender of the restrictive agreement.⁷⁵ While, the NDRC does not include such a rule in their regulations. Moreover, in determining ‘the other concerted conduct’, the SAIC’s Provisions for the Industry and Commerce Administrations on the Prohibition of Monopolistic Agreements list three elements to be considered: consistency of the conduct of the undertakings; intentions and information exchange; and reasonable explanations.⁷⁶ However, NDRC’s Provisions against Price Fixing only state the first two elements and so do not take reasonable explanations into account.⁷⁷ These two examples of differences show the risk of the divergent enforcement rules. Under these circumstances, one single investigation may have two different outcomes if dealt with by different AMEAs. The undertakings have to face different legal obligations and the compliance costs may be considerably increased.

Different enforcement rules may also result in selective reports or complaints of anti-competitive conduct. For instance, the undertakings that would like to benefit from the leniency policy may prefer to report to the NDRC who has a much clearer and assured reduction standard on fines than the SAIC. Divergent enforcement rules may achieve different conclusions of facts and lead to likely different outcomes of similar conduct. The lack of uniformity in the enforcement rules of multiple AMEAs may result in undertakings wrongly believing that their conduct is not anti-competitive.

In particular, the AML leaves significant discretion to the three AMEAs in several aspects. Without unified instructions, AMEAs may reach different conclusions in similar investigations on the determination of a dominant position, on an abuse of dominance, on the amount of a fine, etc., which can result in inefficient and unfair competition enforcement. For instance, the AML provides that a fine can be imposed ranging from 1% to 10% of the sales revenues in the preceding year.⁷⁸ The final amount of a fine is at the discretion of the AMEA handling the investigation. However, the AML does not prescribe which year should be regarded as the ‘previous year’ when calculating a fine. The previous year can mean either the one before the year in which an AMEA decided to open a file or the one before the year in which an administrative decision was made. Such uncertainty can result in the confusion to the public and, indeed, this problem has already arisen. For example, in 2011 the NDRC investigated horizontal agreements signed by some Japanese bearing manufacturing companies. In 2014 these agreements were found to be anti-

⁷⁵ *ibid*, Article 20.

⁷⁶ *ibid*, Article 3.

⁷⁷ Provisions against Price Fixing, Article 6.

⁷⁸ The AML, Article 46.

competitive and fines were imposed which were calculated on the basis of the 2013 sale figures.⁷⁹ Similarly, in 2013, the NDRC initiated an investigation of Qualcomm and in 2015 adopted a decision imposing a fine, but the fine was based on the 2013 sale figures.⁸⁰ Moreover, in 2015 the NDRC investigated four pharmaceutical companies for being parties to an alleged horizontal restrictive agreement. The investigation ended in 2016 with fines being imposed based on 2014 figures.⁸¹ It can be seen from these examples that even if the cases were investigated by the same AMEA, divergent enforcement appeared. The situation may be particularly confusing when the unclear reference of the ‘previous year’ is compounded with the discretionary proportion of the fine. It is also not clear whether the sale revenues should be calculated globally or in a specific geographical area. Thus, it is important to ensure an even playing field.

The AMC has appointed the NDRC which drafted two sets of guidelines in 2016: the draft Guidelines for Application of the Leniency Regime to Cases of Horizontal Monopoly Agreements⁸² and the draft Guidelines on Recognizing the Illegal Gains Obtained by Business Operators from Monopolistic Acts and Determining the Amount of Fines.⁸³ These two sets of guidelines aim to unify the enforcement standards and rules of the different AMEAs in the application of leniency policy and in the calculation of fines. If they are finally adopted by the AMC, the risk of divergent enforcement in these areas will be much reduced.

As far as IP-related issues are concerned, the situation is even more problematic as not only the general, but also the specific enforcement rules, diverge. The SAIC is the only AMEA to date that has adopted an IP-related anti-monopoly measure. The SAIC Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition (the SAIC IP Provisions) came into effect on 1 August 2015.⁸⁴ The SAIC IP Provisions are only binding on the SAIC. Any effect on the other two AMEAs is

⁷⁹ *Nachi-Fujikoshi Corp. and others*, NDRC Administrative Sanction Decisions, FaGaiBanJiaJianChuFa [2014] No.10-13 (发改办价监处罚 [2014]10-13 号).

⁸⁰ *Qualcomm Incorporated*, NDRC Administrative Sanction Decision, FaGaiBanJiaJianChuFa [2015] No. 1 (发改办价监处罚 [2015] 1 号).

⁸¹ *QingYangYaoYe and others* (n 32).

⁸² Guidelines for Application of the Leniency Regime to Cases of Horizontal Monopoly Agreements (Draft for Comments) (横向垄断协议案件宽大制度适用指南 (征求意见稿))

<http://www.ndrc.gov.cn/fzgggz/jgdyfld/fjgld/201602/t20160203_774288.html> accessed 28 June 2017.

⁸³ Guidelines on Recognizing the Illegal Gains Obtained by Business Operators from Monopolistic Acts and Determining the Amount of Fines (Draft for Comments) (国务院反垄断委员会关于认定经营者垄断行为违法所得和确定罚款的指南 (征求意见稿))

<http://www.ndrc.gov.cn/fzgggz/jgdyfld/fjgld/201606/t20160617_807550.html>accessed 28 June 2017.

⁸⁴ See further discussion in Chapter 5.

unknown. However, in principle, the other two AMEAs are not concerned with the SAIC IP Provisions. That means, the alleged anti-competitive practices in the exercise of patent rights involving both price-related and non-price related conduct may be treated differently by the NDRC and the SAIC. For example, the SAIC IP Provisions provide specific explanations on what constitutes an abuse of dominance by imposing unreasonable conditions in the exercise of IPRs, while to what extent NDRC will consider these circumstances is hard to be predicted.⁸⁵ In addition, the benefits of the SAIC IP Provisions are not available to undertakings investigated by NDRC.⁸⁶ Although the NDRC has not adopted its own IP-related anti-monopoly regulation, the SAIC and the NDRC had, at the request of the AMC, drafted separately and submitted two sets of anti-monopoly guidelines on IPRs for public comment (the 2016 SAIC draft IPRs guidelines⁸⁷ and the 2015 NDRC IPRs draft guidelines⁸⁸).

Neither draft guidelines have been yet formally adopted by the AMC. However, the differences in the two documents clearly reveal the potential divergent enforcement in the IP area, or at least show their different enforcement policy, even though unified IP-related guidelines will be adopted finally by the AMC. For example, both the SAIC IP Provisions and the NDRC draft IPRs guidelines include a safe harbour rule, but they adopt different thresholds.⁸⁹ Additionally, in defining the relevant market, the SAIC draft IPRs guidelines adopt the concept of relevant innovation market, but the NDRC draft IPRs guidelines do not mention this definition. It is acknowledged that matters concerning IPRs are complicated, so the proposed competition enforcement rules are full of challenges.

In March 2017, after collecting public comment on the two draft guidelines, the AMC released unified draft IPRs guidelines for public comments (the AMC draft IPRs guidelines).⁹⁰ Compared to the NDRC and SAIC drafts, the AMC draft IPRs guidelines are much more principled and leave significant discretion to the AMEAs. Combined with the

⁸⁵ See details in Chapter 5, Section 5.4.3.

⁸⁶ For example, the safe harbour rule in the SAIC Provisions may not be applied by the NDRC. The safe harbour rule was examined elaborately in Chapter 5, Section 5.3.

⁸⁷ Guidelines for Anti-monopoly Law Enforcement against the Abuse of Intellectual Property Rights (7th Draft of the SAIC) (关于滥用知识产权的反垄断执法指南 (国家工商总局第七稿)) <<http://app.westlawchina.com/maf/china/app/document?&src=nr&docguid=i0000000000000152af77d3606c4c4bc6&lang=en>>

⁸⁸ Anti-monopoly Guidelines of the Anti-monopoly Commission of the State Council for the Abuse of Intellectual Property Rights (Draft for Comments by NDRC) (关于滥用知识产权的反垄断指南 (国家发改委征求意见稿)) <http://www.sdpc.gov.cn/gzdt/201512/t20151231_770313.html>

⁸⁹ See detailed analysis in Chapter 5, Section 5.3.2.

⁹⁰ Anti-monopoly Guidelines of the Anti-monopoly Commission of the State Council for the Abuse of Intellectual Property Rights (Draft for Comments) (关于滥用知识产权的反垄断指南 (征求意见稿)) <<http://fldj.mofcom.gov.cn/article/zcfb/201703/20170302539418.shtml>>.

special characteristics of the exercise of patent rights, too much discretion can result in uncertainties and unfairness in competition enforcement. As a consequence, divergent enforcement may still exist and the predictability and the deterrence of the AML in regulating the anti-competitive exercise of IPRs will be reduced.

6.3.3 The Ineffectiveness of the Anti-monopoly Commission

Although the creation of the AMC has been regarded as positive, it does not play an important coordination role as expected. According to the AML, the AMC is under the control of the State Council but it is quite different from the other ministries controlled by the State Council. As already stated, the AMC cannot be regarded as an AMEA and has no power to engage in direct competition enforcement. Neither does it have independent support staff. Its daily work is carried out by MOFCOM. On the basis of these factors, the role of the AMC to ‘coordinate administrative enforcement of the Antimonopoly Law’ has not been fully developed.⁹¹

The AMC’s lack of specific powers means it lacks authority. Owing to the strong powers of each AMEA, any proposal of the AMC to coordinate conflict between each AMEA is of minor importance. The AMC does not provide guidance as to the overlapping competences of the three AMEAs and has not established an allocation or transfer mechanism between the AMEAs. Although there are cases concerning overlapping powers of the AMEAs, no reports or announcements have been released as to whether the AMC may intervene and coordinate. When the AML first came into effect, the lawyer Zhengwei Dong complained of Microsoft’s alleged anti-competitive practices to all the three AMEAs and suggested that the three AMEAs should initiate an anti-monopoly investigation on Microsoft.⁹² MOFCOM replied first and stated that the complaint had been transferred to the relevant department inside the MOFCOM; however, Zhengwei Dong later received a formal letter from MOFCOM stating that the complaint concerned did not fall within the competence of MOFCOM since its role is a merger control reviewer, and suggested that Dong contact the other two AMEAs.⁹³ It was satisfying that MOFCOM replied instantly, but at the same time it exposed the inefficiency of the AMC as a coordinator for competition enforcement. An undertaking had to complain to each of the three AMEAs. Dong argued that the AMC

⁹¹ Na Ni and Xin Wan, ‘The Implementation Mechanism and Model of Anti-monopoly in China and Its Reform Recommendations’ (我国反垄断的实施机制、模式及其改革构想) (2010) 03 Reform 29, 32.

⁹² Baosong Yao, ‘The Anti-monopoly Enforcement System in the Area of Intellectual Property Rights’ (论我国知识产权反垄断的执法机制) (2009) 02 Journal of Henan Administrative Institute of Politics and Law 173, 176.

⁹³ *ibid.*

should make full use of its coordinating competence and clarify the relevant responsibilities between the three AMEAs.⁹⁴

In addition, the AMC does not play a critical role in unifying competition enforcement rules. It has done little to coordinate the discretion exercised by each AMEA to ensure that competition enforcement is reasonably consistent. Neither does the AMC provide constructive or effective advice as to how to facilitate the concurrent jurisdiction between the AMEAs and the relevant sectoral regulators. No guidelines are available to resolve conflicts that arise in competition enforcement, although a few guidelines on other aspects have been adopted by the AMC. Additionally, the lack of unified anti-monopoly IPRs guidelines intensifies the friction and uncertainty in the enforcement activities of the AMEAs when dealing with IP situations. Accordingly, as a consultative and coordinating organisation, the AMC's role in coordinating competition enforcement has not been effectively developed.⁹⁵

6.3.4 The Relationship between AMEAs and Sectoral Regulators

In recent years, the deregulation and liberalization of the industries that had been state-owned monopolies for a number of years, has been a significant economic breakthrough in China, though the process is considerably slow. Currently, monopoly and competition co-exist in these regulated industries.⁹⁶ Before 2008 there had already been several sectoral regulators created to regulate and supervise the operation of state-owned monopoly industries such as the Ministry of Industry and Information Technology, the General Administration of Civil Aviation and so on. At the same time, relevant sectoral regulations were adopted, most of which are still in effect today. There are certain competition-related rules adopted by these sectoral regulations which allow concurrent jurisdiction of the AMEAs and relevant sectoral regulators. In practice, many European countries have a competition authority separate from sectoral regulators which apply competition rules to specific industries but make sure that they do communicate effectively with each other

⁹⁴ Yan Jiang, 'MOFCOM: NDRC or SAIC Should Be Responsible for the Anti-monopoly Investigation on Microsoft' (商务部: 微软反垄断调查由发改委和工商总局负责) (22 August 2008) <<http://business.sohu.com/20080822/n259123264.shtml>> accessed 13 May 2018.

⁹⁵ Liang Wang, 'The Defects and Perfection of Anti-monopoly Law Executing Agency in China' (论我国反垄断执法机构的不足与完善) (Master thesis, East China University of Political Science and Law 2013) 10.

⁹⁶ Xianlin Wang, 'The Coordination between the Regulation of Monopolistic Industries and the Anti-monopoly Enforcement' (垄断行业监管与反垄断执法之协调) (2014) 02 Law Science 111, 115.

when there are mutual interests.⁹⁷ Concurrent jurisdiction on competition issues in regulated industries may resolve the problem of asymmetry of information by the AMEAs and simultaneously avoids the risk of industry protectionism by sectoral regulators.⁹⁸ In order to facilitate effective enforcement by the competition authority and the relevant sectoral regulators, clear rules are required to assign responsibilities to each agency and to exchange information. For instance, the French competition authority is obliged to seek the opinion of the relevant sectoral regulator on technical issues in respect of the competition matter it is dealing with; the opinion is not binding but the French competition authority is required to explain why it deviated in the specific case from the sectoral regulator's opinion.⁹⁹ In the UK, the Competition Act 1998 empowers both the Competition and Markets Authority (CMA) and the sectoral regulators to implement the competition rules.¹⁰⁰ A principle is set up that cases will be allocated between the CMA and sectoral regulators on the basis of which authority is 'better or best placed to do so'.¹⁰¹ It is further confirmed that when there is a dispute, the CMA will have the final power to determine the allocation.¹⁰² Based on the current political and economic circumstances in China, it is believed that the AMEAs and sectoral regulators should cooperate and coordinate effectively in competition enforcement in the regulated sectors.¹⁰³ However, no legal measure has yet been adopted to delineate the concurrent jurisdiction between the AMEAs and sectoral regulators. Even the AML itself does not make provision for this concurrency. Therefore, this situation brings uncertainty to undertakings on the predictability of laws and the enforcement rules to be applied; jurisdiction conflicts between the AMEAs and sectoral regulators may arise where they disagree on the jurisdiction or where they do not wish to seize jurisdiction. The advantages of the concurrent jurisdiction cannot be fully developed in regulated industries.

⁹⁷ Jenny Frederic, 'The Institutional Design of Competition Authorities: Debates and Trends' in Jenny Frederic and Yannis Katsoulacos (eds), *Competition Law Enforcement in the Brics and in Developing Countries: Legal and Economic Aspects* (Springer International Publishing 2016) 20.

⁹⁸ Xiaoye Wang, *Issues Surrounding the Enforcement of Anti-monopoly Law* (反垄断法实施中的重大问题) (Social Sciences Academic Press (China) 2010) 209.

⁹⁹ Frederic (n 97) 20.

¹⁰⁰ Competition Act 1998, Section 54.

¹⁰¹ Regulated Industries: Guidance on Concurrent Application of Competition Law to Regulated Industries, CMA 10, March 2014, para 3.22.

¹⁰² The Competition Act 1998 (Concurrency) Regulations 2014, 2014 No.536, reg 8.

¹⁰³ Wang, 'The Analysis of Several Problems concerning China's Anti-monopoly Enforcement Authorities' (n 7) 41; Wang, 'The Coordination between the Regulation of Monopolistic Industries and the Anti-monopoly Enforcement' (n 96) 117.

6.3.5 The Relationship between Public and Private Enforcement

Normally, public and private enforcement are two important pillars of competition enforcement system. They are complementary to each other and work together to prohibit anti-competitive conduct. China's AML follows the common world practice and confirms that both public and private enforcement are possible. In fact, in China, private enforcement of anti-competitive practices originated before the enactment of the AML, most of which were related to patent rights.¹⁰⁴ Since China's AML came into effect, the number of private anti-monopoly actions has increased significantly and they cover several areas.¹⁰⁵ Some of these private actions attracted considerable attention from the public.¹⁰⁶ However, the successful claims of private litigation are fairly rare as a result of the heavy and difficult burden of proof.¹⁰⁷ China's AML merely confirms the right of the relevant parties to initiate civil litigation seeking damages but it does not elaborate how public and private enforcement are linked. Although there have not yet been serious conflicts between public and private enforcement, this does not mean that conflicts and uncertainty cannot exist or will not arise in the future. Therefore, it is necessary to determine the likely uncertainties that may hinder the effective development of competition enforcement and try to resolve them.

6.3.5.1 Concurrent Complaints to the AMEAs and Courts

Article 2 of the Supreme People's Court Provisions confirms that both stand-alone and follow-on litigation is possible.¹⁰⁸ This means that an effective decision of the AMEAs finding illegal anti-competitive conduct is not a requisite for a plaintiff to lodge a civil litigation for damages. On one hand, Article 2 to a great extent protects the litigation rights of the parties seeking damages and complements the deficiencies of the AMEAs. On the other hand, the confirmation of no requisite introduces new problems to the relationship between public and private enforcement. For instance, the Supreme People's Court Provisions do not delineate what will happen if a plaintiff at the same time files a complaint to an AMEA and to the competent people's court. In principle, the AMEA and the court can separately admit the complaint within their respective responsibilities, as long as the required conditions are fully satisfied. However, if the AMEA and courts separately

¹⁰⁴ See detailed discussion in Chapter 2, Sections 2.3.1-2.3.3.

¹⁰⁵ Chuang Wang, 'The Overview of Anti-monopoly Civil Litigations in China and Its Future Outlook' (中国反垄断民事诉讼概况及展望) (2016) 02 Competition Policy Research 6, 7.

¹⁰⁶ The most noticeable case should be *Huawei vs. InterDigital*, examined in Chapter 4, Section 4.2.

¹⁰⁷ Wang (n 105) 7.

¹⁰⁸ Supreme People's Court Provisions on Monopolistic Conduct, Article 2.

investigate a case, resources may be wasted and substantially different decisions may be reached. In this situation, neither the AML nor the Civil Procedure Law provides for suspension by the courts. There has been no agreement reached between the AMEAs and the courts in terms of concurrent complaints. As a consequence, whether courts do suspend the litigation and wait for the result of the AMEA may become a contentious issue.

6.3.5.2 The Effects of Findings by the AMEAs or by the Courts

In addition, it is not clear to what extent the AMEAs' findings of fact and infringement can influence the decision of the courts in terms of the same alleged anti-competitive conduct. In the UK, it is stipulated that the confirmed CMA findings of fact are binding on the parties unless the court directs otherwise or the CMA has decided to take further action.¹⁰⁹ Infringements decisions are binding on courts which deal with claims for damages.¹¹⁰ In the EU, Article 16 of Regulation 1/2003 ensures the uniform application of EU competition law by clarifying that national competition authorities and national courts cannot take decisions running counter to a Commission decision.¹¹¹ In order to avoid conflicting results, national courts should assess whether to stay the proceedings if the European Commission is contemplating the decision.¹¹² In addition, the effect of national decisions is confirmed in the Damages Directive that an infringement of competition law arising from a final decision of a national competition authority or by a review court shall be binding on the courts in that country in the light of damages litigation.¹¹³ Such final decision of a national competition authority in another Member State shall be presented as *prima facie* evidence before their national courts where an infringement of competition law has been alleged.¹¹⁴ At the same time, a number of EU rules have been adopted to facilitate access to evidence in damages actions before national courts. For example, litigants before a national court, may access the European Commission's case file.¹¹⁵

¹⁰⁹ Competition Act 1998, Section 58.

¹¹⁰ *ibid*, Section 58A.

¹¹¹ Council Regulation (EC) No 1/2003 of 16 December 2002 on the Implementation of the Rules on Competition Laid Down in Articles [101] and [102] of the Treaty [2003] OJ L1/1, Article 16. This is the EU procedural Regulation that sets out powers and duties of competition authorities.

¹¹² *ibid*.

¹¹³ Directive 2014/104/EU of the European Parliament and of the Council of 26 November 2014 on Certain Rules Governing Actions for Damages under National Law for Infringements of the Competition Law Provisions of the Member States and of the European Union [2014] OJ L349/1, Article 9.

¹¹⁴ *ibid*.

¹¹⁵ Commission Notice on the Rules for Access to the Commission File in Cases Pursuant to Articles [101] and [102] of the EC Treaty, Articles 53, 54 and 57 of the EEA Agreement and Council Regulation (EC) No 139/2004, [2005] OJ C325/7.

However, the Chinese legislation does not articulate as clearly as the UK and EU legislation that the findings by the AMEAs in a competition investigation should be binding in civil proceedings before the courts.¹¹⁶ The only relevant article seems to be that the probative force of public documentary evidence of a State organisation is much more powerful than other documentary evidence.¹¹⁷ This can be perceived that the AMEAs findings to some extent will have effects on civil proceedings before courts. However, it is hard to predict the extent and it is likely to depend on the discretion of judges. It is acknowledged that the most severe difficulty for plaintiffs in an action for damages for alleged anti-competitive conduct is the burden of proof.¹¹⁸ The unclear effects of the AMEAs' factual findings may deprive plaintiffs of a powerful weapon in their claim for civil damages.

Moreover, what are the effects of the final judgments by courts on the investigation by the AMEAs is another problem. This is particularly so when it comes to the area of patent rights. In May 2014, the NDRC announced that it had accepted commitments made by InterDigital concerning its SEP licensing practices and, therefore, suspended the anti-monopoly investigation of InterDigital that started from June 2013.¹¹⁹ In this case, the commitments made by InterDigital to the NDRC which secured the suspension of the investigation were, to some extent, influenced by the judgments of the courts in *Huawei vs. InterDigital*.¹²⁰ However, to what extent the court judgments influenced the NDRC is not very clear. Did the decision to suspend the investigation by the NDRC take into account the judgments of the Guangdong Higher People's Court? If the NDRC had not suspended the investigation, would it have adopted the findings of facts or of infringements directly from the final judgments? Besides, there is a risk that the NDRC may take a different decision from the courts.

¹¹⁶ The approaches adopted by the UK and EU can provide guidance for the proposals made in Chapter 9, Section 9.1.3.

¹¹⁷ Some Provisions of the Supreme People's Court on Evidence in Civil Procedures (最高人民法院关于民事诉讼证据的若干规定), Article 77.

¹¹⁸ Wang (n 105) 9.

¹¹⁹ The announcement by NDRC <http://www.ndrc.gov.cn/gzdt/201405/t20140522_612466.html> accessed 13 May 2018.

¹²⁰ *Huawei vs. InterDigital*, Guangdong Higher People's Court, (2013) Yue Higher Court Civil Division III Final No.306 and No.305 ((2013) 粤高法民三终字第 306 号, 305 号). See details of the case in Chapter 4, Section 4.2.

6.3.5.3 Differences in Interpreting and Applying the AML by the AMEAs and the Courts in China

An additional aspect that must be considered is the differences in interpreting and applying the rules of China's AML by the AMEAs and the courts. For example, in accordance with Article 7 of the Supreme People's Court Provisions, it is the responsibility of the defendant to demonstrate that its horizontal agreements do not have the effects of eliminating and restricting competition.¹²¹ While, the burden of proof is borne by the claimant when the case concerns vertical restrictive agreements. In the second instance of *Beijing Ruibang Yonghe Technology Trade Co., Ltd. vs. Johnson & Johnson Medical (Shanghai) Ltd. and Johnson & Johnson Medical (China) Ltd.*, the judge affirmed that the plaintiff should bear the burden of proof to demonstrate that the vertical agreement concerned would eliminate or restrict competition and the judge made a detailed analysis of the nature and the effects of the conduct of maintaining resale prices.¹²² However, it can be seen from the published NDRC decisions that NDRC seldom analyses in detail the restrictive effects on competition of a vertical agreement aimed at maintaining resale prices.¹²³ It seems to indicate that in the view of the NDRC the anti-competitive effects of the vertical agreements prohibited by the AML exist objectively and do not need to be demonstrated by the NDRC.¹²⁴ In other words, the NDRC does not bear the burden of proof as a 'claimant' in an investigation of alleged vertical restrictive agreements. Accordingly, the enforcement rules adopted by the AMEAs seem to be a little different from those adopted by courts.¹²⁵ This situation will result in unfair and inconsistent application of the AML and undermine the certainty and predictability of law.

Currently, there is no guidance or mechanism to coordinate the differences in the competition enforcement rules between the AMEAs and the courts. The question to keep the administrative enforcement consistent with the judiciary enforcement in terms of anti-competitive issues is a difficulty to be overcome.

¹²¹ Supreme People's Court Provisions on Monopolistic Conduct, Article 7.

¹²² *Beijing Ruibang Yonghe Technology Trade Co., Ltd. vs. Johnson & Johnson Medical (Shanghai) Ltd. and Johnson & Johnson Medical (China) Ltd.*, Shanghai High People's Court, (2012) Hu High Court Civil Division III (Intellectual Property) Final No.63 ((2012)沪高民三(知)终字第 63 号).

¹²³ Susan Ning and others, 'The Dual System of Anti-monopoly Law—the Interplay between Administrative Enforcement and Civil Action' (China Law Insight, 12 September 2013) <<https://www.chinalawinsight.com/2013/09/articles/corporate/antitrust-competition/the-dual-system-of-anti-monopoly-law-the-interplay-between-administrative-enforcement-and-civil-action/>> accessed 13 May 2018.

¹²⁴ Ningyuan Liu, *The Research on the Implementation Mechanism of China's Anti-monopoly Law from the View of Comparative Law* (比较法视野下中国反垄断法运行机制研究) (Law Press. China 2015) 242.

¹²⁵ Xiaoye Wang and Adrian Emch, 'Five Years of Implementation of China's Anti-monopoly Law—Achievements and Challenges' (2013) 01 (2) Journal of Antitrust Enforcement 247, 270.

6.3.6 Lack of Independence

As discussed above, it is the Anti-monopoly and Anti-unfair Competition Enforcement Bureau, the Bureau of Price Supervision and Anti-monopoly and the Anti-monopoly Bureau, respectively housed within the SAIC, NDRC and MOFCOM that are responsible for specific competition enforcement. In addition to enforcing the AML, all of the three national ministries have concurrent functions and missions to formulate and implement macroeconomic and other policies.¹²⁶ The low hierarchy of the competition authorities and the multi-functions of their head ministries are likely, to some extent, to hinder the implementation of the AML in an independent and impartial way.¹²⁷ For example, when competition policies contradict industrial policies, there is a possibility that the NDRC may prioritize industrial policies; when competition policies conflict with trading policies, MOFCOM may give a priority to the trading policies.¹²⁸ In this context, the role of implementing competition policy may not be fully and effectively played.

6.3.7 Lack of Professionalism

Moreover, competition enforcement is complex and technical, so it requires a large number of highly qualified staff with strong economics or law backgrounds to carry out the investigation and the analysis. For instance, in 2015, the US Federal Trade Commission was composed of 1176 highly qualified civil service employees, including 658 attorneys and economists.¹²⁹ There are 657 employees in total in the US Antitrust Division of the Department of Justice, dedicated to implementing antitrust laws.¹³⁰ In the EU, the Directorate-General for Competition is substantially responsible for competition issues, with a total of 914 highly qualified staff including the Chief Competition Economist whose task is to provide independent economic advice on individual cases and policy.¹³¹ It has

¹²⁶ Main Functions of the NDRC <<http://en.ndrc.gov.cn/mfndrc/>>; Mission of the SAIC <<http://home.saic.gov.cn/english/aboutus/Mission/index.html>>; Mission of the MOFCOM <<http://english.mofcom.gov.cn/column/mission2010.shtml>>; Functions of the Anti-monopoly Bureau of the MOFCOM <<http://english.mofcom.gov.cn/departments/fldj2/>>

¹²⁷ Su and Wang (n 2) 216.

¹²⁸ Jian Wang, 'The Deficiency of Sharing Power or Centralizing Power—China's Model of the Allocation of the Powers between the Anti-monopoly Enforcement Authorities and the Solutions' (权力共享制抑或权力独享制—我国反垄断执法机关权力配置模式及解决方案) (2013) 03 Tribune of Political Science and Law 127, 133.

¹²⁹ FY 2017 Congressional Budget Justification, page 46 <<https://www.ftc.gov/system/files/documents/reports/fy-2017-congressional-budget-justification/2017-cbj.pdf>> accessed 30 November 2016.

¹³⁰ FY 2016 Contingency Plan, page 12 <<https://www.justice.gov/jmd/file/778206/download>> accessed 30 November 2016.

¹³¹ DG COMP- Annual Activity Report 2015-Annex, page 2 <http://ec.europa.eu/info/sites/info/files/activity-report-2015-dg-comp-annex_march2016_en.pdf> accessed 30 November 2016.

been stated that given China's large market and the size of its economy, 'the resources for antitrust enforcement in China should not be less than those of antitrust agencies in any other jurisdictions'.¹³² However, the total number of staff in all the three AMEAs in China dedicated to applying the AML is less than 100¹³³ which is not equivalent to the tremendous workload and great pressure on the three AMEAs. Owing to the multi-functions of the three ministries, it cannot be guaranteed that the limited human resources will all be devoted to the implementation of the AML.¹³⁴ It has even been stated that a significant number of merger cases entered into phase 2 investigation as a result of the understaffing of MOFCOM, some of which should have been cleared in phase 1.¹³⁵ Even though the NDRC and the SAIC are allowed to empower their provincial bureaus to share the competition enforcement responsibilities, their assistance is subject to limited authorisation and cannot fundamentally alleviate the manpower pressure.¹³⁶

The problem will be particularly aggravated when an investigation concerns the anti-competitive exercise of patent rights. This is because compared to other anti-competitive practices, analysing the effects of the exercise of patent rights will require more technical knowledge and the process is more complicated. Patent rights are different from other ordinary civil rights. The exclusive right is granted by the State to the owner to enjoy for a specific period of time. Normally, the exercise of patent rights is pro-competitive and must not be unduly restricted. Therefore, to determine whether the exercise of patent rights falls within its legal scope or is anti-competitive should need the help of experts in patent rights, such as specialized IP lawyers. For example, the definition of a relevant market in a patent-related investigation may require the establishment of the technology market and the innovation market. Similarly, the analysis of substitutable technologies will require certain professional background and the assessment of the relevant market. The calculation of the proper patent royalty fees should be based on professional analysis. However, external lawyers are not allowed to engage in the competition enforcement led by the three AMEAs in China and the qualified staff to handle competition issues in IP areas are not enough and are in demand.¹³⁷

¹³² Wang and Emch (n 126) 268.

¹³³ Wan (n 11) 295.

¹³⁴ Shengli Li, 'The Conflicts and Coordination in the Enforcement of Antitrust Agencies in the United States and Its Inspirations' (美国反垄断执法机构的执法冲突和协调及其启示) (2014) 02 *Studies in Law and Business* 143, 149.

¹³⁵ Wang and Emch (n 126) 269.

¹³⁶ *ibid.*

¹³⁷ See proposals to resolve these problems in Chapter 9, Section 9.1.2.

6.3.8 Lack of Transparency

Another serious problem that has been often debated is the lack of transparency. It is clear that it has not become a common practice for Chinese administrative agencies to provide detailed decisions to the public.¹³⁸ MOFCOM is the only AMEA that has a statutory obligation to publish its decisions on prohibited or conditionally approved mergers, while the other two AMEAs may publish their decisions.¹³⁹ But the decisions published by MOFCOM are relatively light in their reasoning.¹⁴⁰ Since 2013, the SAIC began to release its full competition sanction decisions and this practice has been followed by the NDRC since 2014. Although transparency has been improved dramatically compared to previous years, the transparency of the reasoning in the decisions is still not enough. The lack of resources is one reason that gives rise to a lack of transparency. The severe imbalance between the workload and the manpower of the AMEAs leaves less chance for the case handlers to provide detailed reasoning for the decision. In addition, transparency is also lacking in competition investigation procedures. For example, there are no instructions or clear procedures to guide the transferral of a case from one AMEA to another which may result in uncertainty as to the competences of each AMEA. Under these circumstances, the certainty and the predictability of the AML will be seriously weakened. This is so especially in the area of the exercise of patent rights where there is a little competition enforcement experience.

6.4 Conclusion

Normally, whether the AML can be effectively implemented depends on whether the competition enforcement is effective and efficient. The AML introduced a two-level and tripartite administrative enforcement structure. This kind of structure was the result of a political compromise to balance the pre-existing authorities, which best fits the circumstances in that situation. Among the three AMEAs in China, the responsibility of the MOFCOM is relatively clear that it only reviews merger control issues. However, the boundary between the NDRC and the SAIC is problematic as the basis of competence is on whether the conduct concerns pricing. The boundary seems to be clear on the surface, but it has caused problems. These problems result in the ineffectiveness and inefficiency in the application of the AML. The deterrence and certainty of the AML is also undermined.

¹³⁸ Zhang (n 27) 653.

¹³⁹ The AML, Articles 30 and 44.

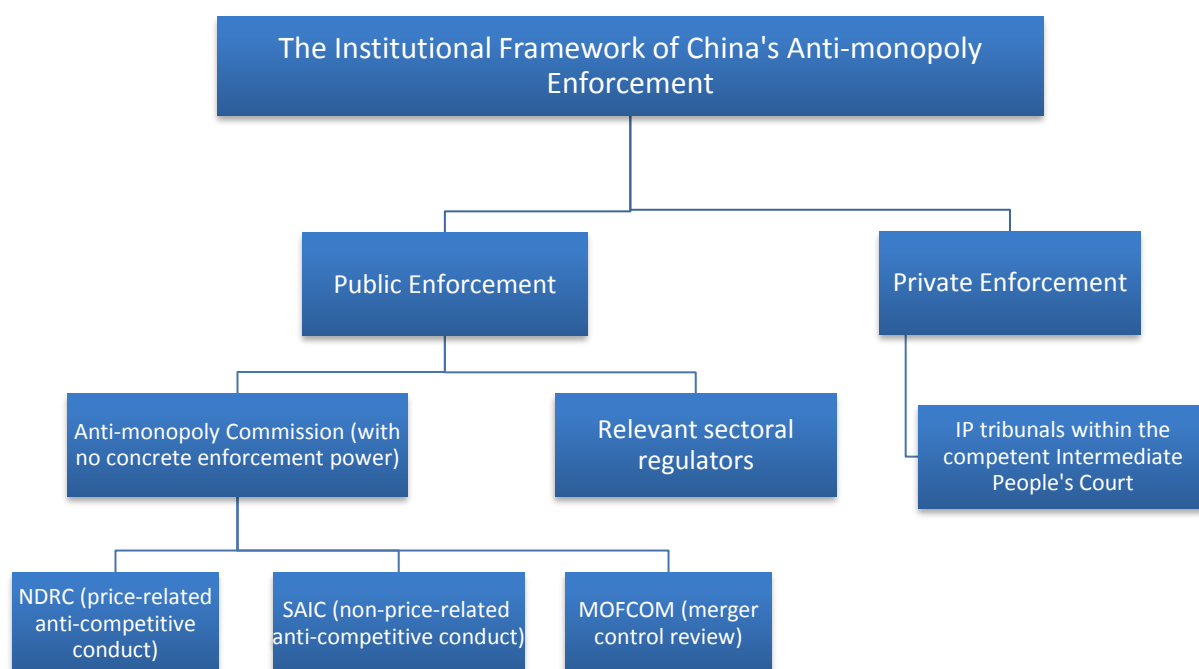
¹⁴⁰ Su and Wang (n 2) 222.

In order to optimize the functions and structure of the Communist Party and state institutions, and improve their efficiency and effectiveness to cope with the requirements and challenges in the current circumstances, the Institutional Reform Plan of the State Council was recently adopted by the 13th National People's Congress. To recap, according to the Institutional Reform Plan, all the responsibilities of the three AMEAs will be merged into a newly established independent authority—the SAMR. The tripartite enforcement will come to an end. As a result, some of the conflicting problems caused by the overlapping enforcement powers will be substantially diminished. After the institutional reform, there will be only one single and independent AMEA to address competition issues. The conflicts and overlaps between the responsibilities and competences of the different AMEAs will no longer exist. The situation to strive for a leading role in an anti-monopoly investigation or negative enforcement to deny jurisdiction will not be a problem anymore. Duplicate enforcement will be avoided and the enforcement efficiency and authority will be improved. Enforcement AMEA costs and the compliance costs of undertakings may be reduced. Moreover, the divergent enforcement of multiple authorities can be alleviated to the maximum extent so that the certainty and predictability of the AML can be guaranteed.

However, some problems in the competition enforcement system can still have a negative impact on application of the AML, especially in the area of the exercise of patent rights, despite having a single AMEA. For example, the confusion as to multiple legal bases for competition enforcement will not be fundamentally removed. There will still be multiple laws, regulations or other rules available for the SAMR to apply but there is also a lack of unified guidelines to facilitate competition enforcement activities. Whether and how the SAMR can fully and effectively perform its functions is another problem waiting to be answered. In addition, the merger of the three AMEAs is unlikely to resolve the problem of the relationship between the SAMR and the sectoral regulators. The rules to coordinate appropriately their concurrent competences on competition issues need to be proposed. To what extent the role of the AMC can be promoted after the SAMR formally comes into operation is also hard to be answered. Moreover, the institutional reform does not impact on the conflict between public and private competition enforcement. No agreement has been reached to address the concurrent complaints to the SAMR and courts. It is still not clear to what extent the findings of the SAMR can influence the decisions of a court in terms of the same alleged anti-competitive conduct, and vice versa. Another problem that must be considered by the SAMR is how to avoid or to coordinate the potential differences in interpreting and applying the AML between itself and the courts. Similarly, the number

and quality of the professional staff employed in the new SAMR, and the transparency of its investigation activities and decisions all need to be improved.

As discussed above, competition enforcement in the exercise of IPRs is a newly-developing field. It is full of challenges and complexity. When the problems in the competition enforcement system encounter the anti-competitive issues in the exercise of IPRs, the situation is severe. In addition, when the Institutional Reform Plan will be formally implemented and the way in which the SAMR will execute its anti-monopoly duties is not clear at the moment. Thus, there is also no clear idea how competition enforcement in the area of IPRs will be developed after the reform. In this context, it is, therefore, necessary to make some appropriate proposals to enable competition enforcement in China to meet the challenges in the field of the exercise of IPRs. This will be done in Section 9.1 of Chapter 9. In the following chapters, two noticeable challenges concerning the anti-competitive exercise of patent rights in the 21st century will be discussed.



Chapter 7 Restrictions on the Licensing of Standard Essential Patents from the Perspective of China's Anti-monopoly Law

7.1 Introduction

Previous Chapters 3-6 have identified the problems of China's anti-monopoly enforcement in the area of the exercise of patent rights, from the perspective of both legal rules and enforcement authorities. Those problems undermine the effectiveness and deterrence of China's Anti-monopoly Law, especially when it comes to the exercise of patent rights in some special circumstances. From this chapter on, the focus will be on the specific anti-competitive practices of patent owners when exercising their patent rights. Chapter 7 will discuss the challenging competition concerns arising from the licensing of standard essential patents.

In the last few decades, there has been dramatic development in the information and communication technology (ICT) sector which significantly improves consumer welfare. In order to ensure the interoperability and the compatibility between different products, the role of standardisation experienced a substantial increase. Normally, standardisation agreements contribute to significant positive economic effects.¹ However, it is also contended that standard-setting may lead to restrictive effects and harm competition in specific circumstances.² This is particularly so when standards incorporate intellectual property rights (IPRs), mostly patents.³ The exclusive nature of patent rights may defeat the public interest nature of standards which will bring about serious competition concerns. In order to mitigate the tension, most standard setting organisations (SSOs) have developed their own IPR policies and require the holders of standard essential patents (SEPs)⁴ to commit to licensing their SEPs on fair, reasonable and non-discriminatory (FRAND) terms. The objective of these commitments is to strike a balance between the SEP owners and the standard implementers. However, the uncertainty and ambiguity of the FRAND commitments makes it hard to be applied in practice and the number of disputes pertaining to SEPs grows sharply. At the international level, there has not yet been any unified or binding principle adopted to address the competition concerns arising from SEPs. Different

¹ Guidelines on the Applicability of Article 101 of the Treaty on the Functioning of the European Union to Horizontal Cooperation Agreements [2011] OJ C11 (Guidelines [2011] OJ C11), paras 263 and 308.

² *ibid*, para 264.

³ *ibid*, paras 267-269.

⁴ 'SEPs are patents essential to implement a specific industry standard.' –Commission, 'Antitrust Decisions on Standard Essential Patents and Samsung Electronics' Memo/14/322, 29 April 2014.

jurisdictions have approached the issue in different ways. As a consequence, the interface between SEPs and competition law has become a global contentious and controversial issue in the 21st century.

In China, the noticeable question as to how the Anti-monopoly Law (AML) may regulate the licensing of SEPs has become a difficult problem for both the anti-monopoly enforcement authorities (AMEAs) and the courts. This issue has been debated fiercely amongst academia and the legal profession. The first case concerning the exercise of SEPs in China arose in October 2013 when the Guangdong Higher People's Court affirmed that the SEP holder InterDigital had abused its dominance and violated Article 17 of the AML.⁵ Then, at the beginning of 2015 Qualcomm was fined by NDRC for its abuse of dominance in the manner in which it exploited its SEPs. In April 2015, SAIC Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition (Provisions) specifically prohibit in Article 13, those restrictions practised by SEP owners. It is clear that China's AMEAs and courts have placed substantial importance on competition enforcement in respect of the licensing of SEPs. However, practical questions and uncertainty remain in this newly developed enforcement area. Existing legal measures are not robust enough to address these concerns. Problems are particularly serious and noticeable when it comes to the disclosure obligation of patent owners in standard-setting process and the circumstances in which the seeking of an injunction by a SEP owner will be regarded as violating competition law. Accordingly, a coherent and balanced response is urgently needed under current China's legal framework. From this aspect, the enforcement experience and best practice of the EU and US in the interface between SEPs and competition law can provide good examples for China, in particular, the recent 2015 ruling from the Court of Justice of the European Union (CJEU) in *Huawei v. ZTE*.⁶

It is not possible to scrutinize every competition concern resulting from standardisation and the licensing of SEPs. This chapter will focus only on two kinds of challenging anti-competitive conduct, one arising from the disclosure obligation of patent owners in standard-setting process and the other from the injunctive relief of SEPs. In accordance with the research objective of the thesis, this chapter will endeavour to provide support and

⁵ *Huawei vs. InterDigital*, Guangdong Higher People's Court, (2013) Yue Higher Court Civil Division III Final No.306 and No.305 ((2013) 粤高法民三终字第 306 号, 305 号).

⁶ Case C-170/13 *Huawei Technologies Co. Ltd v ZTE Corp., ZTE Deutschland GmbH* [2015] ECLI:EU:C:2015:477.

rationale for the proposed solutions in the final concluding chapter to these problems under the Chinese competition rules. This chapter will be divided into five sections. After the introduction, the benefits and competition concerns raised by standardisation will be discussed and the relevant IPRs policies of the SSOs will be examined and commented upon. In the third section, competition concerns in the light of the disclosure obligation of patent owners in the standard setting process will be analysed. The fourth section will discuss whether the availability of injunctive relief should be limited and in what circumstances the seeking of an injunction by a SEP owner will be considered to be anti-competitive conduct. The chapter will end with some conclusions.

7.2 Standards and Standardization

Given the different development level and economic circumstances, standard setting organisations define standards differently. One of the pervasive definitions of standard provided by the International Organisation for Standardisation is that ‘a standard is a document established by consensus and approved by a recognized body that provides for common and repeated use rules, guidelines or characteristics or their results, aimed at the achievement of the optimum degree of order in a given context’.⁷ Industry standards are normally recognized as ‘one of the engines driving the modern economy’.⁸ Among industry standards, those incorporating patented technologies are playing a pivotal role in promoting industrial innovation and increasing competitiveness.⁹ The standards considered in this chapter are technical standards based on patent-protected technologies. The patent that is necessary to implement a technology standard to manufacture standard-compliant products is so defined as standard essential patent (SEP).¹⁰

7.2.1 The Benefits of Standardisation

Standardisation usually contributes substantially positive and pro-competitive economic gains.¹¹ Standardisation guarantees interoperability and compatibility between different

⁷ ISO/IEC Guide 2:2004, 3.2, available at: <https://www.iso.org/obp/ui/#iso:std:iso-iec:guide:2:ed-8:v1:en:sec:3.2>.

⁸ US Department of Justice and the Federal Trade Commission, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: Promoting Innovation and Competition (Promoting Innovation and Competition), April 2007, 33.

⁹ European Commission, ‘Patents and Standards’ <https://ec.europa.eu/growth/industry/intellectual-property/patents/standards_en> accessed 27 October 2017.

¹⁰ Commission, ‘Antitrust Decisions on Standard Essential Patents and Samsung Electronics’ Memo/14/322, 29 April 2014.

¹¹ Guidelines [2011] OJ C11, paras 263 and 308.

products, benefiting both businesses and consumer welfare. The setting and implementation of a standard can integrate repeated technical issues, promote communication and interconnection between devices or services from different origins and remove trade barriers. In this context, competing producers comply with common technical standards and their products interoperate seamlessly. As a result, the utility value of products to consumers is increased.¹² Standardisation promotes economies of scale, increases efficiency and reduces production costs.¹³ Accordingly, standardisation benefits consumers by increasing consumer choice, reducing product price and fostering public health and safety.¹⁴

In addition, standardisation plays an important role in encouraging innovation. For example, it is submitted that the inclusion of a patented technology into a standard may produce more licences for the patent owner and increase their licensing revenue which will incentivize more investment in research and development.¹⁵ Standardisation is able to facilitate the dissemination of technologies. The widespread and successful technical standard can attract a large number of users who will require a patent licence if they manufacture standard-compliant products. It is suggested that the remuneration generated by SEPs is higher than that generated from normal patents.¹⁶ The findings of Rysman and Simcoe show that there will be an increase in the use of the patent if it is claimed necessary to implement a standard.¹⁷ Standardisation also provides efficiency to encourage technology developers. With unified technical standards, manufacturers no longer need to shape their products respectively to each territory and can be more efficient and effective to serve the market.¹⁸

Moreover, standardisation is beneficial to promote competition. Competition is intensified between different technology developers as they seek to incorporate their technologies into a technical standard. From this respect, the quality and the value of the standard will be enhanced and consumer welfare will be improved. It is acknowledged however that the

¹² David Telyas, *The Interface between Competition Law, Patents and Technical Standards* (Kluwer Law International 2014), 68.

¹³ Enrico Bonadio, 'Standardization Agreements, Intellectual Property Rights and Anti-competitive Concerns' (2013) 1 Queen Mary Journal of Intellectual Property 22-42, 3.

¹⁴ Promoting Innovation and Competition (n 8), 33.

¹⁵ Chrysoula Pentheroudakis, Justus A. Baron and Nikolaus Thumm (editor), *Licensing Terms of Standard Essential Patents: A Comprehensive Analysis of Cases* (Publication Office of the European Union 2017) 22.

¹⁶ *ibid.*

¹⁷ Marc Rysman and Timothy Simcoe, 'Patents and the Performance of Voluntary Standard-Setting Organizations' (2008) 54 (11) Management Science 1920-1934.

¹⁸ Telyas (n 12) 68.

process of standardisation is a process that also leads to the exclusion of competition. This is for the reason that standardisation will exclude from the market the non-standard-compliant products or services. Accordingly, the number of competitors in the product market can be decreased and the inter-technology competition may be discouraged.¹⁹ Nevertheless, this kind of exclusion of competition is in nature optimizing the competition structure. It excludes the products or services with low quality (so they are non-standard-compliant) and indeed increases the competition to a higher level.²⁰ The limitation on inter-technology competition motivates the intra-technology competition, which in turn may lower prices and diversify the kinds of products.²¹ In this situation, undertakings are likely to transfer some resources to differentiate non-standardised products.²²

7.2.2 Competition Concerns Raised by Standardisation

However, the setting of technical standards does not come without concerns. It is recognized that the setting of standards is able to restrict competition, reduce consumer choice and potentially control the development of a market, which gives rise to competition concerns.²³ The competition concerns can be particularly serious when the standard is combined with patents. The patent system provides incentives to promote innovation by conferring inventors with exclusive exploitation rights for a limited period of time. It is believed that the exclusivity of patent rights is fundamental to the enjoyment of advantages generated by patent rights.²⁴ Standards are set to facilitate the diffusion of technologies and improve the interoperability between products in the public interest. Therefore, there is a theoretical tension between the exclusive nature of patent rights and the public interest nature of standards.

It may be questioned whether the public interest has already been seriously considered before a patent right is granted. In order to be granted a patent, the invention at issue has to meet a number of strict requirements which are necessary and in the public interest. On this basis, it is believed that the exclusivity of patent rights will not contravene public interest.

¹⁹ Taixuan Wu, *The Regulation of Technical Standardisation by the Anti-monopoly Law* (技术标准化的反垄断法规制) (Law Press, China 2011) 27.

²⁰ *ibid.*

²¹ Telyas (n 12) 68.

²² *ibid* and footnote 4.

²³ Promoting Innovation and Competition (n 8), 34-35.

²⁴ United States Department of Justice and United States Patent & Trademark Office, Policy Statement on Remedies for Standards- Essential Patents Subject to Voluntary F/RAND Commitments (US Policy Statement), 8 January 2013, 1-2

<<https://www.justice.gov/sites/default/files/atr/legacy/2014/09/18/290994.pdf>>.

However, as discussed in Chapter 1, the public interest in standard setting requires different considerations.²⁵ The consideration of public interest here is not for the purpose of the ownership of a patent right but for the exercise of the right. It is particularly so when it comes to SEPs. The incorporation of the patents into a standard will bring the owners extra advantages and market power, so the inappropriate exercise of the SEPs will have detrimental influence on consumers and the public interest as further elaborated below.

When a patent is incorporated into a standard, the network effect and the lock-in effect is likely to grant the patent owner appreciable market power. It should be emphasized however that the holding of SEPs does not automatically confer dominance on SEP owners. Although SEP owners are more likely to obtain dominant market power, it is not always so and each market situation has to be analysed on a case-by-case basis. Once a standard is embedded and SEP-users have invested sunk costs, it may be considerably difficult and expensive to switch to an alternative technology as a substitute standard.²⁶ This means that the relevant market is in fact locked into the SEPs and the standard, and entrance barriers may arise. The exclusivity of SEPs and the lock-in effect together confer a strong bargaining power on the SEPs owners. It is said ‘holders of SEPs may effectively be able to act as gatekeepers to the market.’²⁷ In this context, the SEP owners may have greater opportunities to abuse their dominant positions and hold up the users of the standard by excluding them from the market, by requiring unreasonable licensing terms, by using litigation threats or by charging excessively high royalties. The patent owners may carry out a patent ambush during the process of setting a technical standard. Patent ambushing arises when an undertaking participating in the standard setting process deliberately conceals the existence of a patent application and claims the patent rights once the standard is adopted and the market is locked in. In specific conditions, the patent ambush has a potentiality to eliminate competition in the market and prejudice consumer welfare. Moreover, the SEP owners may tactically seek an injunction, with anti-competitive objectives, that is to prohibit the SEP-users from being able to use the SEP. Without a SEP licence, undertakings cannot produce standard-compliant products and will finally be kept out of the market. The injunctive relief may also be used as a leverage to charge high royalties beyond the value of the SEP itself or other unjustifiable licensing terms. As a consequence, serious competition concerns may arise.

²⁵ See Chapter 1, Section 1.2.

²⁶ US Policy Statement (n 24), 4.

²⁷ Telyas (n 12) 5.

In addition, the patent hold-up may discourage potential SEP-users from adopting or developing the relevant standard. This can undermine the SEP holders who seek to stimulate the wide and successful use of the standard.²⁸ Consumers may also be affected by the passing on effects of high royalties.²⁹ It has been argued that the risks of patent hold-ups are mostly theoretical and there has been seldom solid empirical evidence to demonstrate its magnitude.³⁰ However, lack of current empirical evidence does not mean that it will not happen in the future and some cases have already appeared in practice. The negative effects of patent hold-ups are detrimental to effective and efficient competition or the public interest. Policies should be to some extent forward-looking and prevent probable risks. Telyas emphasizes that the power of a SEP to eliminate competition and the potential for SEP owners to abuse their market dominance should not be underestimated.³¹

7.2.3 The IPR Policies of SSOs

In order to alleviate these competition concerns, most SSOs have designed and developed their *ad hoc* IPR policies to prevent patent hold-up problems. SEP owners are required to commit to licensing their patent rights on FRAND terms. FRAND commitments aim to strike a balance between the interest of SEP owners and the interest of SEP-users without prejudice to the public interest. On one hand, FRAND commitments make sure that the SEPs incorporated in a standard are available and accessible to all the potential standard users; on the other hand, SEP owners can be reasonably rewarded for their inventions which will foster innovation and the incorporation of the inventions into standards.³²

However, in practice, FRAND commitments are neither sufficient nor enforceable to prevent patent hold-ups.³³ The FRAND commitments are in nature a preventive contractual measure and there is no guarantee that it will sufficiently remove competition concerns.³⁴ SSOs do not define in detail what FRAND commitments mean or in what manner FRAND commitments can be implemented to resolve disputes. In particular, what can be regarded

²⁸ Pentheroudakis, Baron and Thumm (n 15) 25.

²⁹ US Policy Statement (n 24), 4.

³⁰ Pentheroudakis, Baron and Thumm (n 15) 25.

³¹ Telyas (n 12) 4.

³² European Commission, 'Standard-essential patents' (2014) 8 Competition Policy Brief <http://ec.europa.eu/competition/publications/cpb/2014/008_en.pdf> accessed 14 May 2018.

³³ François Lévêque and Yann Ménière, 'Licensing Commitments in Standard Setting Organizations' (2016) 67 HORS-SÉRIE: NOUVEAUX REGARDS EN ÉCONOMIE ET POLITIQUE DE LA CONCURRENCE 125-139, 126.

³⁴ *Google/Motorola Mobility* (Case COMP/M.6381) Commission Decision C (2012) 1068, para. 113.

as reasonable is hard to determine. Accordingly, FRAND commitments are too ambiguous to address the risks caused by patent hold-ups.³⁵

In addition, the uncertainty and ambiguity of FRAND commitments may give rise to another problem, patent hold-out, which may reduce the incentives of patentees to involve their patents into standards. It has been pointed out that in the past 20 years, the IPR policies of many SSOs have become more restrictive.³⁶ There are serious concerns about the risks caused by patent hold-ups so more restrictions are imposed on the SEP owners' licensing conduct. This seems to indicate that the balance of interest shifts to potential licensees and the advantages of the licensors are impaired.³⁷ Compared with ordinary patent owners, SEP holders are required by SSOs to grant a licence on FRAND terms. In this situation, the SEP-users may tactically delay or refuse to negotiate, threaten to raise competition complaints, to pay unreasonably low royalties or even 'free ride' on the innovations.³⁸

In the context of FRAND commitments, it is not clear what can be classified as opportunistic conduct that should be criticized, or what should be regarded as legitimate leverages to protect the patented technologies. Therefore, FRAND commitments seem not to achieve well its original objectives and functions. The balance of interest between SEP owners and potential SEP-users seems not to be always achieved and conflicts may arise between them. Moreover, most rules within the policies of SSOs are not binding and have no legal consequences. They are to a great extent only internal management tools or procedural rules. As a consequence, the deterrent effect of SSO policies is limited in preventing anti-competitive practices. The IPR policies of the SSOs themselves do not play a successful role in addressing competition concerns from patent hold-ups, though they do make some contribution.

³⁵ Yanbei Meng, 'The Research on FRAND Commitments in the Standard Setting and Implementation Processes' (标准制定与实施中 FRAND 承诺问题研究) (2014) 11 Electronics Intellectual Property 26, 27.

³⁶ Justus Barton and Daniel F. Spulber, 'Technology Standards and Standards Organisations: Introduction to the Searle Centre Database' (2015) Technical Report, Northwestern University Prizker School of Law 34, 19 <<http://www.law.northwestern.edu/research-faculty/searlecenter/innovationeconomics/data/technologystandards/>> accessed 27 October 2017.

³⁷ Pentheroudakis, Baron and Thumm (n 15) 26.

³⁸ Weijun Huang and Xiaoqi Li, 'The Study of FRAND Holdup in SEPs' (论标准必要专利中的 FRAND 劫持) (2017) 34 (01) Science & Technology Progress and Policy 111, 111.

7.2.4 Contract Law, Patent Law and Competition Law

In addition to the internal regulation of SSOs, the disputes pertinent to the licensing of patent rights in the process of setting and applying a standard are normally addressed internationally in three ways, namely by contract, patent and competition laws. Ordinary disputes will generally be dealt with in the context of contract or patent law from a perspective of private enforcement. As discussed above, the incorporation of a patent into a standard may give the patent owner a strong market power with potential to abuse this dominance and eliminate competition. Therefore, competition authorities in the world strive to ensure that the market power of SEP owners is not anti-competitively exploited.

In terms of anti-competitive concerns raised by SEPs, the regulation by contract and patent laws has insufficiencies and disadvantages. Within the characterized legal system of China, except for the AML, there are currently six laws or regulations that can be applied to anti-competitive concerns raised by the exercise of patent rights.³⁹ However, most of these applicable rules are of a civil law nature and are not as powerful as public laws. Some of them are only general principles that are in practice difficult to enforce. In addition, these rules aim to resolve problems from the perspective of private law and to protect private interest, though they also, to some extent, prevent the detriment of public interest. Nevertheless, what anti-competitive exercise of patents undermines is effective competition and the public interest. In particular, SEPs are a little bit different from normal patents. SEPs combine the public interest nature of a standard with the exclusive nature of patents. From this aspect, competition law is able to play an indispensable and important role in untangling the competition concerns raised by SEPs. The management of these issues by competition law can compensate for the deficiencies of both private law and the ambiguity of FRAND commitments. It is flexible enough to conduct a reasonable analysis on a case-by-case basis.

Competition law will be applied to the standard setting and implementing process only in exceptional circumstances in which effective competition is restricted, or innovation is discouraged and so public welfare is damaged. What is prohibited by competition law is anti-competitive conduct during the standardisation and application process, other illegal conduct will still be regulated by relevant competent laws.

³⁹ The availability and insufficiency of each of these Chinese legal measures in regulating the anti-competitive exercise of patent rights are analysed in detail in Chapter 3, Section 3.2.

In fact, it has been an international practice to allow competition law to be applied to the anti-competitive conduct in the process of setting and using a standard. It is submitted that ‘the contractual approach is theoretically questionable and not optimal for solving the issues related to FRAND enforcement.’⁴⁰ As far as the EU is concerned, several seminal competition cases where the SEP owner sought an injunction before a national court have been decided on the basis of Article 102 TFEU. Additionally, the European Commission adopted Guidelines on the Applicability of Article 101 TFEU to Horizontal Cooperation Agreements.⁴¹ The Guidelines confirm the benefits that are produced by standardisation but they provide a safe harbour whereby, under certain conditions, the standardisation agreement will not cause competition concerns. In the US, in 2013 the US Department of Justice and the US Patent and Trademark Office published a Joint Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments.⁴² In this document, these two US authorities show their awareness of the serious antitrust concerns that arise in standardisation. Moreover, in 2014, Edith Ramirez, formerly Chairwoman of the Federal Trade Commission, emphasized the importance of antitrust intervention in SEP related cases.⁴³ The development of Chinese anti-monopoly legal measures and the enforcement in this area also indicates that the AML is playing a more and more important role in resolving the competition concerns arising from SEPs.⁴⁴

Therefore, competition law plays a significant and a necessary role in addressing the anti-competitive concerns in standard setting, and ensuring that SEP owners exploit their rights appropriately.

7.3 Disclosure and Identification of Standard Essential Patents

In addition to FRAND commitments, another significant component of SSOs’ IPR policies is the disclosure obligation. In the standard setting process, most SSOs require the participants to identify and disclose any patent or application for a patent that might be essential to the setting of the standard under development. The disclosure obligation aims to enhance the transparency in the standard setting process, to ensure that SSOs and

⁴⁰ Pentheroudakis, Baron and Thumm (n 15) 38.

⁴¹ Guidelines [2011] OJ C11.

⁴² US Policy Statement (n 24).

⁴³ Edith Ramirez (former Chairwoman), ‘Standard-Essential Patents and Licensing: An Antitrust Enforcement Perspective’ (2014), a speech in 8th Annual Global Antitrust Enforcement Symposium <<https://www.ftc.gov/public-statements/2014/09/standard-essential-patents-licensing-antitrust-enforcement-perspective-0>> accessed 27 October 2017.

⁴⁴ See also Section 7.1.

participants take informed decisions and to guarantee the effective implementation of adopted standards.⁴⁵ Another purpose of the disclosure obligation that must be taken into account is that it is the basis for obtaining FRAND commitments from patent owners and to some extent prevents patent hold-ups and other potential exploitative conduct.⁴⁶ It is reported that an early patent disclosure is of great importance and is widely encouraged in the standard setting process.⁴⁷

However, owing to the SSOs' differences in respect of their nature, content or objectives, their respective detailed rules of disclosure obligation are more or less different.⁴⁸ To what extent the disclosure of potential SEPs should be done depends on the SSOs' own assessment. For example, SSOs have a different level of strictness on whether the disclosure obligation covers patent applications. Similarly, they differ on the subject and on the content of what has to be disclosed. There is no agreement on the length of time within which disclosure must take place, nor on the scope of the disclosure, to whom to disclose and the consequence of non-disclosure. Whether the obligation to disclose is mandatory is still under discussion.

For the public interest and compliance costs, SSOs normally try to avoid including patented technologies into standards and prefer non-proprietary technologies. From this perspective, the obligation to disclose potential SEPs means a risk for the owners that their patents will probably be designed around and not be adopted as a standard.⁴⁹ As a consequence, potential SEP owners may have an interest in intentionally undertaking patent ambushes.⁵⁰ In the context of patent ambush, potential SEP owners deliberately hide the existence of their patents or applications for patents in the standard setting process, in

⁴⁵ Pentheroudakis, Baron and Thumm (n 15) 15.

⁴⁶ Telyas (n 12) 99.

⁴⁷ European Commission, Public Consultation on Patents and Standards—A Modern Framework for Standardisation Involving Intellectual Property Rights (2015) <file:///Users/ouhikarutei/Downloads/Public%20consultation%20report%2027-10.pdf> accessed 17 August 2017.

⁴⁸ Richard T. Rapp and Lauren J. Stiroh, 'Standard Setting and Market Power' (2002) NERA Economic Consulting, 5 <<http://www.nera.com/content/dam/nera/publications/archive1/5156.pdf>> accessed 17 August 2017.

A comparison of the disclosure obligation in different SSOs' policies can be found: Liguozhang, 'How IPR Policies of Telecommunication Standard-Setting Organizations Can Effectively Address the Patent Ambush Problem' (2010) 41(4) International Review of Intellectual Property and Competition Law 380-410.

Ping Zhang and Qishan Zhao, *CONFLICTS AND MUTUAL BENEFIT: PRIVATE RIGHTS PROTECTION IN STANDARDIZATION—Intellectual Property Policy Analysis of Technology Standard in Information Industry* (冲突与共赢: 技术标准中的私权保护—信息产业技术标准的知识产权政策分析) (Peking University Press 2011) 36-44.

⁴⁹ Telyas (n 12) 99.

⁵⁰ *ibid.*

order to facilitate the incorporation of their patented technologies into the developing standards, which may otherwise be deselected. Once the standard is adopted, then they assert their patent rights, and so market power is obtained and the market is locked in. If the standard is widely implemented, the non-disclosure of potential SEPs may enable patent owners to obtain market power improperly or unlawfully and to restrict competition. Patent ambushes may set up barriers for the effective application of a standard and, therefore, prejudice the public interest and competition.

The non-disclosure conduct may not only violate the obligation within SSOs' IPR policies, but also may breach the rules of contract law, patent law or competition law. The IPR policies of SSOs focus on preventing patent ambushes *ex ante* and their effects are very limited as a result of their vague nature. Contract or patent law rules, such as the *equitable estoppel* principle, may, to great extent, address the failure of disclosure in some circumstances but they both have shortcomings and deficiencies.⁵¹ Contract law remedies are weak in respect of non-disclosure.⁵² The measures within patent law are too technical to be triggered and, therefore, are more like a 'shield'.⁵³ Accordingly, competition law is relied upon to regulate the failure to disclose. From a competition law perspective, patent ambushes may exclude competing technologies before the standard is adopted and unjustifiably enable the owner to take advantage of the dominance obtained from the non-disclosure. However, competition law will only intervene in specific situations where competition is restricted and there are anti-competitive effects. If doctrines or rules under other IPR policies, contract law or patent law are sufficient to resolve the problems, competition law will not be applied. The circumstances in which competition law should intervene in patent ambushes situations are a controversial issue and different conclusions have been reached by the courts. An interesting case to analyse in this context is *Rambus* which was litigated before both the US and EU courts.

⁵¹ Mark A. Lemley, 'Intellectual Property Rights and Standard Setting Organizations' (2002) 90 California Law Review 1889-1980, 1927.

⁵² *ibid.*

⁵³ Jiheng Wang, 'The Regulation of Non-disclosure in Technological Standardization by the Anti-monopoly Law' (技术标准中专利信息不披露行为的反垄断法规制) (2010) 86 (04) Science Technology and Law 62, 64.

7.3.1 *Rambus vs. Federal Trade Commission (FTC)*⁵⁴

In the US, the *Rambus* case arose from the 2002 FTC's administrative complaint that Rambus unlawfully monopolized markets for four computer memory technologies that had been included into industry standards for dynamic random access memory (DRAM) chips. It was alleged that between 1991 and 1996, Rambus joined and participated in a non-profit SSO for computer memory standard setting—the JEDEC Solid State Technology Association (JEDEC),⁵⁵ undertaking the work of standardisation of DRAM technologies.⁵⁶ Later, Rambus attended meetings working on setting synchronous DRAM (SDRAM) standards and on developing an advanced double data rate (DDR) SDRAM standard.⁵⁷ The JEDEC required in its policy that members should disclose any patents or pending patent applications that might be necessary to the developing standard in the standard setting process. However, Rambus not only failed to disclose its patent interest in specific technologies that were eventually included into the standards but also gave misleading information. In 1996, Rambus formally withdrew from the JEDEC. In 1998, the DDR SDRAM standard was adopted, which incorporated four of Rambus' patented technologies.⁵⁸ The standards adopted by the JEDEC were widely implemented in downstream products and the industry was in fact locked into the technologies in these standards. Rambus then began to assert its patent rights against manufacturers of JEDEC standards-compliant products and to charge substantial royalties.⁵⁹

As a consequence, the FTC lodged a complaint alleging that Rambus breached the disclosure obligation within the JEDEC IPR policy in the standard setting process. The omission or misrepresentation of Rambus, therefore, constituted unlawful monopolisation prohibited by Section 2 of the Sherman Act and the unfair competition proscribed by Section 5 of the FTC Act. In accordance with the FTC's complaint, the anti-competitive practices and deceptive conduct of Rambus resulted in or threatened to result in substantial

⁵⁴ Detailed information and case development about *Rambus vs. FTC* is available at 'Rambus Inc., In the Matter of' (2009) (Rambus Matter) <<https://www.ftc.gov/enforcement/cases-proceedings/011-0017/rambus-inc-matter>> accessed 18 August 2017.

The discussion of the case law in the US and EU provides reasoning for the proposals made in Chapter 9.

⁵⁵ Joint Electron Device Engineering Council.

⁵⁶ Rambus Matter (n 54).

⁵⁷ Liguozhang, 'How IPR Policies of Telecommunication Standard-Setting Organizations Can Effectively Address the Patent Ambush Problem' (2010) 41(4) *International Review of Intellectual Property and Competition Law* 380-410, 389.

⁵⁸ *ibid.*

⁵⁹ Rambus Matter (n 54).

adverse effects on competition and consumer welfare.⁶⁰ The failure of Rambus to disclose during the standard setting process ‘significantly contributed to its acquisition of monopoly power.’⁶¹ The FTC concluded that, but for the deceptive conduct of Rambus, the JEDEC standards would have been designed around Rambus’ technologies or this would have obtained Rambus’ FRAND commitments to licensing.⁶² The FTC found that Rambus had the ability to subvert the standard setting process and anti-competitively hold up the memory industry by deliberately concealing the potential SEP information.⁶³ The FTC then provided a remedy in a separate opinion that prohibited Rambus from misleading SSOs, ordered a compulsory licence and imposed limitations on the royalty rate on the patented technologies.⁶⁴

Rambus appealed to the US Court of Appeals for the District of Columbia Circuit. In 2008, the appellate court set aside the FTC’s final orders and concluded that the FTC did not substantiate the finding that the JEDEC would have designed its standards around Rambus’ patents if Rambus had discharged its disclosure obligation. Serious concerns were raised as to whether Rambus had breached the JEDEC’s disclosure obligation because of its vagueness. The Court held that Rambus’ failure to disclose was not anti-competitive or exclusionary and only prevented JEDEC from obtaining FRAND commitments from Rambus.⁶⁵ The Court reasoned that a higher royalty would be more likely to motivate innovation and to promote alternative technologies.⁶⁶ As a result, the FTC Decision was reversed in 2008. Even though the FTC appealed to the US Supreme Court, its Petition for Writ of Certiorari was denied and the FTC finally dismissed the complaint in 2009.

It can be seen that the FTC and the Court reached different conclusions on the evidence in this case though both of them considered the issue under competition law. The question as to the conditions under which the failure to disclose in the standard setting process should be considered as a violation of competition law rules has resulted in contrasting stances between the FTC and US federal courts. On the FTC side, the FTC concluded that: first, Rambus intentionally concealed or misrepresented material patent information in the

⁶⁰ Press Release, FTC Issues Complaint Against Rambus, Inc.—Deception of Standard-Setting Organization Violated Federal Law (2002) <<https://www.ftc.gov/news-events/press-releases/2002/06/ftc-issues-complaint-against-rambus-inc>> accessed 18 August 2017.

⁶¹ *Rambus Inc. v. F.T.C.*, 522 F.3d 456 (D.C.Cir.2008), 461.

⁶² *ibid.*

⁶³ *Rambus Matter* (n 54).

⁶⁴ *ibid.*

⁶⁵ *Rambus Inc. v. F.T.C.* (n 61), 466-467.

⁶⁶ Case Comment, US: Rambus Decision (2008) 1 (2) *Global Competition Litigation Review* 42-43, 42.

standard setting process; and secondly, the challenged conduct of Rambus either excluded other competing technologies which would have been incorporated into standards and licensed free but for Rambus' failure to disclose, or significantly increased the patent royalty fees that would have been negotiated on FRAND terms.⁶⁷ On the appellate court side, it held that: first, JEDEC did not clearly define whether the patent application should be disclosed so Rambus could not be inferred to have violated the disclosure obligation; and second, the influence of Rambus' challenged conduct on the selection of technologies by JEDEC in the standard setting process was not able to be demonstrated so the conduct cannot be deemed to undermine effective competition.⁶⁸

The binding effects of the disclosure obligation in SSOs' IPR policies depend considerably on the extent to which competition law or other legal instruments impose legal liabilities.⁶⁹ The final *Rambus* decision in the US failed to identify the anti-competitive nature of the intentional failure to disclose in the standard setting process and turned ignored to its detrimental effects on competition between technologies for their incorporation into standards.⁷⁰ This kind of result may provide a negative influence.⁷¹ On one hand, the standardisation participants might be discouraged from strictly complying with SSOs' IPR policies. Without serious antitrust liabilities, participants may imitate Rambus' strategy, ignore the disclosure obligation and take advantage of the information asymmetry to conduct patent ambushes. Therefore, they may unlawfully obtain dominant power in the relevant market and practise anti-competitively. On the other hand, the indulgence for the failure to disclose may raise concerns for the implementation of standards and negatively influence the standardisation of technologies, with prejudice to customers. Accordingly, the antitrust conclusion adopted by the FTC to deal with deliberately concealing patent interest in the standard setting process should be respected.

7.3.2 *Rambus* Case in the EU⁷²

In parallel proceedings in the EU, the European Commission sent a Statement of Objections to Rambus in 2007 which set out its preliminary conclusion that Rambus

⁶⁷ Qishan Zhao, 'The Regulation of the Exercise of Patent Rights in Standardization by the Anti-monopoly Law' (论对标准化中专利行使行为的反垄断法调整) (2013) 104 (4) Science Technology and Law 20, 25.

⁶⁸ *ibid.*

⁶⁹ Zhang (n 57) 391.

⁷⁰ *ibid* 391-392.

⁷¹ Zhao (n 67) 26.

⁷² The facts of the *Rambus* case in the EU are the same with those in the *Rambus Inc. v. F.T.C.*, so they will not be repeated here.

infringed Article 102 TFEU by abusing a dominant position in the market for DRAMs. The European Commission held that Rambus intentionally deceived the JEDEC by concealing the existence of its potential SEPs and patent applications.⁷³ Therefore, it concluded that Rambus engaged in a patent ambush in the standard setting process.⁷⁴ Following the patent ambush, Rambus claimed unreasonable royalties for its SEPs which Rambus would not have been able to charge but for its failure to disclose. In 2009, the European Commission decided to accept Rambus' commitments to cap its royalty rates worldwide and made them binding by adopting a Decision.⁷⁵ In detail, Rambus committed to claiming no royalties on the patents that were adopted as standards when Rambus was still a member of JEDEC and to capping its royalty rates at 1.5% for the later generations of DRAM standards of JEDEC.⁷⁶

The *Rambus* case was the first time that the European Commission investigated a patent ambush and it shows a different approach from the one adopted in the parallel US proceedings. In this case, it can be summarized that EU competition law will not be infringed unless several conditions are satisfied: '(1) [the patent ambush] actually lead to the exclusion of technologies which provided a better cost/benefit ratio and (2) in effect the licence terms imposed *ex post* are non-FRAND.'⁷⁷ The European Commission has stressed that the patent holders would act in bad faith if they did not disclose to the SSO their potential patents that would be incorporated into the standard under development until after the adoption of the standard.⁷⁸ It is concluded that the JEDEC requires or, at very least, expects all its members to disclose their granted and pending patents that are potentially essential to the standard under development.⁷⁹ However, contrary to the appellate court in the US, the fact that Rambus have violated the JEDEC's disclosure obligation would not be necessary for a finding of abuse under Article 102 TFEU.⁸⁰ The abuse of dominance under Article 102 is normally built on a finding that the party concerned is dominant in the relevant market and the conduct at issue aims at or has effects on restricting competition. As a result, the European Commission did not regard the failure to disclose itself as an abuse of dominance violating Article 102, since the patent owner

⁷³ Commission, 'Antitrust: Commission Confirms Sending A Statement of Objections to Rambus' Memo/07/330, 23 August 2007.

⁷⁴ *ibid.*

⁷⁵ *Rambus* (Case COMP/38.636) Commission Commitment Decision, 9 December 2009.

⁷⁶ *ibid.*, para. 49.

⁷⁷ Telyas (n 12) 100.

⁷⁸ *Rambus* (n 75), Para. 32.

⁷⁹ *ibid.*, Para. 35.

⁸⁰ *ibid.*, Para. 39.

was not dominant at the time of the conduct. In the context of patent ambush, the violation of Article 102 must be established on the basis of *ex post* effects. This means that it is indispensable to demonstrate that the non-disclosure undertaken by Rambus was to exclude anti-competitively competing non-proprietary technologies in the standard setting process. This is because ‘absent such finding there is no frame of reference for deciding whether royalties claimed *ex post* are non-FRAND.’⁸¹ Therefore, it was the practice of claiming royalties by Rambus for its SEPs ‘at a level, which absent its allegedly intentional deceptive conduct, it would not have been able to charge’, that constituted the abuse of dominance within the meaning of Article 102.⁸² In contrast, according to Section 5 of the FTC Act, the FTC found the deceptive conduct itself to be illegal.

7.3.3 The Disclosure Obligation in China

Before 2008, the failure to disclose the existence of potential SEPs in a standard setting process was considered by Chinese courts in accordance with Chinese patent law. The reason for the application of patent law was that the SSOs did not require the participants to make FRAND commitments nor did they impose a disclosure obligation.⁸³ In addition, China had not adopted the AML until 2008 so there were no competition rules to be considered. Now, with the rapid development of technologies and the standardization of technologies, the SSOs have adopted rigorous IPR policies and most of them require participants to disclose their potential SEPs and to commit to licensing their SEPs on FRAND terms. Confronted with the complex interface of public standards and private patents, the regulation of failure to disclose is no longer limited to private law. Now, there is much discussion and debate as to how to deal with this situation under competition law.

The first SEPs case handled by the Supreme People’s Court was its reply to the request by Liaoning Higher People’s Court for instructions on the Ji Qiang, Liu Hui and the Chaoyang Xingnuo Construction Engineering Co., Ltd. case as to patent infringement.⁸⁴

⁸¹ Telyas (n 12) 107.

⁸² *Rambus* (n 75), Para. 28.

This approach is respected in the proposals of the thesis in Chapter 9, Section 9.2.1.

⁸³ Li Zhu, ‘Legal Issue of Standard Essential Patents: The Intersection of Patent Law, Contract Law and Competition Law’ (标准必要专利的法律问题：专利法、合同法、竞争法的交错) (2016) 02 Competition Policy Research 21, 21.

⁸⁴ Letter of the Supreme People’s Court on Whether Chaoyang Xingnuo Company’s Design and Construction Work Which is Based on the Specification for the Design of Ram-compaction Piles with a Composite Bearing Base (an Industry Standard Promulgated by the Ministry of Construction) and Implements the Patent Therein Constitutes Patent Infringement [2008] Min San Ta No.4 (最高人民法院关于朝阳兴诺公司按照建

The defendant was accused of infringing the plaintiff's patent when implementing an industry standard in the construction area. The patent owner in this case participated in the standard setting process but did not disclose the existence of the patent that was essential to the standard.⁸⁵ In the Supreme People's Court's 2008 reply letter, it is confirmed that relevant authorities or institutions at that time had not set up specific governing rules on the disclosure and utilization of patent information in the standard setting process.⁸⁶ Nevertheless, the Supreme People's Court provided the opinion, in the light of the individual case, stating that the patentee should be considered as having authorized others to use the patent when implementing the standard, if the patentee participated in the standard setting process or if the patentee agreed to its patent being incorporated into the standard.⁸⁷ In this situation, the use of the SEP by the defendant would not be deemed as patent infringement. The Supreme People's Court realized that the failure to disclose the patent interest during the standard setting process and then seeking to obtain patent royalties was not beneficial to the public and should be, to some extent, punished and prohibited. As a consequence, in order not to discourage innovation, the Supreme People's Court still allowed the patentee to charge royalties for the use of the patent but required that the royalties should be lower than those would have been normally expected for the use of a patent.

This was the first time that Chinese courts expressed a negative view on the failure to disclose patent information during the standard setting process. To some extent, this case promotes the development and improvement of the disclosure obligation in the Chinese standardization process. Additionally, it provided a precedent for future cases concerning the non-disclosure of patent interest. It can be seen that the Supreme People's Court indirectly emphasized that the remedies for the infringement of SEPs should be restricted.⁸⁸ The SEPs owners should meet the disclosure obligation and the royalties levied for the licensing of SEPs should not exceed what would have been charged before they were incorporated into standards.⁸⁹ However, this Reply letter did not take into account the patent owner's competitive advantage or dominance obtained from excluding

设部颁发的行业标准《复合载体夯扩桩设计规程》设计、施工而实施标准中专利的行为是否构成侵犯专利权问题的函[2008]民三他第4号).

⁸⁵ Jian Li, 'Understanding of Article 24 of Patent Law Judicial Interpretation (II)' (专利法司法解释(二)第二十四条之解读) (2016) 02 Competition Policy Research 37, 39.

⁸⁶ [2008] Min San Ta No.4 (n 84).

⁸⁷ *ibid.*

⁸⁸ Ping Zhang, 'The Restrictions on the Remedies for Standard Essential Patents Infringement' (论涉及技术标准专利侵权救济的限制) (2013) 105 (5) Science Technology and Law 69, 76.

⁸⁹ *ibid.*

other substitute technologies and being included into the standard. It ignored the influence of the failure to disclose on competition and only addressed the conduct from the perspective of civil disputes. The reason for this approach was the fact that the AML had not yet been formally adopted at the time that the conduct took place.

Although in 2009 the Supreme People's Court, in the draft interpretations concerning the patent infringement disputes, differentiated the consequences of disclosing from those of the failure to disclose patent information, this was not included in the final adopted version.⁹⁰ In addition, the 2015 draft amendment to China's Patent Law proposed that a failure to disclose be regarded as an implied authorization to SEP-users. Unfortunately, there has been no further progress on this draft amendment.⁹¹ In 2013, Interim Provisions on the Administration of National Standards Involving Patents articulate for the first time the disclosure obligation for parties participating in the standard setting process and non-participants are also encouraged to disclose relevant patent information.⁹² At the same time, the Interim Provisions stipulate that if participants breach their good faith and conceal relevant patent information as required, they 'shall bear corresponding legal liabilities'.⁹³ However, what the legal liabilities will be is not specified. The 'free licensing' liability for non-disclosed SEPs was removed from the final adopted document. Again, the extent to which the failure to disclose potential SEP information will influence competition in the relevant markets has not been taken into account.

Finally, in 2015, seven years after the adoption of the AML, SAIC provided, in its Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition (Provisions), for the possibility of antitrust liability for deceiving the SSOs in the standard setting process.⁹⁴ According to Article 13.2 of the SAIC IP Provisions, dominant undertakings are prohibited, unless they have justifiable reasons, from intentionally concealing their patent rights during the standard setting process or expressly waiving their rights first but, after the incorporation of the patents into standards,

⁹⁰ Zhu (n 83) 22.

⁹¹ Jianjun Zhu, 'The Conditions for The Grant of An Injunction on Standard Essential Patents' (标准必要专利禁令救济的成立条件) (2016) 01 People's Judicature (Application) 54, 59.

⁹² Interim Provisions on the Administration of National Standards Involving Patents (国家标准涉及专利的管理规定 (暂行)), Articles 5 and 6.

⁹³ *ibid*, Article 5.

⁹⁴ Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition (国家工商行政管理总局令第 74 号 关于禁止滥用知识产权排除、限制竞争行为的规定) (SAIC Provisions).

alleging their patent rights against standard users.⁹⁵ One of the aims of Article 13 is to mitigate patent ambushes that eliminate or restrict competition in the standardisation. However, the wording of Article 13.2 means that it is only applicable to the failure to disclose patent information undertaken by participants who are already dominant in the relevant technology market before their patents are incorporated into standards. Article 13 will not impose antitrust liability on the deliberate failure to disclose or the false promises made by a non-dominant participant in the standard setting process but who later becomes dominant in the relevant market because the elements in the undisclosed patent have been adopted by the SSO.⁹⁶ Therefore, the competition concerns on the non-disclosure of potential SEP interest have not been fully considered under China's current legal system.

7.4 Injunctive Relief of Standard Essential Patents

7.4.1 The Relationship between Injunctive Relief and SEPs

In recent years, whether injunctions should be granted to the FRAND-encumbered SEP owners or in what circumstances the seeking of injunctions on SEPs violates competition law have become contentious issues in the intersection of IPRs and competition law. This problem has also attracted significant attention and heated discussion in China, but there has been no consensus reached.

For a limited period of time, patent owners inherently enjoy an exclusive right to exclude others from practising their invention without a licence. Injunctive relief is generally perceived as an effective tool to protect patent rights and as a legitimate and effective remedy against patent infringers. An injunction is a court order which prohibits the continuation of a patent infringement.⁹⁷ Such injunctions can be either preliminary as a precautionary measure or permanent. The right to seek injunctions is one of the basic rights of a patent owner provided by national patent laws and it is a part of the existence of the patent right. Many international treaties and regional measures have explicitly confirmed the importance to ensure effective remedies for patent owners, such as the TRIPs agreements, the Convention for the Protection of Human Rights and Fundamental Freedoms, or individual national patent laws. Therefore, in the absence of extraordinary

⁹⁵ *ibid*, Article 13.2.

⁹⁶ The ineffectiveness and application concerns of Article 13 of the SAIC IP Provisions have been clearly discussed in Chapter 5, Section 5.6.

⁹⁷ Commission Memo/14/322 (n 10).

circumstances, it is the right of a patent owner to refuse to license and to seek an injunction to prevent the unauthorised use of his patent.

However, in the context of SEPs, the situation is different, taking into account the special characteristics of SEPs. To some extent, the process of standardisation is a process to exclude competition. In order to ensure the effective and efficient dissemination of the standard, patent owners are required in the standard setting process to commit to licensing their patents on FRAND terms to any interested third party, once their patents are incorporated into the standard. The FRAND commitments of SEP owners are regarded as ‘extraordinary circumstances’ where the right to seek injunctions on SEPs should be limited to some extent. The FRAND commitments mean that only in exceptional circumstances are SEP owners allowed to refuse to license their patents. This is totally different from the position of non-FRAND-encumbered patent owners. In this context, prospective licensees have a justifiable expectation that they will obtain a FRAND licence from the SEP owners when they are manufacturing products compliant with the relevant standard. FRAND commitments may be regarded as a defence against injunctions.⁹⁸ Nevertheless, it is essential to stress that FRAND commitments are nothing more than a contractual obligation and not a waiver of the right of SEP owners to seek injunctions against patent infringement. With regard to FRAND-pledged SEP owners, monetary compensation is a more appropriate remedy for infringement than injunctive relief in certain circumstances.⁹⁹ In essence, the SEP owners’ voluntarily making FRAND commitments is characterized as a recognition that their SEPs will be licensed in return for fair remuneration¹⁰⁰ and then the seeking for injunctions against willing licensees can be considered to be anti-competitive conduct.¹⁰¹

7.4.2 Concerns

In certain circumstances, injunctions can be used in an anti-competitive way by a dominant FRAND-encumbered SEP owner to eliminate competition and impose non-FRAND licensing terms on potential willing licensees. As discussed above, SEP owners are much

⁹⁸ Telyas (n 12) 194.

⁹⁹ US Policy Statement (n 24), footnote 11.

¹⁰⁰ Commission, ‘Case AT.39985 –Motorola—Enforcement of GPRS standard essential patents’ (Summary of Commission Decision) 2014/C 344/06.

¹⁰¹ Press Release, Antitrust: Commission accepts legally binding commitments by Samsung Electronics on standard essential patent injunctions (29 April 2014) <http://europa.eu/rapid/press-release_IP-14-490_en.htm> accessed 14 May 2018.

more likely to be dominant in the relevant market due to the lock-in effects caused by the incorporation of their patents into a standard. Injunctive relief can be used by SEP owners as a strategic leverage to force prospective licensees to accept unreasonable conditions and to charge excessive royalty fees which would not have been accepted in FRAND-based negotiations without the threat of injunctions. However, the nature of a FRAND commitment is a contractual obligation and the consequence of contravening a FRAND commitment is not that serious. In essence, a FRAND commitment is a preventive contractual measure adopted by SSOs to minimize the detrimental effects of patent hold-ups and there is no guarantee that contract law can provide sufficient deterrence to reduce competition concerns in this field.¹⁰² The contractual approach is in theory questionable and not the optimal solution for issues related to FRAND enforcement.¹⁰³ Therefore, in this situation, the right to seek injunctions may be inconsistent with consumer welfare and public interest, and should be limited to some extent by competition law.

As concluded in the *Motorola case*,¹⁰⁴ in ‘exceptional circumstances’, the seeking and enforcement of an injunction of a SEP, without a justifiable reason, constitutes an abuse of dominance.¹⁰⁵ The exceptional circumstances refer to the standard setting process and the patent owners’ commitment to licensing their SEPs on FRAND terms and conditions.¹⁰⁶ The lack of a justification indicates that the potential licensee was not unwilling to enter into a FRAND licensing agreement.¹⁰⁷ The issue of a FRAND commitment changes the nature of seeking injunctions as part of the existence of a patent right, into a kind of exercise of patent rights. If a SEP owner is exercising its patent rights when seeking injunctions, it will be appropriate for competition law to be applied to the alleged anti-competitive conduct. Accordingly, the issue of a FRAND commitment is a basic and prerequisite condition to regard the seeking of injunctions of SEPs as an abuse of dominance.¹⁰⁸ This then raises issues as to what FRAND commitments are.

In the SSOs’ IPR policies, they do not provide further explanations for FRAND commitments. It is vague and ambiguous as to what FRAND commitments refer to and

¹⁰² *Google/Motorola Mobility* (n 34), para.113.

¹⁰³ Pentheroudakis, Baron and Thumm (n 15) 38.

¹⁰⁴ *Motorola-Enforcement of GPRS Standard Essential Patents* (Case AT. 39985) Commission Decision C (2014) 2892 final.

¹⁰⁵ *ibid*, 52.

¹⁰⁶ *ibid*.

¹⁰⁷ *ibid*, 2.

¹⁰⁸ This argument can be seen in the case law of the EU in Section 7.4.3. It will also be proposed for Chinese SAMR to adopt an appropriate approach to regulate such injunctive relief in Chapter 9, Section 9.3.2.

how FRAND commitments can be enforced in practice. It is clear that the participants of the SSOs or the SEP owners have not reached a common understanding as to the meaning and implications of FRAND commitments. As a consequence, it is uncertain in what circumstances the seeking of injunctions by the SEP owners can be considered as a violation of FRAND commitments and, consequently, should be prohibited by competition law. Similarly, it is unclear under what circumstances the prospective licensees can oppose the injunction. The extent to which injunctive relief is available has a strong incentive-related influence on the bargaining powers of the SEP owners and the potential licensees. Hence, in interpreting FRAND commitments and considering the availability of injunctive relief, it is of great importance to strike a balance between the interest of the SEP owners and the interest of the prospective licensees. On one hand, the recourse to injunctive relief by FRAND-encumbered SEP owners should be appropriately restricted in case the injunctions are sought anti-competitively; on the other hand, as a part of the existence of patent right, injunctions should be available against infringements to encourage patent owners to participate in innovation and standard setting activities.

Different jurisdictions addressed these issues in various ways. The EU's solutions to these problems have changed from time to time, but the experience achieved is meaningful. Therefore, the approach adopted by the EU is a good example for China to consider on its way to finding a proper methodology to keep a balance between the interests of different parties on the availability of injunctive relief for SEPs. It is hoped that, in the future, the SSOs can provide clear and detailed instructions as to the meaning and implications of FRAND commitments to facilitate the SEP licensing.

7.4.3 The EU¹⁰⁹

Contrary to the US, the EU sets the analysis of the problem as to whether injunctions should be granted to FRAND-pledged SEP owners in the context of competition law. It can be seen from the recent judicial decisions in the EU that a more conservative and balanced approach has been adopted for the availability of injunctions on SEPs. Injunctions of SEPs are no longer granted automatically to FRAND-encumbered SEP owners. The interests of SEP owners, potential licensees and the general public are all seriously taken into account when determining whether to grant injunctions in the context

¹⁰⁹ The analysis of the EU case law provides robust support and reasoning for the balanced proposals made to China in Chapter 9, Section 9.3. The discussion and comments in this section is necessary and meaningful to avoid the ineffective and inefficient proposals.

of SEPs, but the question of how to strike a balance between these interests is complicated and difficult to answer. The EU enforcement in this field has shifted from a licensor-friendly approach to a licensee-friendly one. Then, in 2015, the CJEU rendered a preliminary ruling in *Huawei v. ZTE*,¹¹⁰ which provides a relatively balanced framework for the negotiation between SEP owners and prospective licensees and can be a point of reference in determining the availability of injunctive relief. Although the safe harbour created in the *Huawei v. ZTE* by the CJEU provides important guidance on the post-Huawei cases, the EU is still exploring an optimal way to keep a balance between the interests of different parties in terms of the grant of injunctions of SEPs.

7.4.3.1 Orange Book Standard Case

On the EU side, it is the ‘*Orange Book Standard*’ case¹¹¹ that can be regarded as the start of the case law on whether, and in what circumstances, the seeking of injunctions to enforce SEPs may be forbidden. The German Federal Supreme Court, in this case, formally allowed a defence (‘the compulsory licence defence’) based on competition law. The defence relies heavily on the case law where compulsory licences were imposed on the basis of infringement of competition rules. The *Orange Book Standard* case is a seminal decision in the development of a competition law based defence to patent infringement litigation.

In the *Orange Book Standard* case, the plaintiff owned a patent that is essential to a *de facto* standard for CD-Rs. Any undertaking that produces standard-compliant CD-Rs has to obtain a licence from the plaintiff. The licensing of the SEP at issue constitutes the relevant market. As the only provider, the plaintiff has a dominant position in the relevant market. The defendant had made an offer of the royalty rate of 3%, but was rejected by the plaintiff. Then, the plaintiff initiated a patent infringement action and sought an injunction against the defendant. However, the defendant claimed that the conduct of the plaintiff amounted to an abuse of dominance and raised an antitrust defence.

According to the Federal Supreme Court, if a licence of the patent at issue is essential for the prospective licensee to enter into the market, the patent owner is dominant in the relevant market and there is no justification for the refusal to license, the seeking of

¹¹⁰ Case C-170/13 *Huawei Technologies Co. Ltd v ZTE Corp., ZTE Deutschland GmbH* [2015] ECLI:EU:C:2015:477 (*Huawei v. ZTE*).

¹¹¹ German Federal Supreme Court, Case KZR 39/06-*Orange Book*, 6 May 2009.

injunctions by the patent owner may constitute an abuse of dominance and the defendant can raise an antitrust defence. However, the Federal Supreme Court emphasized that the antitrust defence will only be successful if the following two conditions are cumulatively met by the defendant: a) the prospective licensee must have made a binding, unconditional and reasonable offer to the patent owner to conclude a licensing agreement, which cannot be rejected by the patentee without violating competition law; b) the prospective licensee must behave like an actual licensee meaning that if the party seeking a licence has exploited the patent before obtaining a licence, then obligations contained in the offer must be complied with. As the defendant in this case did not satisfy the above two conditions, the Federal Supreme Court confirmed the lower court's judgment and granted the injunction.

The decision of *Orange Book Standard* case resulted in significant controversy. It is submitted that the German Federal Supreme Court has adopted a more favourable position towards patent owners in the availability of SEP injunctions.¹¹² There is support for the requirement imposed on the potential licensee to behave as if licensed in order to balance the interest of the parties and to remove the concern of the use of the patent without permission.¹¹³ However, the conditions or obligations imposed on the users of the standard at issue seem to be too strict, the application of which would result in over-protection of SEP owners.¹¹⁴ Such requirements more easily place the potential licensee in a position of being held-up.¹¹⁵ In addition, the standard at issue is a *de facto* standard, the patent owners of which did not make FRAND commitments. In this situation, the patent owners have stronger power in the licensing negotiations than the FRAND-encumbered SEP owners.¹¹⁶ The seeking of injunctions by the non-FRAND-encumbered patent owners will not be regarded as abusive as long as the required royalties are not clearly excessive.¹¹⁷ Accordingly, the conditions established in this case should not be purely and simply applied to all parties seeking a licence of SEP.

¹¹² Pentheroudakis, Baron and Thumm (n 15) 69.

¹¹³ Philip Maume, 'Compulsory Licensing in Germany' in Reto Hilty and Kung-Chung Liu (eds), *Compulsory Licensing: Practical Experiences and Ways Forward* (MPI Studies on Intellectual Property and Competition Law, Springer 2015), 13.

¹¹⁴ Case C-170/13, *Huawei Technologies Co. Ltd v ZTE Corp., ZTE Deutschland GmbH* [2015] ECLI:EU:C:2015:477, Opinion of AG Wathelet (Opinion of Advocate General), para. 51.

¹¹⁵ Hanns Ullrich, 'Patents and Standard—A Comment on the German Federal Supreme Court Decision *Orange Book Standard*' (2010) 41 (3) *International Review of Intellectual Property and Competition Law* 337-351.

¹¹⁶ Opinion of Advocate General (n 114), para. 48.

¹¹⁷ *ibid.*, para. 48.

7.4.3.2 *Motorola and Samsung Cases*

Contrary to the rules established in the *Orange Book Standard* case, the European Commission took a more favourable position to prospective licensees as to whether SEP injunctions should be granted in *Motorola and Samsung* cases.

In the *Motorola* case, the European Commission found that Motorola abused its dominance by seeking and enforcing an injunction against a willing licensee, Apple, on the basis of a FRAND-encumbered SEP which violated Article 102 TFEU.¹¹⁸ It was admitted that ‘the seeking and enforcement of an injunction by a patent-holder is generally a legitimate course of action.’¹¹⁹ However, in the context of SEPs, the situation is different. As an owner of a standard essential patent, Motorola has committed to licensing its SEPs on FRAND terms to any interested third party. In principle, the seeking of injunctions of such SEPs may amount to an abuse of a dominant position if the SEP-user is willing to negotiate and enter into a FRAND licence. In this case, Apple had agreed to be bound by a third party to determine the FRAND terms and conditions in the event that the bilateral negotiations did not achieve a satisfying conclusion. The allowing for FRAND rate-setting by a third party such as a German court is regarded as a clear indication of potential licensees’ willingness to enter into a FRAND licence and to pay adequate remuneration for the use.¹²⁰ Accordingly, Motorola’s seeking of injunctive relief in respect of SEPs in such exceptional circumstances contravened Article 102 TFEU. However, the European Commission did not impose a fine on Motorola reasoning that there is lack of certainty as to the application of competition law to injunctions where SEPs are concerned and divergent conclusions have been reached by national courts.¹²¹

In the *Samsung* case, the European Commission adopted a similar opinion on the alleged infringement of Article 102 TFEU by Samsung seeking injunctions on SEPs.¹²² In 2011, Samsung, a FRAND-encumbered SEP owner, sought injunctions against Apple for the use of its Universal Mobile Telecommunications System (UMTS) SEP. The European Commission then investigated Samsung’s behaviour and found Apple to be a willing licensee. The European Commission concluded first that the seeking of injunctions on

¹¹⁸ *Motorola* (n 104).

¹¹⁹ Summary of Commission Decision 2014/C 344/06 (n 100), para 18.

¹²⁰ *ibid*, para 24.

¹²¹ *ibid*, para 25.

¹²² *Samsung-Enforcement UMTS standard essential patents* (Case AT. 39939) Commission Decision C (2014) 2891 final.

Samsung's FRAND-encumbered SEPs might, in exceptional circumstances, raise competition concerns as to the compatibility of the injunctive relief with Article 102 TFEU.¹²³ In order to respond to these concerns, Samsung committed not to seek injunctions on its SEPs for five years against any prospective licensee who agreed to a particular licensing framework for the determination of FRAND terms.¹²⁴ In 2014, the European Commission finally adopted a decision to make these revised commitments legally binding on Samsung.

The decisions of the *Motorola* and *Samsung* cases set up a rule to regulate the seeking of injunctions on the basis of FRAND-encumbered SEPs under competition law and provide a safe harbour for potential willing licensees to defend themselves against abusive injunctions. Normally, the injunctive relief itself does not constitute an abuse of dominance prohibited by competition law. Only in exceptional cases where patent owners have committed to licensing their SEPs on FRAND terms and there is no evidence that the prospective licensee is unwilling to enter into a FRAND license, the seeking of an injunction violates EU competition rules. The European Commission made a further clarification as to the meaning of a 'willing' licensee in these two cases. The acceptance of a binding determination of FRAND terms by a third party in case of dispute can be regarded as willingness. The challenge by SEP-users to the validity or infringement of the SEPs at issue does not mean that the prospective licensees are unwilling to enter into a FRAND licensing agreement. It is concluded that 'the mere holding of IPR cannot, in itself, constitute an objective justification for the seeking of an injunction by a SEP holder against a potential licensee that is not unwilling to enter into a licence agreement on FRAND terms and conditions'.¹²⁵

However, the application of the conditions created in these two cases (*Motorola* and *Samsung*) will result in the weakening of the SEP owners' rights. As stated by Wathelet, a mere ambiguous and non-binding expression of a potential licensee to negotiate and enter into a FRAND licensing agreement, cannot be considered as willing enough to restrict the seeking of injunctions by FRAND-encumbered SEP owners.¹²⁶ The *Orange Book Standard* case and the *Motorola/Samsung* cases are at the two extremes of a spectrum,

¹²³ Commission, 'Case AT. 39939—Samsung—Enforcement of UMTS standard essential patents' (Summary of Commission Decision) 2014/C 350/08, para 13.

¹²⁴ *ibid*, paras 14-20.

¹²⁵ *Samsung* (n 122), para. 66.

¹²⁶ Opinion of Advocate General (n 114), para 50.

neither of them can appropriately balance the concerns on patent hold-ups and patent hold-outs in the context of injunctions on FRAND-encumbered SEPs. Therefore, it is important to find a middle path.

7.4.3.3 Huawei v. ZTE¹²⁷

Huawei Technologies Co. Ltd (Huawei), a leading multinational company in the field of telecommunications, is the proprietor of a European patent which is essential to the ‘Long Term Evolution’ (LTE) standard. Huawei committed to the European Telecommunications Standards Institute (ETSI) to licensing the SEP to third parties on FRAND terms when the patent was incorporated into the LTE standard. ZTE Corp. and ZTE Deutschland GmbH (ZTE), one of Huawei’s competitors, provided telecommunications equipment products complying with the LTE standard, which inevitably made use of the SEP. Between November 2010 and March 2011, Huawei and ZTE engaged in discussions in respect of ZTE’s alleged patent infringement and also on the possibility of achieving a FRAND licence. During the discussions, Huawei proposed the amount of royalties which it considered reasonable, while the ZTE sought a cross-licensing agreement. As a consequence, there was no agreement reached. However, ZTE continued to use Huawei’s SEP to manufacture LTE standard-compliant products without paying Huawei royalties or rendering an account of the past uses. Then, in April 2011, Huawei brought an action before the Landgericht Düsseldorf (District Court) in Germany against ZTE for the alleged patent infringement. Huawei sought an injunction to prohibit the infringement and required the rendering of accounts, the recall of infringing products and damages.

According to the Düsseldorf District Court, the existence of a patent infringement and the existence of Huawei’s dominant position were not in dispute.¹²⁸ Then, the substance of the case concerned the question of whether Huawei’s seeking of an injunction on the basis of the SEP constituted an abuse of a dominant position within the meaning of Article 102 TFEU. However, different approaches had been adopted by the German courts and the European Commission on the conditions under which an injunction sought by a FRAND-encumbered SEP owner can be granted and enforced without violating the EU competition rules. On the basis of the conditions established in the *Orange Book Standard* case, a

¹²⁷ The obligations established in this case to assess whether the FRAND-encumbered SEP owners can seek an injunction without violating competition rules, provide guidance for the proposals concluded in Chapter 9, Section 9.3.2.

¹²⁸ *Huawei v. ZTE* (n 110), para 28.

prohibitory injunction should be granted to Huawei.¹²⁹ While, on the basis of the conditions established in the *Motorola* and the *Samsung* decisions, Huawei's claim for an injunction should be dismissed.¹³⁰ Therefore, in 2013, the Düsseldorf District Court decided to stay proceedings and referred five questions to the CJEU for a preliminary ruling on the circumstances where injunctive relief by a FRAND-encumbered SEP owner will be considered to be an abuse of a dominant position prohibited by Article 102 TFEU.¹³¹

On 16 July 2015, the CJEU finally delivered the preliminary ruling on *Huawei v. ZTE*,¹³² which provides a framework for FRAND negotiations between dominant SEP owners and potential licensees. The CJEU's judgment confirmed the legitimate right of SEP owners to resort to remedies such as injunctive relief to protect effectively the exercise of their patent rights.¹³³ However, given the FRAND commitments made by the SEP owners, it is justifiable to impose some requirements on the proprietors before they seek injunctions against alleged infringers.¹³⁴ Therefore, the CJEU listed specific conditions that must be satisfied by the dominant SEP owner when seeking an injunction against the alleged infringer: a) prior to bringing an action before a court, it is up to the SEP owner to first alert the alleged infringer by specifying the infringed SEP and the way in which it was infringed; b) if the alleged infringer has expressed willingness to conclude a FRAND licensing agreement, it is the SEP owner that must first provide a specific written offer for a FRAND licence to the alleged infringer, in which the amount of royalty fees and the way to calculate the royalties must be specified.¹³⁵ At the same time, in order to balance the interests of the two parties, the CJEU also set out conditions for the alleged infringer to observe before an antitrust defence can be raised against the injunction on the SEP: a) the alleged infringer should diligently respond to the SEP owner's offer in good faith and complying with recognized commercial practices in the relevant field, without delaying tactics; b) if the alleged infringer does not accept the SEP owner's initial offer, it must promptly provide a written counteroffer on FRAND terms to the SEP owner; c) if the counteroffer is then rejected by the SEP owner, the alleged infringer must provide appropriate security for the potential royalty fees and render an account of the uses of the

¹²⁹ *ibid.*, paras 30-35.

¹³⁰ *ibid.*

¹³¹ *ibid.*, para 39.

¹³² *ibid.*

¹³³ *ibid.*, paras 57-58.

¹³⁴ *ibid.*, para 59.

¹³⁵ *ibid.*, paras 61 and 63.

SEP at issue.¹³⁶ In addition, the CJEU concluded that if the parties do not reach an agreement on the details of the FRAND terms, they may, by common agreement, request an independent third party to determine the amount of royalty fees.¹³⁷ Any challenge to the validity, essentiality or the infringement of the SEP at issue by the prospective licensees should not *per se* be categorized as unwillingness of the licensee.¹³⁸

On the basis of the CJEU's judgment, if the alleged infringer satisfies all the conditions listed above, a dominant SEP owner's seeking an injunction on the use of a SEP will constitute an abuse of a dominant position within the meaning of Article 102 TFEU. However, if the alleged infringers are not able to demonstrate that they are ready, willing and able to achieve a FRAND licence in good faith and in recognised commercial practices, they cannot avoid the injunctive relief sought by the SEP owner. The CJEU's preliminary ruling on *Huawei v. ZTE* on one hand imposes some restrictions on the dominant FRAND-encumbered SEP owners' right to seek injunctions, and, on the other hand, establishes some conditions for the potential licensees to raise an antitrust defence against the injunctive relief. The safe harbour created in the CJEU's preliminary ruling on *Huawei v. ZTE* strikes a balance between the protection of patent rights and the maintaining of free competition.

The CJEU tries to provide a procedural framework to promote better bilateral negotiations between the SEP owners and the prospective licensees, and to consider the availability of the injunctive relief on the basis of the interests of both sides. The CJEU's preliminary ruling provides guidance and a middle path compared with the previous approaches adopted in the *Orange Book Standard* case and *Motorola* and *Samsung* decisions, though it is still submitted that the words used in this ruling are more beneficial to SEP owners than those used in the Opinion of Advocate General.¹³⁹

However, there are still some uncertainties. The CJEU did not explain the notions of 'willingness', 'good faith' or 'diligent response', which leaves significant room for the national courts to use their discretion. More importantly, the CJEU did not provide guidance on the meaning of FRAND but the core of most of the conditions established in the CJEU's preliminary ruling leads to the meaning of FRAND. The ambiguity of FRAND

¹³⁶ *ibid*, paras 65-67.

¹³⁷ *ibid*, para 68.

¹³⁸ *ibid*, para 69.

¹³⁹ Andrew Moir and others, 'Recent Guidance on SEP Licensing in the US and EU' (2015) 252 *Managing Intell Prop* 10, 13.

leaves confusion and conflict for the post-Huawei cases. Without clear interpretations, it is still hard to determine whether the patent royalty fees charged by the SEP owner are excessive and infringe the FRAND commitments. As a consequence, follow-on questions are pending.¹⁴⁰

7.4.4 The US¹⁴¹

In general, the US antitrust authorities and courts deal with the seeking of injunctions on a FRAND-encumbered SEP from the perspective of patent infringement, taking into account the interests of both parties. In 2013, the US Department of Justice and the US Patent and Trademark Office jointly stated that in some situations, the SEP owners' seeking of injunctions may force the SEP-users to accept unreasonable terms which do not comply with FRAND commitments, and 'may be inconsistent with the public interest'.¹⁴² In this context, the injunction should not be granted unless the SEP-users are unwilling licensees.¹⁴³ Although the statement mentioned above is not legally binding, it shows the attitude of the relevant authorities.

Since the *eBay* case,¹⁴⁴ the US Supreme Court has brought an end to the automatic issue of an injunction against the patent infringer and a four-factor test was established to consider the availability of the injunctive relief. In order to obtain an injunction, the patent owner has to satisfy the following four conditions that: a) it has suffered an irreparable injury; b) remedies available at law, such as monetary damages, are inadequate to compensate for that injury; c) considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and d) the public interest would not be disserved by a permanent injunction.¹⁴⁵ Compared with the approach adopted in the EU, the four-factor test seems to impose more obligations on the patent owners who would like to seek injunctions in patent infringement cases. What the approach emphasizes is the balance between the private and the public interests.

The four-factor test established in the *eBay* case is generally applied to all the patent infringement cases where the injunctive relief is sought, not specifically just for the SEP-

¹⁴⁰ These uncertainties and questions will also be faced by the relevant Chinese AMEA.

¹⁴¹ The approach adopted in the US forms a contrast with the approach adopted in the EU. The examination of the US approach provides a comparison for the proposals made in Chapter 9, Section 9.3.

¹⁴² US Policy Statement (n 24).

¹⁴³ *ibid.*

¹⁴⁴ *eBay Inc. v MercExchange, L.L.C.*, 126 S. Ct. 1837 (2006).

¹⁴⁵ *ibid.*

related injunctions. Accordingly, it is submitted that the unique aspects of the FRAND-encumbered SEPs result in intrinsic difficulties for SEP owners to satisfy the four-factor test.¹⁴⁶ This is so for the reason that the US courts usually consider the commitment to license SEPs on FRAND terms as SEP owners' recognition that monetary damages are sufficient in disputes.¹⁴⁷ In other words, except for injunctions, there is another remedy available — monetary damage. Additionally, one of the aims of the standardisation of patented technologies is to benefit the public, that is, for public interest. That means the grant of an injunction on a SEP can harm public interest and not satisfy the four-factor test established in the *eBay* case. These aspects make it challenging for the SEP owners to obtain an injunction under the four-factor test. In this context, the appellate courts in the US later clarified that the commitment to license SEPs on FRAND terms does not mean the waiver of the right to seek injunctions against infringement. In theory, it is possible and appropriate for the FRAND-encumbered SEP owners to be granted an injunction in certain circumstances where the alleged infringers are unwilling licensees and behave in bad faith.¹⁴⁸ Even so, there is an increasing conservative trend in the US for the grant of an injunction on the basis of the FRAND-encumbered SEPs.

There are seldom cases in the US where SEP owners are awarded SEPs injunctions, but injunctions were granted for patents that were not SEPs.¹⁴⁹ So far, there has not been any case in the US in which the recourse to the injunctive relief by the FRAND-encumbered SEP owners has been considered under antitrust rules. In the US, the courts focus more on the determination of a FRAND royalty rate, while in the EU, the courts pay more attention to the analysis of the parties' conduct before the grant of an injunction.

7.4.5 The Evolving Landscape on Injunctive Relief of SEPs in China

Whether the FRAND-encumbered SEP owners should be granted an injunction against the alleged infringer has raised considerable concerns in China. China has adopted the world-wide recognised principles in this field. It is acknowledged by Chinese authorities and

¹⁴⁶ Helen Cheng, Will Wang and Jimmy Chen, 'Seeking Injunctions for Standard Essential Patents in China' (2016) <<https://s3.amazonaws.com/documents.lexology.com/be6ac0c3-2899-4919-835e-7aa667f4a9dd.pdf>> accessed 21 October 2017.

¹⁴⁷ *Apple, Inc. v. Motorola Mobility, Inc.*, 869 F. Supp.2d 901 (N.D.Ill. 2012); *Microsoft Corp. v. Motorola, Inc.*, 854 F. Supp. 2d 993 (W.D.Wash. 2012).

¹⁴⁸ *Apple, Inc. v. Motorola Mobility, Inc.*, 757 F. 3d 1286 (Fed. Cir. 2014); *Microsoft Corp. v. Motorola, Inc.*, 696 F. 3d 872 (9th Cir. 2012).

¹⁴⁹ Kirti Gupta and Mark Snyder, 'Smart Phone Litigation and Standard Essential Patents' (2014) Hoover IP² Working Paper Series No. 14006, 4 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2492331> accessed 21 October 2017.

scholars that the rights of the FRAND-pledged SEP owners to seek injunctions should be appropriately restricted or it can become a leverage for SEP owners to force prospective licensees to accept unreasonable licensing terms that will not be agreed by SEP-users without the threat of injunctions. As a consequence, this is likely to constitute an abuse of a dominant position violating competition rules. It is also emphasized that the right to seek injunctions is a basic and legitimate remedy for patent owners to protect their patent rights. This, normally, should be respected. The Chinese judicial and administrative enforcement authorities have considered the EU and US experience. However, there is no consensus as to the circumstances in which an injunction sought by the FRAND-encumbered SEP owners may violate the AML.

The adverse effects resulting from the abuse of injunctive relief by dominant SEP owners are considered the most direct and detrimental to competition which can directly exclude competitors' similar products from the relevant market.¹⁵⁰ As a consequence, it attracts quite a lot of attention from China's AMEAs. MOFCOM, one of China's AMEAs that was responsible for merger control, raised significant concerns as to its impact on competition resulting from the concentration of the ownership of SEPs. For example, in 2014, the MOFCOM for the first time in a conditional approval decision expressly required that after the acquisition of Nokia, Microsoft was prohibited from seeking injunctions against patented products manufactured in China.¹⁵¹ Then, in 2015, in reviewing the acquisition of Alcatel-Lucent by Nokia, one of the conditions imposed by MOFCOM to approve the transaction was that Nokia was not allowed to prohibit the implementation of the FRAND-pledged standard by seeking injunctions on the basis of its SEPs, unless Nokia had already proposed FRAND licensing terms and the prospective licensees were unwilling to accept or observe such FRAND terms.¹⁵² It can be seen that the Chinese AMEA — MOFCOM has regarded the observance of FRAND commitments by SEP owners and the unwillingness of SEP-users as the prerequisite conditions to grant an injunction.

China's AML does not explicitly articulate the seeking of injunctions on FRAND-encumbered SEPs by dominant SEP owners as an abuse of a dominant position. Thus, the

¹⁵⁰ Chun Zhong, 'The Regulation of the Abuse of Injunctive Relief on SEPs—The Safe Harbour Rule and Others' (标准必要专利禁令滥用的规制安全港原则及其他) (2014) 09 Electronics Intellectual Property 22, 24.

¹⁵¹ Announcement No.24 [2014] of MOFCOM—Announcement on the Conditional Approval Decision on the Acquisition of the Equipment and Services Business of Nokia Corp. by Microsoft Inc..

¹⁵² Announcement No.44 [2015] of MOFCOM—Announcement on the Conditional Approval Decision on the Proposed Acquisition of Equities of Alcatel Lucent by Nokia.

decision in the first SEP-related anti-monopoly litigation in China — *Huawei v. InterDigital* plays an important role in understanding the position in China. In *Huawei v. InterDigital*,¹⁵³ the Chinese Court concluded that the seeking of injunctions by InterDigital in the US was seemingly exercising its legitimate remedy to protect its patent rights but actually it was a negotiation tactic to force Huawei to accept unreasonable licensing terms and conditions, which did not follow the FRAND commitments. InterDigital lodged an action for an injunction against Huawei when they were still at a negotiation stage. The Chinese Court found that during the negotiations, Huawei behaved in good faith and was willing to accept FRAND licensing terms.¹⁵⁴ Therefore, the InterDigital's seeking of an injunction was not justifiable and should be prohibited.¹⁵⁵ However, the courts did not clearly find such seeking of an injunction as an abuse of dominance, but only considered such conduct as a prohibited leverage to impose non-FRAND terms on SEP-users.

Some key regulatory initiatives have taken place in the last two years as a direct result of the competition concerns which have emerged from the situation. The first legal document that sheds light on the issue of injunctions in the context of SEPs is the Interpretations (II) of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Cases Involving Patent Infringement Disputes (Interpretations (II)).¹⁵⁶ It came into effect on 1 April 2016. In accordance with Article 24.2 of Interpretations (II), the court will not support the SEP owners' right to seek injunctions where FRAND-encumbered SEPs have been explicitly disclosed as long as the following two conditions are satisfied: a) the patent owner intentionally violates its FRAND commitments in the negotiations with the alleged infringer in respect of the licensing terms which results in the failure to conclude a licensing agreement; and b) the alleged infringer has not committed an obvious fault during the negotiation.¹⁵⁷ The Supreme People's Court differentiates SEP-related infringements from traditional IP infringement disputes and emphasizes the importance to consider the subjective fault of both parties in determining whether to grant an injunction

¹⁵³ *Huawei vs. InterDigital*, Shenzhen Intermediate People's Court, (2011) Shen Intermediate Court Intellectual Property Civil First No. 858 ((2011) 深中法知民初字第 858 号); *Huawei vs. InterDigital*, Guangdong Higher People's Court, (2013) Yue Higher Court Civil Division III Final No.306 ((2013) 粤高法民三终字第 306 号) (Yue No.306). This case has been analysed in detail in Chapter 4, Section 4.2.

¹⁵⁴ Yue No.306 (n 153).

¹⁵⁵ *ibid.*

¹⁵⁶ Interpretations (II) of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Cases Involving Patent Infringement Disputes (最高人民法院关于审理侵犯专利权纠纷案件应用法律若干问题的解释 (二)).

¹⁵⁷ *ibid.*, Article 24.

where a SEP is concerned.¹⁵⁸ Additionally, according to the wording of Article 24, it is only applicable to patent owners that have committed to licensing their patents on FRAND terms in the standard setting process.¹⁵⁹ Similar to the US approach, Article 24 of the Interpretations (II) addresses the grant of injunctions on FRAND-encumbered SEPs from the perspectives of patent law and tort law but does not consider whether such seeking of injunctions constitutes an abuse of dominance.¹⁶⁰ Accordingly, Article 24 can also be applicable to injunctive relief sought by non-dominant SEP owners, where an antitrust defence is impossible. It is acknowledged that Article 24 is a significant improvement in the regulation of SEP owners who seek injunctions on FRAND-encumbered SEPs. However, the Interpretations (II) do not explain what kind of conduct can be attributed to FRAND-compliance and in what circumstances the alleged infringer can be determined as fault free. There are no clear and detailed examples of obligations established for either SEP owners or the alleged infringers though the Supreme People's Court has emphasized the importance of keeping a balance between the interest of SEP owners and the interest of SEP-users.

On 20th April, the Higher People's Court of Beijing Municipality published Guidelines for Patent Infringement Determination (2017), in which Articles 149-153 complement and elaborate Article 24 of the Interpretations (II) to clarify when injunctions should not be granted to SEP owners.¹⁶¹ Articles 149-153 on the SEPs took into account the enforcement experience in the developed countries and adopted similar conditions established in *Huawei v. ZTE*¹⁶² for SEP owners and SEP-users. Article 152 of the Guidelines for Patent Infringement Determination enumerates the situations in which the SEP owners can be determined as intentionally violating the FRAND commitments, namely (a) not informing the alleged infringer of the infringed patent in writing and not identifying the scope and the way in which the patent was infringed; (b) not offering the alleged infringer specific licensing terms and patent information in writing with recognized commercial practices after the alleged infringer clearly expresses the willingness to negotiate licensing; (c) not

¹⁵⁸ Susan Ning and Kate Peng, 'Injunctive Relief for Standard Essential Patents Holders Will be Restricted' (King & Wood Mallesons, 5 April 2016) <<http://www.kwm.com/en/cn/knowledge/insights/injunctive-relief-for-standard-essential-patents-holders-will-be-restricted-20160406#id-here>> accessed 23 October 2017.

¹⁵⁹ This is similar with the EU approach where the issue of FRAND commitments is the basis to consider the seeking of an injunction on SEPs inappropriate.

¹⁶⁰ Ning and Peng (n 158).

¹⁶¹ Guidelines for Patent Infringement Determination by the Higher People's Court of Beijing Municipality (2017) (北京市高级人民法院专利侵权判定指南 (2017)) (Guidelines for Patent Infringement Determination), Articles 149-153.

¹⁶² *Huawei v. ZTE* (n 110).

clarifying the time limit for the alleged infringer to reply; (d) stopping or terminating the licensing negotiation without justifiable reasons; (e) requiring obviously unreasonable conditions in the process of negotiation and leading to the failure to achieve an agreement; or (f) other obvious faults.¹⁶³ Moreover, Article 153 explains the obvious faults of the alleged infringer in the process of negotiation: (a) not replying diligently in a reasonable period of time after receiving the notice of infringement in writing from the patent owner; (b) after receiving the proposed licensing conditions in writing from the SEP owner, not replying diligently whether to accept the conditions or not offering new licensing terms after rejecting the SEP owner's conditions; (c) delaying or refusing to negotiate without justifiable reasons; (d) requiring obviously unreasonable conditions in the process of negotiation and leading to the failure to achieve an agreement; or (e) other obvious faults.¹⁶⁴ The rules in the Guidelines for Patent Infringement Determination provide explanations to the uncertainties in Article 24 of the Interpretations (II) and provide guidance to the behaviour of both parties in the licensing negotiations. It has to be admitted that the Guidelines for Patent Infringement Determination can give good guidance for the anti-monopoly enforcement in the seeking of injunctions on FRAND-encumbered SEPs. However, both Article 24 of the Interpretations (II) and this guidelines are explaining whether the injunctions should be granted to SEP owners, and if not, in what circumstances. These guidance and explanations are both from the perspective of patent and tort laws. Neither of them considers whether and how the conduct to seek injunctions on SEPs will influence competition and violate the AML. Therefore, the question is how to establish an appropriate anti-monopoly analysis approach in this context. Detailed guidance and regulatory rules from the perspective of the AML are awaited.

In March 2017, after collecting public comment on two draft guidelines from the NDRC and the SAIC, China's Anti-monopoly Commission (AMC) published unified draft IPRs guidelines for public comment (the AMC draft IPRs guidelines).¹⁶⁵ The AMC draft IPRs guidelines considered injunctive relief from the anti-monopoly enforcement perspective. It is stated that the seeking of injunctions by dominant SEP owners as a means to force SEP-users to accept unreasonable licensing terms and excessively high royalty fees may

¹⁶³ Guidelines for Patent Infringement Determination, Article 152.

¹⁶⁴ *ibid*, Article 153.

¹⁶⁵ Anti-monopoly Guidelines of the Anti-monopoly Commission of the State Council for the Abuse of Intellectual Property Rights (Draft for Comments) (关于滥用知识产权的反垄断指南 (征求意见稿)), available at: <http://fldj.mofcom.gov.cn/article/zcfb/201703/20170302539418.shtml>.

eliminate or restrict competition and constitute an abuse of a dominant position.¹⁶⁶ The AMC draft IPRs guidelines introduce five factors to be considered when determining the negative impact on competition caused by the injunctive relief, namely the performance and actual will of both parties in the negotiations, the commitments encumbered by the SEPs on injunctive relief, the licensing terms provided by both parties during the negotiation, the influence of the injunctive relief on the licensing negotiation, and the influence on the relevant downstream market competition and the consumer welfare.¹⁶⁷ The AMC draft IPRs guidelines expressly mention the AMEAs' concerns as to the negative effects brought about by the SEP owners' seeking injunctions. They set up an analysis framework where some essential factors need to be considered. However, it is not enough or clear as to how to apply this analysis frame to practical investigations. More importantly, the AMC draft IPRs guidelines do not take the seeking of injunctions by SEP owners as independent anti-competitive conduct but leverage to accept the unreasonable licensing terms. As guidelines, some instructions on how to examine the relevant parties' behaviour should be available. For example, in what circumstances the prospective licenses can be determined willing? What kind of terms can be regarded as FRAND-compliant? The AMC draft IPRs guidelines leave it open as to what kind of approach will be adopted in the final published version.

7.5 Conclusion

In last five years, China's AMEAs have begun to increase their scrutiny of anti-competitive conduct in the licensing of IPRs and a series of measures have been or are waiting to be adopted. In particular, the competition concerns arising from the licensing of SEPs have become a contentious issue. Among them, the two most noticeable concerns arise from the failure to disclose patent information in the standard setting process and the seeking of injunctions by FRAND-encumbered SEPs owners. The enforcement experiences of the EU and US authorities in these aspects have provided valuable guidance for China when developing its own anti-monopoly enforcement policy.

When applying the AML to address these two challenging concerns, some problems need to be clarified and resolved. It is acknowledged that the AML will only be applied to the exercise of patent rights that results in the elimination or restriction of competition. In

¹⁶⁶ *ibid*, Article 26.

¹⁶⁷ *ibid*.

terms of the disclosure obligation, there is controversy as to in what circumstances the failure to disclose patent interest in the standard setting process will violate relevant competition rules. The controversy not only appears in different authorities in the same country but also takes place between different countries whose competition rules seem to be a little divergent in detail. On one hand, the FTC and the federal court in the US have achieved contrasting results in determining whether the non-disclosure of patent information by Rambus violated the antitrust rules.¹⁶⁸ On the other hand, the European Commission analysed the same *Rambus* case with a different approach in accordance with its own competition enforcement framework and preliminarily rendered the Rambus violating Article 102 TFEU.¹⁶⁹ In the context of Chinese market, the limited enforcement experience did not give appropriate consideration to the influence of the failure to disclose patent interest in the standard setting process on the competition in the relevant market.¹⁷⁰ In addition, the only available competition rule — Article 13 of the SAIC Provisions does not take into account the market power obtaining from the non-disclosure conduct in the standard setting process.¹⁷¹ As a consequence, Article 13 can do nothing in the situation where SEP owners who were non-dominant at the time of non-disclosure but become dominant when their patents are incorporated into a standard. Therefore, China is proposed to establish an appropriate approach on the basis of the divergent enforcement of the US and EU in this respect which should satisfy China's own legal and economic circumstances. The proposed approach should identify the conditions in which and how the AML can be applied to the non-disclosure conduct, provide guidance on what factors and the extent to which these factors should be considered in analysing the anti-competitive effects of such non-disclosure and impose deterrent effects on the potential violators.¹⁷²

With regard to the seeking of injunctions, its effective and legitimate position to protect patent rights against infringers should be definitely confirmed. However, when the seeking of injunctions comes to the FRAND-encumbered SEPs, the situation seems to be different. The inappropriate use of injunctive relief by some SEP owners may constitute an abuse of dominance violating competition rules. Whether the seeking of injunctions by SEP owners should be addressed in the context of patent and tort laws or in the context of competition

¹⁶⁸ See details in Section 7.3.1.

¹⁶⁹ See details in Section 7.3.2.

¹⁷⁰ See details in Section 7.3.3.

¹⁷¹ SAIC Provisions (n 94), Article 13.

¹⁷² These will be elaborated in Chapter 9, Section 9.2.

rules have achieved different answers in the EU and US.¹⁷³ Even in the EU itself, the attitude to the seeking of injunctions on SEPs had shifted from licensor-friendly to licensee-friendly before the CJEU concluded a relatively conservative and balanced approach in the *Huawei v. ZTE*.¹⁷⁴ As a consequence, it is still being debated fiercely how to apply competition rules to the seeking of injunctions on FRAND-encumbered SEPs. This is also a hard and challenging problem faced by China.¹⁷⁵ It is not clear whether the abuse of the injunctive relief on SEPs should be treated as an independent anti-competitive practice or as a tactic to realise the other anti-competitive purposes within the scope of China's AML. A basic regulating approach is necessary to be confirmed. In addition, in what situations and to what extent the seeking of injunctions by SEP owners should be limited from the perspective of competition enforcement confuse the relevant AMEA a lot. The conditions adopted by the CJEU in the *Huawei v. ZTE* provide good guidance, though there remains some controversy. On the basis of the existing enforcement principles established in developed countries, China should find an effective and appropriate way to address these concerns subject to its own legal and economic circumstances. Some proposals will be made to resolve these problems in Section 9.3 of Chapter 9.

¹⁷³ See also Sections 7.4.3 and 7.4.4.

¹⁷⁴ See also Section 7.4.3.

¹⁷⁵ See also Section 7.4.5.

Chapter 8 The Regulation of Reverse Payment Patent Settlement Agreements in the Pharmaceutical Industry from the Perspective of China's Anti-monopoly Law

8.1 Introduction

In addition to the challenging competition concerns arising from the licensing of standard essential patents discussed in Chapter 7, Chapter 8 will examine another noticeable competition concern arising from reverse payment patent settlement agreements (RPPSAs). Reverse payment patent settlement agreements (the so-called pay-for-delay agreements) are normally concluded between brand-name drug manufacturers¹ and generic drug manufacturers. This is done in the context of settling a patent dispute where the brand-name pharmaceutical company which owns a patent provides monetary payments (or other forms of value) to the generic competitor in exchange for the latter's commitment to delay market entry.² This kind of RPPSAs mainly arise in the pharmaceutical industry.³

From the perspective of Patent Law, settlements are permitted as a legitimate and preferential way to terminate private disputes with regard to the uncertainties and high costs of patent litigation.⁴ Such standard patent settlements can promote efficiency⁵ and benefit society,⁶ so competition concerns seldom arise in this context. However, the situation can be different when it comes to the patent settlement agreement with a payment from the patent owner to the alleged infringer in the pharmaceutical industry.

The research and development of new drugs is characterized as expensive, risky, difficult and time-consuming. When the new drugs formally come into the market, much time has already been spent on administrative procedures and the patents on such drugs are almost at the end of their patent protection term. Generic drugs are required to have

¹ This chapter complies with the normal situation that the brand-name drug companies/manufacturers are the owner of the drug patents.

² Margherita Colangelo, 'Reverse Payment Patent Settlement Agreements in the Pharmaceutical Sector Under the EU and US Competition Laws: A Comparative Analysis' (2017) 40(3) *World Competition* 471, 472.

³ *ibid.*

⁴ In general, a standard expectation is that the alleged infringer will pay the patent owner to settle a patent dispute rather than the opposite situation.

⁵ Herbert Hovenkamp, 'Anticompetitive Patent Settlement and the Supreme Court's *Actavis* Decision' (2013) 15(1) *Minnesota Journal of Law, Science & Technology*, Forthcoming 3, 18.

⁶ Irene Fraile, Ankur Kapoor and Rosa Morales, 'Drug Test: When are Pay-for-Delay Agreements Illegal?' (2014) 4 *Global Competition Litigation Review* 214, 214.

bioequivalence with the corresponding brand-name drugs. As a result, generic drugs can substitute the brand-name drugs once the former have obtained the formal approval from relevant authorities, and they will become substantive competitors in the relevant market. Owing to the considerable difference between the costs and risks of the patented drugs and those of their generic versions in the process of research and development, generic drugs enjoy a great advantage in the selling price compared to that of the patented drugs. Once the generic drugs enter the relevant market, the price of the brand-name drugs will be seriously impacted and reduced.⁷ In this situation, often the patent owner cannot obtain enough compensation for their prior investment in the limited term and this is likely to profoundly discourage the patent owner from innovating.⁸ If the patent protection system is not able to compensate patent owners appropriately, they may have the financial incentive to extend their patent term through, for example, paying the generic company for delaying the market entry of the competing generics.⁹ The involvement of value transfer from the patent owner to the alleged infringer and the commitment of the latter to delay marketing the generic drug, make RPPSAs controversial in the context of antitrust scrutiny. On one hand there is some rationale for such RPPSAs; on the other hand, the agreements may eliminate the competition from generic companies and deprive consumers of cheaper and affordable drugs, which will generally harm consumer welfare.

In recent years, the legality of such agreements has attracted the attention of antitrust authorities in many countries. It has become a contentious issue and been hotly debated. As a pioneer, the US antitrust enforcement authorities and courts have examined this practice for more than ten years. Following the 2008 pharmaceutical sector inquiry, the EU formally began to focus on the anti-competitive effects of pay-for-delay agreements. In 2013, the US Supreme Court, for the first time, in *Actavis*,¹⁰ provided guidance on the antitrust analysis of RPPSAs and adopted the rule of reason principle. Even so, diversity and split still exists in district courts as to how to apply the Supreme Court's guidance in specific cases. In the same year, the EU General Court confirmed the European

⁷ Michael Clancy, Damien Geradin and Andrew Lazerow, 'Reverse-payment patent settlements in the pharmaceutical industry: An analysis of U.S. antitrust law and EU competition law' (2014) 59(1) *The Antitrust Bulletin* 153, 164.

⁸ Xi Zhao, 'The Gaming between the Brand-name Drug and the Generic Drug—An Introduction of the Hatch-Waxman Act' (原研药与仿制药的较量—美国 Hatch-Waxman 法案简介) (2009) 10 *China Invention & Patent* 80, 80.

⁹ Guandong Tao, 'Regulation of Reverse-Payment in Antitrust Law' (反向支付的反垄断法适用) (2017) 03 *Competition Policy Research* 80, 83.

¹⁰ *Federal Trade Commission v. Actavis Inc. et al.*, 133 S. Ct. 2223 (2013).

Commission's decision in *Lundbeck*¹¹ that this practice was a restriction by object. Thus, *Lundbeck* is the first EU judgment on pay-for-delay agreements from an EU competition law perspective.

RPPSAs are of such a complicated nature that they raise concerns from three aspects: patent law, competition law and national health care system. It is a sophisticated intersection of patent protection — encouraging research and development in the pharmaceutical industry and competition enforcement—maintaining fair and effective competition in the relevant market. The determination of the legality of such RPPSAs is a matter of balancing the interests of patent owners and consumer welfare that is the main goal of antitrust enforcement. As a result of the complexities, there is no unanimous consensus as to how to assert the compatibility of RPPSAs in the pharmaceutical industry with competition/antitrust law.

The discussion on the potential anti-competitive effects of RPPSAs has gradually emerged in China. In the earlier years, it was argued that the appearance of such problematic agreements in the US was mainly caused by shortcomings in the US regulatory framework which was applied to the pharmaceutical industry; China does not have a similar regulatory framework, so it was assumed that this kind of antitrust concern would not emerge in China.¹² However, this view cannot be accepted in this thesis. There are reasons to believe that the special context of China's pharmaceutical industry can provide an environment for the existence of pay-for-delay agreements.¹³ Therefore, the competition concerns raised by the RPPSAs should be seriously considered by China's anti-monopoly enforcement authorities. They should nip in the bud and prepare in advance. Despite the absence of a unanimous approach, the US and EU antitrust enforcement authorities have accumulated valuable enforcement experience in dealing with such agreements within the pharmaceutical industry. On this basis, China should adopt an effective and appropriate anti-monopoly analysis framework to deal with such competition concerns. The Chinese framework can be adapted to suit China's legal and industrial context.

¹¹ Case T-472/13 *Lundbeck v Commission* EU: T: 2016: 449.

¹² Yuan Xue, 'The US Objects to the Reverse Payment by Patented Drug Manufacturers Expert: This Phenomena Will Not Appear in China' (美反对专利药企业反向支付 专家: 我国不会出现此现象), *Health News* (Beijing, 20 March 2007) 003; Dezhong Guo, 'Applying Antitrust Law to Reverse Payments about Drug Patent in the United States' (美国药品专利领域反向支付的反托拉斯问题) (2015) 17 *Journal of Beijing Institute of Technology (Social Science Edition)* 156, 161.

¹³ See further discussion in Section 8.4.1.

This chapter will be divided into five sections. Following the introduction, the origin and reasons for the existence of pay-for-delay agreements will be described. Then, the approaches to the pay-for-delay agreements adopted by the US and EU antitrust authorities and courts will be examined. The fourth section will focus on how RPPSAs should be assessed in China as well as providing commentary on proposals for the anti-monopoly analysis approaches. The final section concludes the chapter.

8.2 RPPSAs in the Pharmaceutical Industry

8.2.1 The Origin

RPPSAs in the pharmaceutical industry first originated in the US.

The Drug Price Competition and Patent Term Restoration Act (known as the Hatch-Waxman Act) was adopted in 1984 and one of its objectives was to balance the patent protection for brand-name drugs (patented drugs) with the incentive to encourage the marketing of generic drugs in the US.¹⁴ Before marketing a new drug, the manufacturer must file a New Drug Application (NDA) to obtain the approval from the Food and Drug Administration (FDA). In the NDA, the patent owner must provide convincing evidence to show that the new drug is safe and effective for use and is required to identify all the patents on the drug or on the methods of use.¹⁵ The information of the announced patents is published by FDA in the Approved Drug Products with Therapeutic Equivalence Evaluation which is also called the Orange Book. One of the important contributions of the Hatch-Waxman Act is to establish an Abbreviated New Drug Application (ANDA) that simplifies the lengthy application process for a generic version of the drug already approved by FDA.¹⁶ The Hatch-Waxman Act also aims to increase the accessibility of affordable drugs, so potential generic manufacturers can market generics before the patents on the brand-name drug expire by filing a Paragraph IV certification in the ANDA. Since a

¹⁴ Drug Price Competition and Patent Term Restoration Act of 1984, Pub.L. No. 98-417, 98 Sta. 1585 (codified as 21 U.S.C. § 355).

¹⁵ 21 U.S.C. § 355(b)(1).

¹⁶ The applicant in an ANDA is no longer required to provide the safety and efficacy data and is allowed to piggyback on the relevant NDA conclusions and research results for the brand-name drug (21 U.S.C. § 355(j)). However, the ANDA applicant must demonstrate the bioequivalence of the generic drug to the listed drug. In addition, one of the four kinds of certifications to each patent on the listed brand-name drug is required to be accompanied with the ANDA by the potential generic drug manufacturer, to claim that the prospective generic version will not infringe the listed patents in the Orange Book (21 U.S.C. § 355(j)(2)(A)(vii), ‘... (I) that such patent information has not been filed, (II) that such patent has expired, (III) of the date on which such patent will expire, or (IV) that such patent is invalid or will not be infringed by the manufacturer, use, or sale of the new drug for which the application is submitted; and ...’).

Paragraph IV certification is regarded as an artificial act of patent infringement,¹⁷ it constitutes grounds for drug patent holders to initiate patent infringement litigation.¹⁸ The applicant in an ANDA with a Paragraph IV certification is required to give written notice to each patent owner affected by the certification, as well as to the holder of the approved application for the patented drug.¹⁹ If the patent holder, subject to the Paragraph IV certification, lodges an action for patent infringement within 45 days after receiving the aforesaid notice, the ANDA process will be automatically stayed for 30 months, unless the patent expires before that period or the patent is determined invalid or not infringed by a court decision.²⁰ In order to encourage generic challenges, the first generic filer with a Paragraph IV certification will be granted a 180-day exclusivity period for the marketing of its generic version of the listed drug, during which the FDA will not approve new ANDAs.

The special regulatory framework in the US pharmaceutical industry ‘creates a unique incentive structure’,²¹ which provides a basis for the strategic behaviour of both the brand-name drug manufacturers and the generic drug manufacturers. The creation of the ANDA and the 180-day exclusivity period encourages generic challenges to the drug patents and motivates generic drugs to enter the market before patented drugs expire.²² This, to some extent, poses a risk that patent owners may be held up by the generic drug manufacturers.²³ At the same time, the Hatch-Waxman Act reversed the traditional balance of litigation risks. There is little litigation risk for the potential generic company to be an ANDA applicant with a Paragraph IV certification, except for some basic legal costs. The potential generic company will not suffer significant losses or damages because the automatic 30-month pending period stops the generic drugs entering the market and preserves the generic company from producing competing generics.²⁴ If the potential generic company fortunately wins the patent litigation, even if unlikely (the chance is not great), the company will save significant funding investments in research and development and then they can easily occupy the relevant market. If the brand-name drug company wins the case,

¹⁷ Robin Feldman and Evan Frondorf, ‘Drug Wars: A New Generation of Generic Pharmaceutical Delay’ (2016) 53 Harv. J. on Legis 499, 507.

¹⁸ 35 U.S.C. § 271(e)(2)(A).

¹⁹ 21 U.S.C. § 355(j)(2)(B)(iii).

²⁰ 21 U.S.C. § 355(j)(5)(B)(iii).

²¹ Clancy, Geradin and Lazerow (n 7) 156.

²² Colangelo (n 2) 476.

²³ *ibid* 502.

²⁴ Section 8.4.1 will further discuss China’s future plan to establish of a similar regulatory framework — patent linkage system in China’s pharmaceutical industry, which will have the same effects on the emergence of pay-for-delay agreements in China.

there will only be some financial loss for the potential generic company. As a result, challenging the drug patents by submitting a Paragraph IV certification is always beneficial for generic manufacturers. On the other hand, the patent owner faces considerable financial risks from such a challenge. The success of the patent litigation will not bring extra benefits for brand-name companies but the loss of the patent litigation will deprive them of their market position and the financial consequences can be serious. These consequences make brand-name companies averse to the significant litigation risks.²⁵ In addition, patent owners may have to encounter the risk that they cannot earn enough profits from marketing their patented drugs to recover earlier research and development costs. This may discourage their innovation activities. Therefore, brand-name drug companies try their best to take various strategic measures to impede the market entry of generic drugs. Pharmaceutical companies have been successful in taking advantage of the loopholes in the regulatory framework and they soon found a ‘win-win’ way for both the brand-name drug company and the generic drug manufacturer to share monopolistic profits. The brand-name drug company pays the generic manufacturer a large amount of money or other forms of value in a so-called patent settlement agreement in exchange for the generic manufacturer’s delaying its 180-day exclusivity period and so to exclude other generic companies from entering the relevant market.²⁶ By doing so, the brand-name drug company can eliminate the competition from generic drugs and maintain its market position for a longer period of time. It is clear from the judgment of the US Court of Appeals, Eleventh Circuit that the Federal Trade Commission (FTC) understands reverse payments as ‘a natural by-product of the Hatch-Waxman process’.²⁷

8.2.2 Reasons for the Conclusion of RPPSAs²⁸

In addition to the special regulatory rules found in the US pharmaceutical industry, some other factors also contribute to the pharmaceutical companies’ choice of RPPSAs. Brand-name pharmaceutical companies may sometimes settle patent disputes due to the

²⁵ Clancy, Geradin and Lazerow (n 7) 157.

²⁶ Brand-name companies may also include as many patents in relation to the drug concerned as possible to initiate multiple 30-month pending periods. Even though the rules of the Hatch-Waxman Act have been amended to permit only one 30-month pending period and to create a forfeiture provision of the 180-day exclusivity period in certain conditions, the recourse to settlements involving payments from the brand-name companies to the generics to resolve the patent dispute in the context of the Hatch-Waxman Act is still active.

²⁷ *Schering-Plough Corp. v. F.T.C.*, 402 F. 3d 1056 (11th Cir. 2005), 1060.

²⁸ These general reasons discussed here are also those for the potential appearance of pay-for-delay agreements in China. The reasons of China’s own legal and economic context will be examined in Section 8.4.1.

uncertainty of the validity of the patent and of the outcome of the patent litigation.²⁹ All property rights to some extent have a kind of uncertainty, especially patent rights whose uncertainty is mainly displayed in the commercial significance and their validity and scope.³⁰ Patent rights are not absolute rights. They are granted for a maximum period of 20 years from application. Even after the grant, patents can be subject to revocation if successfully challenged. According to a FTC study, ‘[g]eneric applicants have prevailed in 73 [%] of the cases in which a court has resolved the patent dispute’ between 1992 and 2002.³¹ It is reported that ‘generic companies won overall more than 60% of all patent litigation initiated in the EU from 2000-2007 in which a final judgment was given’.³² The validity of the patent is always subject to challenges before courts which leads to a great uncertainty of the litigation results. In order to avoid huge financial risks caused by the loss of a patent litigation, brand-name companies will choose to settle their patent disputes or even pay the alleged infringer to withdraw the challenges.

Moreover, the expensive litigation costs of patent disputes in terms of time and money are another important reason for pharmaceutical companies to settle.³³ This is particularly true in the EU, where there is neither a unitary patent law nor a unified patent court yet into force. In the current EU situation, patent owners who would like to enforce their patent rights effectively and prevent alleged infringers from marketing their infringing generics, have to bring an infringement action in each member state where they have patent rights that are allegedly being infringed. This process is considerably ‘costly and time-consuming’.³⁴ Additionally, the differences between individual national patent laws cannot guarantee *ex ante* effective remedies or consistent litigation results *ex post*. It is stated that in the EU pharmaceutical industry, 30% of patent litigation are parallel proceeded in several member states and 11% of them obtain conflicting results in different national

²⁹ This point is also one of the positive aspects of RPPSAs and will be proposed in Chapter 9, Section 9.4.1 as one of the factors that should be considered in determining whether a RPPSA violates China’s AML.

³⁰ Mark A. Lemley and Carl Shapiro, ‘Probabilistic Patents’ (2005) 19(2) Journal of Economic Perspective 75, 76.

³¹ Federal Trade Commission, 2002 Generic Drug Entry Prior to Patent Expiration: An FTC Study, July 2002, Page vi.

³² Commission, Pharmaceutical Sector Inquiry Final Report, 8 July 2009, Page 224
<http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/staff_working_paper_part1.pdf> accessed 5 January 2018.

³³ This point is also one of the positive aspects of RPPSAs and will be proposed in Section 9.4.1 as one of the factors that should be considered in determining whether a RPPSA violates the AML.

³⁴ Colangelo (n 2) 495.

courts.³⁵ Therefore, brand-name drug manufacturers are well motivated to settle patent disputes even though their patents are strong.³⁶

The brand-name drug company and the generic company may have common interests to reach a RPPSA.³⁷ It is believed that the amount of profit a brand-name drug company loses from competition with a generic company is more than what a generic company can earn.³⁸ The conclusion of a pay-for-delay agreement provides an opportunity for both to share the avoided losses of the brand-name drug company. In this situation, the patent owner can be compensated for its prior investment in research and development and maintain the large amount of profits, which will otherwise be lost due to the limited protection term of the drug patent. While, the generic company can obtain riskless financial revenue without actual manufacturing. The reverse payment may sometimes be higher than what the generic company anticipates if its generic drug successfully enters the market.³⁹ At the same time, it can eliminate for both sides the uncertainty and risks caused by patent litigation and can save them time and monetary costs.

RPPSAs firstly appeared in the US, but they go beyond the US. The Hatch-Waxman Act caused the breakout of such RPPSAs but it can only be regarded as a kind of catalyst to accelerate the appearance or development of such agreements. The reasons discussed above show that combining with the specific legal context, RPPSAs will emerge in jurisdictions other than the US, such as the EU and China.⁴⁰

8.2.3 Competition Concerns for RPPSAs

As already stated in the introduction, settlements are a general and preferential legitimate way for parties to peacefully resolve their patent disputes. Settlements will not only save costs for private parties, but also can save social resources. In general, normal settlement

³⁵ ‘Antitrust: shortcomings in pharmaceutical sector require further action’ IP/09/1098, Brussels, 8th July 2009, available at <http://europa.eu/rapid/press-release_IP-09-1098_en.htm> accessed on 16 January 2018.

³⁶ Clancy, Geradin and Lazerow (n 7) 164.

³⁷ Colangelo (n 2) 473.

³⁸ Stanislas De Margerie, “‘Pay-for-Delay’ Settlements: In Search of the Right Standard’ (2013) 36(1) World Competition 85, 92.

³⁹ Hovenkamp (n 5) 8.

⁴⁰ Although patent disputes are not so prevalent or popular within China’s pharmaceutical industry and there is no detailed data published in respect of this industry as that found in the US and EU, the problems such as the uncertainty of patents’ validity and the high costs of patent litigation are the same. Hence, it is true that the pharmaceutical companies in China also prefer in most situations to settle patent disputes rather than litigate them before a court.

See further in Section 8.4.1

agreements will not raise competition concerns. However, RPPSAs in the pharmaceutical industry may delay the market entry of generic drugs. This can have an impact on competition to the detriment of the consumer welfare. Generic drugs contribute to the promotion of the accessibility of drugs and to the reduction of medical expenditure. The price of generic versions can be 90% lower than that of the brand-name drugs.⁴¹ Once generic drugs enter into the market, the market share of the corresponding brand-name drugs will be significantly decreased. Accordingly, in order to respond to the entry of generic drugs and maintain their monopolistic profits, brand-name drug manufacturers will resort to patent strategic measures such as RPPSAs. RPPSAs impose restrictions on the entry of generic drugs, require the generic suppliers not to challenge the validity of the relevant patents, and require them not to compete on the relevant market. In return, generic suppliers will obtain financial benefits which are not subject to cash payments. The pay-for-delay agreements may deprive consumers of cheaper drugs and extend the term of monopolistic prices to the detriment of consumer welfare. The extra payments made by the brand-name drug manufacturers will often be transferred to the consumer by an increase on the selling price of patented drugs.⁴² According to the report, pay-for-delay agreements in the pharmaceutical industry can result in an estimated cost of \$3.5 billion per year for consumers in the US.⁴³ Furthermore, the national health care budgets will be adversely affected, as cheaper generic drugs will not be available in the market to compete with patented drugs. National competition enforcement authorities and courts in developed countries have begun to scrutinize these agreements as to their compatibility with competition law. However, there is no consensus as to how to apply competition rules to such RPPSAs.

8.3 Antitrust Enforcement and RPPSAs

8.3.1 From the US Perspective

In the US, pay-for-delay agreements in the pharmaceutical industry have been challenged strongly in recent years. The FTC⁴⁴ holds a strong negative attitude to the pay-for-delay

⁴¹ Federal Trade Commission, 'Pay-for-Delay: How Drug Company Pay-Offs Cost Consumers Billions', An FTC Staff Study (January 2010), 1, available at <<https://www.ftc.gov/reports/pay-delay-how-drug-company-pay-offs-cost-consumers-billions-federal-trade-commission-staff>> accessed on 9 May 2018.

⁴² Tao (n 9) 82.

⁴³ Federal Trade Commission (n 41) 2.

⁴⁴ The FTC is one of the two US antitrust enforcement agencies and the other one is the Department of Justice.

agreements and targets them as enforcement priority. However, the attitudes of the US courts to such agreements are not always consistent. The development process of the courts' approach to RPPSAs is similar to the one they have experienced in respect of the relationship between Patent Law and Antitrust Law. It fluctuated from one end of the spectrum to the other until the US Supreme Court adopted a reasonable balancing stance. However, this balancing solution still leaves uncertainties for the lower courts when faced with such arrangements.

Initially, the US courts condemned RPPSAs in a series of appeal cases and found them *per se* illegal in violation of antitrust rules. The key case applying the *per se* illegal rule is the decision *in re Cardizem CD Antitrust Litigation*.⁴⁵ This case concerned a pay-for-delay agreement in which the generic manufacturer agreed not to market its generic version of the patented drug Cardizem CD until either the issue of a final and unappealable judgment of non-infringement or the conclusion of a licensing agreement.⁴⁶ Simultaneously, the generic company agreed to withdraw its antitrust counterclaims.⁴⁷ As a reward, the patent owner agreed to pay the generic company \$40 million per year.⁴⁸ The Sixth Circuit then determined that such RPPSA between the patent owner and the generic company was 'a horizontal market allocation agreement'⁴⁹ and 'constituted a *per se* illegal restraint of trade in violation of the Sherman Act'.⁵⁰ The claim of the patent owner that the pay-for-delay agreement should be treated as the enforcement of its patent rights to settle the patent dispute was dismissed.⁵¹ The Court found that the agreement not only delayed the market entry of the first generic company but also excluded the entry of other competing generic companies, thus maintained the patent owner's exclusive position in the market.⁵²

Later, the approach to pay-for-delay agreements swung to the other end of the spectrum, applying the 'scope-of-the-patent test'. The 'scope-of-the-patent test' means that the RPPSAs can be allowed and outwith antitrust scrutiny as long as the terms and conditions of the settlement agreements do not go beyond the 'scope-of-the-patent test', the patent was not issued through fraud and the patent litigation itself was not a sham. According to

⁴⁵ *In Re Cardizem CD Antitrust Litigation*, 332 F. 3d 896 (6th Cir. 2003).

⁴⁶ *ibid*, 902.

⁴⁷ *ibid*, 902.

⁴⁸ *ibid*, 902.

⁴⁹ *ibid*, 900.

⁵⁰ *ibid*, 897.

⁵¹ *ibid*, 908.

⁵² *ibid*, 897.

the decision in *Valley Drug Co. v. Geneva Pharmaceuticals, Inc.*,⁵³ the generic companies had admitted that their products infringed the drug patent on the brand-name drug, but claimed the invalidity of that patent.⁵⁴ In fact, the patent concerned was declared invalid in 1998.⁵⁵ However, the Eleventh Circuit reversed the decision of the district court that the settlement agreement was *per se* illegal.⁵⁶ The reasoning was that the pay-for-delay settlement agreement is closely linked to the nature of patents, thus the exclusionary power of a patent should not be ignored.⁵⁷ In this case, the Eleventh Circuit concluded that the brand-name drug company's payment to the generic company, in exchange for the latter's delay to enter the relevant market, did not go beyond the exclusionary effects of the patent, and should not be considered as *per se* illegal.⁵⁸ A full antitrust analysis is required. The district court was required to consider 'the scope of the exclusionary potential of the patent, the extent to which these provisions of the [a]greements exceed the scope and the anti-competitive effects thereof' in its antitrust analysis of pay-for-delay agreements.⁵⁹ The 'scope-of-the-patent test' was then applied in another case, *Schering-Plough Corp. v. F.T.C.*⁶⁰ In this case, Schering-Plough, a brand-name drug manufacturer of a prescribed potassium chloride product—K-Dur 20 separately reached patent litigation settlement agreements with two generic companies, Upsher and ESI. In order to settle the patent disputes with these two generic companies, Schering-Plough paid each of them a large amount of money. In return, Schering-Plough obtained several licences and commitments to defer the market entry of the generic versions of Schering-Plough's K-Dur 20. However, the FTC concluded that the Schering-Plough's settlement payments were not merely for obtaining licences. The real purpose was to keep the generic companies out of the relevant market. The FTC ruling was then appealed to the Eleventh Circuit. The Eleventh Circuit invalidated the FTC's order which decided that the patent settlement agreements at issue were unreasonable restraints of trade, and affirmed that no evidence showed these settlement agreements went beyond the exclusionary effects of the patent concerned.⁶¹ Thus, the settlement agreements did not violate antitrust rules and the analysis approach established in *Valley Drug Co. v. Geneva Pharmaceuticals, Inc.* should be observed. In April 2012, the Eleventh Circuit, again, affirmed the 'scope-of-the-patent test' in *Watson*

⁵³ *Valley Drug Co. v. Geneva Pharmaceuticals, Inc.*, 344 F. 3d 1294 (11th Cir. 2003).

⁵⁴ *ibid*, 1305.

⁵⁵ *ibid*, 1305.

⁵⁶ *ibid*, 1294.

⁵⁷ *ibid*, 1310.

⁵⁸ *ibid*, 1309.

⁵⁹ *ibid*, 1312.

⁶⁰ *Schering-Plough Corp. v. F.T.C.*(n 27).

⁶¹ *ibid*, 1056.

that the RPPSA was exempted from antitrust scrutiny in the absence of sham litigation or fraud issue of a patent.⁶²

Nevertheless, another Circuit took a different view. The same settlements in *Schering-Plough Corp. v. F.T.C.* were later challenged in private class actions by direct purchasers of K-Dur products. Surprisingly, the Third Circuit in *Re K-Dur Antitrust Litigation* reached the conclusion that the pay-for-delay agreements were presumptively illegal. In *Re K-Dur Antitrust Litigation*, the Third Circuit criticized the ‘scope-of-the-patent test’ which exempts RPPSAs from any antitrust scrutiny.⁶³ The court considered such a test to be contrary to the Hatch-Waxman Act policies and the Supreme Court precedent.⁶⁴ The Third Circuit followed the FTC’s approach and instructed that on the basis of the economic realities, a rule of reason analysis should be briefly applied to examine the legality of the RPPSA.⁶⁵ Any payment from a patent owner to a generic company in exchange for the latter’s agreement to delay the market entry of its generic drugs, should be determined as ‘*prima facie* evidence of an unreasonable restraint of trade’.⁶⁶ However, this presumption of illegality can be rebutted if the parties demonstrate that the reverse payment ‘was for a purpose other than delayed entry’ or it has pro-competitive effects.⁶⁷

Until 2012, different courts reached different conclusions on the application of antitrust rules to RPPSAs in the pharmaceutical industry. Two main approaches among US circuits can be identified. On one hand, the Federal Circuit, Second Circuit and the Eleventh Circuit applied the ‘scope-of-the-patent test’ to exempt most RPPSAs from antitrust scrutiny; on the other hand, the Third Circuit, the Sixth Circuit and the District of Columbia Circuit found that such RPPSAs unreasonably restrict trade and violate antitrust rules.⁶⁸ In particular, the Third Circuit and the Eleventh Circuit reached conflicting conclusions on the legality of the same RPPSAs.

⁶² *F.T.C. v. Watson Pharmaceuticals, Inc.*, 677 F. 3d 1298 (11th Cir. 2012), Watson was then acquired and known as Actavis.

⁶³ *In Re K-Dur Antitrust Litigation*, 686 F. 3d 197 (3rd Cir. 2012), 214.

⁶⁴ *ibid.*

⁶⁵ *ibid.*, 218.

⁶⁶ *ibid.*

⁶⁷ *ibid.*

⁶⁸ Hua Su and Wei Han, ‘The Latest Development of the Anti-monopoly Regulations of Reverse Payment Agreements in the Pharmacy Industry—Comments on the Actavis Case and Lundbeck Case’ (药业反向支付协议反垄断规制的最新发展—兼评 Actavis 案及 Lundbeck 案) (2013) 16 *Biweekly of Administration for Industry and Commerce*.

The conflict was resolved in 2013 when the Supreme Court granted the petition of the FTC for certiorari and reversed the Eleventh Circuit's decision in *Actavis*.⁶⁹ The Supreme Court rejected both the 'scope-of-the-patent test' and the presumptively illegal principle in analysing the anti-competitive effects of the pay-for-delay agreements. The Supreme Court held that such reverse payment settlement 'can sometimes violate antitrust laws' and 'was not immune from antitrust attack'.⁷⁰ However, such settlement is not presumptively unlawful.⁷¹ Therefore, it was concluded that RPPSAs should be evaluated under the rule of reason.⁷² In *Actavis*, Solvay, the owner of a patented brand-name drug — AndroGel, separately settled Paragraph IV patent infringement litigation under the Hatch-Waxman Act with two generic companies, Actavis and Paddock.⁷³ In the settlements, Solvay agreed to pay the generic companies (the alleged infringers) millions of dollars; in return, the generics promised not to market their generic versions of the brand-name drug until five years before the patent concerned expired, and provided Solvay with certain services.⁷⁴ The FTC alleged that the settling parties, through RPPSAs, unlawfully shared monopoly profits, gave up patent challenges and delayed affordable generic drugs to enter the market, eliminating competition and violating antitrust rules.⁷⁵ However, the FTC's decision was reversed by the district court and the Eleventh Circuit by applying the 'scope-of-the-patent test'. Due to the complex nature of these agreements, the antitrust legality of the RPPSAs should be determined on the basis of both the patent law policies and the procompetitive antitrust policies.⁷⁶ Patents do grant patent owners some exclusionary power and they are allowed to act within the scope of the patent. The value of settlements in patent litigation cannot be ignored. However, the RPPSAs do have the potential to bring adverse effects on competition and on consumer welfare.⁷⁷ The fact that generic versions were allowed to enter the market before the patented drug expired, can to some extent benefit consumers; but it is found that the settlement here divided the monopoly profits between the patent owner and the generic manufacturers, paying the latter to keep out of the market.⁷⁸ The potential anti-competitive effects of a reverse payment are determined by a number of complicated factors, such as its size, its proportion in the estimated litigation costs, its

⁶⁹ *Federal Trade Commission v. Actavis* (n10).

⁷⁰ *ibid*, 2223.

⁷¹ *ibid*, 2224.

⁷² *ibid*, 2224.

⁷³ *ibid*, 2229, Par Pharmaceutical later aligned with Paddock to share the costs and profits.

⁷⁴ *ibid*, 2229.

⁷⁵ *ibid*, 2230.

⁷⁶ *Federal Trade Commission v. Actavis* (n 10), 2231.

⁷⁷ *ibid*, 2234-2237.

⁷⁸ *ibid*, 2234.

relationship with the provided services and the possibility of other convincing reasons.⁷⁹ Therefore, the Supreme Court concluded that the rule of reason must be applied in examining such settlement agreements.

The rule of reason analysis approach adopted in *Actavis* stops conflicts between different US circuits as far as the legality of the pay-for-delay agreements is concerned. The application of the rule of reason test deprives brand-name companies of the shelter given by the ‘scope-of-the-patent test’ to immune them from antitrust attack. Nevertheless, it equally provides brand-name companies with an opportunity to show the pro-competitive benefits of the RPPSAs. As a result, it will give rise to more uncertainties as to the legality of such RPPSAs and it will impose a deterrent on those potential companies who would like to achieve such settlements.⁸⁰ In addition to the rule of reason principle, the Supreme Court did not provide much detailed guidance, which leaves uncertainty for lower courts when applying this rule. For example, what can constitute ‘unexplained large reverse payment’? Is the form of the payment subject to cash? Whether the validity of the patent is relevant to the antitrust legality of RPPSAs? These uncertainties may raise new conflicts among lower courts when they apply the rule of reason to scrutinize the antitrust legality of RPPSAs.

8.3.2 From the EU Perspective

Before 2008, there was no guidance or case law concerning the antitrust legality of the RPPSAs in the EU. The interest of the European Commission in this area originated from a tip-off from the Danish Competition Authority. In 2003, the European Commission and the Danish Competition Authority scrutinized the RPPSAs between Lundbeck, a brand-name drug company, and several generic companies. At that time, the European Commission and the Danish Competition Authority found that such RPPSAs were attributed to a ‘legal grey zone’.⁸¹ They realized that a standard to assess the compatibility of such agreements with EU competition rules needed to be established.⁸² Therefore, in 2008, the European Commission launched a competition inquiry into the pharmaceutical sector to find reasons for the reduction of the number of new medicines brought into the market and for the delay in the market entry of generic drugs. In particular, the inquiry focused on the role of patent

⁷⁹ *ibid*, 2237.

⁸⁰ Clancy, Geradin and Lazerow (n 7) 163.

⁸¹ Clancy, Geradin and Lazerow (n 7) 164; Danish Competition Authority, Press Release, Investigation of Lundbeck, Council Meeting, 28 January 2004.

⁸² *ibid*.

settlement agreements in delaying the market entry of generics. In order to understand better the manner in which such settlement agreements are used and to identify the settlement agreements which delay the market entry of affordable generic medicines, the European Commission decided to continuously monitor patent settlements between brand-name and generic companies. Since 2009, annual reports have been published. The European Commission divides these settlement agreements into three categories on the basis of whether the settlement agreements limit generic entry and whether there is value transfer from brand-name companies to generic companies.⁸³ Category A is agreements that do not restrict the ability of generic companies to enter the relevant market. Normally, these agreements do not raise competition concerns. Category B.I is patent settlement agreements that do restrict the market entry of generic medicines but that do not involve a value transfer. These are also mostly unproblematic. Category B.II is agreements that not only restrict the generic entry but also include a value transfer from the brand-name drug company to the generic company. These agreements are most likely to attract antitrust scrutiny. Subsequently, the European Commission initiated several antitrust investigations concerning RPPSAs in the pharmaceutical industry.

In 2013, the European Commission adopted its first decision on RPPSAs. The Commission concluded that the settlement agreements between the Danish pharmaceutical company—Lundbeck and four generic companies constituted restrictions of competition by object and infringed Article 101 TFEU.⁸⁴ In the settlement agreements, the brand-name drug company Lundbeck agreed to pay a considerable sum of money to its generic competitors in exchange for their commitment to stay out of the citalopram market for a certain period of time. Some generic companies had already made preparations for marketing their cheaper generic versions of citalopram. The European Commission confirmed the benefits of settlement agreements in resolving patent disputes but emphasized that the agreements are not immune from antitrust scrutiny.⁸⁵ Before the pay-for-delay agreements in this case were concluded, Lundbeck's basic patents and data protection on the anti-depressant drug citalopram had already expired. However, Lundbeck still possessed a number of process patents by which limited protection was provided. Nevertheless, the European Commission found that 'Lundbeck's remaining process patents were not capable of blocking all

⁸³ Commission, Pharmaceutical Sector Inquiry Final Report, 8 July 2009 (n 32) Page 269-285.

⁸⁴ *Lundbeck* (Case AT.39226) Commission Decision C (2013) 3803 final.

⁸⁵ Commission, 'Case AT. 39266—Lundbeck' (Summary of Commission Decision) 2015/C 80/07, paras 5 and 11.

possibilities of market entry'.⁸⁶ A patent owner is allowed to stop potential or actual infringement of the patent but it does not have the right to buy off competition.⁸⁷ In examining the case, the European Commission considered a whole range of factors such as: the size of the payment, the competitive relationship between the pharmaceutical companies, the generics' promise not to enter the market during the existence of the agreement, the possibility for Lundbeck to obtain the generics' obligations purely through enforcing its process patents before courts, the scope of the patents concerned and whether the generic competitors were allowed to enter the market after the patents had expired. The Commission found that the RPPSAs in this case 'did not resolve any patent dispute' and they just deferred the problems caused by the potential entry of generic medicines.⁸⁸ Lundbeck successfully avoided generic competition for the duration of these settlement agreements and maintained monopoly profits. The acceptance of the restrictions on market entry by generic companies is not due to the strength of Lundbeck's patents but for the considerable value transfer.⁸⁹ The settling parties had claimed justifications of their settlement agreements under Article 101(3) TFEU but they failed to demonstrate sufficiently the efficiency gains. Therefore, the European Commission concluded that the RPPSAs restricted competition by their very nature and infringed Article 101 TFEU. In 2016, the General Court confirmed fully the Commission's findings in *Lundbeck* and upheld the decision.⁹⁰

In addition, the Commission fined some pharmaceutical companies for their pay-for-delay agreements in *Fentanyl*⁹¹ and in *Servier*⁹² that were both found to be restrictions of competition by object. Where the restriction is by object, the European Commission is not required to prove any actual or potential anti-competitive effect. The Commission only needs to demonstrate that the agreement has the object or the nature to restrict competition. However, a restriction by object is not always obvious and sometimes contextual analysis is necessary. In order to identify the anti-competitive object of a restraint, the Commission has to examine the content of the provisions, the objectives, the economic and legal context of the restraint agreements, the subjective intention of each party and other relevant

⁸⁶ *Lundbeck* (n 84), paras 634-636.

⁸⁷ *ibid*, para 641.

⁸⁸ *ibid*, para 6.

⁸⁹ *ibid*, para 1009.

⁹⁰ *Lundbeck v Commission* (n 11).

⁹¹ *Fentanyl* (Case AT. 39685) Commission Decision C (2013) 8870 final.

⁹² *Perindopril (Servier)* (Case AT. 39612) Commission Decision C (2014) 4955 final.

factors.⁹³ Only when the detriment of competition cannot be clearly demonstrated, do the anti-competitive effects need to be shown.⁹⁴ Indeed, for the purpose of completeness, the Commission did analyze some of the restrictive effects of RPPSAs on competition in *Lundbeck* and *Servier*. However, the effect-analysis of these problematic RPPSAs in the EU's competition enforcement is still limited and not complete.

In 2014, for the first time, in its official Guidelines on the Application of Article 101 TFEU to Technology Transfer Agreements,⁹⁵ the Commission provided some guidance on the competition enforcement policy for pay-for-delay agreements. On one hand, the legitimate status of settlement agreements is confirmed as a means to end legal disagreements.⁹⁶ On the other hand, the Guidelines make it clear that pay-for-delay agreements are not automatically immune from the scrutiny of Article 101 TFEU and may raise market allocation/share concerns, in particular agreements between competitors which contain a significant value transfer.⁹⁷

8.3.3 Summary⁹⁸

The development of legal principles to be applied in considering the antitrust legality of RPPSAs in the US and the EU are good models. There are divergences between the US and EU regulatory frameworks but there are also similarities in their competition analysis. These two models offer countries that face this kind of competition concerns the positive and negative aspects of each legal approach. This would enable them to conclude a most appropriate approach in accordance with their own legal and economic context.

On the basis of the enforcement experience above, the *per se* rule should not be used when examining the legality of pay-for-delay agreements in the pharmaceutical industry. When applying the *per se* rule, the plaintiff or the competition authority is required only to identify the existence of the pay-for-delay agreement. There is no requirement to show

⁹³ *Lundbeck* (n 84), para 648.

⁹⁴ Alexander Italianer (Director-General for Competition, European Commission), 'Competitor agreements under EU competition law' (40th Annual Conference on International Antitrust Law and Policy, Fordham Competition Law Institute, New York, 26 September 2013), P5, available at <http://ec.europa.eu/competition/speeches/text/sp2013_07_en.pdf> accessed 9 May 2018.

⁹⁵ Guidelines on the Application of Article 101 of the Treaty on the Functioning of the European Union to Technology Transfer Agreements [2014] OJ C 89/3.

⁹⁶ *ibid*, para 235.

⁹⁷ *ibid*, paras 238 and 239.

⁹⁸ The comparison here of different antitrust approaches to pay-for-delay agreements provides a basis for the proposed analysis approach under China's AML in Chapter 9, Section 9.4.

restrictive effects on competition. It is submitted that, except in naked restrictive/collusive agreements between competitors, it is difficult for courts to differentiate clearly what kind of restrictions are *per se* illegal.⁹⁹ The application of the *per se* rule does to great extent deter the pay-for-delay agreements. However, it is so strict that it ignores the positive and beneficial role of settlements in ending patent disputes and it ignores the possible justifications of such complicated agreements in relation to patents. The application of the *per se* rule to RPPSAs will deprive parties of the incentives to settle their disputes peacefully. In addition, the settlement regime in the pharmaceutical industry will have no role. In this situation, pharmaceutical companies have to face costly, risky and time-consuming litigation that will discourage the generic companies' investment in developing generic drugs.¹⁰⁰

When it comes to the application of the 'scope-of-the-patent test', the pendulum swings to the other extreme. This approach focuses only on the exclusionary power of the patent concerned and ignores the competitive issues of the RPPSAs. The application of the 'scope of the patent test' grants automatic legality to the pay-for-delay agreements and no court has determined such an agreement as a violation of antitrust rules under this approach.¹⁰¹ It is true that patent rights are special property rights and normally the exercise of patent rights will be protected from antitrust scrutiny. However, this does not mean that they are totally immune from the application of competition law. When the exercise of patent rights goes beyond the scope permitted by patent law and seriously distort competition, the conduct of the patent owner will definitely be subject to competition law. As stated by the Supreme Court, the antitrust legality of a RPPSA should be determined on the basis of both patent law policy and competition policy.¹⁰² The US circuits, who apply the 'scope-of-the-patent test' to pay-for-delay agreements, have interpreted wrongly the scope of the patent rights and the relationship between such rights and competition.¹⁰³ Whether the anti-competitive effects of a RPPSA fall within the scope of the patent should be established according to the circumstances in each case. The timing at which the generic companies are allowed to enter the market is one but not the only consideration. The premise of applying the 'scope-of-the-patent test' is that the patent at

⁹⁹ Christopher L. Sagers, *Examples & Explanations for Antitrust* (Second Edition, Wolters Kluwer: Law & Business 2014), 92.

¹⁰⁰ Bret M. Dickey and Daniel L. Rubinfeld, 'Would the *Per Se* Illegal Treatment of Reverse Payment Settlements Inhibit Generic Drug Investment?' (2012) 8 (3) J Comp L & Econ 615, 615.

¹⁰¹ *In Re K-Dur Antitrust Litigation* (n 63), 214.

¹⁰² *Federal Trade Commission v. Actavis* (n 10), 2231.

¹⁰³ Rudolph J.R. Peritz, 'Taking antitrust to patent school: The instance of pay-for-delay settlements' (2013) 58(1) The Antitrust Bulletin 159, 166.

issue is valid. The validity of a patent is normally the fundamental disputed issue in patent litigation where a RPPSA is achieved. This is also an important factor in deciding how antitrust law will be applied. Nevertheless, when applying this test, most US courts problematically held an ‘almost un rebuttable presumption of patent validity’ which ignores the possibility of the invalidity of a patent.¹⁰⁴ This approach seems to lead to an expansion of patent protection and will restrict competition to the detriment of consumer welfare.¹⁰⁵ In addition to the validity issue, the existence of an infringement of the patent is also essential to justify the appropriateness of applying the ‘scope-of-the-patent test’ but this test ignores infringement issues.¹⁰⁶ In fact, if applied in a congruous way, the ‘scope-of-the-patent test’ itself is not problematic and has some rationale. The scope of the patent concerned, the extent to which a RPPSA exceeds that scope and the resulting anti-competitive effects are all important and necessary elements that should be seriously examined in an antitrust analysis.

The application of the presumptively illegal rule is favoured only in cases where someone with basic knowledge of economics is able to establish that the behaviour concerned is anti-competitive and prejudicial to consumers.¹⁰⁷ With regard to RPPSAs, they are seemingly rational and reasonable because settlements can end disputes beneficially and patent rights grant their owners some kind of exclusionary power to do so. In particular, in order to avoid antitrust liability, most pharmaceutical companies will agree on an earlier market entry date for generic drugs than the expiration date of the patent. Accordingly, the real anti-competitive nature of such agreements to delay/eliminate generic competition and maintain monopoly profits cannot be easily identified and requires detailed analysis. Additionally, the presumption of illegality on RPPSAs may impose too much pressure on pharmaceutical companies to settle their disputes. Their incentives to innovate, protected by a patent law, may also be adversely influenced.¹⁰⁸ The presumptively illegal rule is not the best choice here, though it has its own advantages in antitrust analysis.¹⁰⁹

¹⁰⁴ *In Re K-Dur Antitrust Litigation* (n 63), 214.

¹⁰⁵ Fan Zhang, ‘The Antitrust Application of Reverse Payment Agreements in Pharmaceutical Industry’ (医药行业反向支付协议的反垄断规制) (Master Thesis, East China University of Political Science and Law 2016), 37.

¹⁰⁶ Michael A. Carrier, ‘Why the “Scope of the Patent” Test Cannot Solve the Drug Patent Settlement Problems’ (2012) 16(1) *Stanford Technology Law Review*, 7.

¹⁰⁷ *Federal Trade Commission v. Actavis* (n 10), 2237.

¹⁰⁸ Colangelo (n 2) 500.

¹⁰⁹ These advantages are such as: transferring some burden of proof to settling parties, avoiding challenging the difficult and complicated problem of the validity and infringement of the patent and reducing the chance to unduly protect weak patents from scrutiny.

Comparatively, the rule of reason principle is more flexible and provides an opportunity to balance the pro-competitive and the anti-competitive effects of RPPSAs. However, there has been a concern that the application of a full-blown rule of reason approach can be costly and difficult which, to great extent, discourages antitrust agencies and others from challenging the alleged anti-competitive practices.¹¹⁰ As a result, it is better for relevant antitrust authorities to shape and structure the investigation and the quality of proof appropriately according to the circumstances of each case. This will not only ensure a rigorous and robust antitrust analysis but also avoid discussing irrelevant issues.¹¹¹ In *Actavis*, the Supreme Court confirmed a non-traditional rule of reason. It does not require demonstrating everything that a full-blown rule of reason would demand. For example, in evaluating the competitive effects of pay-for-delay agreements, whether the patent is valid does not need to be empirically litigated; and the size of the payment can be a strong indicator of market power and the weakness of the patent concerned.¹¹² It is believed that in assessing the pros and cons of a pay-for-delay agreement, a ‘sliding scale’ is always applied.¹¹³

The restriction by object adopted by European Commission to pay-for-delay agreements is in theory similar to the presumptively illegal approach and stricter than the rule of reason. It can be rebutted with limited justifications under Article 101(3) TFEU such as efficiencies. Despite the US Supreme Court finally adopting a more flexible and reasonable approach—rule of reason, the EU’s restriction by object is more appropriate to the circumstances. In all RPPSAs prohibited by the European Commission, the patents on the active ingredients (basic patents) had expired, leaving only process patents with a weaker protection.¹¹⁴ The brand-name companies in the EU had already enjoyed the exclusionary protection provided by patent law for their basic patents and so the RPPSAs unduly extended the protection of the monopoly profits.¹¹⁵ On the contrary, most US cases on RPPSAs allowed the market entry of the generics before the basic patents had expired which perhaps requires a softer approach.¹¹⁶ Even though the European Commission adopted the approach of restriction by object, in some cases, it analysed the anti-

¹¹⁰ Sagers (n 99) 92.

¹¹¹ *Federal Trade Commission v. Actavis* (n 10), 2238.

¹¹² *ibid*, 2237.

¹¹³ *ibid*, 2237-2238.

¹¹⁴ Fraile, Kapoor and Morales (n 6) 214.

¹¹⁵ Colangelo (n 2) 494.

¹¹⁶ The difference of the market entry date of generic drugs in the RPPSAs in the EU and US determines that different antitrust approaches will be adopted. This provides enforcement experience for suggesting the appropriate antitrust approach for China in Chapter 9, Section 9.4.

competitive effects to some extent for the sake of completeness. The EU and the US have adopted divergent approaches to deal with the competition concerns of pay-for-delay agreements within their different regulatory frameworks. However, their attitudes to the situation are the same, namely that the benefits of patent settlements should be confirmed but that they may be subject to antitrust scrutiny. Both competition authorities separate the patent validity issue from the antitrust analysis¹¹⁷ and both consider the same factors when evaluating RPPSAs such as the size of the payment. It has even been argued that the size of payment criterion adopted by the US Supreme Court has the shadow of presumptive illegality.¹¹⁸ More importantly, similar conclusions have been reached by the US and EU authorities and courts.

The research and analysis undertaken above has shown a trend that there seems to be less and less distinct line between the different tests and approaches. Each approach is no longer absolutely incompatible with or opposite to each other. In many circumstances, the choice of an analysis approach is situational to meet the legal environment. It can be a combination of different legal approaches in one case in accordance with the relevant factors. For example, in the European Commission's decision of restriction by object, there is also some analysis of effects. The rule of reason adopted by the US Supreme Court has been reshaped to fit the specific case. Therefore, for China, it is very important to find an appropriate rule to examine the complicated RPPSAs, which should meet the specific circumstances. It is very dangerous to transplant from other legal jurisdictions rules or practices which may not be suitable for China's legal and economic context.

8.4 The Anti-monopoly Regulation of RPPSAs in China

Pursuant to the closed and on-going investigations of China's AMEAs, to date no competition concerns from RPPSAs in the pharmaceutical industry have arisen. In spite of the rumour that the NDRC is investigating the pharmaceutical industry, there is no official press release to confirm the rumour. China's legislation and antitrust enforcement is still untested in this area. Chinese academic literature on RPPSAs only started to appear in about 2007. The existing limited literature in this area mainly focuses on US antitrust enforcement and little attention has been paid to the situation in China.¹¹⁹ In the earlier

¹¹⁷ This is also proposed in Chapter 9, Section 9.4.2 for China's SAMR to examine the pay-for-delay agreements.

¹¹⁸ Colangelo (n 2) 496.

¹¹⁹ Zhang (n 105) 5.

years, it was even argued that this kind of pay-for-delay agreements will not arise under China's legal and economic circumstances.¹²⁰ However, such settlement agreements are unavoidable products of the relationship between brand-name companies and generic companies. This thesis holds the opinion that China's AMEAs should not ignore the competition concerns caused by such settlements and should prepare well both in theory and practice. China's legal and economic context of the pharmaceutical industry has changed significantly, so it is highly likely that these types of settlements will be scrutinized at the same time by China's Anti-monopoly Law (AML).

8.4.1 RPPSAs in China

In addition to the general reasons discussed in section two of this chapter, China's legal and economic context in the pharmaceutical industry can also facilitate the emergence of pay-for-delay agreements.

China is one of the largest countries where the manufacturing and use of generic drugs is very popular and nearly 90% of the drugs that newly come into China's market are generic.¹²¹ As a developing country, generic drugs play an important and essential role in China's public health policy and the research and development of generic drugs has been supported for a long time.¹²² Since China joined WTO in 2001, the intellectual property rights of the WTO parties will also be protected in China. The standard of patent protection has also been improved at international level. Despite the fact that China is still not a leading country in patented drugs, promoting innovation in the pharmaceutical industry has been included in its industrial policies since the twelfth Five-Year Plan of China began and a tremendous amount of investment has been devoted to this industry.¹²³ At the same time, the ability of Chinese pharmaceutical companies in research and development of both patented and generic drugs has been considerably increased in recent years. As a result of the aging of China's population and the acceleration of urbanization, effective competition between patented and generic drugs is of great importance to the increase in the accessibility of medical care and to save public resources.¹²⁴ The time of sole generic medicines has gone and China's pharmaceutical industry will come into an era of the

¹²⁰ Xue (n 12).

¹²¹ Su and Han (n 68).

¹²² *ibid.*

¹²³ Xin Wang and Cheng Zhen, 'Research on the Hatch-Waxman Act' (美国 Hatch-Waxman 法案研究) (2017) 38(1) Dong Yue Tribune 165, 173.

¹²⁴ Su and Han (n 68).

parallel development of generic and patented drugs.¹²⁵ It has been shown that some generic companies in China are turning to research and development in innovative medicine. Moreover, the patent cliff¹²⁶ of a number of pharmaceutical patents provides a good opportunity for the development of China's generic companies. It is reported that about 400 patents of brand-name drugs will expire before 2020.¹²⁷ This means that the generic drugs will then be permitted to enter the relevant market to compete with the referential patented drugs. Normally, the market entry of generic drugs will lead to a dramatic reduction in the price and in the market share of patented drugs. The coming of the patent cliff can be a real challenge to brand-name drug companies. In this situation, brand-name drug manufacturers will probably adopt strategic measures to maintain their monopoly profits as long as they can. RPPSAs concluded during patent litigation are a good choice for them. Furthermore, the RPPSAs between foreign brand-name companies and Chinese generic companies or even between Chinese brand-name companies and generic companies, will be a major challenge for China's AMEAs. Adverse effects can arise. Therefore, China should establish an effective anti-monopoly scrutiny framework to make sure that the development of generic drugs in China is maintained and, simultaneously, encourage innovation.

In addition, disputes between some pharmaceutical companies in China have already shown the tendency and a beginning of the appearance of RPPSAs. For example, in 2001 a US company brought an action against a Chinese pharmaceutical company for patent infringement.¹²⁸ It is reported that the US company filed an infringement complaint because the Chinese pharmaceutical company refused to accept its offer of a payment.¹²⁹ The US company exhausted all the available judicial procedures and the case had lasted for nearly 9 years. Finally, in 2010, China's Supreme People's Court confirmed the lower court's judgment that the Chinese pharmaceutical company did not infringe the patents concerned. The patents in this case were also declared null and void. However, justice delayed is justice denied. Though the Chinese pharmaceutical company achieved a final

¹²⁵ Jin Shao, 'Analysis of Antitrust Regulation on Reverse Payment Agreement' (专利反向支付协议的反垄断认定研究) (Master Thesis, East China University of Political Science and Law 2015), 51.

¹²⁶ Patent cliff means that when the patent on the brand-name drug expires, the sales of such drug will considerably decrease and the market share of the relevant brand-name drug company will be dramatically reduced.

¹²⁷ Zhiming Cao, 'A Research on Reverse Payment in Pharmaceutical Field' (药品领域反向支付问题研究) (2017) 09 Intellectual Property 63, 66.

¹²⁸ *Eli Lilly and Company vs. Jiangsu Hansoh Pharmaceutical Company*, Supreme People's Court, (2009) Min San Zhong Zi No.6 ((2009) 民三终字第 6 号).

¹²⁹ Hua Su, 'The US Experience on the Anti-monopoly Regulation of Patents in Pharmaceutical Industry' (药品专利反垄断的美国经验) (2017) 03 Price Supervision and Anti-monopoly in China 20, 25.

victory, the US company was the real beneficiary. This is for the reason that during the 9 years the US company maintained its monopoly in the Chinese market and the market entry of the relevant generic drugs was, therefore, significantly delayed.¹³⁰ Another example comes from a dispute between Warner-Lambert Company LLC—a US pharmaceutical company and Jialin—a Chinese pharmaceutical company. Warner-Lambert’s compound patent on Atorvastatin expired in December 2012. So, before the expiration, Warner-Lambert’s applied for a number of patents around Atorvastatin in order to maintain its market position. In 2007, Warner-Lambert’s sued Jialin before a Chinese court alleging the latter’s generic version of Atorvastatin infringed its patents.¹³¹ Jialin counter claimed that Warner-Lambert’s patents were invalid. In 2015, a final decision adopted by China’s Supreme People’s Court declared that all the Warner-Lambert’s patents on Atorvastatin were null and void.¹³² It is clear that the uncertainty of patents, the high costs in time and money of patent litigation and the ambition of brand-name companies to maintain high profits will lead to the conclusion of RPPSAs.

As more attention is paid to encouraging innovation of new drugs and improving the development of generic drugs, conflicts between the interests of generic and brand-name companies will be obvious. However, China’s current regulatory framework in the context of the pharmaceutical industry is not appropriate. The current legal rules concerning drug patents are general and decentralized. In addition to the general protection granted by Patent Law, other laws do not really apply to drug patents. In Measures for the Administration of Drug Registration, there are only two short rules on drug patents. One concerns the requirement of a patent statement to disclose the ownership of the relevant patent and whether the drug concerned infringes patents owned by others.¹³³ The other rule prescribes that a registration application for a drug that has been granted a patent to other patent owners can be filed within two years before the drug patent expires.¹³⁴ However, there are no integrated instructions on the manner or form to make a patent statement or a non-infringement statement in Article 18 of the Measures for the Administration of Drug Registration. Article 18 only requires the relevant authority to publicize these statements but no substantive examination of the merits is imposed. Neither does the provision contain

¹³⁰ *ibid* 25.

¹³¹ Shimeng Zhao, ‘Pfizer Suffered “Waterloo” in Its Patents on Lipid-Lowering Drug’ (辉瑞公司降脂药专利遭遇“滑铁卢”) *China Intellectual Property News* (Beijing, 27 May 2015) 9.

¹³² *Patent Re-examination Board of SIPO and Jialin Pharmaceutical vs. Warner-Lambert Company LLC*, Supreme People’s Court, (2014) Xing Ti Zi No.8 ((2014) 行提字第 8 号).

¹³³ Measures for the Administration of Drug Registration (药品注册管理办法), Article 18.

¹³⁴ *ibid*, Article 19.

an obligation to notify the relevant patent owners of the statements. When a patent dispute arises during the application, no detailed guidance is provided to explain what to do or where to go. There is no effective mechanism to provide the applicant of a drug with information of existing drug patents; nor is the coordination with China's State Intellectual Property Office established. Accordingly, the current regulatory framework has not been able to catch up with the rapid development of the pharmaceutical industry.

In order to modify the shortcomings in the current regulatory framework in China's pharmaceutical industry, in May 2017, China Food and Drug Administration (CFDA) published an announcement to solicit public comment on the draft of Policies for Encouraging Innovation in Drugs and Medical Devices and Protecting the Rights and Interest of Innovators.¹³⁵ In this document, a patent linkage system will be established in the near future and some similar regulatory rules, like those in the US, will be adopted. On the basis of the requirement of a patent statement, if applicants for drug registration claim that their generic drugs do not infringe existing patents, they must notify this to the relevant drug patent owners within 20 days of filing the application.¹³⁶ The notified patent owner has the right to lodge a patent litigation within 20 days after it receives the notice.¹³⁷ Once the judicial proceedings are initiated, the registration application process will be automatically stayed for no longer than 24 months.¹³⁸ In addition, a list of approved drugs will also be created under the draft of Policies for Encouraging Innovation in Drugs and Medical Devices and Protecting the Rights and Interest of Innovators which is very like the Orange Book in the US. This list will include information of drugs approved to enter China's market, such as the properties of the drug, their ingredients, relevant patents, their ownership, rights information on data protection, etc. In October 2017, the General Office of the CPC Central Committee and the General Office of the State Council on Issuing the Opinions on Deepening the Reform of the Evaluation and Approval Systems and Encouraging Innovation on Drugs and Medical Devices (the 2017 Opinions) confirmed the basic framework of the patent linkage system to be established in Articles 15-19, though detailed rules need to be specified later.¹³⁹ In addition to the basic principles mentioned in

¹³⁵ Policies for Encouraging Innovation in Drugs and Medical Devices and Protecting the Rights and Interests of Innovators (Consultation Paper) (关于鼓励药品医疗器械创新保护创新者权益的相关政策（征求意见稿）) <<http://www.sda.gov.cn/WS01/CL0778/172606.html>> accessed 11 January 2018.

¹³⁶ *ibid.*

¹³⁷ *ibid.*

¹³⁸ *ibid.*

¹³⁹ The General Office of the CPC Central Committee and the General Office of the State Council on Issuing the Opinions on Deepening the Reform of the Evaluation and Approval Systems and Encouraging Innovation on Drugs and Medical Devices (中共中央办公厅、国务院办公厅印发《关于深化审评审批制度改革鼓

the draft of Policies for Encouraging Innovation in Drugs and Medical Devices and Protecting the Rights and Interest of Innovators, the 2017 Opinions require to make pilot experiments of patent term restoration and to regularly release the list of expired or invalid patents and the patented drugs with no application for a generic version.¹⁴⁰ Moreover, in accordance with the draft of Policies for Encouraging Innovation in Drugs and Medical Devices and Protecting the Rights and Interest of Innovators, in October 2017, the CFDA issued an announcement to call for public comments on the revision of the Measures for the Administration of Drug Registration.¹⁴¹ The set-up of a complete and effective patent linkage system makes the rules concerning drug patents much clearer and provides assured protection for the rights and interests of patent owners. At the same time, an effective patent linkage system will promote the development of generic drugs and increase the accessibility of drugs. This will considerably incentivize innovation in the pharmaceutical industry and facilitate further evolution. As the patent linkage system in the pharmaceutical industry will be adopted soon, the relevant drug patents will be recorded and published. However, on the other hand, the modification to the requirement of a non-infringement statement and the introduction of a pending period will more obviously and sharply expose conflicts and disputes between generic and brand-name drug companies. The suggested 24-month pending period will be like that of the Hatch-Waxman Act to reverse the litigation risks between a brand-name drug company and a generic company.¹⁴² This will encourage generic companies who have fewer risks and fewer costs to challenge the existing patent and force brand-name companies to averse to the high risks. In this context, like the aforesaid analysis of the US situation, the drug patent owners in China are likely to seek pay-for-delay agreements in patent litigation to maximize their profits.

More importantly, the Opinions on Pushing Forward the Reform of the Drug Pricing adopted by NDRC and other 6 State Ministries came into effect on 1 June 2015 (the 2015 Opinions).¹⁴³ The 2015 Opinions stipulate that except for certain types of drugs, the price

励药品医疗器械创新的意见》) <http://www.gov.cn/zhengce/2017-10/08/content_5230105.htm> accessed 12 March 2018.

¹⁴⁰ *ibid*, Articles 17 and 19.

¹⁴¹ Measures for the Administration of Drug Registration (The Revision Paper) (药品注册管理办法 (修订稿)) <<http://www.sda.gov.cn/WS01/CL0778/178900.html>> accessed 11 January 2018.

¹⁴² The suggested 24-month pending period in China will be applicable to the litigation raised during all kinds of new drug application, which is not the same with the 30-month pending period only applicable for the litigation brought under the ANDA with a Paragraph IV certification.

¹⁴³ Opinions on Pushing Forward the Reform of the Drug Pricing (推进药品价格改革的意见) <http://www.ndrc.gov.cn/zcfb/zcfbtz/201505/t20150505_690664.html> accessed 11 January 2018.

of all other drugs will be mainly determined by the relevant market.¹⁴⁴ In the past, the price of the drugs in the Chinese market was substantially determined by the government, thus it was less likely to be excessively high.¹⁴⁵ The issue of the 2015 Opinions means that the era of fixing the drug price by the Chinese government came to an end, and it opened the door for independent pricing by the market. In this situation, patent owners will be incentivized to achieve a high price for their patented drugs. As a result, the possibility to anti-competitively exercise drug patents by pharmaceutical companies may be increased and strategic measures may be taken to maintain the monopoly price.

Since the reform in 2015, the pharmaceutical industry has become an important enforcement area for anti-monopoly scrutiny by China's AMEAs. On the basis of the factors examined above, there is potential that in the near future the problem of pay-for-delay agreements in this industry will be exposed in China and will attract the attention of the AMEAs. Therefore, China should be prepared in advance and find an appropriate approach according to its own legal and economic circumstances to regulate the RPPSAs that restrict competition.

8.4.2 Challenges Waiting to Be Resolved

Though it is highly likely that RPPSAs will give rise to competition concerns, the AMEAs lack the knowledge to review such RPPSAs in China's pharmaceutical industry. In addition, given the lack of finalized IPRs anti-monopoly guidelines, there has not been an effective anti-monopoly analysis framework established that focuses on regulating such RPPSAs. As discussed in Chapter 3, the relevant legal measures which are still in effect are not appropriate to be applied to this new challenge. The only available regulation on IPRs adopted by the SAIC does not provide any guidance on such special agreements. As a result, it is concluded that preparation is insufficient for the likely challenges brought by RPPSAs.

The benefits of RPPSAs should be confirmed first. Then, situations should be identified when RPPSAs are incompatible with the AML. Taking a panoramic view of the antitrust enforcement by the US authorities and courts, this was a contentious and controversial issue for a long time until the Supreme Court provided guidance in 2013. Now, Chinese

¹⁴⁴ *ibid.*

¹⁴⁵ Zhang (n 105) 22.

AMEAs will encounter the same problem. Chinese AMEAs should first determine a basic regulatory rule for problematic RPPSAs. The enforcement experience of the EU and the US provides some lessons for China. For example, in the US, the *per se* rule, the ‘scope-of-the-patent test’, the presumptively illegal rule and the rule of reason have all been applied; in the EU, RPPSAs with anti-competitive effects are mainly determined as restrictive by object and in some cases an effects-analysis has also been undertaken. Therefore, there are several ways for China’s AMEAs to consider. Although what has been done in the US and the EU can provide good guidance, China should adopt an appropriate solution in accordance with its own legal and economic context. This thesis assessed these different principles in Section 8.3.3. On the basis of the analysis and assessment undertaken in this chapter, a proposal for a basic principle will be provided in the concluding chapter.

Once a basic regulatory rule is set out, China’s AMEAs have to resolve another difficult issue namely what factors should be considered when determining the legality of the RPPSAs. The authorities in the US and the EU have struggled in this respect. The factors to be considered to some extent depend on what kind of anti-monopoly analysis framework will be established. In addition, the factors to be considered must reflect the specificity of RPPSAs. For example, the validity of the drug patent, the size and forms of the reverse payment and the market entry date of generic drugs have all been discussed heatedly and have appeared in the anti-monopoly analysis by some competition authorities. However, it is still controversial the extent to which these factors will be considered and how relevant they are to determine the legality of the RPPSAs. Therefore, China’s AMEAs should not only establish the factors to be considered in the relevant guidelines but also explain how relevant they are and how to apply them in practice. This will be proposed in detail in the concluding chapter.

8.5 Conclusion

RPPSAs in the pharmaceutical industry are a very topical area that concerns the intersection of Patent Law and Competition Law. On one hand, settlements are a legitimate and preferential way for parties to resolve patent disputes and a patent owner has rights protected by Patent Law which include excluding infringed products from the market during the protection term. On the other hand, the involvement of value transfer from the patent owner to the generic company and the latter’s commitment to delay the market entry of the generic drug gives rise to serious competition concerns. It is likely to buy off the

competition in the relevant market and unduly maintain the patent owner's monopoly profits. Finally, it is the consumer welfare that will be damaged. Therefore, such RPPSAs have attracted antitrust scrutiny in many countries. This thesis has described the origin of such agreements and explained the general and specific reasons for the appearance of such agreements in the US, EU and China. As a pioneer, the US authorities have conducted antitrust enforcement in this area for more than ten years. However, there was no consistent approach adopted until 2013 when the US Supreme Court confirmed a rule of reason approach to the competition concerns arising from the RPPSAs. The EU adopted a stricter approach — restriction by object. It can be seen that the approach to an antitrust analysis is no longer a pure single one. In many circumstances, the selection of the analysis approach is situational. The antitrust enforcement of the US and the EU can provide valuable experience for China to develop its own approach to anti-monopoly scrutiny in this area. Such agreements originated from the US but are now common in other jurisdictions. Combining the current situation with the further/upcoming reform in China's pharmaceutical industry, it is believed that in the near future RPPSAs will raise competition concerns also in China. When dealing with competition concerns caused by such RPPSAs, there will be some challenges facing China's AMEAs. For example, currently the AMEAs have no clear understanding of the situation of the RPPSAs in the pharmaceutical industry. There is no anti-monopoly analysis framework established to investigate such problematic pay-for-delay agreements. Hopefully, the proposals made in the final and concluding chapter of the thesis will provide China's AMEAs with some guidance on their future anti-monopoly enforcement in respect of the pharmaceutical industry.

Chapter 9 Conclusion

The main research question of this thesis is to examine the extent to which China's Anti-monopoly Law (AML) effectively controls anti-competitive practices of patent owners. The thesis focuses mainly on the anti-competitive practices of patent owners in the exercise of patent rights and identifies a number of sub-research questions which are discussed and analysed in various chapters. In order to demonstrate the necessity and importance of the AML to address the anti-competitive practices of patent owners, the thesis discussed China's situation in this field before the adoption of the AML.¹ The discussion was established based on several influential cases involving Chinese companies taking place before 2008 which to some extent showed the ineffectiveness of the Chinese laws or regulations adopted before 2008. The applicable rules adopted before 2008 are scattered in various laws or regulations each of which has its specific goals and functions.² None of these laws or regulations specifically focuses on addressing the practices of patent owners from the perspective of competition enforcement. Therefore, it was necessary and urgent for China to adopt a systematic competition law that is called the Anti-monopoly Law. The relationship between competition law and intellectual property law is no longer contradictory but has evolved into a convergent and compatible one.³ This has provided a theoretical basis for the application of the AML to control the anti-competitive practices of patent owners. However, the interface between the two bodies of law is still a contentious and complicated domain that raises significant concerns and challenges for global competition authorities. China's AML came into effect in 2008 but it seems not to work as effectively as it was expected in regulating the competition concerns arising from some exercises of patent rights.⁴ Even though there have been some great achievements and success in China's competition enforcement, deficiencies and uncertainties still exist and need to be improved. The problems not only arise from China's internal competition enforcement system⁵ but also arise from the lack of guidance from the competition enforcement authorities in specific industries.⁶ These can also be seen from the case studies

¹ See the discussion in Chapter 2, Section 2.3 which answered the first research question.

² The pre-2008 legislation that is applicable to the anti-competitive practices of patent owners was examined in Chapter 3, Section 3.2 and Chapter 3 provides some answers to the second research question.

³ See also Chapter 2, Section 2.2.

⁴ See also Chapter 3, Section 3.3.

⁵ The problems in the competition enforcement system were analysed in Chapter 6 that answered the third research question.

⁶ The current key challenges are SEPs and reverse payment patent settlement agreements which were examined in Chapters 7 and 8 to provide an answer to the fourth research question.

of the *Qualcomm* investigation⁷ and *Huawei v InterDigital*⁸ undertaken in Chapter 4.⁹ Some of the problems caused by the two-level and tripartite administrative anti-monopoly enforcement structure are likely to be resolved by the establishment of a single and independent AMEA—the State Administration for Market Regulation (SAMR), while some will remain impeding an effective anti-monopoly enforcement in China, especially in the area of the exercise of patent rights.¹⁰ Moreover, facing the challenges arising from the licensing of SEPs (these are mainly the failure to disclose patent interest in the standard setting process by patent owners and the seeking of injunctions on FRAND-encumbered SEPs)¹¹ and reverse payment patent settlement agreements (RPPSAs),¹² Chinese AMEAs seem not to have enough experience or tools to balance the protection of patent rights with the maintenance of market competition. There is no effective anti-monopoly analysis framework available to guide the SAMR to undertake competition enforcement in these two specific areas that are related to the exercise of patent rights. Until now, the only available legal document to facilitate the application of the AML to the exercise of IPRs is the 2015 SAIC Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition (the SAIC Provisions).¹³ However, the SAIC Provisions have not yet been applied in any anti-monopoly investigation and the impact of the SAIC Provisions is hard to be predicted after the newly established single SAMR formally comes into operation. More importantly, the SAIC Provisions do not deal with the noticeable challenges mentioned above, though they do contribute significantly to the competition enforcement in the area of IPRs.¹⁴ In addition, the integrated IPRs guidelines are still pending after the AMC sought public comment on the draft in March 2017. As displayed in the draft IPRs guidelines, they do not give appropriate consideration to the challenges identified in the thesis. Therefore, on the basis of all the discussion and analysis in the previous chapters, this final chapter will conclude the thesis by providing some solutions to the three broad challenges respectively identified in Chapters 6, 7 and 8, namely the competences issues of the AMEAs, the issues concerning the licensing of SEPs

⁷ *Qualcomm Incorporated*, NDRC Administrative Sanction Decision, FaGaiBanJiaJianChuFa [2015] No. 1 (发改办价监处罚 [2015] 1 号).

⁸ *Huawei vs. InterDigital*, Guangdong Higher People's Court, (2013) Yue Higher Court Civil Division III Final No.306 and No.305 ((2013) 粤高法民三终字第 306 号, 305 号).

⁹ The case studies in Chapter 4 also contributed to answering the second research question.

¹⁰ The problems in the structure of the AMEAs were examined in Chapter 6.

¹¹ See also Chapter 7.

¹² See also Chapter 8.

¹³ Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition (国家工商行政管理总局令第 74 号 关于禁止滥用知识产权排除、限制竞争行为的规定) (The SAIC Provisions).

¹⁴ See the discussion of the SAIC Provisions in Chapter 5 that also contributes to answering the second research question.

and the issues on RPPSAs in the pharmaceutical industry. These proposals should facilitate and improve the effective application of China's AML to the exercise of patent rights. The valuable EU and US enforcement experience and case law do provide valuable guidance and support for China but they themselves are also struggling with some of these issues.¹⁵ Accordingly, the proposals made in this thesis are based on the effective enforcement in the EU and US but give significant consideration to the legal and economic circumstances in China. The proposals in this chapter will answer the sixth research question.

The research undertaken for this thesis has led to the conclusion that there is a need for four areas to be reformed. The first proposals concern the structure of the enforcement agency (Section 9.1); the second proposals focus on the patent owners' failure to disclose their patent interest in the standard setting process (Section 9.2); the third proposals aim to control effectively the seeking of injunctions on SEPs within the scope of the AML (Section 9.3); and the fourth proposals are related to the regulation of RPPSAs in the pharmaceutical industry (Section 9.4).

9.1 Reforms and Proposals for the Anti-monopoly Enforcement Authority

The examination and analysis of the problems caused by the two-level and tripartite administrative competition enforcement structure in Chapter 6 demonstrates that the efficiency and effectiveness of China's competition enforcement, especially in the area of the exercise of patent rights, is undermined.¹⁶ Since the Institutional Reform Plan of the State Council has just been passed, a centralized and independent AMEA—State Administration for Market Regulation (SAMR) is established. As a result, the problems caused by the overlapping enforcement powers will be resolved, but some other problems will remain in the application of the AML to the exercise of patent rights.¹⁷ In addition, the arrangements for the specific anti-monopoly duties, the institutional structure, the staff and the resources after merging the current three AMEAs have not yet been disclosed. Therefore, solutions need to be proposed to facilitate the competition enforcement of the SAMR in the IP-related area and to improve the coordination between the SAMR and relevant sectoral regulators and between the SAMR and the competent courts. Although the remaining problems apply generally to alleged anti-competitive practices in all fields of

¹⁵ The discussion of the competition enforcement in the EU and US was undertaken throughout the whole thesis in accordance with the focal point of each chapter and answered the fifth research question.

¹⁶ See also Chapter 6.

¹⁷ See also Chapter 6, Section 6.4.

economic activity, the reforms and proposals in this thesis focus mainly on resolving the problems concerning the exercise of IPRs and, in particular, patent rights.

The proposals in this section are related to unifying enforcement rules (Section 9.1.1), setting up an IPRs Task Force (Section 9.1.2), coordination between the public and private enforcement (Section 9.1.3) and coordination between the SAMR and the sectoral regulators (Section 9.1.4).

9.1.1 Unifying Enforcement Rules¹⁸

Basically, the unification of the relevant enforcement rules can be undertaken from four aspects. First, the supremacy of the AML should be confirmed as the main legal instrument for competition enforcement in all industries. All other existing rules are subordinate to the AML. Second, in the context of merging anti-monopoly competences into a single SAMR, it is necessary to review the existing laws and/or regulations that grant other organizations anti-monopoly enforcement powers which may conflict or overlap with the AML. For example, the Law against Unfair Competition¹⁹ was amended on 4 November 2017. The amended Law against Unfair Competition removed the rules concerning anti-competitive practices that are within the scope of the AML, such as the rule prohibiting tying-in, the rule prohibiting selling at prices below cost and so on. Third, it is proposed to formulate and unify the procedural rules that govern competition enforcement. It is acknowledged that each of the current three AMEAs has adopted its own procedural regulations to facilitate the investigation. In order to make sure of consistent enforcement and certainty of the AML, the SAMR should review the scattered rules and issue unified and independent rules. Finally, once the SAMR formally comes into operation, it should accelerate the adoption of the integrated guidelines in the relevant industry, especially in the IP area.²⁰ It is submitted that the finally adopted integrated IPRs guidelines should clarify the relationship with the SAIC Provisions, avoid the problems identified in the 2015 SAIC Provisions and keep the effective rules.²¹ More certainty and predictability for the anti-monopoly enforcement of the SAMR should be provided. For example, both the market

¹⁸ See the lack of clarity as to the legal bases of the competition enforcement in Chapter 6, Section 6.3.1.

¹⁹ Law of the People's Republic of China against Unfair Competition (《中华人民共和国反不正当竞争法》).

²⁰ In addition to the IPRs guidelines, Guidelines for Application of the Leniency Regime to Cases of Horizontal Monopoly Agreements (Draft for Comments) and Guidelines on Recognizing the Illegal Gains Obtained by Business Operators from Monopolistic Acts and Determining the Amount of Fines (Draft for Comments) are still pending.

²¹ See also Chapter 5.

share threshold and the substitutable technologies threshold to apply the safe harbour rule should be adopted in the final integrated IPR guidelines;²² and a clear relationship between the application of compulsory licensing and the abuse of a dominant position by refusing to license should be established and emphasized in anti-monopoly legal measures.²³

9.1.2 The Establishment of an IPRs Task Force (IPTF)

Despite the upcoming merger of the current three AMEAs into a single one, it is submitted in the thesis that it is necessary to set up a special team within the new SAMR to focus on the competitive issues concerning the exercise of IPRs.

9.1.2.1 The Necessity of IPTF

It can be seen from the previous chapters that competition enforcement in IP-related area should and need to be fundamentally improved in China. Before the enactment of the AML, many alleged anti-competitive cases that related to patent rights were brought to courts, such as *the DVD Patent Royalties case*, *Cisco Systems Incorporation vs. Huawei Incorporation* and *Dexian vs. Sony*.²⁴ These cases are good illustrations. As early as June 2008, the Outline of the National Intellectual Property Strategy (the Outline) emphasized the importance of prohibiting the anti-competitive exercise of IPRs.²⁵ After that, the directors or spokesmen from all the three AMEAs declared in some conferences and press releases that they would endeavour to prohibit the anti-competitive exercise of IPRs.²⁶ However, the number of the investigations related to IPRs undertaken by the three AMEAs is not as high as those in other areas of economic activity. For example, among all the NDRC investigations, there have been only two that concerned the exercise of IPRs and, indeed, both of them concerned the anti-competitive exercise of patent rights.²⁷ Within 36 conditional approval decisions by MOFCOM, 10 of them imposed conditions on the

²² See also Chapter 5, Section 5.3.2.

²³ See also Chapter 5, Section 5.4.2.

²⁴ See also Chapter 2, Section 2.3.

²⁵ Outline of the National Intellectual Property Strategy (国家知识产权战略纲要).

²⁶ For example, Yuan Lin, 'The new goal of anti-monopoly enforcement: the abuse of intellectual property rights' (反垄断执法新目标: 知识产权滥用) *Economic Information Daily* (Beijing, 24 March 2015) <http://dz.jjckb.cn/www/pages/webpage2009/html/2015-03/24/content_3525.htm> accessed 1 April 2018; the statements of the officials of the three AMEAs in The Fourth China Competition Policy Forum and the International Symposium on Intellectual Property and Antitrust on 22 and 23 October 2015 (in Beijing hosted by the Expert Advisory Commission of the Anti-monopoly Commission of China's State Council, the organizer is the CUPL Centre for Competition Law).

²⁷ See also Chapter 1, Section 1.3.

exercise of patent rights.²⁸ The SAIC has not yet adopted any decisions concerning IPRs though in 28 July 2014 the SAIC conducted dawn raids of several business premises of Microsoft in China and the investigations are continuing.²⁹ Accordingly, the competition enforcement in IP-related area seems not to be developed as fully as expected. It is submitted that it is likely that the ineffective competition enforcement in the field of patent rights is connected to the unclear and overlapping enforcement powers of the three AMEAs. Besides, the 2017 Promotion Plan for the in-Depth Implementation of the National Intellectual Property Strategy and the Acceleration of the Building of a Powerful Intellectual Property Nation further emphasizes that the regulation of anti-competitive practices concerning IPRs should be strengthened and competition enforcement guidelines on IPRs should be adopted.³⁰ More attention and importance should be given to competition enforcement in respect of the exercise of IPRs.

Another factor that must be taken into account is the complexity and specificity of competition enforcement in the field of IPRs. Commonly, IPRs licensing ‘disseminate[s] new technology, brings new competitors on the market, and increases the rewards for innovation. Its effects are generally pro-competitive and beneficial to consumer welfare.’³¹ However, provisions beyond a bare permission to exercise IPRs are normally incorporated into licensing agreements.³² To some extent, these provisions may raise competition law concerns. In this situation, it is competition law that has to determine ‘whether, and in what circumstances, these further obligations have the effect of restricting competition.’³³ IPR experts are needed to identify and differentiate anti-competitive practices from pro-competitive practices in the exercise of IPRs. Before the European Commission adopted the current more economic approach on the basis of a consumer welfare objective, ‘[t]he Commission’s policy on IP licensing agreements has developed and varied significantly over the years.’³⁴ It can be seen that competition enforcement in this field is a newly-developing area and has become contentious from a global perspective, especially in China whose AML came into effect only 10 years ago. The competition concerns arising from the

²⁸ *ibid.*

²⁹ The announcement by SAIC <http://home.saic.gov.cn/xw/yw/zj/201407/t20140729_210025.html> accessed 10 April 2018.

³⁰ The Promotion Plan for the in-Depth Implementation of the National Intellectual Property Strategy and the Acceleration of the Building of a Powerful Intellectual Property Nation in 2017 (2017 年深入实施国家知识产权战略加快建设知识产权强国推进计划) <http://www.gov.cn/xinwen/2017-06/28/content_5206337.htm> accessed 14 July 2017. Until now, the anti-monopoly IPRs guidelines have not been adopted yet.

³¹ Jones and Sufrin, *EU Competition Law* (6th edn) (n 19) 837.

³² *ibid.*

³³ *ibid* 837.

³⁴ *ibid* 837.

exercise of IPRs were evident before the adoption of the AML.³⁵ However, competition enforcement in this field has just begun and the relevant guidelines or guiding documents are still at an initial stage. Enforcement experience is also lacking. Even though the SAIC Provisions on the Prohibition of the Abuse of Intellectual Property Rights to Eliminate or Restrict Competition came into effect on 1 August 2015,³⁶ they have not yet been applied in an investigation. This seems to be partly because the relevant AMEAs do not have strong confidence in the competition enforcement in this complicated area. The problems and divergence caused by multiple enforcement authorities make competition enforcement in this field even tougher. Some of the problems arising from the multiple authorities may be reduced to some extent by the upcoming merger of the current three AMEAs. However, when it comes to the IP-related field, the lack of experience, the lack of transparency, the lack of unified and effective enforcement rules, and the lack of pertinent and positive enforcement can still be the barriers to the effective and efficient application of the AML. Certainty and confidence in China's competition enforcement will be impaired, and the deterrence of the AML in the IP-related area will be lessened.

It is, therefore, proposed that a special task force should be established to focus only on anti-competitive practices in the exercise of IPRs, namely IPRs Task Force (IPTF). Indeed, in China investigations to date have mostly concerned patent rights but the IPTF should be empowered to deal with the anti-competitive conduct in the exercise of all IPRs.

9.1.2.2 The Nature of the IPTF

Competition enforcement in China is such a newly-developing activity in the IPR field that the enforcement experience is far from complete. The establishment of an independent task force specifically focusing on alleged anti-competitive practices in exercising IPRs will, therefore, increase the enforcement efficiency in this field and accumulate enforcement experience which will finally benefit market competition and consumer welfare. In this situation, the form of the Merger Task Force (MTF) within the Directorate-General for Competition in the European Union can be seen as a shining example.

The Directorate-General for Competition (DG Competition) is primarily responsible within the European Commission for enforcing Articles 101 and 102 of the Treaty on the

³⁵ This argument was demonstrated in Chapter 2, Section 2.3.

³⁶ The SAIC Provisions.

Functioning of the European Union (TFEU). Normally, the DG Competition is ‘administratively organised in Directorates, each consisting of three to five Units.’³⁷ Currently, most Directorates in DG Competition are sector-specific rather than discipline-specific in competition enforcement. When the European Commission started to investigate mergers, it was a very special and unfamiliar area with many new characteristics. Therefore, the MTF was set up in 1990. The MTF was responsible for the examination of all the notifications and the preparation of relevant decisions in accordance with the Merger Regulation.³⁸ The MTF also engaged in pre-notification work to respond to general queries and analyze the implications of the proposed concentration.³⁹ The MTF staff was comprised of experienced and professional officials from both the Commission and the national competition authorities. The MTF operated for about 10 years. Once merger control issues settled down, several decisions were issued, the CJEU case law was comparatively complete and the enforcement experience was achieved, the MTF was disbanded and the merger control responsibilities were integrated in 2003 into the other sector-specific Directorates. The MTF enjoyed a high reputation for its efficiency and approachability.⁴⁰ It is observed that the abolition of the MTF benefited other Directorates by spreading the experience and ideas of the MTF throughout DG Competition.⁴¹

Likewise, taking the MTF as an example, the IPTF would be established under the SAMR to concentrate solely on competition enforcement in the anti-competitive practices in the field of IPRs. In nature, the IPTF would be an independent task force with the same hierarchy as the other bureaux of the newly established SAMR. The IPTF would be responsible for investigating alleged anti-competitive practices when exercising IPRs. To date, there has been no disclosure about the manner in which the anti-monopoly duties will be divided and discharged within the SAMR. The current manner in which enforcement powers are assigned between the current three AMEAs, namely on the basis of the nature of the alleged anti-competitive conduct, seems not to be available in future. It is assumed that the SAMR will keep a separate bureau to focus mainly on merger review. Ideally, other anti-monopoly duties will be borne by several other bureaux that are sector-specific.

³⁷ Proceedings for the Application of Articles 101 and 102 TFEU: Key Factors and Checks and Balances, <http://ec.europa.eu/competition/antitrust/overview_en.html>accessed 15 July 2017.

³⁸ Ivo Van Bael and Jean-François Bellis, *Competition Law of the European Community* (4th ed., Kluwer Law International 2005) 778.

³⁹ Hartmut Krause, ‘EC Merger Control: An Outside View from Inside the Merger Task Force’ (1995) *Journal of Business Law*, 627-637, 628.

⁴⁰ Jose Rivas, *The EU Merger Regulation and the Anatomy of the Merger Task Force* (Kluwer Law International 1999), 53.

⁴¹ *ibid.*

If so, the relevant bureau that is responsible for merger control could seek opinions from the IPTF when the notified merger concerns the exercise of IPRs, so as to guarantee consistency of competition enforcement in the exercise of IPRs. However, if the SAMR is mostly composed of sector-specific bureaux without a separate merger control bureau, the IP-related mergers should be assigned directly to the IPTF. As soon as the IPTF is established, the AMC should fully develop its role to coordinate administrative enforcement of the AML. Other bureaux within the SAMR should have a binding duty to report timely what they are investigating to the AMC. Once the AMC finds that the investigation is related to the exercise of IPRs, the AMC should have the power to transfer the investigation to the IPTF. Other bureaux are also encouraged to notify the AMC and refer the investigation to the IPTF.

The main legal instrument for IPTF competition enforcement should definitely be the AML. Soon, the AMC is expected to adopt uniform and integrated IPRs guidelines which will be another instrument available to the IPTF. The IPTF should be fully empowered to launch an investigation according to the rules of the AML on the investigation of suspected anti-competitive practices.⁴² The IPTF should be able to initiate an investigation either on its own initiative or on complaints.⁴³ Necessary measures should be available to the IPTF to obtain all the necessary information.⁴⁴ In addition to investigation powers, the IPTF should also observe the obligations articulated by the AML, such as the procedural obligation⁴⁵ and the duty of confidentiality.⁴⁶ When the investigation comes to an end, the IPTF should be obliged to issue a decision. Given that competition enforcement in the IP-related area has not been well developed, enforcement experience needs to be collected and guidance needs to be provided. In order to facilitate the IPTF's work and provide guidance and certainty to the public, the decisions of the IPTF should be published on the condition that confidential information is omitted. In particular, the reasoning for the decision should be required to be clear and detailed. In this context, the public will be able to understand how the IPTF applies the AML. Moreover, transparency is increased and public supervision is promoted. The certainty and predictability of the AML is reinforced.

⁴² Anti-monopoly Law of the People's Republic of China (中华人民共和国反垄断法) (The AML), Chapter VI.

⁴³ *ibid*, Article 38.

⁴⁴ *ibid*, Article 39.

⁴⁵ *ibid*, Article 40.

⁴⁶ *ibid*, Article 41.

In the context of the anticipated merging of the current three AMEAs, the members of the IPTF are proposed to be selected from experienced officials from each of the three AMEAs. Officials who have IPRs expertise should have the priority to be employed in the IPTF. With regard to the nature of IPRs, expert officials from the State Intellectual Property Office of China should be seconded to the IPTF to engage in the relevant reasoning analysis.⁴⁷ Given the insufficient staff in the current three AMEA and the huge workload in competition issues, it is proposed in this thesis to enlarge the number of professional staff in the new SAMR and to develop more trainees. In addition, the IPTF does not work in a vacuum. If necessary, the IPTF should be able to seek opinions or advice or assistance from any other industrial or sectoral department or from the other sector-specific enforcement bureaux within the SAMR. In this situation, the AMC would be required to play its coordinative role actively and effectively. At the same time, the IPTF should be empowered to call on outside experts, lawyers and specialists as necessary. In reality, an advisory group of experts has already been set up by the AMC to provide consultative proposals. This advisory group of experts is composed of academics and experienced officials. This advisory group focuses on anti-monopoly general issues, not specifically on IP-related area. However, there is hardly any information on its functioning. For the sake of facilitating the work of the IPTF, the advice of the advisory group of experts should be fully considered.

The establishment of the IPTF will resolve the problem of ineffective and insufficient competition enforcement in the exercise of IPRs. Simultaneously, the consistency and efficiency in competition enforcement will be guaranteed by such an independent body. The proposal to create the IPTF is practically and politically possible. At the moment, the State Council is carrying out institutional reform. In terms of anti-monopoly enforcement, the current three AMEAs will be merged into a single independent one. Therefore, the setup of the IPTF can be seen as an internal aspect of the newly established SAMR and will not bring about significant costs and pressure. After a period of time, the responsibilities of the IPTF can be integrated into other enforcement bureaux of the SAMR once everything is settled into a pattern. At the same time, significant enforcement experience in IP-related field will have been developed. IPTF best practice can be used to benefit and enhance competition enforcement by other bureaux. Therefore, it is reasonable

⁴⁷ The State Intellectual Property Office will be reconstructed according to the SAMR and after the reconstruction, the newly established State Intellectual Property Office will be in the control of the SAMR. This will make the coordination of the State Intellectual Property Office to assist in the relevant competition enforcement of the IPTF easier and more convenient.

and necessary to set up such a task force specifically to cope with anti-competitive practices in the exercise of IPRs.

9.1.3 Coordination between the Public and the Private Enforcement

Private enforcement does not only compensate the victims who have suffered damages from anti-competitive practices but also can reduce the pressure on public enforcement and offset what has been ignored by public enforcement. However, it is inevitable that concurrent complaints will continue to be brought to the SAMR and to the courts in respect of the same conduct. This is so especially since the 2012 Supreme People's Court Provisions confirm the status of stand-alone litigation. In fact, the solutions adopted by the EU and the UK provide good examples for China to alleviate the conflicts between public and private enforcement. In any jurisdiction where there is private enforcement of competition law, when a public authority initiates proceedings, it is wise for the courts to stay proceedings on the basis of legal certainty, because public enforcement should have higher status than private enforcement. It has already been suggested by Xianlin Wang that the courts should suspend litigation and wait for the result of the AMEAs, particularly when the case is complicated and needs a detailed economic analysis.⁴⁸ In simpler cases, the courts should continue but also coordinate with the relevant AMEAs to avoid conflicting results.⁴⁹ In order to have a legal basis for the court to suspend such litigation, a provision should be inserted into either the AML or the Civil Procedure Laws. Or at the very least, the People's Supreme Court should adopt or issue a binding rule to this effect.

In addition, the findings concluded in the final effective administrative decisions should be binding on the court that is seized of follow-on litigation for damages. The findings in the judgment of a competent court should only be regarded as *prima facie* evidence for the investigation by SAMR but not binding. This is because public enforcement is more severe and more punitive, and should be conducted in a more strict and rigorous way. Compared with courts, competition authorities seem to be better at undertaking an anti-monopoly investigation. Therefore, the findings of a competent court should be given respect and effect but to a limited extent. The suggestions above are proposed for the sake of the consistent application of the AML from both the public and private aspects. They aim to

⁴⁸ Xianlin Wang, 'On the Connection and Coordination between Anti-monopoly Civil Action and Administrative Enforcement' (论反垄断民事诉讼与行政执法的衔接与协调) (2010) 03 Journal of Jiangxi University of Finance and Economics 87, 89.

⁴⁹ *ibid.*

avoid duplicate efforts and enhance the enforcement efficiency. More importantly, it contributes to improving the certainty and predictability of the AML.

9.1.4 Coordination between the SAMR and the Sectoral Regulators⁵⁰

The involvement of the SAMR in an investigation can avoid the risk of industry protectionism caused by sectoral regulators and sectoral regulators can offset the asymmetry of information caused by the SAMR. Therefore, both the SAMR and sectoral regulators play an important role in the competition enforcement in regulated industries. In order to facilitate their coordination in competition enforcement, the French model is a good example for China to consider. It is submitted that the SAMR should be required to seek professional advice on technical issues from the relevant sectoral regulator responsible for competition enforcement in the specific industry. However, the advice should not be binding on the SAMR. The ultimate power to determine the investigation should lie with the SAMR, but the SAMR should be required to explain why the advice of the relevant sectoral regulator was not followed.

9.2 Proposals for Competition Rules where there is a Failure to Disclose by a SEP Owner⁵¹

It is necessary to clarify that it is not proposed that the AML should bring within its scope all failures to disclose in the standard setting process. The proposal is that only those practices that result in anti-competitive effects should be regulated by the AML. Based on the US and EU antitrust enforcement experiences on the failure to disclose potential SEP information in the standard setting process, submissions will be made as to how to remedy this omission under China's AML.

In this section, the proposals will focus on the anti-monopoly analysis of the deliberate non-disclosure by SEP owners in the standard setting process (Section 9.2.1) and the relevant effective punishment and remedies (Section 9.2.2).

⁵⁰ This proposal is related to the problem discussed in Chapter 6, Section 6.3.4.

⁵¹ See the discussion of this problem in Chapter 7, Section 7.3.

9.2.1 The Proposals for the Anti-monopoly Analysis of the Deliberate Non-disclosure by SEP Owners

Whether the failure to disclose by a SEP owner should be regulated by competition law depends on whether the patent owner holds a dominant position on the market. For those SEP owners who are dominant at the time of non-disclosure to the relevant SSOs, the AML is definitely applicable, as confirmed by the SAIC IP Provisions. Such non-disclosure conduct may trigger the application of Article 17 of the AML where the undertaking concerned is in a dominant position on the market and the non-disclosure will be regarded as an abusive conduct as confirmed by anti-monopoly enforcement authorities.⁵² The 2015 SAIC IP Provisions stipulate that antitrust liability exists for the failure to disclose by SEP owners who were dominant at the time of non-disclosure.⁵³

Concerns normally arise from the SEP owners who, at the time of non-disclosure to the SSOs, were not dominant but after the SEP was granted became dominant in the relevant market. Normally, the non-disclosure in the latter situation is not directly covered by the SAIC IP Provisions or the AML. This is because the prerequisite to trigger the antitrust liability of Article 17 of the AML is that the undertaking concerned is already dominant at the time of anti-competitive conduct. Therefore, the AML will not condemn the deceptive conduct itself if the patent owner was not dominant at the time of non-disclosure, even though it later becomes dominant because of the ownership of the SEP.

However, an abuse of a dominant position arises where the non-disclosure conduct results, or is likely to result, in adverse or detrimental impact on competition and innovation in the market. There are normally further anti-competitive purposes behind the non-disclosure conduct by a SEP owner in the standard setting process. The patent owner is able, *ex post*, to abuse its dominance which resulted from the non-disclosure conduct by engaging in patent hold-ups, such as requiring unreasonable licensing terms, charging excessive royalties, etc. It is submitted, therefore, that the post-dominant abusive conduct provides an opportunity for the AML to be applied. This is similar to the approach adopted in the EU.⁵⁴ It is clear from the *Rambus* case that, in the EU, Article 102 TFEU is only applicable to the abusive conduct of an undertaking in a dominant position and not to the deceptive conduct

⁵² The AML, Article 17.

⁵³ The SAIC Provisions, Article 13.

⁵⁴ The EU approach to regulate the patent owners' failure to disclose patent interest in the standard setting process was discussed in Chapter 7, Section 7.3.2.

of an undertaking which became dominant only after the deception. Hence, the *ex post* abusive practices are necessary to determine the *ex ante* deceptive conduct violating competition rules, unless the patent owner is dominant at the time of non-disclosure.

Additionally, several other factors are proposed to be included into the final integrated IPRs anti-monopoly guidelines to facilitate and improve the anti-monopoly analysis in the investigation of such non-disclosure by patent owners in the standard setting process. In analysing the anti-competitive effects caused by the licensing of patent rights in standardisation, the important role of the lock-in and network effects should be borne in mind.

One of the factors that must be taken into account is whether the patent owners have violated the disclosure obligation by intentionally concealing their patent interest in the standard setting process. It is believed that if the SSOs do not require a disclosure obligation in their IPR policies, the non-disclosure ‘should not raise competitive concerns.’⁵⁵ Currently, such non-disclosure conduct has no consequences where the SSO imposes no disclosure obligation. In these cases, competitive concerns are simply not relevant. In the absence of a disclosure obligation, there is no possible violation of the AML. The failure to disclose may contravene other duties but it will not have influenced the adoption of a standard nor contributed to the increase of dominance of the patent owner.⁵⁶ In this context, it will be meaningless to treat it as deceptive conduct and as a violation of the AML. Therefore, to trigger antitrust liability, the violation of a disclosure obligation must be firstly established.

Moreover, it is proposed that the extent to which the failure to disclose contributes to the incorporation of the patent into a standard and to the establishment of a dominant position in the relevant market due to the ownership of a SEP, should be a key consideration. In the anti-monopoly investigation, the enforcement authorities should consider the relationship between the non-disclosure itself and the creation of market power. If the dominance of a patent owner was mainly or fully achieved because of the failure to disclose, then the deceptive conduct is likely to have adverse or detrimental effects on competition and likely to infringe the AML. However, if the deliberate concealing of patent information only leads to the incorporation of the patent into a standard, but does not result in market power

⁵⁵ Mark A. Lemley, ‘Intellectual Property Rights and Standard Setting Organizations’ (2002) 90 California Law Review 1889-1980, 1931.

⁵⁶ *ibid.*

for the patent owner, then the conduct of a non-dominant patent owner will be deemed not to raise serious competition concerns in the market. In this latter situation, the non-disclosure conduct will not fall within the scope of the AML though it may violate other legal measures. In addition, if the patent owner demonstrates that the dominant market position does not come either from the failure to disclose or from the inclusion of the patent into a standard, the non-disclosure conduct will fall outside of the scope of the AML again.

In addition, the deceptive tactics in the standard setting process may lead to the exclusion of substitute or competing technologies from the standard under development. The non-disclosure is not just a deception for the SSOs but the patent owners are knowingly depriving competitors of the possibility of having their own patents as SEPs. The non-disclosure conduct can influence the technological composition of a standard, exclude other competing technologies that would have agreed to license at a lower royalty and result in a dominant position being secured. Thus, it can eliminate competition for the incorporation of the patent into a standard in the technology market *ex ante* and so deprive the consumers of the opportunity to have access to lower priced products. As a result, the influence of the deliberate non-disclosure on the competition of candidate technologies in the standard setting process should not be ignored.

9.2.2 The Proposals for Punishment and Remedies

As a consequence, it seems not enough just to impose a fine for the *ex post* abusive conduct. The reason for the patent owners to be able to conduct patent hold-ups, to charge excessive royalties or to refuse to license is that they are dominant owners of SEPs secured on the basis of non-disclosure. Therefore, the factor of non-disclosure should be taken into account when determining the amount of the fine after a finding of abuse of dominance. Since China is still a technology importing country, a relatively stricter antitrust policy for standardization will guarantee stronger market competition and protect consumer welfare. It is proposed that a higher fine should be imposed on an abuse of a dominant position which was achieved from the non-disclosure. The fine is not only imposed to punish the abuse of dominance but also to punish the unfair acquisition of a dominant position that may eliminate the *ex ante* competition in the standard setting process. The fine should be high enough to cover the detrimental impact caused by the non-disclosure during the standard setting process and should also have a strong deterrent effect on potential

deceivers. At the same time, essential remedies should also be available to offset the adverse effects. For example, it is proposed that as an effective remedy, a failure to disclose should be regarded as an implied authorization of SEPs to standard users. In this situation, the users can directly apply the relevant SEPs when implementing the standard, without obtaining a licence. However, the SEP owners can still request reasonable royalty fees from the users. This is for the reason that no matter whether the patent owners disclose the patent information, as proprietors of the patent, they have the right to seek royalty fees to reward their investment in development and research. In addition, the proposed higher fines imposed on the SEP owners' abuse of dominance have already taken into account the deterrent and punitive effects on non-disclosure in the standard setting process.

However, the antitrust liability only plays a limited role in preventing the failure to disclose patent information in the standard setting process. This is for the reason that the conditions to apply the AML are difficult to satisfy. For those non-dominant SEP owners whose failure to disclose their patent interest does not fall within the scope of the AML, some penalty is proposed to be incorporated into the relevant private law. For example, in addition to the implied authorization, the patent royalty fees that patent owners are allowed to charge should be lower than the normal level. It is submitted that a 'free licensing' liability can also be levied in some situations on the SEP owners who fail to disclose their patent interest in the standard setting process as a more severe penalty to deter other potential patent owners from non-disclosing in similar circumstances. However, before imposing these penalties or granting remedies for SEP-users, it is important and necessary to balance the interests of both sides. If the SEP-users at the same time conduct patent hold-outs, such as conducting delaying tactics or unreasonably lowering the royalty fees, the SEP owners should still be able to resort to legitimate remedies to protect their legal interest. The standard users should be responsible for their infringement of patent rights.

In addition, the SSOs' internal IPR policies and the rules in Administrative Provisions for Patent-related National Standards (Interim) or other interpretations seem to be a much more common and effective way to resolve such disputes from the root. However, it is stated that non-mandatory disclosure obligation is hard to remove patent ambush.⁵⁷ Stricter

⁵⁷ Ping Zhang and Qishan Zhao, *CONFLICTS AND MUTUAL BENEFIT: PRIVATE RIGHTS PROTECTION IN STANDARDIZATION—Intellectual Property Policy Analysis of Technology Standard in Information Industry* (冲突与共赢: 技术标准中的私权保护—信息产业技术标准的知识产权政策分析) (Peking University Press 2011), 34.

IPR policies for SSOs are strongly recommended.⁵⁸ Relevant responsibilities and remedies for violating the disclosure obligation should be further elaborated and defined by the SSOs. For example, the patent owner who intentionally concealed the patent information should be fined heavily, and/or should be restricted as to the level of the royalties that he could demand on SEP-users. Limitations can also be imposed on their right to seek injunctions before courts to prevent the use of the SEP. Moreover, the SSOs can alleviate these concerns of non-disclosure by improving their scrutiny to the patent interest of essential technologies to a standard, improve the quality and accessibility of disclosed information and timely update and share the relevant information.⁵⁹

9.3 Proposals for Regulating Injunctive Relief on SEPs within the Anti-monopoly Law⁶⁰

The proposals made in this section concern the options to regulate seeking injunctions on SEPs in China (Section 9.3.1), the manner determining the violation of the AML (Section 9.3.2) and the competent and appropriate body to determine the FRAND licensing terms (Section 9.3.3).

9.3.1 The Options

On the basis of Article 17 of the AML⁶¹ and of relevant practices in other jurisdictions, there seems to be two options to regulate the abuse of injunctive relief by dominant SEP owners under China's AML.⁶² The first option is to follow the approach adopted by the European competition authorities that in certain circumstances the seeking of injunctions by dominant SEP owners is treated as an independent abuse of a dominant position and, therefore, can be prohibited by the 'catch-all' provision of Article 17.7 of the AML. The other option is that the SEP owners' seeking injunctions will only be considered under the AML when it is used as a means to compel SEP-users to accept unreasonable conditions or excessive royalty fees which are already clearly prohibited by Article 17 of the AML.

⁵⁸ David Telyas, *The Interface between Competition Law, Patents and Technical Standards* (Kluwer Law International 2014), 109.

⁵⁹ European Commission, 'Setting out the EU approach to Standard Essential Patents' (Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee) COM (2017) 712 final (COM (2017) 712 final).

⁶⁰ See the discussion of this problem in Chapter 7, Section 7.4.

⁶¹ The AML, Article 17.

⁶² Susan Ning and Kate Peng, 'Injunctive Relief for Standard Essential Patents Holders Will be Restricted' (King & Wood Mallesons, 5 April 2016) <<http://www.kwm.com/en/cn/knowledge/insights/injunctive-relief-for-standard-essential-patents-holders-will-be-restricted-20160406#id-here>> accessed 23 October 2017.

According to the AMC draft IPRs guidelines and to the comments on the *Huawei v. InterDigital*, it seems that the Chinese AMEAs and courts favoured the second approach. However, it is proposed in this thesis that the first approach should be the one to be adopted in the final revision of the IPRs guidelines.

The reason for recommending the first approach is that the second approach does not take into account sufficiently the detrimental impact on competition caused by the conduct of injunctive relief. The process of standardisation is a process that leads to an exclusion of competition. Once a standard is adopted, non-standard-compliant products will be substantially excluded from the market. When a patent is incorporated into a standard, the exclusivity of patent rights will combine with the public interest nature of a standard. Then, the network effects and the lock-in effects may provide the SEP owners with appreciable market power. In this context, the unrestricted seeking of injunctions by dominant FRAND-encumbered SEP owners will unreasonably exclude competitors from the market and eliminate competition. At the same time, injunctions will prejudice the alleged infringers who have invested sunk costs into the production on the basis of the belief that they will be licensed on FRAND terms. The nature of the second approach is to treat such injunctive relief by dominant FRAND-encumbered SEP owners only as a means to force the SEP-users to accept unreasonable conditions or excessive royalty fees. Within this approach, what the AML regulates is the concrete abusive practices such as charging unreasonable terms or excessively high royalties by the dominant FRAND-encumbered SEP owners, but not the conduct of seeking injunctions of SEPs. This approach does not take into account the anti-competitive effects of the abusive injunctive relief itself. To treat it as an independent abusive practice prohibited by Article 17 of the AML can more appropriately keep a balance between the interests of SEP owners and SEP-users, and protect competition on the market. Therefore, the final IP-related anti-monopoly guidelines should adopt the first approach.

9.3.2 The Determination of the Violation of the Anti-monopoly Law

After confirming the basic approach that the injunctive relief sought by the dominant FRAND-encumbered SEP owners should be classified as an independent conduct, the question arises as to the circumstances where such conduct will violate Article 17 (7) of the AML. It is necessary to emphasize that the prerequisite to initiate an anti-monopoly investigation of the SEP-owners' conduct in seeking injunctions is that they are already

dominant in the relevant market. In addition, these dominant SEP owners must have committed to license their SEPs on FRAND terms as part of the standard setting process.⁶³ The FRAND commitments provide the SEP-users with a reasonable expectation of obtaining a FRAND licence. On the basis of this reasonable expectation, the seeking of injunctions by SEP owners may infringe the FRAND commitments and raise competition concerns.

Although the AMC draft IPRs guidelines regards the seeking of injunctions on SEPs as a leverage to impose unreasonable conditions, the listed five factors are also relevant to be considered when treating the seeking of injunctions as independent conduct. The five factors proposed to be considered in the AMC draft IPRs guidelines provide general guidance and indicate that the subjective fault and the behaviour of both sides should be considered seriously.⁶⁴ However, in practice, these factors in the AMC draft IPRs guidelines are not sufficient or detailed enough to be applied. It is submitted that some detailed example guidelines should be embedded into the final adopted version to guide the determination of whether the SEP owners' conduct comply with their FRAND commitments, whether the SEP-users are willing licensees and whether the seeking of an injunction violates Article 17 of the AML. In this respect, the conditions adopted in the *Huawei v. ZTE*⁶⁵ decision by the CJEU and the rules in the Guidelines for Patent Infringement Determination (2017)⁶⁶ are good examples. The following proposed factors do not exhaust all the circumstances and are not fixed rules. They are some specific examples of procedural guidelines. Whether the seeking of injunctions by dominant SEP owners gives rise to competition concerns should be decided on a case-by-case basis. None one-size-fit-all solution is suggested. The relevant authorities and courts have discretion to examine the conduct concerned according to the specific circumstances in each case and reach an independent conclusion.

⁶³ The reason for this condition was also explained in detail in Chapter 7, Section 7.4.2.

⁶⁴ See also Chapter 7, Section 7.4.5.

⁶⁵ Case C-170/13 *Huawei Technologies Co. Ltd v ZTE Corp., ZTE Deutschland GmbH* [2015] ECLI:EU:C:2015:477. It should be noted that this CJEU preliminary ruling has been comprehensively and exhaustively discussed and analysed by a UK domestic court in *Unwired Planet International v Huawei Technologies* [2017] EWHC 711 (Pat) and [2017] EWHC 1304 (Pat). The litigation concerned the seeking of an injunction by Unwired Planet where the licensing of the SEP was subject to FRAND terms. However, the UK court concluded, on the facts, that the seeking of injunction by Unwired Planet was not an abuse of a dominant position and so there was no infringement of Article 102 TFEU. This UK domestic judgment has not been discussed in the thesis given the UK jurisdiction was not one of the jurisdictions selected to be analysed in this research.

⁶⁶ Guidelines for Patent Infringement Determination by the Higher People's Court of Beijing Municipality (2017) (北京市高级人民法院专利侵权判定指南 (2017)) (Guidelines for Patent Infringement Determination), Articles 149-153.

In principle, the seeking of injunctions by the dominant FRAND-encumbered SEP owners against willing licensees will constitute an abuse of dominance prohibited by the AML. When these SEP owners enjoy the benefits produced by the incorporation of their patents into a standard, they have to discharge additional obligations accompanying the benefits. In order to avoid anti-monopoly liability, the dominant FRAND-encumbered SEP owners have to satisfy certain conditions before they seek injunctive relief. First, they should initiatively contact the alleged infringers and alert them in writing of the alleged infringement, specifying the exact SEPs and the way in which they are being infringed, unless it is demonstrated that the alleged infringer is already aware of the infringement. A standard is normally composed of a large number of SEPs. SEP-users may not be aware of the fact that they are using valid and essential patents of a standard. Accordingly, it should be the SEP owners' responsibility to inform the SEP-users of the alleged infringement. In fact, a similar spirit has been implied in Article 24 of the Interpretations (II) of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Cases Involving Patent Infringement Disputes (Interpretations (II)) by providing that if the two parties do not enter into negotiation on the licensing terms, the court can dismiss the request for an injunction.⁶⁷ If necessary, the SEP owner should also substantiate the essentiality of its patent to the standard. Second, if the alleged infringers show their willingness to conclude a FRAND licensing agreement, the dominant FRAND-encumbered SEP owners should provide them on their own initiative with a specific written offer within FRAND terms specifying precise royalty fees and the way in which the fees will be calculated. This requirement is reasonable and proportionate. The SEP owners have voluntarily committed to the SSOs to licensing their SEPs on FRAND terms to any interested third party. Therefore, the SEP-users may reasonably expect that such an offer will be prepared and provided by the SEPs owners.⁶⁸ Besides, the licensing terms reached between the SEP owners and other users are mostly considered to be commercial secrets and are not made public. In this situation, it is the SEP owners that are in the appropriate and competent position to know whether the proposed licensing terms are non-discriminated and compliant with FRAND commitments.⁶⁹

⁶⁷ Interpretations (II) of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Cases Involving Patent Infringement Disputes (最高人民法院关于审理侵犯专利权纠纷案件应用法律若干问题的解释 (二)).

⁶⁸ Case C-170/13, *Huawei Technologies Co. Ltd v ZTE Corp., ZTE Deutschland GmbH* [2015] ECLI:EU:C:2015:477, Opinion of AG Wathelet, para 86.

⁶⁹ *ibid.*

As a willing licensee, the alleged infringer has an obligation to respond diligently to the initial offer of the SEP owner. If the alleged infringer does not accept the SEP owner's initial offer, the alleged infringer must promptly submit to the SEP owner a specific FRAND-compliant counter-offer in writing. In the counter-offer, the alleged infringer should enumerate the terms within which he does not agree and explains why. At the same time, the alleged infringer should specify the terms that they think are FRAND-compliant. To reply to the SEP owner concerned, the alleged infringer must conduct in good faith and observe the relevant commercial practices. There should not be delaying tactics. If the alleged infringer thinks that the initial offer made by the SEP owner cannot be regarded as FRAND-compliant, the alleged infringer should not tactically and directly refuse to reply to the SEP owner's initial offer. The SEP-user should reply because the alert notice and the initial offer have given them the notice of an allegation of infringement. In order to keep a balance between the interest of the SEP owner and that of the SEP-user, the alleged infringer does not have to provide a counter-offer; however, in order to show the willingness to negotiate, instead, the SEP-user needs to respond and require the SEP owner to provide a modified offer which should be FRAND-compliant. If no agreement is reached, the parties by common agreement can require an independent third party or the court to adjudicate. The question of what is a diligent and prompt reply should only be determined on a case-by-case basis and no fixed time should be prescribed. This is for the reason that the circumstances in each case will differ and the recognized commercial practices in different sectors are not all the same. Therefore, whether the alleged infringer's response to the initial offer is tactically delayed should be flexibly determined on the basis of objective factors. No general benchmark can be suggested. This will pose challenges to the officials or judges who examine the relevant conduct and require them to have expertise and knowledge of the relevant industry. Other factors that can indicate the willingness of the prospective licensees should also be given appropriate consideration. If the counter-offer is not accepted by the SEP owner, the alleged infringer has an obligation to provide appropriate security for the use of the SEP concerned. At the same time, an account of the use of the SEP must be rendered and specified, such as the number of SEPs being used, the products incorporating the SEPs, the sales number of such products, etc.

If the SEP owner has discharged the required obligations while the alleged infringer is unable to demonstrate their willingness, injunctions should be granted and the seeking of injunctions will not violate the AML. If the SEP owner does not satisfy the required conditions while the alleged infringer fulfils the obligations and demonstrates their

willingness, the alleged infringer can raise an antitrust defence against the injunction and the seeking injunctive relieve itself may constitute an abuse of a dominant position prohibited by the AML. If both of the parties act well and comply with their respective obligations, in principle, the injunction should not be granted taking into account the purpose of standardisation and the FRAND commitments made by the SEP owners. The AML will not have been infringed. In this situation, the parties can, by common agreement, resort to an independent third party or to a court to settle their disputes. In certain circumstances, the compulsory licensing system may be triggered.⁷⁰ If both of the parties commit substantive faults in the negotiations stage and do not satisfy their respective obligations, on the basis of the FRAND commitments, the SEP owner will principally not be granted an injunction unless the SEP-users conduct patent hold-outs.⁷¹ In this situation, whether to grant an injunction should be determined on a case-by-case basis according to the responsibilities of each party and the specific circumstances.⁷² A balance should be struck between the two parties. Moreover, whether the AML is violated should be established on the basis of the extent to which the dominant party's conduct has negative effects on competition and the extent to which they respectively violate their requirements.

These proposed criteria are basically recommended to be incorporated into the final IPRs guidelines. They should appear as unexhausted example instructions that are inserted under the general principle framework to facilitate the specific examination of the factors listed in the AMC draft IPRs guidelines.⁷³ This will help to keep a balance between the protection of patent rights and the protection of competition. More importantly, these proposed instructions can improve the predictability of the enforcement environment for SEPs. They make the general analysis factors to be concrete enough to positively guide parties' behaviour in the licensing negotiations. Not only the enforcement activities by the SAMR can be enhanced, but also the disputes as to SEPs licensing can be reduced. In addition, these proposed criteria can provide complementary guidance for Article 24 of the Interpretations (II) to decide whether an injunction should be granted to a SEP owner.

⁷⁰ Yan Jiao, 'Thoughts on the Legal Issues of Standard Essential Patents' (关于标准必要专利若干法律问题的思考) (2016) 118 China Intellectual Property, 5.

⁷¹ Jian Li, 'Understanding of Article 24 of Patent Law Judicial Interpretation (II)' (专利法司法解释 (二) 第二十四条之解读) (2016) 02 Competition Policy Research 37, 40.

⁷² Guidelines for Patent Infringement Determination (n 66), Article 153.

⁷³ The proposed factors in the AMC draft IPRs guidelines are the performance and actual will of both parties in the negotiations, the commitments encumbered by the SEPs on injunctive relief, the licensing terms provided by both parties during the negotiation, the influence of the injunctive relief on the licensing negotiation, and the influence on the relevant downstream market competition and the consumer welfare. See also Chapter 7, Section 7.4.5.

However, owing to the special characteristics of SEPs, the relevant authorities and courts should still reserve some discretion to consider the specific circumstances in different cases or investigations when determining whether to grant an injunction and whether such seeking of injunctions amounts to an abuse of a dominant position.

Looking back to the proposed criteria, several of them contain the word ‘FRAND’. The licensing terms should be FRAND-compliant and the SEP owners should comply with their FRAND commitments. The SSOs require the SEP owners to license their SEPs on FRAND terms but they do not provide clear guidance on the nature and scope of FRAND. Officially, FRAND is an abbreviation of fair, reasonable and non-discriminatory. FRAND is a concept that originally arose from the IPR policies of SSOs. However, the exact and specific scope of FRAND has not been further clarified by any SSO.⁷⁴ The CJEU leaves a wide margin of interpretation for national courts to fill. As a consequence, this concept is still vague. By intentionally not clarifying the exact scope of FRAND commitments, the SSOs leave considerable discretion to address future contingencies. This to some extent shows the wisdom of the SSOs. However, this lack of clarity easily leads to disputes, especially on whether the royalty fees are FRAND-compliant or excessively high which will increase the product costs, undermine the production and harm consumer welfare.⁷⁵ Normally, the royalty rate is the core element to evaluate whether the proposed licensing terms in the negotiation are FRAND-compliant, and charging excessive royalty fees is an obvious abuse of a dominant position prohibited by the AML. The meaning of FRAND can be explained differently according to the divergent situations in each case of different sectors. Some general factors are proposed to consider when determining whether the licensing terms are FRAND. For example, the essentiality of the SEP to the relevant standard, the relationship between the real economic value of the patented technology and its incremental value obtaining from the market success of the relevant product or the incorporation into a wide-spread standard, the relationship between the patent royalties requested by the SEP owners and the ones expected by the prospective licensees, the extent to which the standard has been or will be spread and implemented, the comparison of the royalty fees charged to different prospective licensees (whether there is discrimination), the efficiency gains of the licensing practice, etc.

⁷⁴ Telyas (n 58) 230.

⁷⁵ Zhang and Zhao (n 57) 71.

This section will not examine the methodologies used to determine a specific FRAND-compliant royalty rate. The selection of the methodology to calculate a FRAND royalty rate should be on the basis of the specific circumstances of each case, for example the industry sector that the case is related to, the products concerned, the number of the SEPs of the standard concerned, etc. It is neither sensible nor reasonable to recommend a fixed methodology to determine the royalty rate in all cases. The determination of a FRAND royalty rate is quite complicated and concerns a significant amount of economic analysis, which is not the focus of this thesis but has been discussed widely in the literature.⁷⁶ In the following section, the question of who in China should determine the FRAND royalty or terms when there is no agreement reached between the SEP owners and the SEP-users will be analysed.

9.3.3 Who Is Appropriate to be in Charge of the FRAND Licensing Terms?

It is submitted that in China a FRAND royalty rate or FRAND terms should be determined effectively by taking the following three steps. In principle, the most recommended way to agree on a FRAND royalty rate is by bilateral negotiation. This is for the reason that bilateral negotiations can best express each party's real thoughts and considerations. Governmental organizations do not have much time or resources to assist each undertaking to make a proper decision. Each party has its own special circumstances and nobody else knows the value of their patents better than themselves. Both parties can negotiate efficiently and effectively in terms of their individual interests, proprieties, and resources. Bilateral negotiations are flexible enough for both parties to exchange and communicate their requirements timeously and, therefore, to facilitate and accelerate the conclusion of a commonly agreed FRAND licensing agreement. Moreover, nobody else can compete in the market on their behalf and they should have the ability to negotiate and strive for benefits by themselves. If an agreement cannot be reached through bilateral negotiations, judicial adjudication is the second best recommendation for China. Actually, arbitration by an independent third party should have been recommended after bilateral negotiations taking into account its advantages of flexibility, autonomy, professionalism and confidentiality. However, according to Article 9 of China's Arbitration Law, 'a system of a

⁷⁶ Chryssoula Pentheroudakis, Justus A. Baron and Nikolaus Thumm (editor), *Licensing Terms of Standard Essential Patents: A Comprehensive Analysis of Cases* (Publication Office of the European Union 2017) 94-99;

COM (2017) 712 final, this Communication listed out some licensing principles for SEPs from the perspective of an enforcement authority, which provides valuable guidance for parties to conclude FRAND-compliant licensing agreements.

single and final award shall be practised for arbitration. If a party applies for arbitration to an arbitration commission or institutes an action in a people's court regarding the same dispute after an arbitration award has been made, the arbitration commission or the people's court shall not accept the case.⁷⁷ 'A single and final award' means that there is no supervision from a second instance court over arbitration cases, though arbitration is faster and more convenient. Compared to arbitration, court litigation provides a wide range of further supervision and further relief. In addition, in China, the charges for arbitration are normally higher than those for litigation.⁷⁸ In China, the costs of addressing the disputes on FRAND terms and royalty fees will be lower through litigation. Besides, there are strict statutory rules for the duration of trials, while in arbitration there is a possibility of time delaying tactics.⁷⁹ In recent years, the efficiency, transparency and effectiveness of litigation in China have been considerably increased. More importantly, judges of the people's courts have more power than arbitrators. For example, for some types of evidence that cannot be provided or collected by the parties themselves, the relevant party can apply to the court for a disclosure order.⁸⁰ While, this is not available in an arbitration. Moreover, in China a court judgment is more strongly enforced than an arbitration decision.⁸¹ The FRAND terms or royalty rate determined in a court judgment have a greater deterrent impact and referential value for future potential disputes. For example, in *Huawei v. InterDigital*, Chinese courts determined a royalty rate of 0.019% under the FRAND rules for InterDigital to license its portfolio of 2G, 3G and 4G SEPs to Huawei, which was calculated on the basis of the comparison of royalty rates with Apple.⁸² This is the first time that a Chinese court specified a FRAND royalty rate for SEPs and it has great impact on future cases. Therefore, in the context of the specific circumstances of China, it is proposed that currently the courts seem to be the appropriate and suitable fora to determine a FRAND royalty rate or the terms for SEPs licensing.

⁷⁷ Arbitration Law of the People's Republic of China (中华人民共和国仲裁法), Article 9.

⁷⁸ Baosheng Zhang, 'Litigation or Arbitration?—The Selection of the Ways of Dispute Resolutions of Multinational Corporations' (诉讼还是仲裁? 跨国公司争议解决方式的选择) (King & Wood Mallesons, 1 October 2012)

<<https://www.chinalawinsight.com/2012/10/articles/corporate/%E8%AF%89%E8%AE%BC%E8%BF%98%E6%98%AF%E4%BB%B2%E8%A3%81%E5%8F%B8%E4%BA%89%E8%AE%E8%A7%A3%E5%86%B3%E6%96%B9%E5%BC%8F%E7%9A%84%E9%80%89%E6%8B%A9/>> accessed 26 October 2017.

⁷⁹ *ibid.*

⁸⁰ *ibid.*

⁸¹ *ibid.*

⁸² *Huawei vs. InterDigital*, Guangdong Higher People's Court, (2013) Yue Higher Court Civil Division III Final No.305 ((2013) 粤高法民三终字第 305 号). See also Chapter 4, Section 4.2.2.2.

However, this is just for a short-term consideration. A standard is normally composed of a huge number of patents. Even if a small number of SEPs give rise to disputes over FRAND royalty rates and go to courts to seek resolutions, the number of cases will be tremendous and onerous. For the purpose of a long-term development, the SSOs themselves are the best places to address these problems. A mechanism for dispute-solving should be established within the SSOs. SSOs are the places where FRAND commitments are offered, so they should also be the places where FRAND-related disputes end. It is the SSOs that initiate and organise the setting of a standard. Accordingly, SSOs are in theory in a better position to know and access the necessary information, on the basis of which FRAND-compliant royalties can be determined. In 2015, the Institute of Electrical and Electronics Engineers (IEEE) Standardization Association amended its patent policy by recommending a methodology to calculate FRAND royalties and a requirement to SEP owners to waive their rights to seek injunctions unless there are special circumstances.⁸³ The updated patent policy has received a favourable Business Review letter from the US Department of Justice, but it is concluded that the standardisation agreements on the basis of this policy may infringe Article 101 TFEU.⁸⁴ Though the changes to the IEEE's patent policy are not robust enough and have attracted a lot of controversy, the policy has contributed a meaningful and advanced step to setting up a kind of mechanism to determine the FRAND royalty rate within the SSOs themselves. In addition, VITA has required its members in its new patent policy to declare the maximum royalty rate for their patents in the standard setting process.⁸⁵ The declaration of a maximum royalty rate before the standard is widely disseminated is an effective way to avoid excessive royalty fees and maintains the royalty rate at the original level without incremental value of the incorporation of the patent into a standard. However, it is submitted by Geradin that no convincing reasons seem to be found to explain why SEP owners should be prohibited from requesting a higher rate *ex post* than *ex ante*.⁸⁶ Therefore, when declaring a maximum royalty rate in the standard setting process, it is recommended here that a flexible discretion should be granted to the SEP owners to take into account the incremental value *ex post* in the final royalty rate, in order to encourage innovation and participation in the standard setting activities. Furthermore, the SSOs should adopt some effective measures to facilitate FRAND licensing. For

⁸³ Nicolo Zingales and Olia Kanevskaia, 'The IEEE-SA Patent Policy Update Under the Lens of EU Competition Law' (2016) 12 (2-3) European Competition Journal 195-235, 195.

⁸⁴ *ibid.*

⁸⁵ VSO Policies and Procedures, 10.3.2.

⁸⁶ Damien Geradin, 'The Meaning of Fair and Reasonable in the Context of Third-Party Determination of FRAND Terms' (2014) 21 George Mason Law Review 919-956, 952.

example, the first and basic step is to increase the transparency of SEPs disclosure.⁸⁷ The information of the existence, the essentiality and the scope of SEPs plays an important role in evaluating the licensing terms and the royalty rate. Then, the SEP owners can be to some extent required to disclose their comparable royalty rates to different SEP-users. This disclosure may concern their commercial secrets, therefore, if so required, relevant supervision should be established to guarantee confidentiality and protect the legitimate interest of SEP owners. The SSOs play an important and necessary role in determining the FRAND licensing terms, but more efforts need to be made for the SSOs to function well.⁸⁸

9.4 Proposals to Regulate Reverse Payment Patent Settlement Agreements⁸⁹

In terms of another broad challenge—reverse payment patent settlement agreements (RPPSAs), basically, China should prepare itself by taking two steps. First, it is proposed to initiate a competition inquiry into the pharmaceutical industry on RPPSAs in China. Secondly, China should establish an appropriate anti-monopoly analysis framework for such agreements. It is proposed in this thesis that RPPSAs should be divided into two categories. Those restricting market entry after the patent expires should be prohibited by Article 13 of the AML as naked restrictive agreements. Those allowing market entry of the generic drug before the patent expires should be further examined on the basis of relevant factors. In addition to the normal factors considered in examining alleged horizontal restriction agreements, some important and common factors of RPPSAs are proposed in this thesis for specific consideration. For example, the objectives of the settlement agreements, the validity of the patent concerned, the size and forms of the reverse payment, the limitation on the entry and the market entry date, etc. are all important factors specific to these types of agreements.

The process to regulate RPPSAs in the pharmaceutical industry is a balancing process of the interests protected by the AML and the Patent Law. Looking back at the US and the EU antitrust enforcement, the *per se* rules, either *per se* illegal or the pure ‘scope-of-the-patent test’, cannot function well in this complicated area. At the very beginning, the approach adopted by China’s SAMR should neither be too strict nor too generous.

⁸⁷ COM (2017) 712 final.

⁸⁸ What has been proposed in the Communication of the European Commission—Setting out the EU approach to Standard Essential Patents can facilitate the progress of the SSOs. The thesis will not focus on this part.

⁸⁹ This problem was discussed in Chapter 8.

Discretion should be left for flexible and reasonable analysis. Taking this approach it will not only facilitate the anti-monopoly enforcement in the short term but also provide an opportunity for China's SAMR to adjust the regulatory approach in accordance with future specific circumstances in this area. It is also proposed that detailed effects analysis be offered both for the sake of completeness and for the accumulation of enforcement experience and guidance. In 2018, China's AML will have been in effect for 10 years and revisions will be considered by the relevant authority. China's anti-monopoly IPRs guidelines are also likely to be adopted soon. Therefore, it is good timing to include in the IPRs guidelines some guidance on the approach to examine pay-for-delay agreements under the AML.

Preparation work should start from two perspectives. On one hand, it is indispensable to undertake a competition inquiry into China's pharmaceutical industry to investigate and assess the situation of RPPSAs. In this respect, what the EU has done can provide good practice. If necessary, continuous supervision should be conducted. Furthermore, the SAMR can refer to Section 112 of the US Medicare Prescription Drug, Improvement, and Modernization Act of 2003⁹⁰ to require the notification of the RPPSAs that meet certain criteria.⁹¹ This can not only help China's SAMR to supervise this industry but also impose some deterrent effects on the pharmaceutical companies who want to negotiate such agreements to restrict competition. Whether the SAMR will take further anti-monopoly action against the filed RPPSAs should depend on the specific circumstances of each case and be determined by the SAMR.

On the other hand, the basic anti-monopoly analysis framework should be set out in the forthcoming IPRs guidelines. Here, anti-monopoly scrutiny will mainly focus on the patent settlement agreements containing value transfer from a brand-name drug company to a generic company in exchange of the latter's commitment not to market its generic drug for a period of time or forever. Such patent settlement agreements are most likely to bring anti-competitive effects to harm consumer welfare.⁹² In principle, such RPPSAs are characterized as horizontal restrictive agreements and will be prohibited by Article 13 of

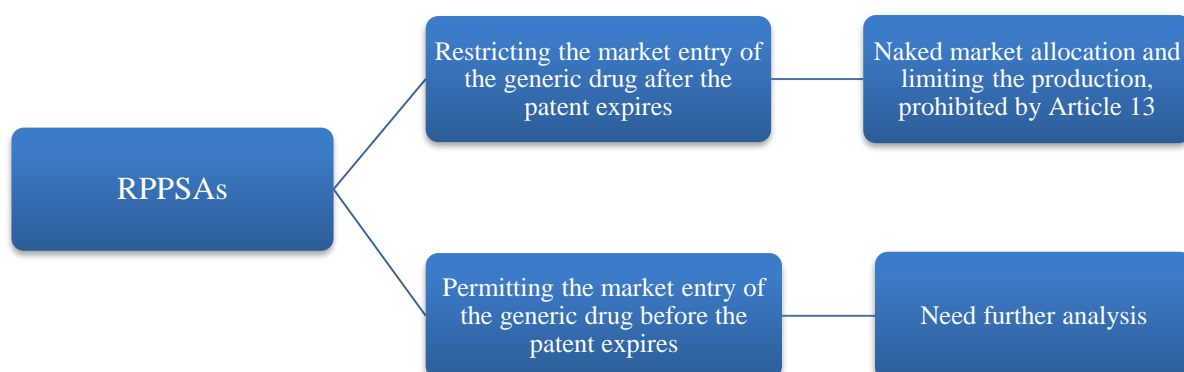
⁹⁰ It requires filing agreements between brand-name and generic drug companies with the FTC and the US Department of Justice.

⁹¹ Zhiming Cao, 'A Research on Reverse Payment in Pharmaceutical Field' (药品领域反向支付问题研究) (2017) 09 Intellectual Property 63, 66.

⁹² See also Chapter 8, Section 8.2.3. This can also be learned from the enforcement by the EU and US authorities discussed in Sections 8.3.1 and 8.3.2.

the AML.⁹³ To establish the violation of Article 13, the parties to the agreement should be competitors in the market, the agreement should include at least one of the anti-competitive conduct listed in Article 13 and they should have failed to demonstrate that the agreement satisfy any exemption condition listed in Article 15 of the AML.⁹⁴

With regard to the complexity of RPPSAs, Article 13 will be applied differently according to the timing at which generic drugs are allowed to enter the market. If such RPPSAs restrict the market entry of the generic drug after the patent of the listed drug expires, they should be classified as naked market allocation and limitation of production and should be prohibited by Article 13 of the AML. This is similar to the restriction by object that falls within Article 101 TFEU. If the RPPSAs permit the generic drug to enter the market before the patent concerned expires, whether such an agreement falls within the scope of Article 13 of the AML should be determined on the basis of a comprehensive evaluation of all the relevant factors and conditions. This is more like the rule of reason in the US or the restriction by ‘object + effects’ in the EU.



In addition to the normal factors considered in examining alleged horizontal restriction agreements such as the level of competition in the market, the market power of each party, the relevant market, etc., some specific elements of RPPSAs should also be taken into account when scrutinizing the agreements that allow generic drugs to enter the market before the patent expires. These specific factors include but not limited to the objective of RPPSAs (Section 9.4.1), the validity of the patent (Section 9.4.2), the size and forms of the reverse payment (Section 9.4.3) and the limitation on market and the market entry date of generic drugs (Section 9.4.4).

⁹³ The AML, Article 13.

⁹⁴ *ibid*, Article 15.

9.4.1 RPPSAs as a solution to a patent dispute

Given the complexities of the RPPSAs, it is necessary to balance the anti-competitive with the pro-competitive effects of such agreements. When analysing the reasons to conclude such RPPSAs, it is not difficult to see that there is rationale behind such agreements. The main objective of the settlement is to stop a dispute and it should not be ignored when assessing the antitrust legality of such agreements. In order to avoid the high costs, uncertainty and risks of patent disputes, and to save resources, settlements are in principle an encouraged legitimate way to resolve disputes and enjoy judicial preference.⁹⁵ Settlements themselves do not restrict competition. In certain circumstances, they can even promote competition and benefit consumers.⁹⁶ For example, settlements can stop patent disputes and allow competing products to enter the relevant market much earlier than otherwise. More importantly, the reverse payment is not always unreasonable. If the aim of the reverse payment is only to use fair value to obtain relevant services from the generic company but not to eliminate competition, competition concerns will not arise. In some circumstances, some payments from the patent owner to the alleged infringer are necessary to bring the patent dispute to an end. However, it has to be admitted that a reverse payment may not be the only way to end the disagreement. Whether there is another way other than a reverse payment to settle the dispute, should be seriously examined in order to determine the appropriateness of the payment and to identify the real purpose of the agreement. This does not mean that the objective to end a dispute itself can protect RPPSAs from anti-monopoly scrutiny. If the real purpose of the settlement agreement is just to end the dispute and not to exclude competition, it will to some extent reduce competition concerns. However, if the pay-for-delay agreements are concluded to exclude generic drugs from the market and maintain a high price, they will be prohibited by the SAMR.

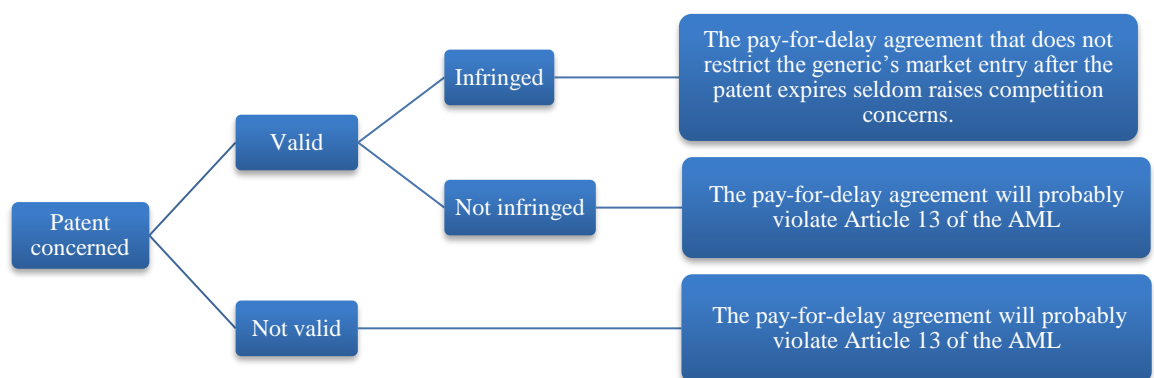
9.4.2 The validity of the patent

The validity of the patent concerned is an important and controversial element in evaluating the antitrust legality of pay-for-delay agreements. When the issues of validity and the infringement of the patent are clear and obvious, whether the pay-for-delay agreement is anti-competitive is easily established. If the patent is valid, if it is infringed by the generic version of the patented drug and the pay-for-delay agreement does not restrict

⁹⁵ See also Chapter 8, Section 8.2.2.

⁹⁶ Herbert Hovenkamp, 'Anticompetitive Patent Settlement and the Supreme Court's *Actavis* Decision' (2013) 15(1) *Minnesota Journal of Law, Science & Technology*, Forthcoming 3, 17.

the generic's market entry after the patent expires, then the agreement will probably fall within the legitimate scope of the patent and will be protected by Patent Law. In this situation, in the absence of strong opposite evidence, competition concerns will be raised seldom. If the patent concerned is valid but is not infringed by the generic drug, the restriction on the market entry of the generic drug will have no legal basis and should be prohibited by Article 13 of the AML. If the patent is not valid, the technology will not be protected by Patent Law. In this context, the pay-for-delay agreement equals a horizontal restriction agreement that allocates the market and should be proscribed by Article 13 of the AML.



However, in most cases the main controversy of the dispute relates to the validity of the patent or to the establishment of the infringement. This is also the main reason why the parties choose to settle the dispute other than to continue the time-consuming, costly and risky litigation. In this context, this thesis submits that the patent validity issue should be separated from the anti-monopoly analysis of RPPSAs. Normally, it is not necessary to answer the competition concerns by litigating patent validity. Even if the patent is valid, there is still the possibility that the settlement agreements with payments will be anti-competitive and prohibited by the AML. ‘And even a valid patent confers no right to exclude products or processes that do not actually infringe.’⁹⁷ Patent settlement agreements are not automatically exempted from anti-monopoly scrutiny. According to Article 55 of China’s AML, the inappropriate exercise of IPRs to eliminate or restrict competition will be prohibited.⁹⁸ If the anti-monopoly assessment of a RPPSA is established by confirming the validity of the patent, the costs of time and money will be extremely high. In China, a

⁹⁷ *Federal Trade Commission v. Actavis Inc. et al.*, 133 S. Ct. 2223 (2013), 2231.

⁹⁸ The AML, Article 55.

party can challenge the validity of a patent before the Patent Re-examination Board.⁹⁹ If a party is not satisfied with the decision of the Patent Re-examination Board, it is allowed to lodge an action before a competent people's court.¹⁰⁰ The whole process of determining the patent validity takes a rather long time. When the litigation finally comes to an end, it may be too late as illustrated by the Chinese cases discussed above.¹⁰¹ Moreover, if the patent is confirmed valid, the next step is to examine whether the generic drug infringes the patent. Again, this will take time. In addition, the confirmation of the patent validity or the establishment of patent infringement in an anti-monopoly analysis may discourage the parties from settling their dispute. This is because it may diminish the positive role of settlements to resolve private disputes peacefully and efficiently. Therefore, it is unreasonable to consider the validity of the patent as a necessary prerequisite when determining the legality of a RPPSA. The AML is not designed to deal with the patent validity issues and the anti-monopoly analysis can be undertaken without confirming the validity of the patent. However, it is proposed here that in a very difficult and complex case, if necessary and crucial, the relevant competition authority should have the discretion to suspend the investigation proceedings and refer the validity issue to the competent organization—China's Patent Re-examination Board. For the sake of effectiveness and efficiency, certain kind of acceleration measure should be taken to confirm the validity or invalidity of the patent in this context. For example, in order to improve the efficiency and consistency, China's Patent Re-examination Board have undertaken several joint trials with the competent courts over the patent infringement litigation in which the party requested to declare the patent invalid.¹⁰² Similar measure should be given some consideration when the competition authority thinks the validity issue is of great importance to determine the antitrust legality of a RPPSA.

Though it is not necessary to determine the validity of the patent in an anti-monopoly investigation, it is still a relevant element that should be given some consideration. The strength of the patent does to some extent contribute to identifying the real objective behind the settlement and can facilitate the anti-monopoly analysis. It can more or less be indicated by the facts and practices in the specific case, such as the size of the reverse payment. Whether the pay-for-delay agreement is anti-competitive should be decided on

⁹⁹ Patent Law of the People's Republic of China (中华人民共和国专利法), Article 45.

¹⁰⁰ *ibid*, Article 46.

¹⁰¹ See also Chapter 8, Section 8.4.1.

¹⁰² Press Release, 'The Quality and Efficiency of the Review by the Patent Re-examination Board of SIPO Has Been Further Improved' (国家知识产权局专利复审委员会审查质量和审查效率进一步提高—提质量 增效益 强服务) <<http://www.sipo-reexam.gov.cn/zxzx/mtbd/21294.htm>> accessed on 4 April 2018.

the basis of analysing all the relevant factors. As long as the patent has not been declared invalid, the scope of the patent can still be applied to identifying the extent to which the RPPSA goes beyond that scope and to finding resulting anti-competitive effects. Nevertheless, it needs to be emphasized that the only finding of the relevant behaviour falling within the scope of the patent cannot be regarded as exempting it from anti-monopoly scrutiny. As discussed above, it is not appropriate to apply the ‘scope-of-the-patent test’ solely to examining RPPSAs.¹⁰³ The consideration of the scope of the patent here should be understood as a part of the reasonable analysis of the competitive effects of a RPPSA. As long as the patent has not been declared infringed by the generic drug, as displayed above, the limitation on the market entry of the generic for a certain period of time (even allowing the entry before the patent expires) can probably be determined anti-competitive.

9.4.3 The size and forms of the reverse payment

The thesis submits that the correct criterion to apply is the one established in the EU and US antitrust enforcement, namely that the size of the reverse payment is a strong and reliable indicator of the patent quality and of the anti-competitive effects.¹⁰⁴ ‘An unexplained large reverse payment itself would normally suggest that the patentee has serious doubts about the patent’s survival.’¹⁰⁵ The size of the payment may reflect the settling parties’ assessment of the possible litigation results based on the market.¹⁰⁶ Accordingly, the anti-competitive objective behind the patent settlement agreements may be indicated. The larger the reverse payment, the more profits the brand-name drug company may earn by restricting competition from a generic company and the more anti-competitive effects there will be.¹⁰⁷ A large size payment can also imply the patentee has market power because normally the patentee will not make a payment beyond its anticipated returns.¹⁰⁸ It is the consumer that will finally bear the loss. As a result, the objective of a large unexplained payment is likely to maintain the supracompetitive prices

¹⁰³ Reasons for this were explained in Chapter 8, Section 8.3.3.

¹⁰⁴ *Federal Trade Commission v. Actavis* (n 97), 2237; Commission, ‘Case AT. 39266—Lundbeck’ (Summary of Commission Decision) 2015/C 80/07 (2015/C 80/07), para 6.

¹⁰⁵ *Federal Trade Commission v. Actavis* (n 97), 2236.

¹⁰⁶ Hovenkamp (n 96) 21.

¹⁰⁷ Wanxia Ren, ‘The Regulations for Pharmaceutical Patent Reverse Payment Agreements in Antitrust Law’ (医药专利反向支付协议的反垄断法规制) (Master Thesis, Southwest University of Political Science & Law 2016), 40.

¹⁰⁸ Hovenkamp (n 96) 24.

and to exclude competition.¹⁰⁹ This is not to say that a reverse payment in all cases will give rise to antitrust liability. In order to settle a patent dispute, it is reasonable and necessary in some circumstances to transfer an amount of value from the patent owner to the alleged infringer. Only when the size of the payment reaches a certain level — large, disproportionate and unjustified, can it indicate the patent quality and the anti-competitive motive.

Several aspects should be taken into account when assessing whether the size of the reverse payment should be considered as ‘large, disproportionate and unjustified’. First, whether the payment is only a reasonable consideration for the possible past and future litigation costs without other purposes. Second, does the payment include the fair value of the goods, services or any complimentary transactions provided by the generic company? Third, whether the payment takes into account the estimated profits expected by the generic company if it had successfully marketed the generic version of the patented drug.¹¹⁰ Fourth, to what extent the size of the payment deprives the generic company of the incentives to enter the market to compete. In addition, some other convincing justifications for the reverse payment cannot be ignored, such as the risk/litigation aversion, information asymmetry, protecting the image of the company, etc.

It is proposed in this thesis that the forms of the reverse payment should not be subject to cash and the value of non-monetary payment should also be calculated into the size of the reverse payment. No matter what the form is, the purpose of a disproportionate, large and unjustified reverse payment is the same. It is to buy off the generic company to delay the market entry and restrict competition. Traditionally, a reverse payment takes the form of direct monetary transfer, such as purchasing an asset. However, as more RPPSAs have been exposed to antitrust scrutiny, pharmaceutical companies have adopted more hidden forms of payments to avoid the attention of competition authorities. It is reported by the European Commission that a reverse payment can also take the form of ‘distribution agreements or a “side deal” in which the brand-name drug company grants a commercial benefit to the generic company’.¹¹¹ For example, the generic company may commit to co-promote the patented drug with the brand-name drug company; the generic company may

¹⁰⁹ *Federal Trade Commission v. Actavis* (n 97), 2236.

¹¹⁰ 2015/C 80/07 (n 104), para 6.

¹¹¹ Commission, 4th Report on the Monitoring of Patent Settlements (period: January-December 2012) (Commission’s 4th Report), Published on 9 December 2013, para 12, ‘for example by allowing it to enter the market before patent expiry in another geographic area or by allowing market entry with another product marketed by the originator company’.

grant certain licences of its own patents to the brand-name drug company; and the brand-name and the generic companies may together undertake a research and development project.¹¹² These side-deals accompanying patent settlement agreements are likely to be concluded to provide a reasonable justification for the brand-name drug company to offer commercial benefits to the generic company. However, their real objective can probably be to exclude the competition in the market from the generic company. Additionally, the patent owner can transfer a value through licensing to permit the generic company entering the market.¹¹³ Other forms, such as the agreement to give up unrelated patent litigation and the exemption of some debts, should also be treated carefully. Attention should be paid to the situation in which the reverse payment can offset some amounts of the payment that the generic company should have paid to the patent owner. In this context, the size of the full payment cannot be easily calculated. There is another popular hidden form of a reverse payment which is called ‘no authorized generic agreement’.¹¹⁴ This form will not be considered here because according to the available legal documents/measures China does not stipulate an exclusivity period like the US and such agreement does not have a basis in China. What has been proposed does not exhaust all kinds of reverse payment forms. The relevant AEMAs should flexibly assess these agreements on a case-by-case basis.

9.4.4 Limitation on entry and the market entry date of generic drugs

Normally, the RPPSAs will impose a restriction explicitly on the market entry of the generic version of the patented drug for a period of time. This is the typical and most direct form of limitation on entry in a pay-for-delay agreement. However, as reported by the European Commission, the brand-name drug company can also control the market entry of the generic drug through licensing terms and conditions.¹¹⁵ In this situation, the terms of the generic company’s entry is set out in the licence. ‘The generic company cannot enter the market with its own product’ or commercialize its generic drugs under its own will.¹¹⁶ In addition, the distribution agreements may have the same restrictive effects on the market entry of the generic drug. Therefore, during the evaluation of the anti-competitive effects

¹¹² Margherita Colangelo, ‘Reverse Payment Patent Settlement Agreements in the Pharmaceutical Sector Under the EU and US Competition Laws: A Comparative Analysis’ (2017) 40(3) *World Competition* 471, 484.

¹¹³ Commission’s 4th Report (n 111), para 12.

¹¹⁴ Authorized generic are the generic products manufactured by the brand-name drug company, which can enter the market to compete with the first-filer generic during the 180-day exclusivity period.

¹¹⁵ Commission’s 4th Report (n 111), para 9.

¹¹⁶ *ibid.*

of pay-for-delay agreements, the different forms of limitation on market entry should be identified.

Normally permission to market the generic drug before the patent concerned expires has some pro-competitive effects, even though the pay-for-delay agreements delay their market entry. In this case, the generic version competes with the patented drug earlier than it would have otherwise done, i.e., at the end of the patent litigation or after the patent expires. Consumers can also benefit from the price reduction as a result of the earlier competition. However, whether the market entry before the patent expires is in fact earlier than it would normally have been cannot be determined so easily. In order to avoid raising obvious competition concerns, pharmaceutical companies nowadays usually allow the generic company to enter the market a little earlier than the expiration date of the patent concerned. Seldom will they restrict the market entry after the patent expires. The so-called earlier entry is likely to be used to conceal their non-confidence in their patent validity and to hide their anti-competitive objective. After all, if the patent is not valid, there will be no expiration date and the generic drug can enter the market immediately. If the patent is valid but is not infringed, the generic drug can also enter the market without restrictions. Though the patent owner may be exercising its patent rights, there is potential that the patentee has gone beyond the scope of the patent. In these situations, the seemingly earlier entry is in nature an actual delay. Therefore, the market entry before the patent expires cannot itself be a decisive factor to remove the anti-monopoly scrutiny and other relevant factors need to be assessed.

9.4.5 Other relevant factors

In addition to the main factors related to the reverse payment settlement agreements discussed above, further factors can also make some contribution to the anti-monopoly assessment. Whether the patent is on the primary active ingredient or on the secondary properties such as the process patents, can to some extent indicate the objective of the settlement agreements. It is argued that the validity rate of those process patents which have weak protection is much lower than the basic patent.¹¹⁷ Accordingly, RPPSAs on the basis of such patents are more likely to restrict or eliminate competition. In addition, whether there are alternative ways that are less restrictive to end the patent dispute is also a relevant factor to be considered.

¹¹⁷ Hovenkamp (n 96) 10-11.

This section only enumerates the important and typical factors that should be taken into account when evaluating the anti-competitive effects of RPPSAs. It does not exhaust all the relevant factors and leaves space for the SAMR to structure flexibly their anti-monopoly analysis on a case-by-case basis.

9.5 Summary

The thesis examined comprehensively the situation of China's competition enforcement in the exercise of patent rights from both the perspective of the regulating system and the perspective of the regulating practices. The achievements and success have been fully recognized and acknowledged but the problems have also been clearly identified. The proposals provided in the thesis first aim to resolve the problems from the very root to unify the relevant rules and establish a specific task force on competition concerns that arise from the exercise of IPRs. Thereby, the effective and consistent enforcement can be guaranteed in this field. Then, the proposals focus on the two globally debated competition concerns — the licensing of SEPs and the RPPSAs, with the aim of assisting China's competition authority to prepare well for the prominent challenges in competition enforcement in the 21st century.

2018 is an important year for the development of competition enforcement in China. In this year, China's State Council adopted an institutional reform plan to merge all the anti-monopoly responsibilities and competences into a newly established independent organisation—the State Administration for Market Regulation. In this year, China's AML will have been in effect for 10 years and revisions will be considered. In this year, the drafting of the integrated anti-monopoly IPRs guidelines is at the crucial stage and will probably be adopted soon. Moreover, it has been argued that the exercise of IPRs has gradually become a significant enforcement area for China's competition authorities. Therefore, it is a good time to make some proposals to provide solutions to the challenging problems faced by the competition authorities in China and to facilitate the effective and efficient application of the AML in respect of the exercise of patent rights. Hopefully, the research undertaken for the thesis will contribute to the development of China's competition enforcement.

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