



# The Competition Law Liability for Refusal to License : A Global Perspective and Implication for China

宋, 玲

---

(Degree)

博士 (法学)

(Date of Degree)

2020-09-25

(Date of Publication)

2021-09-01

(Resource Type)

doctoral thesis

(Report Number)

甲第7837号

(URL)

<https://hdl.handle.net/20.500.14094/D1007837>

※ 当コンテンツは神戸大学の学術成果です。無断複製・不正使用等を禁じます。著作権法で認められている範囲内で、適切にご利用ください。



# 博士學位論文

The Competition Law Liability for Refusal to License:

A Global Perspective and Implication for China

(ライセンス拒絶に関する競争法上の責任：グローバルな視点及び中国への示唆)

神戸大学大学院法学研究科

専攻：理論法学

指導教員：川島富士雄

学籍番号：161j057j

氏名：宋玲

提出年月日：2020 年 7 月 31 日

## Table of Content

<b>Abstract.....</b>	<b>4</b>
<b>List of Abbreviations.....</b>	<b>5</b>
<b>Chapter One. Introduction.....</b>	<b>7</b>
1.1 IP, competition and refusal to license.....	7
1.2 Conventions, compulsory license and competition.....	13
1.3 Research questions, methodology and structure.....	16
<b>Chapter Two. Approaches in Three Jurisdictions.....</b>	<b>19</b>
2.1 US.....	19
2.1.1 Overview.....	19
2.1.2 Antitrust analysis of refusal to license.....	25
2.1.3 US case law.....	35
2.2 EU.....	40
2.2.1 Overview.....	40
2.2.2 IP related abusive analysis.....	45
2.2.2 EU case law.....	52
2.3 Japan.....	57
2.3.1 Overview.....	57
2.3.2 Japanese analytical protocol.....	61
2.3.3 Japanese case law.....	65
2.4 Summary.....	67
<b>Chapter Three. Standardization related refusal to license.....</b>	<b>70</b>
3.1 SEP and market power.....	70
3.2 Exercise of right to refusal to license by SEP holders: Injunction and royalty issues.....	73
3.2.1 US: Emerging divergence between agencies.....	73
3.2.2 EU: More neutral standard.....	78
3.2.3 Japan: A fairly consolidated practical guide.....	81
3.3 Case study: License to end or component level.....	83
3.3.1 The <i>Qualcomm</i> case.....	84
3.3.2 The <i>Nokia</i> complaint.....	87
3.4 Summary.....	88
<b>Chapter Four. Refusal to share data in E-commerce.....</b>	<b>90</b>
4.1 Data, IPR and competition law.....	90
4.1.1 Data protection as IPR.....	90
4.1.2 Data, platform and market power.....	92
4.2 Current regulation of access to data.....	98
4.2.1 US: Reluctance to force data sharing.....	98
4.2.2 EU: Strong concern for data portability and data availability.....	99
4.2.3 Japan: A quick move in legislation and regulatory preparation.....	103
4.3 Case study.....	106

4.4 Summary.....	107
<b>Chapter Five. Chinese experience and Implication for China.....</b>	<b>109</b>
5.1 Legal Framework.....	109
5.1.1 Background.....	109
5.1.2 Provisions concerning unilateral refusal to license.....	113
5.2 Enforcement of unilateral refusal to deal.....	120
5.2.1 General regulatory experience.....	120
5.2.2 China's experience in SEP area.....	124
5.2.3 China's Data sharing issue in platform economy.....	129
5.3 Implication for China.....	134
<b>Conclusion.....</b>	<b>137</b>
<b>Bibliography.....</b>	<b>138</b>

## **Abstract**

The probe of anti-competitive refusal to license has always been tricky, as it turns out to be trade-off between the protection of intellectual property right ('IPR') holders' freedom to deal and innovation motive, and the normal competition process. A well-designed refusal to license strategy can increase business returns for market participants. However, when the refusal conduct is deemed as anti-competitive, IPR holders' injunction or damage claim may be rejected or otherwise a compulsory licensing order may be issued by courts or agencies to secure access to relevant market, which may have significant influence upon innovation process. This problem becomes particularly severe in standardization and digitization activities, which are booming worldwide in recent decades. Given the serious consequences for both developed and developing countries, it becomes more and more necessary to systematically figure out the necessity, grounds, and reasonableness for competition law regulation.

This dissertation undertakes to examine the relevant regulatory experience so far in three jurisdictions: The United States, the European Union and Japan, and specifically explore how these countries solve new regulatory challenges such as standards- and data access-related issues. Meanwhile, this dissertation chooses China as a representative case study for the purpose of illustrating developing countries' strategies to solve the problem. It turns out that regulators seem to have roughly diverged into two teams upon the regulation of refusal to license: the relatively tolerant team of the US and Japan, and the more aggressive team of the EU and China. Many factors contribute to this result, such as ambiguities inside international conventions, immature development of theory, different priorities in competition policy. In all, international harmonization for the regulation of refusal to license is further needed.

## **List of Abbreviations**

ADR	Alternative Dispute Resolution
AMA	Anti-monopoly Act
AMC	Anti-Monopoly Commission
AML	Anti-monopoly Law
AUCL	Anti-unfair Competition Law
CJEU	Court of Justice of the European Union
DG COMP	Directorate General for Competition of the Commission
DOJ	Department of Justice
EC	European Commission
EPO	European Patent Office
FRAND	Fair, Reasonable and Non-discriminatory?
FTC	Federal Trade Commission
GC	General Court
GD	General Designation of Unfair Trade Practices
IoT	Internet of Thing
IPR	Intellectual Property Rights
ITC	International Trade Commission
JFTC	Japan Fair Trade Commission
JPO	Japan Patent Office
MOFCOM	Ministry of Commerce
NDRC	National Development and Reform Commission

NPE Non- Performing Entity

R&D Research and Development

SAIC State Administration for Industry and Commerce

SAMR State Administration for Market Regulation

SASAC State-owned Assets Supervision and Administration Commission

SEP Standard Essential Patent

SSOs Standard Setting Organizations

SSNIP Small but Significant Non-transitory Increase in Price

SSNDQ Small but Significant Non-transitory decrease in Quality

TFEU Treaty on the Functioning of the European Union

TRIPS Agreement on Trade-Related Aspects of Intellectual Property Rights

TTBER Technology Transfer Block Exemption Regulation

USPTO United States Patent and Trademark Office

USTR United States Trade Representative

WIPO World Intellectual Property Organization

WTO World Trade Organization

## **Chapter One. Introduction**

### **1.1 IP, competition and refusal to license**

In modern competition law theory, intellectual property ('IP') law and competition law share common purpose of fostering innovation but adopt opposite measures, *inter alia*, conferring or prohibiting monopoly. History has shown that the understanding of relative role between the two legal instruments in economy changes along with the deepening analysis of IP and competition policy's influence for certain industry or particular period of the concerned country's development, which also create high intellectual barrier for regulators and business entities to rightfully and efficiently utilize them. Overwhelming academic views of competition policy, such as the Harvard school, Chicago school or Post Chicago school, has been proved to largely influence regulatory practices, despite it is argued that the difference between them has substantially diminished in recent days.<sup>1</sup>

Among topics scattered in the interaction area between IP and competition laws, the regulation of refusal to license, which is basically the foundation of IP system, is one area particularly full of controversy, and needed to reconsider from time to time along with the fast development of economy. Regardless of the existence of common sense in market economy that undertakings generally should be free to do or not do business with whoever they want to in a typical market economy, obviously such freedom of contract is subject to explicit or implied exemptions and exceptions based on public or private law grounds, whether in regulatory sector or not. Investigation or adjudication of relevant cases sometimes provokes intense debate concerning enforcement priority issue among applicable policy tools and the extent to which public authority could be allowed to intervene the unilateral economic activities of private parties. The competition law regulation of refusal to license is also particularly controversial because private economic entities' trading or pricing strategies can be significantly affected for the purpose of protecting public competitive process,

<sup>1</sup> Posner, Richard A., "The Chicago School of antitrust analysis." *University of Pennsylvania Law Review* 127.4 (1979): 925-948.



consumer welfare or other policy goals. The involvement of IP factor further complicates the necessary general four-prong analysis process for anti-competitive conduct or merger review, with particular focus on the influence upon innovative incentive in short/middle/long term during dynamic innovation. More importantly, the completely new way of industry development and rapid technological update in New economy create novel challenge for the traditional approach adopted for competition law regulation of refusal to license intellectual property rights ('IPR'), including the reasonable way of identification of market power in dynamic innovation process, the measurement of competitive damage to consumer welfare and economy, and subsequent remedy. Regulation rules and its economic rationale need to be reconsidered from time to time cautiously. Bearing in mind the fact that refusal to license may be divided into various types pursuant to different standards (such as direct or indirect refusal by the appearances of conduct, conditional or unconditional refusal by content of business restrictions, concerted or unilateral refusal by the number and bargaining power of party member involved), due to limited space for discussion, this dissertation prefers to specifically explore competition law liability for unilateral refusal to license in general and specific standard essential patents ('SEP')/data context, and the implications for China. A firm to achieve the effect of refusal needs not to refusal to supply entirely, but may also have the effect of significantly impairing competition, by supplying less than the full amount requested, by supply irregularly or with long delays, or by offering to supply only at a different or variable level of quality.<sup>2</sup> Terminologies used for analysis of particular jurisdictions will also follow the pattern used inside that jurisdiction, out of respect for legal tradition in that country.

One of the main obstacles in terms of resorting to regulation of refusal to license is the special IPR protection mechanism, which “serves two major economic goals: to stimulate investment in knowledge creation and innovation, and widespread

<sup>2</sup> OECD, Roundtable on refusals to deal, DAF/COMP(2007)46, Sep 3<sup>rd</sup>, 2009, available at <https://www.oecd.org/daf/43644518.pdf>

dissemination of new knowledge.”<sup>3</sup> IPR usually refers to, but not limited to, patent, copyright, trade secret and so on. Before IP law was born, those intangible objects by their nature can be easily copied, consequently vulnerable to unauthorized utilization, a situation which holds chilling effect upon market innovation. As a solution, the mechanism of IP system allows the IPR holder, temporarily and exclusively, charge consumer at a monopoly level, higher than price usually set at competitive market. A rational economic person needs such kind of stimulation and protection provided by IP law to maintain innovation incentives to develop new products so that consumer can enjoy better products with cheaper price. Keeping IPR holders’ solid right of refusal to license is the core of IP law, necessarily accompanied with efficient remedy measures such as interim injunctions. Currently, IP law turns out to play more and more important role in modern industry, usually referred to as new economy. In such economy the success of competition is frequently based on qualitative rather than quantitative factors, especially in innovation-intensive industry that are usually “characterized by large initial investment and low costs to reproduce individual items.”<sup>4</sup> The protection provided by IPR system thus become an indispensable part for cultivating and maintaining innovation motive in the long term. Nevertheless, IPR related law may be useful but far from perfect. Economic literature is “divided on whether stronger, broader patent rights lead to more innovation, and the evidence that IP rights, and particularly patents, stimulate innovation is mixed.”<sup>5</sup> The importance of IPR “for economic activity in a world that relies on innovation is obvious, but differs from country to country and depends on one hand on the amount of resources that a country allocates for the creation of intellectual assets, on the other hand on the amount of protected knowledge and information used in production and consumption.”<sup>6</sup> Under certain circumstance, IP law may “interfere with diffusion of

<sup>3</sup> Ilie, Livia. "Intellectual property rights: an economic approach." *Procedia Economics and Finance* 16 (2014): 548-552.

<sup>4</sup> Pitofsky, Robert. "Antitrust and intellectual property: unresolved issues at the heart of the new economy." *Berk. Tech. LJ* 16 (2001): 535.

<sup>5</sup> OECD, Licensing of IP Rights and Competition law, April 29, 2019, available at [https://one.oecd.org/document/DAF/COMP\(2019\)3/en/pdf](https://one.oecd.org/document/DAF/COMP(2019)3/en/pdf)

<sup>6</sup> Supra note3.

ideas, follow-on innovation and limits the options for putting these ideas to work.”<sup>7</sup> “Though it may be necessary to allow the inventors to recover research and development (‘R&D’) expenditure and to create incentives for follow-on innovation, it also means higher prices for consumers in short run.”<sup>8</sup> And never forget about numberless sham lawsuits initiated by patent trolls. Of course it may be argued IP law itself have adopted a series of measures to internalizing those external dis-economies, such as limiting exclusive time period, issuing conditional compulsory licensing orders, creating fair use system (copyright). Unfortunately, due to complexity of the problem in nature, it is hard to say current IP law system itself has done a great job solving the problem. Especially, the situation in technology accumulation industry appears pretty troublesome. The development of telecommunication industry perfectly witnesses how patent thicket and patent troll can erode normal competition environment and hurdle technological innovation.<sup>9</sup> The cross-continent IP wars between mobile giants, e.g. *Apple/Samsung/Huawei/Nokia*, consume abundant time and money, giving the best proof for IP law’s weakness, or the market malfunction brought by the unlimited exercising of IP rights, which need to be further addressed by other public policy tools.

Meanwhile, competition law serves the goal of fostering competition by ensuring that markets are not unfairly dominated by a single firm and by ensuring that putative competitors do not collude to avoid the effects of competition.<sup>10</sup> Based on general assumption that competition stands as the most efficient tool for distributing society resources, the adoption of competition law prioritizing establishing well-functional market competition becomes a boom in the last century worldwide. In market economy, whether regulated and deregulated sector, competition law together with sector regulation become main approaches to realize competition policy and

<sup>7</sup> Czapracka, Katarzyna A. "Where antitrust ends and IP begins-On the roots of the Transatlantic clashes." *Yale JL & Tech.* 9 (2006): 44.

<sup>8</sup> *Id.* 73.

<sup>9</sup> Shapiro, Carl. "Navigating the patent thicket: Cross licenses, patent pools, and standard setting." *Innovation policy and the economy* 1 (2000): 119-150; McDonough III, James F. "The myth of the patent troll: an alternative view of the function of patent dealers in an idea economy." *Emory LJ* 56 (2006): 189.

<sup>10</sup> Lemley, Mark A. "A new balance between IP and antitrust." *Sw. JL & Trade Am.* 13 (2006): 237.

addressing market failures. Competition law generally do not blame the dominant power itself, but the inappropriate way to earn or exercise that power will provoke scrutiny after a through four-prong analysis of harm upon competitive process being conducted. While concerted behaviors like cartels are generally harshly criticized because of relatively undisputed negative remarks about its effects of deteriorating economy, the enforcement against potential illegal unilateral behaviors always appear to be controversial because of the multiple effects of a certain behavior upon competition. The probe against unilateral conduct always pay more attention to the exclusionary type illegal behavior, which in most case turns out to be hard for agencies to detect, because competitive conduct and exclusionary conduct often share a similar intent to defeat rivals. Especially, considering that competition law was born more than 100 years ago, it is noted that today's fast changing inter-connected world economy have kept challenging the old competition rules, especially the determination of market power, and the subsequent restrictions imposed upon unilateral behavior. The emerging of dynamic innovation notion, not only refined in IP, reconstruct the way to evaluate monopolistic competitive effect. "The focus is less on competing products sold simultaneously and the resulting equilibrium, but more on a process in which new products displace old ones and which themselves will be later displaced by the next generation of products."<sup>11</sup> Joseph Schumpeter described this dynamic competition as a "perennial gale of creative destruction" that "strikes not at the margins of the profits of the existing firms but at their foundations and their very lives."<sup>12</sup> "The "neo-Schumpeterian" framework for antitrust analysis that favors dynamic competition would put less weight on market share and concentration in the assessment of market power. and more weight on assessing potential competition and enterprise-level capabilities."<sup>13</sup> With regard to the conduct of refusal to license, it is widely accepted that competition law generally respects IPR holders' right exercising behavior, a general principle based on civil law or patent law or common law. Still,

<sup>11</sup> Katz, Ariel. "Making Sense of Nonsense: Intellectual Property, Antitrust, and Market Power." *Ariz. L. Rev.* 49 (2007): 837.

<sup>12</sup> Schumpeter, Joseph A. "Capitalism, socialism and democracy ". *Routledge*, 2013.

<sup>13</sup> Sidak, J. Gregory, and David J. Teece. "Dynamic competition in antitrust law." *Journal of Competition Law & Economics* 5.4 (2009): 581-631.

some jurisdictions believed that under certain circumstances, when IPR holders are so strong in the relevant or adjacent market that they deliberately take advantage of the right empowered and the anti-competitive effect of their behavior could overrun the pro-competitive part after reasonably weighing the effect upon economy based on solid economic evidence, enforcement bodies should not hesitate to step in. Otherwise it will hinder or foreclose the competition existed in upstream or downstream market, causing consumer welfare loss or eliciting free ride phenomenon. Competition authorities or courts should employ reasonable measures, in some case the issuance of compulsory license order, whether free or with reasonable royalty compromised during negotiations, to eliminate the negative influence upon market and recover natural competition process while balancing the protection of innovative incentive. At the same time, if competition enforcement bodies became too aggressive and cross the bottom line needed for recovering normal competition, innovation activities will consequently shrink, sometimes harming consumer welfare and hindering the continuous industry development. Furthermore, the notorious reputation for not respecting IPR definitely will exert negative effect upon certain countries or area's R&D investment activities and mitigate the possibility for future international cooperation. Recently, some agencies also put up with certain concerns to be included into competition law consideration process, such as industry policies or national security or technological sovereignty, due to the increasing importance of certain IP's cross-industry role in the new economy.

Anyway, it would be a challenge for competition authorities to properly deal with the dilemma. Right now, the case law or articles addressing this problem from the perspective of competition law in main competition jurisdictions generally reiterate the importance of guaranteeing IPR holders' regular exercise of their refusal right, but never clearly rule out the possibility for intervention. A case by case analysis model generally weighing pro-competitive and anti-competitive effects have become common sense. In practice, however, due to the complexity of the problem itself and different legal tradition, it is unsurprising to find that countries have shown

clear divergence towards the problem, which will be elaborated extensively in Chapter Two.

## **1.2 Conventions, compulsory license and competition**

Among possible remedies imposed for refusal to license such as temporary or permanent injunctions, damages, or negotiation duties, whether under competition law or other state tools, the most effective or harsh one would be compulsory license order issued by courts or agencies. Like aforementioned, such kind of order deprived IPR owners of their property rights, sometimes can deeply change the business landscape. Furthermore, in most of the time it holds high risk of hurting innovation motive or contributing to free ride phenomenon, etc. However, despite the fact that such kind of order is always controversial and easy to attract criticism, in practice it does have been used, *ex ante* or *ex post*, against unilateral conduct and merger control cases to guarantee access to market. Thus, for a long time it has been a hotly debated topic in various international treaties, with largely divided contradicting opinions held between developed and developing countries. In general, commentator stated that the US and the EU have shown resistance to global compulsory licensing schemes, while “African and Asian countries have a different philosophy of compulsory licensing in that governments are more likely to issue a compulsory licenses, especially to patented medications to stave off critical illnesses.”<sup>14</sup> Through long process of debating, together with other important topics, eventually a series of international treaties have been reached out of the endeavor to build a global IP protection and compulsory licensing framework.

Even though a general international competition law treaty has not been made until now, flexibilities in the field of protection of IPR reflecting competition law rationale can be found listed in important international IPR treaties, mainly referring to compulsory license provision on patents and trademarks defined in Article 5 of the

<sup>14</sup> Tudor, Jarrod. "Compulsory licensing in the European Union." *Geo. Mason J. Int'l Com. L.* 4 (2012): 222.

1883 Paris Convention for the Protection of Industrial Property(‘Paris Convention’)<sup>15</sup>, and the 1994 Trade-Related Aspects of Intellectual Property Rights (‘TRIPS’ Agreement), Articles 8.2, 31(k) and 40.<sup>16</sup> Article 5 of Paris Convention provides that “each country of the union shall have the right to take legislative measures providing for the grant of compulsory licenses to prevent the abuses which might result from the exercise of the exclusive rights conferred by the patent, failure to work.” Likewise, Article 8.2 of TRIPS Agreement generally states that to prevent the abuse of IP by rights holders, appropriate measures may be needed. TRIPS Agreement enumerated a non-exclusive list of conditions for issuing compulsory licenses in Article 31, among which the subsection k permits issuing compulsory license order based on the need to remedy anti-competitive practice after judicial or administrative process. Article 40.1 recognizes licensing practices which restrain competition may have adverse effects on trade and impede the transfer and dissemination of technology, and permits the World Trade Organization (‘WTO’) members to adopt measures to prevent or control anti-competitive practices in subsequent 40.2. Yet, there exists no uniform clarification concerning what the definition and scope of “abuse” and “anti-competitive” is. Therefore, “the discretion of states to make use of compulsory licenses as regulatory instruments is ensured by the fact that neither Article 31 of the TRIPS agreement nor Article 5A of the Paris Convention contains any restriction with regard to the grounds on which a compulsory license may be issued.”<sup>17</sup> Many questions are also remained, for example what kind of practices may constitute actionable abuses, what kind of standards should employed to review the cases, what constitute appropriate remedies. Another international organization, World Intellectual Property Organization (‘WIPO’) which currently have 185 member states, also attempted to address compulsory licensing during the attempt to create a global patent protection system and released a draft reference document on the exception

<sup>15</sup> See texts at WIPO official website <https://www.wipo.int/treaties/en/ip/paris/>

<sup>16</sup> See texts at WTO official website [https://www.wto.org/english/docs\\_e/legal\\_e/27-trips\\_01\\_e.htm](https://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm)

<sup>17</sup> Lamping, Matthias. "Declaration on Patent Protection." *IIC-International Review of Intellectual Property and Competition Law* 45.6 (2014): 679-698.

regarding compulsory licensing in June 2019.<sup>18</sup> It briefly summarizes current regulation in member countries with regard to the definition of “anti-competitive practices” and application based on competition law.

While issuing compulsory license on competition grounds have been clearly admitted, there are substantial limitations for the enforcement of such order. General principles for compulsory license also set for balancing interests between relevant stakeholders. Commercial interests of licensee will be taken into consideration when determining the scope and duration of the compulsory license order according to Article 31(c). Compared with compulsory license on other grounds in Article 31, finding illegal on anti-competitive grounds will exempt the government from any need to negotiate with the patent holder, and even from the obligation to confine a compulsory license predominantly for the supply of the domestic market. Furthermore, as the license is issued for the purpose of punishment, the remuneration may also become less worthy of looking forward to. In practice, however, due to an overly restrictive implementation set out in Article 31(a) to (I) of the TRIPS Agreement, the actual use of compulsory license by states may be limited, inducing patent holder to exploit bargaining position and at the same time creating an excessive burden for license petitioner.<sup>19</sup> For example, in 2003, South African authorities issued compulsory licensing against two foreign firms, alleging their refusal to grant licenses for patents on essential AIDS medicines violated domestic competition law, within the ambit of TRIPS Agreement Article 31(k). Yet the consequence of the case “may have actually have diminished rather than strengthened the developing countries’ appetites for attracting unwelcome attention by such means.”<sup>20</sup> In short, even though theoretically TRIPS Article 31 (k) may be relied on, states frequently address concerns of competition by laws other than those of antitrust.

<sup>18</sup> WIPO, Draft reference document on the exception regarding compulsory licensing, available at [https://www.wipo.int/edocs/mdocs/scp/en/scp\\_30/scp\\_30\\_3-main1.pdf](https://www.wipo.int/edocs/mdocs/scp/en/scp_30/scp_30_3-main1.pdf)

<sup>19</sup> Id.

<sup>20</sup> Reichman, Jerome H. "Comment: compulsory licensing of patented pharmaceutical inventions: evaluating the options." *The Journal of Law, Medicine & Ethics* 37.2 (2009): 247-263.



### **1.3 Research questions, methodology and structure**

Refusal to license by IPR holders sometimes may be problematic because of its harm on competitive process, such as impeding follow-on R&D activities, foreclosure downstream market competition, or the appearance of new product. How to properly deal with abusive unilateral refusal to license IPR in context of competition law remains confusing, as it is always connected with the delicate balancing strategies between fostering innovation incentive and protecting normal competition process. When IPR is involved, it can not only create technical barriers for the evaluation of anti-competitive harm, but also produce ultimate interest conflicts between different policy instruments or countries. As major competition law jurisdictions have developed their own specific way of solving the similar problems and the unavoidable interdependent tendency and uncertainty in current global economy, it becomes necessary to take a deep look into the regulatory history in a comparative perspective. The author would also like to choose China as a representative case study for the purpose of illustrating developing countries' strategies to solve the problem.

The special character of IP complicates the traditional analysis conducted for detecting problematic unilateral refusal to license under competition law, and designing necessary remedy imposed. Usually, traditional four steps for detecting the existence of a potential illegal refusal behavior consist of the followings: Firstly, an appropriate evaluation of IPR holders' market power in a precisely defined relevant market; Secondly, identifying the existence of illegal behavior; Thirdly, proving harm done to the competition; and Finally, finding out whether such behavior could be justified. When is IPR involved, elements needed to be taken into consideration would be enlarged, and sometimes more troublesome in each step. For example, exercising legitimate exclusive rights in the scope conferred by IP law is intentionally put out as a justification for refusal, a familiar defense used by IPR holders when facing probe from the regulator. Since long before, IPR protection is always regarded as equivalent to protection of innovation incentive. Regarding the design of remedy, if found guilty of abusive refusing behavior, usually IPR holders will be forced to

license. Depending on whether certain remedy is reasonable or not, it may result in being criticized for over-regulation and depressing innovation. On the contrary, when enforcement bodies or courts' regulation is too loose, competition process will deteriorate significantly. The extent to which remedy measures should be taken also deserves an in-depth analysis.

Against the above background, this dissertation sets the followings as its main research questions:

1. How and under what kind of analytical framework have the advanced competition law jurisdictions regulated cases of refusal to license IPR?
2. When a refusal to license IPR is found illegal from the perspective of competition law, what kind of remedies have been ordered in those jurisdictions to eliminate its anti-competitive harm?
3. Based on the answers to Research Questions 1 and 2 above, what approach should be applied when China regulates abusive refusal to license IPR, taking into account conditions in China?

In order to answer the above research questions, this study tries to adopt a mixed methodology by combining literature review, historic review, case study, comparative analysis based on qualitative and quantitative research, in order to conduct a thorough examination of current experience in advanced jurisdictions.

This dissertation will be structured as follows: Chapter One first illustrates the role of refusal to license in IP and competition related laws, and discusses the regulation of compulsory licensing from the perspective of general international competition law in related treaties. It also sets research questions which this dissertation tackle and introduces the adopted methodologies. Chapter Two focuses on practices in three advanced or major jurisdictions. Chapter Three specifically illustrates problems of refusal to license in SEP related standardization and licensing activities, a hotly debated topic in recent years. Then, Chapter Four moves to the unavoidable topic in the future, refusal to license concerning access to data in

digitization. The last chapter examines China's way of solving this problem and its implication.

## **Chapter Two. Approaches in Three Jurisdictions**

This part focuses on three jurisdictions, the U.S., the EU and Japan, with theoretical or/and practical experience on regulating refusal to license, taking both public and private enforcement activities into consideration in order to get a full landscape. Attention would be particularly paid to the analysis with regard to the applicability of competition law to refusal to license, anti-competitive effects analysis and the remedy measures taken.

### **2.1 US**

#### **2.1.1 Overview**

##### **2.1.1.1 Sherman Act Sec. 2 and FTC Act Sec. 5**

Antitrust law in the United States is primarily federal law, codified in three main statutes under Title 15 of the United States Code (USC), namely: the Sherman Act, the Clayton Act and the Federal Trade Commission Act ('the FTC Act').<sup>21</sup> As for detecting unilateral anti-competitive behavior, there are three concepts that matters, monopolization, attempt to monopolization, and conspiracy to monopolize, defined in Section 2 of Sherman law.<sup>22</sup> Meanwhile Section 5 of the FTC Act prohibiting unfair trade practice can also get involved in the enforcement against single firm conduct, which may reach further than the Sherman Act did, or interpreted according to Sherman section 2 principles.<sup>23</sup> Antitrust liability can be either civil or criminal in nature.

<sup>21</sup> FTC, The Antitrust Laws, available at

<https://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws/antitrust-laws>

<sup>22</sup> Section 2 of Sherman act prohibits any conduct to monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several states, or with foreign nations.

Monopolization requires (1) monopoly power and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident. Attempted monopolization requires (1) anti-competitive conduct, (2) a specific intent to monopolize, and (3) a dangerous probability of achieving monopoly power.

<sup>23</sup> Hovenkamp, Herbert. "The Obama Administration and Section 2 of the Sherman Act." *BUL Rev.* 90 (2010): 1611. p1616.

US antitrust enforcement is made up with a federal and state level public enforcement and private antitrust litigation. The three enforcers play different yet complementary roles in the system. Federal enforcement seeks to protect the interests of consumers across the nation, while state enforcers understandably focus their efforts on the consumers in their respective states.<sup>24</sup> Two agencies are responsible for federal public enforcement investigation activities, Department of Justice ('DOJ') following Sherman Section 2, and Federal Trade Commission ('FTC') authorized by Section 5 of FTC act respectively, despite consistent potential jurisdictional conflicts between them.<sup>25</sup> Unlike the EU and Japan, US antitrust agencies usually cannot directly issue administrative order themselves, but enforce through initiating court procedures. They also publish enforcement guidelines to improve predictability and transparency. Many cases conclude in the form of consent decrees between agencies and investigated parties, necessarily accompanied with commitment from courts. The agencies also independently or collaboratively issue various forms of public documents in the form of guidelines and policy statements, business review etc., for the sake of providing guidance or increasing predictability. In terms with the IP and antitrust topic, the 1995 Antitrust Guidelines for the licensing of Intellectual Property ('the US Antitrust IP Guideline', updated in 2017)<sup>26</sup> and the 2007 Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition ('the 2007 US Antitrust IP Report').<sup>27</sup> Meanwhile, a well-designed private antitrust litigation system available for both direct or indirect consumer/plaintiff, deploying with effective measures such as the tremble damages threat/opt-out model civil class action/evidence discovery, complements the public enforcement conducted by US

<sup>24</sup> Bill Baer, Public and private enforcement in the United States, February 11, 2014, available at <https://www.justice.gov/atr/file/517756/download>

<sup>25</sup> To solve the possible conflict, the two agencies signed memorandum and frequently exchange information. See, FTC & DOJ, Memorandum of Agreement between the federal trade commission and the antitrust division of the united states department of justice concerning clearance procedures for investigations, available at <https://www.justice.gov/sites/default/files/atr/legacy/2007/07/17/10170.pdf>.

<sup>26</sup> See texts of US IP Antitrust Guideline at <https://www.justice.gov/atr/guidelines-and-policy-statements-0>

<sup>27</sup> Further details are available at <https://www.justice.gov/atr/antitrust-enforcement-and-intellectual-property-rights-promoting-innovation-and-comp-ctition>

federal or state level, despite sometimes the two system may also have potential interest conflicts concerning information discovery or other issues.<sup>28</sup>

With regard to the core methodology of antitrust enforcement against unilateral refusal to license cases, when US regulators have moved from *per se* rule to the modern rule of reason today, the ownership of market power alone will not be automatically criticized. Rather, a general examination of effect upon economy and consumer welfare plays a decisive role during the trial. Through more than one-hundred-year history of antitrust enforcement, currently US has developed a sophisticated system of rules to handle IP related unilateral refusal conduct case. However, from a historic perspective, the attitude of agencies has not always been the same. It is clear that antitrust enforcement against IP has been influenced by the deepening understanding of the relationship of IP and antitrust overtime, or the practical issues such as fiscal restraints, government policy priorities and conflicts. At the beginning of 19<sup>th</sup> century, exercising of IP rights is basically free of antitrust scrutiny. The Supreme Court directly held that the general rule is absolute freedom in the use or sale of rights under patent laws of the United States.<sup>29</sup> But in 1960s and 70s, US government and academic turned out to enforce antitrust aggressively and hold a hostile attitude towards IP. DOJ once published a watch list of nine specific licensing practices that was deemed as anti-competitive restraints of trade in licensing agreements, a near *per se* illegal approach without regard to economic effects, which was later referred to as “Nine no-nos”.<sup>30</sup> Interestingly, of the sixteen cases filed by the division’s IP section between 1960s and the late 1970s, only half specifically addressed any of the nine practices and were litigated under a rule of reason rather

<sup>28</sup> DOJ, Relationship between public and private antitrust enforcement, June 9, 2015, available at <https://www.justice.gov/atr/file/823166/download>.

<sup>29</sup> E. Bement & Sons. v. National Harrow Co., 186 U.S. 70 (1902)

<sup>30</sup> Gilbert, Richard, et al. "Antitrust issues in the licensing of intellectual property: the nine no-no's meet the nineties." *Brookings Papers on Economic Activity. Microeconomics* 1997 (1997): 283-349. p284, see note 6. (The “Nine No-Nos” were: (1) tying the purchase of unpatented materials as a condition of the license; (2) requiring the licensee to assign back subsequent patents; (3) restricting the right of the purchaser of the product in the resale of the product; (4) restricting the licensee’s ability to deal in products outside the scope of the patent; (5) a licensor’s agreement not to grant further licenses; (6) mandatory package licenses; (7) royalty provisions not reasonably related to the licensee’s sales; (8) restrictions on a licensee’s use of a product made by patented process; (9) minimum resale price provisions for the licensed products. )

than *per se* illegality.<sup>31</sup> Government attorneys crafted the list of Nine No-no's at a time when most antitrust violations were evaluated under the *per se* rule, including vertical price restraints and vertical non-price restraints.<sup>32</sup> As time goes on, the Chicago School theory of economics favoring less aggressive enforcement against market rose during the Reagan and Bush Administrations. In the general relaxation atmosphere, the infamous Nine no-nos was abandoned since the introduction of economic rigor into antitrust analysis in the late 1980s thereafter. In the 1988 Antitrust Enforcement Guidelines for International Operations ('1988 Antitrust International Operations Guideline') set the fundamental principle that owner of IP is entitled to maximize the market value of its IP and adopted a rule of reason approach to licensing practices.

#### **2.1.1.2 IPR protection, misuse and antitrust**

Patent law and copyright law in US are federal law, whose jurisdiction resides in federal courts as well as in International Trade Commission ('ITC') responsible for border measures. All the lawsuits would follow the federal rules of civil procedure, while ITC cases are decided by an administrative law judge under optional review by the entire ITC, after related patent being issued by US Patent and Trademark Office ('USPTO') or copyright being registered by US Copyright Office ('USCO').<sup>33</sup> The Federal circuit, created by the Congress in 1982, acts as the only appellate-level court with jurisdiction to hear patent appeals cases. The court's scope has grown in at least two ways: through its expanding jurisdiction over antitrust issues and through the court's application of its own law rather than regional circuit law, thus playing an important role in the development of antitrust law.<sup>34</sup> Likewise, regulatory agencies

<sup>31</sup> Id.

<sup>32</sup> Leslie, Christopher R. "Antitrust law and intellectual property rights: cases and materials." *Oxford University Press*, 2011.p42

<sup>33</sup> See USPTO , USITC and USCO official website

<https://www.uspto.gov/patents-getting-started/general-information-concerning-patents#heading-3>

[https://www.usitc.gov/intellectual\\_property/section\\_337\\_rules.htm](https://www.usitc.gov/intellectual_property/section_337_rules.htm)

<https://www.copyright.gov/help/faq/index.html>

<sup>34</sup> Timothy J.Muris (Former FTC Chairman), Prepared remarks of before American Bar Association, Antitrust Section Fall Forum in November 2001, available at

[https://www.ftc.gov/es/public-statements/2001/11/competition-and-intellectual-property-policy-way-ahead#N\\_2\\_](https://www.ftc.gov/es/public-statements/2001/11/competition-and-intellectual-property-policy-way-ahead#N_2_)

for antitrust and IPR protection also maintain cooperation and issue public documents such as guidelines when necessary. It is noted that patent infringement or relevant misconduct turns out to be civil liability while copyright law further leave some space for criminal penalties. In all, courts and agencies such as ITC, USPTO, USCO form US IP protection system and enforce IP policy collectively.

In history, misuse principle periodically has overlapped with antitrust charges during trial of cases. A general misuse principle growing out of the equitable doctrine of unclean hands, though ambiguous, has long existed in order to address problematic conduct when relevant law is unclear, whether in IP box or not. In early periods of IP and antitrust interaction cases, patent misuse defense has also been widely used to address anti-competitive IP issues when it was generally believed that a violation of the antitrust laws by the patent owner in the use of his patent was not a proper defense to an infringement action upon that patent.<sup>35</sup> Meanwhile, the similar application of patent misuse doctrine to copyright has also been tested in two Supreme Court decisions, holding that a refusal by the copyright owner to license one or more of his copyrighted products unless the licensee accepted another copyrighted product is a violation of the Sherman act.<sup>36</sup> At that time, it was hard to clearly divide the scope between patent misuse inherent in patent case law or antitrust law. Since 1930, the Supreme Court has ruled that antitrust law operates only when patent holders reach beyond the boundaries inherent in the patent grant. Unfortunately, no one has been able to determine what boundaries are inherent in the patent grant, a confusion that has spawned almost a century of consternation and conflict over what exercise of power lines within the patent grant and what lies outside.<sup>37</sup> Sometimes misuse may substitute entirely for antitrust because the prerequisites for maintaining an antitrust claim (antitrust standing and injury) need not be met to maintain a misuse claim.<sup>38</sup>

<sup>35</sup> Fine, Timothy H. "Misuse and Antitrust Defenses to Copyright Infringement Actions." *Hastings LJ* 17 (1965): 315.p316.

<sup>36</sup> *United States v. Loew's Inc.*, 371 U.S.38 (1962); *United States v. Paramount Pictures, Inc.*, 334 U.S.131(1948).

<sup>37</sup> Feldman, Robin. "Patent and antitrust: Differing shades of meaning." *Va. JL & Tech.* 13 (2008): 1.

<sup>38</sup> Daniel J.Matheson, Patent misuse: The Questions That Linger Post-Princo, ABA IP Committee Alert April/May 2011, available at



Antitrust scrutiny requires precise illegality induction while patent misuse standards turns out to be vague. When coming to remedy, patent misuse acts as an affirmative defense to a claim of infringement reluctant to money damages<sup>39</sup>, rendering patent unenforceable, while antitrust violation can result in punishable tremble damages plus compulsory licensing. It is fair to say that the misuse doctrine did conflict or complement antitrust probe of potential illegal IP actions.

More in detail, the patent misuse first appeared in the 1917 Supreme Court decision known as the Motion Picture patent case, in which the patentee's exclusive restriction of movie projectors manufactured by other producer was deemed a licensing practice falling outside the scope of the patent and constituted patent misuse.<sup>40</sup> Based on case law accumulation, patent misuse can be understood as that misconduct by the patentee can constitute a defense for alleged infringer to an action to enforce patent rights, either an infringement action or a contract action to collect royalties due under a license.<sup>41</sup> Through 1940s the court made abundant use of the patent misuse doctrine, striking down a variety of restrictive license agreements, especially tying agreements which may somehow be understood as conditional refusal to license.<sup>42</sup> Before 1970, due to a general critical attitude towards monopoly, patent misuse doctrine has been common in court decision. Beginning with *Windsurfing Int'l, Inc. v AMF, Inc.* in 1986, the Federal circuit held in a series of cases that patent misuse applies only to conduct that impermissibly broadens the scope of a patent "with anti-competitive effect", and applied principles of antitrust law to the determination of whether conduct in question caused such anti-competitive effect, regarding antitrust liability as a subset of patent misuse.<sup>43</sup> Still, refusal to license

[https://www.axinn.com/media/article/169\\_Patent%20Misuse%20-%20The%20Questions%20That%20Linger%20Post-Princo.pdf](https://www.axinn.com/media/article/169_Patent%20Misuse%20-%20The%20Questions%20That%20Linger%20Post-Princo.pdf)

<sup>39</sup> Pearlstein, Debra J., et al., eds. "Antitrust law developments (Fifth)." *American Bar Association*, 2002.

<sup>40</sup> Motion Picture Patents Co. V. Universal Film Mfg.co., 243 U.S.502.502(1917).

<sup>41</sup> Supra note 39, p1091.

<sup>42</sup> Leaffer, Marshall. "Patent Misuse and Innovation." *J. High Tech. L.* 10 (2009): 142.p147.

<sup>43</sup> Jones Day, Antitrust alert: Federal Circuit Decision Limits Patent Misuse and Distinguishes It From Antitrust, September 2010, available at <https://www.jonesday.com/en/insights/2010/09/antitrust-alert--federal-circuit-decision-limits-patent-misuse-and-distinguishes-it-from-antitrust>

rights have been widely recognized under patent law regime. For example, claims such as high royalty demand precluding acceptance of a license offer is regarded as not appreciably different from a refusal to license and such kind of right of refuse to license is the essence of the patent holder's right under the patent law.<sup>44</sup> But in 80s, The wide use of patent misuse was restricted in late 1988 by legislation draft which prohibited a finding of patent misuse unless the patent holder's actions would violate antitrust laws, but final provisions of the 1988 amendment to section 271(d) of the Patent Act provides that certain types of conduct shall not constitute "misuse or illegal extension of the patent right", of which the new added Clause(4) of Section271(d) mentioned refusal to license a patent. It is consistent with the antitrust agencies' attitude toward the issue. Later history showed Section 271(d)(4) of the Patent Act almost create entire immunity for unilateral refusal to license patents. More recently the courts have construed the patent misuse doctrine so narrowly that it barely exist, although somewhat more room remains for a doctrine of copyright misuse.<sup>45</sup> Some influential commentator concludes that the courts have moved from a framework that evaluates misuse claims by considering whether the conduct extends the patentee's power beyond the scope of the patent, to a framework that limits misuse to conduct that would otherwise violate the antitrust laws.<sup>46</sup>

## **2.1.2 Antitrust analysis of refusal to license**

### **2.1.2.1 General principle**

According to the US Antitrust IP guidelines and reports, a general premise has been set for the standard analysis of IP related antitrust cases: Antitrust analysis will be applied equally to IP and other form of property in domestic and international licensing arrangements, with the special character of IP taken into account. IPR is neither particularly free from scrutiny under the antitrust laws, nor particularly

<sup>44</sup> W.L.Gore&Assocs. V. Carlisle Corp.,529 F.2d 614, 623(3d Cir.1976)

<sup>45</sup> Hovenkamp, Herbert. "Antitrust and the Patent System: A Reexamination." *Ohio St. LJ* 76 (2015): 467. p562.

<sup>46</sup> Id.

suspect under them. Agencies allegedly employ a flexible approach to use various tools that depends on the facts of each case to assess potential harm to competition and consumers in conduct as well as merger cases. Considering the ultimate goal of US antitrust is not to increase the total wealth of society but to protect consumers from behavior that deprives them of the benefits of competition<sup>47</sup>, consumer welfare standard will play an pretty important role during the whole assessment of competition harm.

### **2.1.2.2 Monopoly power and IP**

Legal scholars generally define market power as “the ability of a firm to raise price above competitive levels without need to worry about losing business to rivals so rapidly that the price increase is unprofitable and must be rescinded”, and monopoly power as “a high degree of market power”.<sup>48</sup> When evaluating Section 2 of the Sherman Act offense, whether monopolization or attempted monopolization, US Supreme Court found it essential to define a relevant market to measure certain undertaking’s ability to lessen or destroy competition.<sup>49</sup> Despite some modern decisions invite the use of direct evidence of monopoly power and suggest that such evidence could eliminate the need to define the relevant market, the courts have not relied on direct evidence of monopoly power to a significant extent, and analytical tools provided by economics are not extensively used in proving or disproving monopoly power, partially because economics does not offer a test for when the degree of market power rises to the level of monopoly power.<sup>50</sup> Relevant market definition is thus regarded as one of the most important tools for regulators to assess harm to competition and consumers, pushing courts to gradually set up applicable rules in a series of case law and formally legislated firstly in DOJ merger guidelines and later in other public documents including the antitrust IP guideline. In retrospect,

<sup>47</sup> Kirkwood, John B., and Robert H. Lande. "The fundamental goal of antitrust: Protecting consumers, not increasing efficiency." *Notre Dame L. Rev.* 84 (2008): 191.

<sup>48</sup> Krattenmaker, Thomas G., Robert H. Lande, and Steven C. Salop. "Monopoly power and market power in antitrust law." *Geo. Lj* 76 (1987): 241.

<sup>49</sup> Walker process Equipment, Inc. v. Food Machinery&Chemical Corp.,382 U.S. 172, 177(1965).

<sup>50</sup> OECD, Roundtable on market definition-note by the delegation of the United States-,June 7,2012, available at <https://www.justice.gov/sites/default/files/atr/legacy/2012/08/22/286279.pdf> .

the earliest use of the term “relevant market” was the 1948 *United States v. Columbia Steel Co.*, but Supreme Court’s first defining relevant market as “composed of products that have reasonable interchangeability for the purposes for which they are produced” based on cross-elasticity of demand analysis, was in the 1956 *Cellophane* case, even though such analysis has been referred to as “Cellophane fallacy” due to inherent logic flaw.<sup>51</sup> The Supreme Court in this case also emphasized that the standard for substitutes is gauged by the purchase of competing products for similar uses considering the price, characteristics and adaptability of the competing commodities. Later, in the influential 1962 *Brown shoe* merger case judge held that modern analysis of competition had to be identified with reference to the product market and the geographic market, which states “the outer boundaries of a product are determined by the reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it”, and the geographic market employed in a given case must “both correspond to the commercial realities of the industry and be economically significant”, requiring a “pragmatic, factual approach” to market definition instead of a formalistic one.<sup>52</sup> A two-dimensional approach focusing on product/service market and geographic market has been set up since then. Then in 1982 Merger guideline cited “the hypothetical monopolist test” to explore the consequence of a small but significant non-transitory increase in price (‘SSNIP’) on a firm’s profitability in order to fairly define relevant market, which is also susceptible to the Cellophane fallacy and impractical issues by the way. Since then the economic logic had entered into US antitrust enforcement, marking the influence of Chicago School thinking. The guideline identified three factors that could constrain market power, namely demand substitutability, supply substitutability and entry. It is quite understandable that the reason for the loss of sales when a hypothetical monopolist raises price may not only lie at consumers’ stopping buying goods or switching to

<sup>51</sup> Id(Cellophane fallacy refers to the failure of Supreme court to consider the possibility that the increased cross-elasticity of demand between cellophane and other flexible wrapping may have been due to the fact that DuPont already was charging a monopoly price); *United States v. E.I.du Pont de Nemours&Co.*, 351 U.S. 377, 380-81(1956); Jamison, Mark. "*Defining Relevant Markets in Evolving Industries*". No. 1317. Working Papers of Warrington College of Business Administration, 2014.

<sup>52</sup> *Brown Shoe Co.v. U.S.*, 370 U.S. 294 (1962).

substitute products in the market (demand side substitutability), but also because of a possibility that some firms in a candidate market will alter their production lines and supply similar products to other consumers in the market at lower prices (supply side substitutability).<sup>53</sup> In practice a number of difficulties arises in identifying market boundaries when applies the tests, such as dealing with intermediate goods markets, determining what is small but significant and how to treat firms that operate in many related markets. Other than the impractical problem, US tends to put priority for demand-side analysis in market definition phrase. The most recent 2010 Horizontal Merger Guidelines' approach in market definition continues to focus on the demand side: "market definition focuses solely on demand substitution factors, i.e. on customers' ability and willingness to substitute away from one product to another in response to a price increase or a corresponding non-price change such as a reduction in product quality or service."<sup>54</sup> Such kind of arrangement may result from the priority of consumer welfare protection in the hierarchy of US antitrust law's purposes. Supply side analysis is further conducted in the following competitive analysis for market participants, market shares, competitive effects and entry etc. Despite various flaws existed in the market definition phrase, a sufficient relevant market investigation would contribute to the precise identification of monopoly power and diminish the risk of error. Courts and agencies then would examine elements including market share, entry barriers etc. to find whether monopoly power exists. Market share may be considered as an important indicator for economic power possession but not decisive anymore. Previously, courts have generally held that a market share of 70 percent is sufficient to establish a *prima facie* case of monopoly power. Also, for market share between 40 and 70 percent based on additional factors, such as strength of competition, entry barriers, and the ability to sustain supra

<sup>53</sup> Geroski, Paul, and Rachel Griffith. "Identifying antitrust markets." *The International Handbook of Competition* (2004): 290-305.

<sup>54</sup> See texts of 2010 Horizontal Merger Guideline at <https://www.justice.gov/atr/file/810276/download>

competitive profits.<sup>55</sup>

In the IP context, monopoly power will officially not be presumed merely from the mere fact of ownership of IP as reiterated in the 1995 Antitrust IP Guideline, but shall be measured through the undertakings' influence in relevant market, which consists of relevant product/geographic market, relevant technology market, or sometimes innovation market. Anyway, the "monopoly" upon a certain patent or manufacturing process should not be easily regarded as equivalent as an economically meaningful market power. But the IP attributes have expanded the conventional two dimensional relevant market analysis framework to four pillars, sometimes not cumulative. With the increasing frequency of the appearance of licensing transaction, collected with or without specific end product, the 1995 Antitrust IP Guideline decided to absorb two new terms "relevant technology market" and "relevant innovation market" and defined them separately as "consisting of intellectual property that is licensed and its close substitutes", and "the research and development directed to particular new or improved goods or processes, and the close substitutes for the research and development." With regards to the methods adopted for identification of technology substitutes, the guideline statutes that agencies will identify the smallest group of technologies and goods over which a hypothetical monopolist of those technologies and goods likely would exercise market power by imposing a SSNIP test. Basically agencies follow the same pattern as used in delineation of relevant market without IP involved. Considering the peculiarities of IPR, for instance the possible difficulty to get confidential royalties data, invisible content and the unpredictable potential competitiveness of new technology, the regulators show an open attitude to take all evidence into mind instead of relying on market share data, because the judgment for deciding whether technologies have similar attributes or price/performance in relevant technology market analysis have been proved to be

<sup>55</sup> Terrell McSweeney, Brian O'Dea, "Data, Innovation, And Potential Competition In Digital Markets-Looking Beyond Short-term Price Effects In Merger Analysis", *CPI Antitrust Chronicle*, February 2018, available at [https://www.ftc.gov/system/files/documents/public\\_statements/1321373/cpi-mcsweeney-odea.pdf](https://www.ftc.gov/system/files/documents/public_statements/1321373/cpi-mcsweeney-odea.pdf)

elusive.<sup>56</sup> Modern licensing transaction has always be conducted through the form of package licensing instead of separate dealing in order to meet the real needs and improve efficiency. Furthermore, the business parties get used to add provisions such as grant-back, cross-licensing, technological assistance to technology contracts, increasing the difficulty for determining the real value of technologies and its substitutes. The ultimate price for licensing transaction or products consequently appears to be problematic. A thorough investigation of competition environment would contribute to the precisely grasp of the precise boundaries of those IPRs. More importantly, whether SSNIP test which basically based on price competition for homogeneous product in traditional industry can be applied in high-end market competition is also doubted, considering the impractical measurement of dynamic competition and disruptive innovation between technologies in different generations. Under such circumstance, sometimes agencies are forced to evaluate and predict the change of potential market situation in a few years, which is always subjective.

On the other hand, innovation market has been used for the evaluation of the effect of a licensing arrangements on competition in developing new or improved products. It can be employed only when the capabilities to engage in the relevant R&D can be associated with specialized assets or characteristics of specific firms, a vague standard hard to be applied too. The innovation market analysis actually didn't focus on competition on a real market but on the effects upon a development of potential new products or technologies. The pharmaceutical sector may be an applicable area whose R&D activities are transparent and need regulatory authorization. When economists hold disagreement upon whether concentrations will deteriorate innovation, agencies have enforcement records against. As a relevant new concept, the argument surrounding competition in innovation is believed to have first arisen in the mid-1970s when the merger of Xerox and Rank-Xerox was challenged by the FTC based on the charge for eliminating competition in the development and

<sup>56</sup> Aziz, Azam H. "Defining Technology and Innovation Markets: The DOJ's Antitrust Guidelines for the Licensing of Intellectual Property." *Hofstra L. Rev.* 24 (1995): 475.

creation of office copiers.<sup>57</sup> That case closed with a consent decree requiring Xerox to license three copier patents on a royalty-free basis and drop several infringement suits. Then the definition of relevant market around R&D activities can be found in the 1984 National Cooperative Research Act which mandated cooperative research be subject to an evaluation of competitive effects “in properly defined, relevant research, development, product, process and service markets.”<sup>58</sup> The 1988 International Guidelines followed this approach in Case 6 on R&D joint ventures, according to which research joint ventures were to be evaluated by the DOJ in R&D markets as well as technology or downstream product markets. Later in the 2010 merger guideline, the concept of “innovation competition” was also introduced and the curtailment of innovation can “take the form of reduced incentive to continue with an existing product-development effort or reduced incentive to initiate development of new products”.<sup>59</sup> But there exists practical problems such as whether market share can be measured in an undefined market, how to rightfully remedy when the patents or know-how have not existed. The FTC and DOJ’s appetite for challenging mergers under an innovation market theory increased during the 1990s but all end with no successful challenges, only resulting in consent decrees that required divestitures or compulsory licensing.<sup>60</sup>

### **2.1.2.3 Competitive assessment for IP refusal conduct**

Generally speaking, government believes that under a rule of reason analysis framework an efficient regime will consider the effects of false positives, false negatives, and the costs of administration in determining the standard to be applied to single-firm conduct under Section 2 of Sherman act. In regard to the regulation of

<sup>57</sup> J.Thomas Rosch, Antitrust Regulation of Innovation Markets, remarks on ABA antitrust intellectual property conference Berkeley, CA, February 5, 2009, available at [https://www.ftc.gov/sites/default/files/documents/public\\_statements/antitrust-regulation-innovation-markets/090205innovationspeech.pdf](https://www.ftc.gov/sites/default/files/documents/public_statements/antitrust-regulation-innovation-markets/090205innovationspeech.pdf)

<sup>58</sup> Rapp, Richard T. "The misapplication of the innovation market approach to merger analysis." *Antitrust LJ* 64 (1995): 19.

<sup>59</sup> The 2010 US Merger Guideline para 6.4.

<sup>60</sup> J.Thomas Rosch, Antitrust Regulation of Innovation Markets, remarks on ABA antitrust intellectual property conference Berkeley, CA, February 5, 2009, available at [https://www.ftc.gov/sites/default/files/documents/public\\_statements/antitrust-regulation-innovation-markets/090205innovationspeech.pdf](https://www.ftc.gov/sites/default/files/documents/public_statements/antitrust-regulation-innovation-markets/090205innovationspeech.pdf)



refusal to license issue, whether in IP context or not, courts and agencies have long express negative opinion through enforcement guidelines, public report or other types of official or unofficial documents in recent decades. As early as 1908, Supreme Court has admitted that a patent holder has no duty to license its IP and that it is not unreasonable or necessarily anti-competitive for a patent owner to refuse to do so.<sup>62</sup> More recently, in *Verizon v. Trinko* (2004), Supreme Court stressed the Sherman act does not restrict the long recognized right of a trade or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal with. Although the court noted that under certain circumstances, a refusal to cooperate with rivals can constitute anti-competitive conduct and violate Section 2, it advised courts to exercise extreme caution in finding such exceptions.<sup>63</sup> The two agencies obviously stay the same position with Supreme Court. The aforementioned 1995 US Antitrust IP Guideline states that even where intellectual property confers market power, such market power does not “impose on the intellectual property owner an obligation to license the use of that property to others,”<sup>64</sup> but “market power could be illegally acquired or maintained, or even if lawfully acquired and maintained, would be relevant to the ability of an intellectual property owner to harm competition through unreasonable conduct in connection with such property.”<sup>65</sup> It did leave the possibility that under certain limited circumstances the enforcement agencies will treat a unilateral refusal to deal in intellectual property as a violation of the antitrust laws. Then in the 2007 US Antitrust IP report collectively released by DOJ and FTC, the agencies have consistently expressed the view that “antitrust liability for mere unilateral, unconditional refusals to license patents will not play a meaningful part in the interface between patents rights and antitrust protection.” In 2008, DOJ alone issued a single firm conduct report expressing identical opinion, but formally withdrew that report only eight months

<sup>62</sup> *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U.S. 405, 429 (1908).

<sup>63</sup> *Id.*

<sup>64</sup> The 1995 US Antitrust IP Guideline, section 2.2.

<sup>65</sup> *Id.*

later.<sup>66</sup> More recently, the 2017 revised antitrust IP guideline followed the routine of that and affirm that “antitrust laws generally do not impose liability upon a firm for a unilateral refusal to assist its competitors, in part because doing so may undermine incentives for investment and innovation.”<sup>67</sup> Besides, reasonable remedies for IP case turn out to be more troublesome than normal objects, especially when among different forms of relief available courts and FTC have chosen to order compulsory license for the sake of recovering market competition that has been closed, whether at a certain level of royalty or totally free, or even divestiture in merger cases.<sup>68</sup> Study has showed that antitrust compulsory licensing consent decrees have been common, where corporations have misused patent rights in restraint of trade.<sup>69</sup>

There existed a hot debated “essential facility doctrine” derived from case law, allowing regulatory bodies to require market participants to provide access to facility that is essential for competition. The undertaking usually owns a facility and itself competes in the downstream market that requires access to the facility as a necessary input. This kind of transaction situation gives rise to a special duty for monopolists to trade in order to avoid market foreclosure, while no certain affirmative conduct has been identified. The essential facility doctrine, as a type of monopolization claim under Section 2 of the Sherman Act, has been articulated as a subset of the so-called “refuse to deal” cases which place limitations on a monopolist’s ability to exclude actual or potential rivals from competing with it.<sup>70</sup> Generally it is believed to originate in a Supreme Court’s 1912 decision in *United States v. Terminal Railroad* and then its application rules are clarified in *MCI Commc’ns Corp v. AT&T*, which will be further illustrated in the following part. Accordingly, Four factors need to be

<sup>66</sup> DOJ, Competition and monopoly: single-firm conduct under section 2 of the Sherman act, available at <https://www.justice.gov/atr/competition-and-monopoly-single-firm-conduct-under-section-2-sherman-act>. This report received critics for conducting overly lenient approach to enforcement, so DOJ withdrew it in 2009. Further details can be found at <https://www.justice.gov/opa/pr/justice-department-withdraws-report-antitrust-monopoly-law>.

<sup>67</sup> The 2017 US Antitrust IP Guideline, section 2.1.

<sup>68</sup> Schlam, Lawrence. "Compulsory Royalty-Free Licensing as an Antitrust Remedy for Patent Fraud: Law, Policy, and the Patent-Antitrust Interface Revisited." *Cornell JL & Pub. Pol'y* 7 (1997): 467.

<sup>69</sup> *Id.*

<sup>70</sup> Pitofsky, Robert, Donna Patterson, and Jonathan Hooks. "The essential facilities doctrine under us antitrust law." *Antitrust LJ* 70 (2002): 443.

met in order to establish a liability under essential facility doctrine: (i) control of the essential facility by a monopolist; (ii) a competitor's inability practically or reasonably to duplicate the essential facility; (iii) the denial of the use of the facility to competitor; and (iv) the feasibility of providing the facility to competitors.<sup>71</sup> In the following case law, such as *Intergraph corp. v. Intel corp. and Eastman Kodak co. v. Image Technical Servs., Inc.*, numerous courts have held that a refusal to deal, coupled with an anti-competitive intent, may support a finding of antitrust liability even absent proof that the withheld input constitutes an facility.<sup>72</sup>

Case law has showed that essential facility applies to essential IPRs as well as tangible infrastructure assets. The court saw no barrier to considering the claim in this context: "Although the doctrine of essential facilities has been applied predominantly to tangible assets, there is no reason why it could not apply, as in this case, to information wrongfully withheld. The effect in both situations is the same: a party is prevented from sharing in something essential to compete. However, currently mainstream US official and academics hold an overwhelming skeptical attitudes towards this theory now. Opponents have argued that granting access to such facilities will reduce incentives for investment and innovation whether with remuneration or not. The famous academic once stated that "the essential facility doctrine is both harmful and unnecessary and should be abandoned", as alternative the doctrine be narrowed to situations of natural monopoly, price-regulated monopoly utilities, and publicly owned facilities provided to firms at subsidized rates"<sup>73</sup>, even though the previous chairman of FTC Pitofsky has argued that "essential facility is a key notion in antitrust law, because denial of access to an essential facility means the monopolist will be immune, at least for some time, to most forms of competition,"<sup>74</sup>and support the cautious approach of most lower courts to apply this principle. Antitrust Modernization Commission in 2007 once recommended that "refusals to deal with

<sup>71</sup> *MCI Commc'ns Corp. v. AT&T Co.*, 708 F.2d 1081 (7<sup>th</sup> Cir.1983).para 1132-33.

<sup>72</sup> *Supra* note 69.

<sup>73</sup> Areeda, Phillip, Herbert Hovenkamp, and John L. Solow. *Antitrust law. Vol. 4. Aspen Publishers*, 2001.

<sup>74</sup> Pitofsky, Robert, Donna Patterson, and Jonathan Hooks. "The essential facilities doctrine under us antitrust law." *Antitrust LJ* 70 (2002): 443.

horizontal rivals in the same market should rarely, if ever, be unlawful under antitrust law, even for a monopolist”, which has been extended to a viewpoint for further abolition of the doctrine in the withdrawn 2008 DOJ single firm conduct report.<sup>75</sup>

### **2.1.3 US case law**

Public enforcement in federal and state level, along with private enforcement constitute US antitrust enforcement system. Despite current agencies expressed negative opinions concerning imposing restrictions upon single firm’s refusal rights, courts in history did gave some conflicting answers to this question.

#### **2.1.2.1 Non IP related unilateral cases**

##### *The 1912 Mississippi Terminal Railroad case*<sup>76</sup>

The Supreme Court in this case founded the essential facility doctrine, even though not in the exact language. The Supreme Court condemned a consortium’s combination of railroad facilities necessary to carry freight traffic or passengers across the Mississippi River at St. Louis, holding that the consortium’s refusal to provide access to third parties constitute both an illegal restraint of trade and an attempt to monopolize. As a solution, the court held that the consortium could continue so long as it either admitted other railroads into the consortium or agreed to charge railroads that were not in the consortium fees that would “place every such [railroad] upon as nearly an equal plane...as that occupied by the [ consortium members].”

##### *The 1919 Colgate case*<sup>77</sup>

This case concerns whether *Colgate*, a company that manufactured soap and toilet articles, refused to sell its products to wholesalers and retailers that did not follow *Colgate*’s uniform price policy. The court specifically stated: “The purpose of

<sup>75</sup> Waller, Spencer Weber, and William Tasch. "Harmonizing essential facilities." *Antitrust Lj* 76 (2009): 741.

<sup>76</sup> United States v. Terminal R.R. Ass'n of St. Louis, 224 U.S. 383, 411 (1912)

<sup>77</sup> United States v. Colgate&Co.,250 U.S.300, 307(1919)

the Sherman Act is to preserve the right of freedom to trade. In the absence of any purpose to create or maintain a monopoly, the act does not restrict the long recognized right of trade or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal.”, which becomes the famous *Colgate* doctrine. This case clearly set the principle that antitrust laws generally do not impose liability upon a firm for a unilateral refusal to assist its competitors.

*The 1983 MCI case*<sup>78</sup>

The plaintiff *MCI* brought litigation to require access to the defendant *AT&T*'s local telephone network, the asserted essential facility in this case, in order to compete in the long-distance telephone market. In finding *AT&T*'s refusal governed by the doctrine, the court stated in general terms: “A monopolist’s control of an essential facility (sometimes called a ‘bottleneck’) can extend monopoly power from one stage of production to another, and from one market into another. Thus the antitrust laws have imposed on firms controlling an essential facility the obligation to make the facility available on non-discriminatory terms.”<sup>79</sup> The 7th circuit further set forth a four-elements test to establish liability and obligation to provide access under essential facility doctrine: “ (1) control of the essential facility by a monopolist; (2) a competitor’s inability practically or reasonably to duplicate the essential facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing the facility.”<sup>80</sup>

*The 1985 Aspen skiing case*<sup>81</sup>

The 10<sup>th</sup> circuit court of Appeals in this case applied essential facility doctrine to a ski resort’s decision to terminate its previous cooperation relationship with a competitor ski resort by stopping including the competitor in a joint ski ticket discount campaigns arrangement. The court in this case recognized the joint ski ticket

<sup>78</sup> *MCI Commc’ns Corp. v. AT&T Co.*, 708 F.2d 1081 (7<sup>th</sup> Cir.1983).

<sup>79</sup> *Id.* para191.

<sup>80</sup> *Id.* para192.

<sup>81</sup> *Aspen Skiing co. v. Aspen Highlands Skiing Corp.*,472U.S.585,604-05(1985).

as an essential facility, holding that the denying to the ticket access was under the intent to monopolize by removing the rival out to the prior profitable business plan. The Supreme Court stated: “ If a firm has been attempting to exclude rivals on some basis other than efficiency, it is fair to characterize its behavior as predatory.

*The 2004 Trinko case*<sup>82</sup>

The Supreme case severally restricted a monopolist’s antitrust duty to deal with rivals, and in the process make clear its negative attitude against the theory of essential facility doctrine. Apparently, the *Colgate* principle was accepted again by court in this case, in which an action alleging that non-compliance with state and federal regulations mandating the sale of services to rivals violated Section 2, was dismissed. The Supreme Court held that existing antitrust standards generally do not require a monopolist to deal with competitors, with the limited exception which the court specifically noted “is at or near the outer boundary of Section 2 liability”. While *Trinko* did not set forth a specific standard detailing the type of conduct that would be subject to antitrust liability, it is worth noting that the agencies proposed in an amicus brief in *Trinko* that, when “the plaintiff asserts that the defendant was under a duty to assist a rival, ...conduct is not exclusionary or predatory unless it would make no economic sense for the defendant but for its tendency to eliminate or lessen competition.”<sup>83</sup>

**2.1.2.2 IP related cases**

*The 1994 Data general case*<sup>84</sup>

*Data general*, a manufacturer of computers and service of its own product, refused to provide access to its copyrighted diagnostic software to firms competing in the maintenance and repair of *Data general*’s products. The first circuit built a legality presumption“ A party’s desire to exclude others from the use of its protected work is a presumably valid business justification”, while admitting “cases in which

<sup>82</sup> Verizon Commc’ns, Inc. v. Law Offices of Curtis v. Trinko, LLP. 540 U.S. 398,407-11,415(2004).

<sup>83</sup> Further details available at <http://www.ftc.gov/os/2003/05/trinkof.pdf>

<sup>84</sup> Data General Corp. v. Grumman Systems Support Corp., 36 F.3d 1147(1<sup>st</sup> Cir. 1994)

antitrust liability is unlikely to frustrate the objectives of the copyright act are certainly rare”.<sup>85</sup> It is mentioned the presumption could be rebutted by evidence that the monopolist had acquired the IP protection in an unlawful manner.

*The 1999 Intel case*<sup>86</sup>

The plaintiff *Intergraph*, a computer work station maker, sued the defendant Intel for refusal to provide the necessary proprietary information about the microprocessor, pre-release chip samples, and technical services, thus violating Sherman Act. The first ground for such accusation was based on essential facility doctrine, in which *Intergraph* regards the information or benefits from *Intel* as essential facility to compete in workstation market. However, the Court holds the essential facility theory does not depart from the need for a competitive relationship, so that a monopolist can extend its monopoly to the downstream market by refusing access to the facility it controls. *Intergraph* also contends *Intel*’s refusal conduct constitutes a refusal to deal, whether or not the criteria of essential facility is met. Such argument likely fails because in the absence of any purpose to create or maintain a monopoly, the Sherman act does not restrict a trade’s right to exercise discretion to choose business partners. The court of appeals for the Federal Circuit ruled in *Intel*’s favor on the grounds that Intel was not a competitor to the plaintiff *Intergraph* in the market in which Intel was alleged to have monopoly power, and there could be no anti-competitive intent. The existence of anti-competitive intent for refusing to license has been recognized as an alternative test for imposing mandatory access to IPR.

*The 1992 Kodak case*<sup>87</sup>

The only appellate decision to impose antitrust liability for a unilateral refusal to sell or license patented or copyrighted material based on the defendant’s anti-competitive intent is the Ninth Circuit’s *Kodak* decision. The pretext standard which permits inquiry into the IPR holder’s subjective intent in refusing to deal with a

<sup>85</sup> Id. 1187.

<sup>86</sup> *Intergraph Corp v. Intel Corp.*, 195 F.3d(Fed.Cir,1999).

<sup>87</sup> *Eastman Kodak Co. v. Image Technical Serves.,Inc.*,504 U.S.451,483n.32(1992)

competitor is notoriously set.

The lawsuit starts from the defendant *Kodak*'s, together and its contracted original equipment owners, refusal to continue to sell patented replacement parts to independent service organizations ('ISOs') in the aftermarket for micrographic equipment and high-volume copiers sold by *Kodak* itself. Seventeen of these ISOs brought suit on the monopolization and attempted monopolization grounds defined in section 2 of Sherman law that *Kodak*'s refusal to deal was intended to leverage its monopoly over parts to the service market, and a section 1 claim for tying and conspiracy claims. *Kodak* asserts that the protection of patented and copyrighted parts is a valid business justification for its anti-competitive conduct.

*Kodak* was recognized as having no market power in selling copiers, but was accused of using its control over *Kodak* parts to monopolize the market for servicing its copiers. In supporting Ninth circuit's overruling of a lower court's summary judgment in favor of *Kodak*, the Supreme Court stated that the Court has held many times that power gained through some natural or legal advantage such as a patent, copyright or business acumen can give rise to antitrust liability if "a seller exploits his dominant position in one market to expand his empire into the next". The court concluded that the facts of the case showed that *Kodak*'s assertion of intellectual property rights was pretextual, that the evidence established that the real purpose of the license refusal was to monopolize the service market, and that where the purpose is to eliminate competition rather than enforce intellectual property rights, the presumption of legality can be overcome.

#### *The 2000 Xerox case*<sup>88</sup>

While in *Xerox*, the Federal circuit affirmed a district decision for refusing to impose antitrust liability for IPR holders' right to deal with competitors, but it purported to recognize several exceptions, holding that "in the absence of any indication of illegal tying, fraud on the Patent and Trademark Office, or sham

<sup>88</sup> CSU, L.L.C. v. Xerox Corp. (In re Independent Serv. Orgs. Antitrust Litig.), 203 F.3d 1322.



litigation, the patent holder may enforce the statutory right to exclude others from making, using, or selling the claimed invention free from liability under the antitrust laws.” Similarly, with regard to copyrights, the court “rejected *CSU*’s invitation to examine *Xerox*’s subjective motivation in asserting its right to exclude the copyright laws for pretext, in the absence of any evidence that the copyrights were obtained by unlawful means or were used to gain monopoly power beyond the statutory copyright granted by Congress.”<sup>89</sup> It is clear that the federal circuit opposite to the ninth circuit’s “intent” standard.

## **2.2 EU**

### **2.2.1 Overview**

#### **2.2.1.1 TFEU 102**

Currently, the basic competition rules have been laid in Article 101 to 109 of the Treaty on the Functioning of the European Union (‘TFEU’)<sup>90</sup>, in order to realize the goal of establishing a highly competitive social market economy in EU single market which enshrined in Article 3(3) of the Treaty on the European Union.<sup>91</sup> EU competition policy covers all forms of anti-competitive behavior, merger control, and public activities such as state aid that distorts competition. The term of antitrust in EU refers specially to concerted anti-competitive behavior and abuse of a dominant position, which are defined in Article 101 prohibiting agreements between two or more independent market operators which restrict competition, and Article 102 regulating firms that hold a dominant position in a given market but however have abused that position, respectively. The European Commission (‘EC’) has issued regulations, and various forms of non-regulatory documents such as notices, block exemptions and best practices analysis in order to increase transparency and predictability. Currently EC only published one in force secondary legislation

<sup>89</sup> Id.

<sup>90</sup> See text of TFEU in <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A12012E%2FTXT>

<sup>91</sup> See text of TEU in <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A12012M%2FTXT>

concerning the application of TFEU 102, named the Guidance on the Commission's enforcement priorities in applying Article 82 (now "Article 102") of the EC Treaty to abusive exclusionary conduct by dominant undertakings ('The 2009 EU Guidance Paper')<sup>92</sup> and an informal Discussion Paper ('The 2005 EU Discussion Paper')<sup>93</sup>, albeit both general and IPR specific regulations and guidelines have been released for the application of Article 101 TFEU.<sup>94</sup> Still, the 101 related guidelines are without prejudice to the possible parallel application of article 102 to licensing agreements, and somehow provides hint for the understanding of certain important concepts such as relevant technology or innovation market. For clarity, consistency principle also requires that Article 101(3), which provides application exemption to certain categories of agreements, be interpreted as precluding any application of the exception rule to restrictive agreements that constitute an abuse of a dominant position.<sup>95</sup> Collectively, these secondary legislations can provide insights for the understanding of technological relevant market power and licensing practices in EU jurisdiction.

EC is responsible for public enforcement of competition policy, within which the Directorate-General for Competition ('DG COMP') has the authority to elaborate competition policy, investigate and directly issue decisions when it considered necessary. Commission decisions can be appealed to the General Court ('GC'), the points of law of whose judgments can be appealed to the Court of Justice ('CJEU') according to Article 256 TFEU. Courts of EU member states can also seek for

<sup>92</sup> Communication from Commission-Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings. See text at [https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52009XC0224\(01\)](https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52009XC0224(01))

<sup>93</sup> DG Competition discussion paper on the application of Article 82 of the Treaty to exclusionary abuses, available at <https://ec.europa.eu/competition/antitrust/art82/discpaper2005.pdf>

<sup>94</sup> Commission Regulation 316/2014 on the application of article 101(3) TFEU to categories of technology transfer agreements ('the Technology Transfer Block Exemption Regulation' or 'the 2014 EU TTBER'); Commission Guidelines on the application of article 101 TFEU to technology transfer agreements, 2014 ('the 2014 EU Technology Transfer Guidelines'); Commission Regulation 1217/2010 on the application of article 101(3) to categories of research and development agreements ('the 2010 EU R&D BER'); Commission Regulation 1218/2010 on the application of article 101(3) to categories of specialization agreements ('the 2010 EU Specialization BER'); Commission Guidelines on the applicability of article 101 TFEU to horizontal cooperation agreements, 2011('the 2011 EU horizontal co-operation Guideline')

<sup>95</sup> The 2014 EU Technology Transfer Guideline, para179.

preliminary rulings on matters of EU law as defined in Article 267 TFEU. Since the issuance of Regulation 1/2003 on the implementation of the rules on competition laid down in articles ('Regulation 1/2003'), both commission and national competition authorities ('NCA') of EU member states can directly apply EU competition rules.<sup>96</sup> While public enforcement acts as a key driver of antitrust enforcement, a parallel model has been set up which operates between public enforcers (Commission and NCAs) and private parties seeking remedies in the national courts of member states. A series of landmark cases adjudicated by courts, either GC or CJEU, contribute to the uniform grasp of the meaning of important concepts inside the single EU market. But the private enforcement part appears to be relatively weak compared with US. EC has also been particularly endeavoring to issue facilitate private enforcement, promoting the increase of case numbers.<sup>97</sup>

#### **2.2.1.2 IP protection, compulsory licensing and antitrust**

The source of European intellectual property law can be divided into three main species: the international convention, EU level first and secondary legislation, and national level regulations. EU is a member of WTO and WIPO, and party to international agreements on protection of IPR, such as Paris Convention, Berne Convention, and TRIPS Agreement. Inside the European territory, however, even though the enforcement of IP rights across Europe has been harmonized to some extent by the EU Directive 2004/48, IPR protection appears to be fragmented inside EU area because of a lack of unitary centralized powerful legislation, and enforcement system. Until now, the European IPR protection is mainly dependent on the enforcement of member state's domestic laws and agencies, with influence from international conventions and EU treaties, while EU regulates competition among the territories of the member states.

<sup>96</sup> Council Regulation No 1/2003 of 16 December 2003 on the implementation of the rules on competition laid down in Article 81 and 82 of the Treaty. See texts at <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A32003R0001>

<sup>97</sup> Wils, Wouter PJ. "Private Enforcement of EU Antitrust Law and its Relationship with Public Enforcement: Past, Present and Future." *World Competition* 40.1 (2017): 3-45.

The existing European patent system is founded on two international conventions, the 1973 European Patent Convention ('EPC') aiming at establishing a single, centralized procedure for granting patents throughout Europe, and the 1963 Strasbourg Convention on the unification of Certain Points of Substantive Law on Patents for Invention ('Strasbourg Convention') providing uniform procedural and substantive requirements for obtaining patents, specific EU legislation such as EU regulations and national level laws. Although the first attempt to create a unitary patent system through the 1975 Community Patent Convention failed, it created a strong incentive for member states to adapt their national laws to the envisaged European standards, even without being legally obliged to do so. European Patent Office ('EPO'), the executive body of the European Patent Organization which is not an organ of EU, has also been built up with its main branches in Munich and the Hague, but without the authority to hear infringement actions or enforce a patent-holder's rights in any country.<sup>98</sup> Undergoing reform efforts have been made to create a European Patent with unitary effect ('EPU', also as the unitary patent)<sup>99</sup> in all member states of the European Union that have adopted the reform package, as well as a unified patent court ('UPC')<sup>100</sup>, which will be competent to issue judgments with unitary effects across all participating jurisdictions. Concerns have been expressed throughout the reform process, such as (i) whether UPC will reduce the fragmentation and complexity inherent the current European patent system, in light of the fact that not all EU member states are participating in the UPC, and that national courts will share jurisdiction with the UPC for a transitional period of at least 7 years and (ii) whether the reforms will actually lower the costs for judicial proceedings in practice-thereby creating greater access to patent enforcement services, especially for

<sup>98</sup> Coyle, Patrick. "Uniform patent litigation in the European Union: an analysis of the viability of recent proposals aimed at unifying the European patent litigation system." *Wash. U. Global Stud. L. Rev.* 11 (2012): 171.

<sup>99</sup> The EU regulations establishing the Unitary Patent system(No. 1257/2012 and No.1260/2012) ('The UP regulation') entered into force on 20 January 2013, but will only apply as from the date of entry into force of the UPC Agreement. Further information available at <https://www.epo.org/law-practice/unitary/unitary-patent/start.html>

<sup>100</sup> Until 2018 December, 18 ratifications have been gotten for the effectiveness of the UPC agreement to establish a unitary patent court at European level, yet currently still stuck at the German Constitutional Court. Further information available at <https://www.unified-patent-court.org/news/status-unified-patent-court-project-19-december-2018>

small and medium size enterprises ('SMEs')-without creating incentives for welfare-reducing litigation activities.<sup>101</sup> As for compulsory licensing regulation reliant upon competition concerns, it turns out the substantive authority has been reserved to national law level, regardless of the unitary law reform. Recital (10) of the UP regulation clearly states that European patents with unitary effect should be governed by the laws of the participating Member States as regards their respective territories.<sup>102</sup> Some member countries have also maintained special provisions for granting compulsory license on anti-competitive grounds. In Germany, according to Section 24(4) of Patent Act, a compulsory license may be granted for a patented invention in the field of semiconductor technology only when this is necessary to eliminate those anti-competitive practices pursued by the proprietor of the patent which have been established in court or administrative proceedings. The following Section 24(6) requires that the extent and duration of compulsory license be limited to the purpose for which the compulsory was granted, and equitable remuneration should be given to the proprietor of the patent.<sup>103</sup> Likewise, Art.L.613-3 (iii) IPC of French Intellectual Property Code has directly mentioned the precondition for issuing compulsory license order in the case of anti-competitive behavior recorded in a final court or administrative decision.<sup>104</sup> Records of these nations both show that case law is very limited on this topic.

The current 10 copyright directives mostly dealt with specific, limited issues, typically where technical or economic developments have created an obvious and urgent need for uniform regulation in the Member States.<sup>105</sup> The EU Intellectual Property Office ('EUIPO') established in 1994 manages the EU Trade mark and design rights, the observatory on infringements of intellectual property rights and the

<sup>101</sup> Cremers, Katrin, et al. "Patent litigation in Europe." *European journal of law and economics* 44.1 (2017): 1-44.

<sup>102</sup> See texts of the UP regulation

at:<https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:361:0001:0008:EN:PDF>

<sup>103</sup> EPO, Compulsory licensing in Europe (A country-by-country overview, available at [http://documents.epo.org/projects/babylon/eponot.nsf/0/8509F913B768D063C1258382004FC677/\\$File/compulsory\\_licensing\\_in\\_europe\\_en.pdf](http://documents.epo.org/projects/babylon/eponot.nsf/0/8509F913B768D063C1258382004FC677/$File/compulsory_licensing_in_europe_en.pdf), p. 29.

<sup>104</sup> Id., p. 43.

<sup>105</sup> Kur, Annette, Thomas Dreier, and Stefan Luginbühl. *European intellectual property law: text, cases and materials*. Edward Elgar Publishing, 2019.

orphan works database, which cooperated closely with the European Commission as a decentralized EU agency. Meanwhile, attempts have also been made to reduce regulation fragmentation in trade secrets and Directive 2016/943 ('The 2016 EU Trade secret Directive') was released, the aim of which is to reach a partial harmonization through a minimal standard of protection, leaving room for Member States to provide for more far-reaching protection.

## **2.2.2 IP related abusive analysis**

### **2.2.2.1 General principle**

With regard to the relationship between licensing IPR and competition law, the preamble of the 2014 EU Technology Transfer Guideline clearly stated that IPR is not immune from competition law intervention and the two should work in a similar direction insofar as they share the same basic objective of promoting consumer welfare and an efficient allocation of resources.<sup>106</sup> EU competition law recognizes that the licensing of IPRs can positively stimulate competition by boosting access to IPRs throughout the market, at the same time certain business practices involving licensing of IPRs of which may be harmful for competition.<sup>107</sup> It has also been long established that there is no assumption that intellectual property rights and license agreements as such give rise to competition concerns.<sup>108</sup> The EU analytical framework will be flexible to take due account of the dynamic aspects of technology rights licensing.

From a more general perspective, a dominant undertaking in EU is entitled to compete on the merits, but has a special responsibility not to allow its conduct to impair genuine undistorted competition on the common market, in order to protect competitive process instead of simply protecting competitors, and create an integrated

<sup>106</sup> The 2014 EU Technology transfer Guideline, para. 7.

<sup>107</sup> OECD, Licensing of IP rights and competition law -Note by the EU, published at June 6 2019, available at [https://one.oecd.org/document/DAF/COMP/WD\(2019\)52/en/pdf](https://one.oecd.org/document/DAF/COMP/WD(2019)52/en/pdf)

<sup>108</sup> The 2014 EU Technology transfer Guideline, para. 9.

internal market.<sup>109</sup> The EU 2009 Guidance Paper, with an effects-based approach, makes clear that the aim of EU enforcement against exclusionary conduct is to curb anti-competitive foreclosure, which refers to a situation where effective access of actual or potential competitors to supplies or markets is hampered or eliminated as a result of the conduct of the dominant undertaking whereby the dominant undertaking is likely to be in a position to profitably increase prices.<sup>110</sup>

#### **2.2.2.2 Dominance and IP**

A dominant market position under EU law is such that a firm or group of firms would in a position to behave to an appreciable extent independently of its competitors, customers and its consumers<sup>111</sup>, while market power is the ability to maintain prices above competitive levels or to maintain output in terms of product quantities, product quality and variety or innovation below competitive levels for a not insignificant period of time.<sup>112</sup> The degree of market power normally required for a finding of infringement under Article 101(1) is less than the degree of market power required for a finding of dominance under Article 102.<sup>113</sup> A typical EU abusive case analysis also starts with assessing whether the undertaking concerned is dominant in the relevant market, which includes relevant product, relevant technology market and geographic market or other markets if related, based on the analysis of demand substitutability, supply substitutability and potential competition that consisting the three main competitive constraints.<sup>114</sup> According to the 1997 EU Relevant Market Notice, the relevant product market “comprises all those products and/or service

<sup>109</sup> The 2009 EU Guidance Paper, para. 1.

<sup>110</sup> The 2009 EU Guidance Paper, para. 19.

<sup>111</sup> Case 85/76, *Hoffmann-la roche & Co. V. Commission*, [1979] ECR 461, para 39 (citing: A dominant position does not preclude some competition...but enables the undertaking which profits by it, if not to determine, at least to have an appreciable influence on the conditions under which that competition will develop); Case 27/76, *United Brands Company and United Brands Continental v. Commission* [1978] ECR 207, para 65 (citing: it relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by giving it the power behave to an appreciable extent independently of its competitors...)

<sup>112</sup> The 2014 EU Technology Transfer Guideline, para. 15.

<sup>113</sup> *Id.*

<sup>114</sup> Commission Notice on the definition of relevant market for the purposes of Community competition law (‘the 1997 EU Relevant Market Notice’), available at <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A31997Y1209%2801%29>.

which are regarded as interchangeable or substitutable by the consumers, by reason of product's characteristics, their prices and their intended use.”<sup>115</sup> The relevant geographic market is referred to as “the area in which the undertakings concerned are involved in the supply and demand of products and services, in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different”.<sup>116</sup> Demand substitution, as the core element of market analysis, constitutes the most immediate and effective disciplinary force on the suppliers of a given product, in particular in relation to their pricing decisions.<sup>117</sup> In contrast to US, it is notably that EC incorporate supply-side substitution in the market definition phrase of competitive analysis rather than in the market analysis phase, whose influence is still unclear. EC also puts precondition upon such evaluation, stating “supply substitutability may also be taken into account when defining markets in those situations in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy. This requires that suppliers be able to switch production to the relevant product and market them in the short term.”<sup>118</sup> As for the third source of competitive constraints, potential competition is not taken into account when defining markets, since the conditions under which potential competition will actually represent an effective competitive constraint depend on the analysis of specific factors and circumstances related to the conditions of entry.<sup>119</sup> Consequently, it should be considered later to evaluate whether new entry will effect the dominant position in the relevant market.

The relevant technology market consists of the license technology rights and its substitutes, which are regarded by the licensees as interchangeable with or substitutable by reason of the technologies' characteristic, their royalties and their intended use. <sup>120</sup>One or more relevant technology market may be considered but the

<sup>115</sup> The 1997 EU Relevant Market Notice, para.7.

<sup>116</sup> The 1997 EU Relevant Market Notice, 8.

<sup>117</sup> The 1997 EU Relevant Market Notice, 13.

<sup>118</sup> The 1997 EU Relevant Market Notice, 20.

<sup>119</sup> The 1997 EU Relevant Market Notice, 24.

<sup>120</sup> The 2014 EU Technology Transfer Guideline, para. 22.



calculation of relevant technology market may be difficult because of a lack of clear information of royalties. In addition to the practical issue, the actual royalty income may also seriously underestimate a technology's position on the market in the event that royalty payments are produced as a result of cross licensing or of the supply of tied products.<sup>121</sup> Alternatively, the approach to calculate market shares on the technology market on the basis of sales of products incorporating the licensed technology on downstream product markets, as its "footprint", can be considered as a fair alternative which in general reflect the market position of the technology well, despite there exists practical difficulties for this method too.<sup>122</sup> The geographic market of the relevant technology market can differ from the geographic market of the relevant product market.<sup>123</sup>

The Commission notices that some license agreements may affect competition in innovation, but it tends to confine itself to examining the impact of the agreement on competition within existing product and technology markets.<sup>124</sup> In case of delaying the introduction of improved products or new products, innovation may be seen as source of potential competition when assessing the impact of the agreement on product markets and technology markets. However, when the licensing agreements affects innovation aiming at creating new products and where it is possible at an early stage to identify research and development poles, it can be analyzed whether there will be sufficient number of competing R&D poles left for effective competition in innovation to be maintained.<sup>125</sup> A similar concept "competition in innovation" has been adopted in the 2011 EU Horizontal guideline, which can provide hints for enforcement against abusive behavior. Unless the identification of innovation R&D process is not allowed, EC would acknowledge the necessity to access R&D poles for measurement of competition in innovation, especially in industries such as pharmaceutical sector in which the innovative efforts can be identified at early

<sup>121</sup> Id, para. 87.

<sup>122</sup> Id, paras. 25,87,88..

<sup>123</sup> Id, para. 89.

<sup>124</sup> Id, para. 26.

<sup>125</sup> Id.

stage.<sup>126</sup> The Commission proposes several aspects to be taken into account for assessment: the nature, scope and size of any other R&D efforts, their access to financial and human resources, know-how/patents, or other specialized assets as well as their timing and their capabilities to exploit possible results.<sup>127</sup>

Market share is regarded as a first indication of the firm's market position, along with other indicators such as the market entry barrier, countervailing buyer power, the oversize and strength of the company and its resources and the extent to which it is present at several levels of the supply chain.<sup>128</sup> Market share alone doesn't support a finding of a dominant position. It is necessary to examine sources of competition restraints to determine whether the dominant undertaking can increase price or reduce output without losing significant market shares. However, the Commission is of the opinion that a low market share, i.e., a market share below 40% which can be labeled a "soft safe harbor", is actually a fairly good proxy for determining the absence of substantial market power.<sup>129</sup> But in the case of technology market, as aforementioned, market shares may not always be a good indicator of the relative strength of the technology in question and the market share figures may differ considerably depending on the different calculation methods.<sup>130</sup>

### **2.2.2.3 Regulation of abusive refusal to license**

The Commission likewise shows its position in the 2009 EU Guidance Paper, stating an undertaking, whether dominant or not, should have the right to choose its trading partners and to dispose freely of its property, but leaving the space for competition law intervention in exceptional circumstances. Regarded as one kind of refusal to supply, the practice of refusal to license IPR includes when the license is necessary to provide interface information, or refusal to grant access to an essential

<sup>126</sup> The 2011 EU Horizontal Guideline, para 119-122.

<sup>127</sup> Id.

<sup>128</sup> EC, Antitrust procedures in abuse of dominance (Article 102 TFEU cases), available at [https://ec.europa.eu/competition/antitrust/procedures\\_102\\_en.html](https://ec.europa.eu/competition/antitrust/procedures_102_en.html)

<sup>129</sup> Basedow, Jürgen, and Wolfgang Wurmnest, eds. "Structure and Effects in EU Competition Law: Studies on Exclusionary Conduct and State Aid." *Vol. 47. Kluwer Law International BV*, 2011.p43.

<sup>130</sup> The 2014 EU Technology Transfer Guideline, para. 162.

facility or a network.<sup>131</sup> While the 2005 EU Discussion Paper has a full section on refusal to license IPR, this equal approach has been reflected in the 2009 EU Guidance Paper, where refusal to license IPR is subsumed into the general discussion on refusal to deal.<sup>132</sup>

The commission will consider the refusal as problematic and give enforcement priority when: (i) the refusal relates to a product or service that is objectively necessary to be able to compete effectively on a downstream market; (ii) the refusal is likely to lead to the elimination of effective competition on the downstream market, and (iii) the refusal is likely to lead to consumer harm.<sup>133</sup> A line of cases have established that in “special circumstances”, such as (1) if the supplier holds a monopoly in the raw material; (2) there has been a lasting relation which is interrupted; (3) the buyer is seeking to introduce a new product on a secondary market for which there is consumer demand and no objective reasons for a refusal, a dominant company may be required to supply on reasonable terms.<sup>134</sup> These principles are derived first by CJEU in the *Magill*, *Bronner*, *IMS*, and *Microsoft* cases which will be elaborated in following section. Unlike US, dominant undertaking in EU bears special responsibility to not distort competition. The current EU approach to detect abuse of dominance is set in the 1983 European court of Justice’s *Michelin I* decision, in which the court states that “a finding that an undertaking has a dominant position...simply means that, irrespective of the reasons for which it has a dominant position, the undertaking concerned has a special responsibility not to allow its conduct to impair genuine undistorted competition in the common market.”

While agencies or plaintiff holds the burden of proof to prove the existence of the circumstances that constitutes an infringement, it is for the dominant undertaking to put up with evidence to claim its justification. The 2009 EU Guidance Paper makes it clear that claims by the dominant undertaking, such as refusal to supply is necessary

<sup>131</sup> The 2009 EU Guidance Paper, para. 78.

<sup>132</sup> Jiang, Tiancheng. China and EU Antitrust Review of Refusal to License IPR. *Vol. 3. Maklu*, 2015.

<sup>133</sup> The 2009 EU Guidance Paper, para. 81.

<sup>134</sup> Lidgard, Hans Henrik. "Refusal to Supply or to License." *Europarättslig Tidskrift* 4 (2009): 694-712.

to recover investment, or the imposition of duty to deal will negatively harm its innovation, will be considered as justification by the EC when the undertaking could bear the burden of proof<sup>135</sup>, even though unclear what kind of proof it is. The previous situation for supply of essential input will also be taken into consideration for the assessment of anti-competitive effects. More generally speaking, when facing justification claims put forward by dominant undertaking, the Commission will assess whether the conduct in question is indispensable and proportionate to the goal allegedly pursued by the dominant undertaking. Several typical justifications have been mentioned in guidelines and case law. The first type of justification would be the “objective necessity defense”, where the dominant company is able to show that the otherwise abusive conduct is actually necessary conduct on the basis of objective factors external to the parties involved, for instance because of reasons of safety or health related to the dangerous nature of the product in question, and in particular external to the dominant company. The second “efficiency defense” must be able to demonstrate that its conduct produces efficiency which outweigh the negative effects upon competition, with a sufficient degree of probability and on the basis of verifiable evidence.<sup>136</sup> Four cumulative conditions, also mentioned in the 2004 EU 101(3) Guideline, need to be fulfilled for the general assertion of efficiency defense: (i) the efficiencies have been, or are likely to be, realized as a result of the conduct, including technical improvements in the quality of goods, or a reduction in the cost of production or distribution; (ii) the conduct is indispensable to the realization of those efficiencies; (iii) the likely efficiencies brought by the conduct outweigh any likely negative effects on competition and consumer welfare in the affected markets; (iv) the conduct does not eliminate effective competition. Thirdly, protecting commercial interests would be another option. It is not appropriate for an undertaking in a dominant position to take, on its own initiative, measure intended as retaliation against commercial interests which it considers unlawful or unfair. It is noted that theoretically there exists consistency problem between TFEU Article 101(3) and

<sup>135</sup> The 2009 EU Guidance Paper, para. 89-90.

<sup>136</sup> The 2009 EU Guidance Paper, para28.

TFEU Article 102. It is possible if the conduct of a dominant company generates efficiencies and provided that all the other conditions of Article 81(3) are satisfied, it may be exempted from being classified as an abuse.<sup>137</sup>

## **2.2.2 EU case law**

### **2.2.2.1 Non IP related precedents**

#### *The 1978 United Brands case*<sup>138</sup>

In this case, the Commission held that United Brands had abused its dominant position on the banana market by refusing to continue supplying its *CHiQuita* banana to its Danish ripener/distributor, Oelsen, in response to Oelsen taking part in an advertising and promotion campaigns for “Dole” bananas. Oelsen was not under an exclusive purchasing obligation, but United Brands argued that Oelsen had sold fewer and fewer *CHiQuitas* in comparison to Dole, and had taken less trouble in ripening them. Without denying United Brands’ allegations, the CJEU upheld the finding that the refusal to supply infringed Article 102.

#### *The 1988 Volvo case*<sup>139</sup>

The car manufacturers in this case refused to license independent parts producers its design rights covering car body panels, which were then recognized in the UK but not elsewhere. In the judgment, after recognizing member countries’ authority to determine the scope of design copyright under national law<sup>140</sup>, the court reasoned that even accompanied with a reasonable royalty a license for the supply of products incorporating the design would lead to the proprietor thereof being deprived of the substance of his exclusive right<sup>141</sup>, and that a refusal to grant such a license cannot in itself constitute an abuse of a dominant position, only if it involves certain abusive

<sup>137</sup> Peepkorn, Luc. "Commission publishes discussion paper on abuse of dominance." *Competition policy newsletter* 1 (2006): 4-7.

<sup>138</sup> Case 27/76, *United Brands v. Commission* EU:C:1978:22.

<sup>139</sup> Case 238/87, *AB Volvo v. Erik Veng (UK) Ltd.*, [1988] ECR 6211.

<sup>140</sup> *Id.* p7.

<sup>141</sup> *Id.* p8.

behavior.<sup>142</sup>

*The 1994 Commercial Solvents case*<sup>143</sup>

Commercial solvents dominated the supply of a raw material used in the production of ethambutol, an anti-tuberculosis drug. After determining to produce ethambutol itself, it decided to stop supplying the raw material for an existing customer who has no alternative resource to obtain this material, thereby leveraging its dominant position in the input market to the downstream market. The court concluded that “an undertaking which has a dominant position in the market in raw materials and which, with the object of reserving such raw material for manufacturing its own derivatives, refuses to supply a customer, which is itself a manufacturer of these derivatives, and therefore risks eliminating all competition on the part of this customer, is abusing its dominant position within the meaning of Article 86 (now Article 102),”<sup>144</sup> and requested this company to resume the original business.

*The 1998 Oscar Bronner case*<sup>145</sup>

A small scale newspaper undertaking *Oscar Bronner* required its competitor *Mediaprint* with a high market share to include its newspaper into *Mediaprint*’s delivery scheme, which accordingly has no economic reasonable replacement, but got a negative answer. The court subsequently held that there would be an abuse where: 1) the refusal is likely to eliminate all competition in the daily newspaper market on the part of the person requesting the service; 2) the service in itself should be indispensable in carrying on that person’s business, inasmuch as there is no actual or potential substitute in existence for the home-delivery scheme, and 3) such refusal should be incapable of being objectively justified.<sup>146</sup> CJEU in this case emphasizes the need to carefully consider the impact that intervention may have on incentives to invest.

<sup>142</sup> Id. p9.

<sup>143</sup> Cases 6-7/73, *Commercial Solvents v. Commission*, [1974] ECR 223.

<sup>144</sup> Id. p25.

<sup>145</sup> Case C-7/97, *Oscar Bronner GmbH.Co.KG v. Mediaprint Zeitungs-und Zeitschriftenverlag GmbH.Co.KG e.a.*, (1998) ECR I-07791.

<sup>146</sup> Id. p40.

#### 2.2.2.2 IP related cases

##### *The 1995 Magill case*<sup>147</sup>

This case rooted in three television companies, RTE, ITV and BBC's refusal to provide weekly television guide information, which was protected by copyright, to Magill who had been attempting to publish a new comprehensive weekly television guide. The court in this case stated that the exercise of exclusive right by the proprietor might, in exceptional circumstances, involve abusive conduct.<sup>148</sup> Those exceptional circumstances are: the listing information was indispensable to Magill to publish a TV guide covering all channels; the refusal prevented the appearance of a new product with potential consumer demand; the dominant firm reserved to themselves the secondary market of weekly TV guides by excluding all competition on the market; and finally, there was no objective justification for such refusal.<sup>149</sup>

##### *The 2004 IMS case*<sup>150</sup>

In the litigation originally happened in Germany, the plaintiff IMS health specialized in supplying the pharmaceutical industry with sales data and consulting services, by taking advantage of a pharmacy data base with brick structure, developed on the foundation of German postal codes. NDC, a new comer, found it impossible to circumvent IMS data base to enter into the market, and decided to use IMS's copyrighted data base even though without consent from IMS. So IMS brought the copyright infringement litigation against NDC. The CJEU deemed that given IMS brick structure had constituted a *de facto* market standard, a non-discriminatory access was essential to guarantee the normal competition process.

##### *The 2007 Microsoft case*<sup>151</sup> and *2012 Microsoft Non-Compliance case*<sup>152</sup>

EC in 2004 found that Microsoft had abuse its dominant position by leveraging

<sup>147</sup> Cases C-241/91 P and C-242/91P, Radio Telefis Eireann(RTE) and Independent Television Publications Ltd(ITP)v. Commission of the European Communities, (1995)ECR I-00743.

<sup>148</sup> Id, para50.

<sup>149</sup> Id. Para 54, 56, 57.

<sup>150</sup> Case C-418/01, I.M.S. Health GmbH.co. v. N.D.C. Health GmbH.co., (2004)ECR I-05039.

<sup>151</sup> Case T-201/04 Microsoft v. Commission[2007]ECR II-3601.

<sup>152</sup> Case T-167/08 Microsoft v. Commission[2012]EU:T:2012:323

its near monopoly in the market for PC operating system ('OS') onto the markets for work group server operating systems and for media players, based on two charges put up which are deliberately restricting interoperability between Windows PCs and non-Microsoft work group servers, and by tying its Windows Media Player ('WMP').<sup>153</sup> EC had ordered the undertaking to make the information available to its competitors on reasonable and non-discriminatory terms and offering a version of Windows for client PCs which does not include Windows Media Player. The GC upheld the decision, except for the establishment of a monitoring trustee. It has allegedly been criticized for following the ordoliberal form-based approach and relies heavily on structural presumptions.<sup>154</sup>

The case started with a 1998 complaint from a company named Sun Microsystems to EC against Microsoft's refusal to provide interoperability information for competition in work group server operating system in Windows 2000 operating system, and later expanded by EC to include a charge of tying Windows Media Player to the operating system. EC concluded Microsoft has dominant position in the market for work group server operating system after assessment of Microsoft's high market shares, the barriers to entry to the market and the links between client PC operating system market and the work group server system market. Indeed, Microsoft was found to hold a dominant position on client PC operating system with more than 90% market share and in excess of 70% on the market for work group server operating system. High entry barrier exists because consumers would have no alternative choice if open source work group server products are not available. Then GC examined whether EC has showed the previously set four-prong Magill/IMS test has been met, which are indispensability, elimination of competition, new product, and objective justifications issues respectively, and made development or revisions it considered necessary. Indispensability standard has been extend from physical one to "indispensability to operate in an economically viable way", a criterion which leaves

<sup>153</sup> Case COMP/C-3/37.792 -Microsoft.

<sup>154</sup> Ahlborn, Christian, and David S. Evans. "The Microsoft judgment and its implications for competition policy towards dominant firms in Europe." *Antitrust Law Journal* 75.3 (2009): 887-932.



a rather wide margin of appreciation to the authorities, subject only to limited control by the judiciary.<sup>155</sup> The new product criterion also expands to cover technical development, a criterion which is perhaps of a complex technical character and therefore also leaves the authorities a margin of appreciation subject to limited control by the judiciary.<sup>156</sup> Microsoft claimed its refusal to license was objectively justified because of the interoperability information was protected by IPR, which was presumably valid by EC and GC, and its incentives to innovate would be diminished. However, the GC considers that even on the assumption that it is correct, the fact that the communication protocols covered by the contested decision, or the specifications for those protocols, are protected by intellectual property rights cannot constitute objective justification without evidence and inconsistent with previous case law. More specifically, GC rejected this claim based on facts that: (i) it was industry practice for companies not in a dominant position to license the type of interoperability information that Microsoft refused to license; (ii) Microsoft itself had in fact licensed its own interoperability information before it holds a dominant position. But it left no clear signal as regard to what kind of evidence should be provided in such kind of claim. The 2007 Microsoft case received opposite opinion from US Assistant Attorney General of DOJ, Thomas O. Barnett, who believed the standard applied by the EC to unilateral refusal to deal was actually more likely to deter private investment in R&D to the detriment of consumer welfare.<sup>157</sup>

In the following enforcement period, Microsoft submitted several draft agreements to comply with the 2004 Decision, the commission repeatedly found that the technical documentation was neither accurate nor complete and that remuneration rates were unreasonable. In decision C(2008) 764 of 27 February 2008, EC imposed a periodic penalty payment of €899 million, in a period between June 21 2006 and October 21 2007 and considered the remuneration rates set from October 22 2007

<sup>155</sup> Vesterdorf, Bo. "Article 82 EC: Where do we stand after the Microsoft judgment." *Global Antitrust Review (különszám)* (2008).

<sup>156</sup> Id.

<sup>157</sup> DOJ, Assistant attorney general for antitrust, Thomas B. Barnett, Issues statement on European Microsoft Decision, September 17, 2007, available at [https://www.justice.gov/archive/atr/public/press\\_releases/2007/226070.htm](https://www.justice.gov/archive/atr/public/press_releases/2007/226070.htm)

reasonable. The appeal of the decision was upheld by the general court' Judgment of 2012 June 27 in case T-167/08. Eventually Microsoft provides two separate licensing arrangements ('the No Patent Agreement' and 'the Patent Agreement') and an irrevocable pledge not to assert any patents it may have over the interoperability information against non-commercial open source software development projects.<sup>158</sup>

## **2.3 Japan**

### **2.3.1 Overview**

#### **2.3.1.1 AMA Articles 2(5) and 2(9)**

The Japanese version of competition law, the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade ('the Anti-monopoly Act', or 'AMA'), was enacted in 1947, part of the economic democratization policy led by the Allied Occupation Forces. US antitrust law were transplanted and revised into original AMA which was deemed pretty radical and idealistic. Through several relaxing and revitalizing period of AMA revising and enforcement history, *e.g.*, the relaxation 1950s or the increase of enforcement in respond to the Structural Impediments Initiative ('SII')<sup>159</sup>, AMA has alternately weakened and strengthened as the result of economic and political pressures both from domestic and foreign.<sup>160</sup> Currently, there are four pillars in Japanese AMA: private monopolization (Article 2(5) and Article 3), unreasonable restraint of trade (Article 2(6), and Article 3), merger review, and unfair trade practices (Articles 2 (9) and Article 19), accompanied

<sup>158</sup> EC, Antitrust: Commission ensures compliance with 2004 Decision against Microsoft, available at [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_07\\_1567](https://ec.europa.eu/commission/presscorner/detail/en/IP_07_1567) (The "No patent Agreement" allows licensees access to the interoperability information which is compatible with the open source business model; reduces the royalty to a flat fee of €10000; allows effective private enforcement of warranties regarding the completeness and accuracy of the information provided. The "Patent agreement" is for patents which Microsoft considers relevant which offers a worldwide patent license for a reduced royalty of 0.4% of licensees' product revenues.)

<sup>159</sup> SII, concluded in 1990 between US and Japan, called for stricter and more transparent enforcement of AMA and listed recommendations including the adoption of formal regulatory measures to replace the informal ones such as administrative guidance, warnings, increasing the maximum administrative fines imposed on cartels and more effective criminal prosecution of cartels etc. Matsushita, Mitsuo. "The Structural Impediments Initiative: An Example of Bilateral Trade Negotiation." *Mich. J. Int'l L.* 12 (1990): 436.

<sup>160</sup> Matsushita, Mitsuo. "The Antimonopoly Law of Japan." *Law Japan* 11 (1978): 57, pp. 151-156.

with a series of guidelines. Two of these four concepts are particularly relevant to the regulation of unilateral refusal conduct, private monopolization and unfair trade practice, depending on the seriousness of the effect upon market.

Private monopolization is defined in Article 2(5) as business activities that “exclude” or “control” the business activities of other undertakings thereby causing a “substantial restraint of competition” in a particular field of trade, and then prohibited by the first half of Article 3 of AMA which provides that no undertaking shall engage in private monopolization, primarily covering unilateral conduct by dominant firms. Article 19 of AMA deals with unfair trade practice, covering unilateral behaviors similar but not exactly same as private monopolization, which are defined by Article 2(9)1-5 of the AMA<sup>161</sup> and the Designation of Unfair Trade Practices (‘the 1982 Japanese Designation’ last amended 2009)<sup>162</sup> set by Japan Fair Trade Commission (‘JFTC’) according to Article 2(9)-6 of AMA. With regard to the difference between the two charges, it lies in the effect prong. Unfair trade practice only requires “likeliness of impeding fair competition”, a standard generally lower and more ambiguous than private monopolization which “substantially restrain competition in any particular field of trade”. From a comparative perspective, the provision for abuse of superior bargaining position is not included in other foreign countries’ competition law. Its enforcement has also been strengthened by the introduction of surcharge system in AMA 2009 amendments.

JFTC, an independent regulatory commission belonging to the cabinet office, is responsible for public enforcement of AMA, including administrative investigation against private monopolization or unfair trade practice cases. Criminal investigation is also possible for private monopolization but has not yet been conducted so far. Cease

<sup>161</sup> Unfair trade practices of Article 19 of AMA includes: joint refusing to supply; discriminatory pricing; unjustly low price sales; resale price maintenance; abuse of a superior bargaining position, as set in article 2(9).

<sup>162</sup> Unfair trade practices listed in the Designation includes: (i) concerted refusal to trade; (ii) other refusal to trade; (iii) discriminatory consideration; (iv) discriminatory treatment on trade terms, etc; (v) discriminatory treatment, etc, in a trade association; (vi) unjust low price sales; (vii) unjust high price purchasing; (viii) deceptive customer inducement; (ix) customer inducement by unjust benefits; (x) tie-in sales, etc; (xi) Trading on exclusive terms; (xii) trading on restrictive terms; (xiii) unjust interference with appointment of officer in one’s transacting party; (xiv) interference with a competitor’s transactions; (xv) interference with internal operation of a competing company. See texts at [https://www.jftc.go.jp/en/legislation\\_gls/unfairtradepractices.html](https://www.jftc.go.jp/en/legislation_gls/unfairtradepractices.html)

and desist order (available for all private monopolization and unfair trade practices), and surcharge system (available for private monopolization and behaviors listed in AMA Article 2(9)1-5)<sup>163</sup>, are main formal administration enforcement measures available for JFTC. JFTC has issued a series of guidelines or discussion reports to react to new economic development. In terms of unilateral refusal to license, JFTC has issued the 2009 Guidelines for exclusionary private monopolization under the Anti-monopoly Act ('the 2009 Japanese Exclusionary Monopolization Guideline')<sup>164</sup>, the 2007 Guidelines for the use of Intellectual Property under the Anti-monopoly Act (as amended in 2016) ('the 2016 Japanese IP Guideline')<sup>165</sup> and the 1991 Guidelines concerning distribution systems and business practices under the Anti-monopoly Act (as amended in 2017) ('the 2017 Japanese Distribution Guideline')<sup>166</sup>. In practice, compared with private monopolization which has a high burden of proof for substantial restraint of competition, unfair trade practice is relatively more welcome by JFTC because of relatively low burden which only demands highly likelihood to impede fair competition.<sup>167</sup> And unilateral behavior enforcement are also generally paid less attention than concerted behaviors, *e.g.*, cartel arrangements and bid rigging, which are usually accompanied with clear evidence coming from leniency programs and more solid economic evidence, given the serious harm to consumers.<sup>168</sup> Consequently, it could be logically understood that public enforcement against private monopolization, including IP related actions, has been inactive, which are actually found in only one case yet with no surcharge ordered, since surcharge order was available after 2006 and 2009 AMA amendments came into force.

As for civil enforcement procedures, Japanese AMA lawsuits also adopt the

<sup>163</sup> For private monopolization, surcharges can be applied to all exclusionary private monopolization, but only for private monopolization if the relevant activity is (1) pertaining to the payment; or (2) substantially restraining (a) supply volume, (b) market share, or (c) transaction counterparties and thereby affecting payments; For unfair trade practices, surcharge can only be applied to conducts listed in article 2(9)1-5, which are concerted refusal to trade; discriminatory pricing; predatory pricing; resale price restriction; and abuse of superior bargaining position.

<sup>164</sup> See texts at [https://www.jftc.go.jp/en/legislation\\_gls/imonopoly\\_guidelines\\_files/guidelines\\_exclusionary.pdf](https://www.jftc.go.jp/en/legislation_gls/imonopoly_guidelines_files/guidelines_exclusionary.pdf)

<sup>165</sup> See texts at [https://www.jftc.go.jp/en/legislation\\_gls/imonopoly\\_guidelines\\_files/IPGL\\_Frand.pdf](https://www.jftc.go.jp/en/legislation_gls/imonopoly_guidelines_files/IPGL_Frand.pdf)

<sup>166</sup> See texts at [https://www.jftc.go.jp/en/legislation\\_gls/imonopoly\\_guidelines\\_files/DistributionSystemsAndBusinessPractices.pdf](https://www.jftc.go.jp/en/legislation_gls/imonopoly_guidelines_files/DistributionSystemsAndBusinessPractices.pdf)

<sup>167</sup> Arai, Koki. LAW AND ECONOMICS IN JAPANESE COMPETITION POLICY. *Springer*, 2019, p. 12.

<sup>168</sup> *Id.*

parallel pattern, meaning the follow-on or stand-alone lawsuits can be brought at the same time. Namely plaintiff can initiate a lawsuit against defendant for damages, either directly on the ground of general tort according to Article 709 of Japanese Civil Code, or make a follow-on complaint on the ground of strict liability based on an JFTC investigation under Article 25 of AMA. Since the 2000 amendments of AMA, Article 24 of AMA entitles a claimant the right to apply for injunction for committing unfair trade practice at a district court. Although it is not possible to request an opinion from the JFTC in relation to litigation pursuant to Article 709 (such a possibility exists under a statute for litigation pursuant to Articles 25 and 26 of AMA), the JFTC has stated that it will provide relevant documents, if requested to do so pursuant to an order to submit documents under the Civil Procedures Code. There exists no special AMA court in Japan. But the Tokyo District Court is entrusted with exclusive jurisdiction in the follow-on claim for damages under Article 25 AMA, and act as the court of first instance over a challenge to the JFTC decision concerning cease-and-desist order or an administrative surcharge payment order. Meanwhile, Article 24 injunction litigation can be adjudicated in a local district court. Due to strict burden of proof and limited damages reimbursement available from litigation, generally speaking, Japanese civil litigation appears to be inactive.

#### **2.3.1.2 Patent act and other**

In addition, Japanese Patent Act also includes provisions about compulsory licensing ('CL'). The Japanese Patent Act of 1959 as amended in 1990 under the Chapter IV-1 provision 93 provides for compulsory licensing: If there is no agreement reached between the holder and the seeker of CL, the Minister for International Trade and Industry, is entitled for an arbitration decision to award a CL.

Compulsory license under Article 92 for the purpose of improvement of inventions has been substantially suspended until a court or administrative decision has been issued in accordance with the US-Japan Agreement in 1994, while Article 93 claim based on public interest, lacking specific rules or ordinances, also remains silent due to a 1968 report from an experts group under Foreign Capital Council

criticizing the negative effect it would have on relevant industries.<sup>169</sup> Consequently, no compulsory order has been issued so far.

### **2.3.2 Japanese analytical protocol**

#### **2.3.2.1 General principle**

With respect to IP, Article 21 of AMA specially provides an exemption to acts recognizable as the exercise of rights under the Copyright Act, Patent Act, Utility Act, Design Act or Trademark Act, among other 15 laws providing exemptions from AMA, mainly for cartel activities for special sectors.<sup>170</sup> The 2016 Japanese IP Guideline, since it was originally published in 2007, also explains that any act that may seem to be an exercise of a right cannot be “recognizable as the exercise of the rights”, provided that it is found to deviate from or run counter to the intent and objectives of the intellectual property system, which are, namely, to motivate entrepreneurs to actualize their creative efforts and make use of technology, in view of the intent and manner of the act and its degree of impact on competition.<sup>171</sup> Article 10 of Intellectual Property Basic Act also provides that IP system should be crafted considering for securing fair and free competition. It can be seen, following international trend, Japanese legal system generally shared the idea that IP and competition law should work in a complementary manner and actually be beneficial for each other.

#### **2.3.2.2 Market power and IP**

Market power has never been presumed to exist merely because of patent ownership, an idea shared by both by the JFTC and courts.<sup>172</sup> Generally, the legal

<sup>169</sup> Bharadwaj, Ashish. "Multi-dimensional Approaches Towards New Technology Insights on Innovation, Patents and Competition." *Springer open* (2018), p. 199.

<sup>170</sup> Kozo Kawai, Kojiro Fujii and Tatsuya Tsunoda, Antimonopoly & Unilateral Conduct 2018 Know how, GCR, August 2018, available at [https://www.jurists.co.jp/sites/default/files/tractate\\_pdf/en/56280.pdf](https://www.jurists.co.jp/sites/default/files/tractate_pdf/en/56280.pdf), p.6.

<sup>171</sup> The 2016 Japanese AMA IP Guideline, pp. 4-5.

<sup>172</sup> Wakui, Masako. Intellectual Property and Antitrust in Japan, in R. Blair & D. Sokol (Eds.), *The Cambridge Handbook of Antitrust, Intellectual Property, and High Tech* (Cambridge Law Handbooks), Cambridge University Press (2017), pp. 138-157..

analysis of unilateral refusal to license under Japanese law is also conducted under the framework of standard analysis concerning refusal to deal, under framework of either private monopolization or unfair trade practice, with the special character of IPR taken into consideration.

The traditional standard analysis of relevant market on the grounds of substitutability and SSNIP test can also be applied to cases when IPR get involved. Similarly, the relevant market usually be extended to a third technology market dimension when technology is the object of transaction. Since it was originally published in 2007, the 2016 Japanese IP Guideline stipulates that when evaluating any restriction pertaining to the use of technology pursuant to the AMA, it is imperative to identify the market where the technology is traded (the technology market), where any product incorporating the technology is traded (the product market), and where other technology and products are traded, and to examine the impact of the restriction on competition, according to the transaction affected by the restrictions.<sup>173</sup> As for research and development activities, it mentions that as “no market or trade can be defined for research and development activities by themselves”, “the effect on competition in developing technologies should be evaluated by the effect on competition in the trade of future technologies resulting from such activities or products incorporating the technology.”<sup>174</sup>

As aforementioned, the two potential violations have different standards for the determination of market power. Private monopolization in Japanese AMA can be determined with the “substantial restraint of competition” as a prerequisite of market power measurement. The concept of “substantial restraint of competition” has been illustrated by Tokyo High Court as “establishing, maintaining, or strengthening the state in which a certain entrepreneur or a certain group of entrepreneurs can control the market at its or their will by being, to some extent, free to influence price, quality, quantity and other various conditions after competition itself has lessened”.<sup>175</sup> The

<sup>173</sup> The 2016 Japanese AMA IP Guideline, p.6.

<sup>174</sup> Id.

<sup>175</sup> The 2009 Japanese Exclusionary Private Monopolization Guideline, p34; Wakui, Masako, Antimonopoly Law:

case-by-case model did not provide a clear index for telling the difference. Theoretically, market participants with relative low market share have more chances disciplined under unfair trade practices, especially abuse of superior bargaining position only requiring relatively superior market position. The 1982 Japanese General Designation considers the possibility for refusal to license to construe unfair trade practices if they tend to impede fair competition, when it is hard to find the conduct has substantially restrict competition in the relevant market and thus should not be regarded as private monopolization.<sup>176</sup>

### **2.3.2.3 Regulatory logic concerning refusal to license IPR**

In principle, refusal to license or an injunction by a right holder does not pose problem under the AMA.<sup>177</sup> But the revised 2016 Japanese IP Guideline admits that competition in technologies and products may be diminished if a right-holder does not allow other entrepreneurs to use its technology or grants other entrepreneurs a license to use the technology on the condition that their research and development, production, sales or any other business activities are restricted. The 2017 Japanese Distribution Guideline, just as the original 1991 Guidelines before the 2017 amendment, also admits that a refusal to deal by a single enterprise is illegal in cases where enterprise refuses to deal as a means to secure the effectiveness of its illegal conduct, or a means to achieve such unjust purposes to exclude its competitors from a market.<sup>178</sup>

The revised 2016 Japanese IP Guideline did not clearly define what kind of restrictions can be deemed to cause substantial restraint of competition. Instead, it illustrates by setting general principles and examples in detail. The guideline provides that whether restrictions pertaining to the use of technology reduce competition in the

Competition Law and Policy in Japan (Second Edition), 2018. available at SSRN: <https://ssrn.com/abstract=3270141>, p. 51.

<sup>176</sup> The 1982 Japanese General Guideline, para. 2.

<sup>177</sup> OECD, Licensing of IP rights and competition law-Note by Japan, available at [https://one.oecd.org/document/DAF/COMP/WD\(2019\)6/en/pdf](https://one.oecd.org/document/DAF/COMP/WD(2019)6/en/pdf), June 6, 2019.

<sup>178</sup> The 2017 Japanese Distribution Guideline, p. 50.



market is determined by fully considering the nature of the restrictions, how they are imposed, the use of technology in the business activity and its influence on it, whether or not the parties pertaining to the restrictions are competitors in the market, their market positions (such as market share and rank), the overall competitive conditions that prevail in the markets (such as the number of companies competing with the parties concerned, the degree of market concentration, the characteristics and the degree of differentiation of the products involved, distribution channels, and difficulty in entering the market), whether or not there are any reasonable grounds for imposing the restrictions, as well as the effects on the incentives for research, development, and licensing.<sup>179</sup> The guideline lists a series of examples in order to clarify JFTC's enforcement tendency. In case of the situations that may be considered as a substantial restraint of competition: (1) right holders participating in a patent pool jointly refuse to license a technology to any third party that is not member of the patent pool; (2) businesses that have obtained promising patents used by many businesses in a market refuse to license such technology to other businesses; (3) businesses that have collected and concentrated technologies that may be used by competitors refuse to license those technologies to other competitors; and (4) a right holder refuses to license a patent that was adopted as a standard technology in an fraudulent manner to competitors.<sup>180</sup> Meanwhile, from the viewpoint of unfair trade practices under the circumstances that: (1) a licensor refuses to license its technologies to other businesses after the technologies were initially adopted by them and then it became very hard for them to replace them with other technologies; (2) a member of a technology standard setting organization refuses to license its technologies to other businesses after its technology was adopted as the standard subject to its commitment to license them on preferable terms; (3) a licensor discriminately refuses to license its technologies to other businesses to the extent that the technologies have provided a foundation for business activities in a certain

<sup>179</sup> The 2016 Japanese AMA IP Guideline, p. 6.

<sup>180</sup> The 2016 Japanese AMA IP Guideline, pp. 9-11.

product market and many businesses have done business in that product market.<sup>181</sup>

Particularly, the guideline mentioned the “influential technologies”, the restrictions upon which may tend to have major impacts on competition, thus having higher possibility of being deemed as private monopolization. Likewise, the 2009 Japanese Exclusionary Monopolization Guideline absorbed the explanation and listed factors applicable for the assessment of relevant conduct, such as market share and ranking of the undertaking in the relevant market, the conditions of competition and competitors, entry barriers, users’ countervailing bargaining power, efficiencies and other consumer welfare protection concerns.<sup>182</sup> Compared with US/EU counter parties, in order to establish a private monopolization, dominant market position is not a necessity and AMA does not provide analysis for concept of dominant position. As aforementioned, market share is considered to be one of the main elements for evaluating certain undertaking’s status, even though JFTC did place priority for entrepreneurs’ market share over 50%.<sup>183</sup> At the same time, the revised 2016 Japanese IP Guideline, since its original publication in 2007, also sets safe harbor rules upon undertakings whose market share is under 20% or in the presence of more than four competitive technologies in the market.<sup>184</sup> When the exclusionary conduct falls under refusal to supply, the factors regarding trading customers and their competitors in the downstream market will be accessed to decide whether or not the state of market control are established, maintained, or strengthened in the downstream market.<sup>185</sup>

### **2.3.3 Japanese case law**

Until now, there seems no genuine unilateral refusal to license case found in JFTC decision or court judgment from publicly available information.<sup>186</sup> Instead, the

<sup>181</sup> The 2016 Japanese AMA IP Guideline, p. 17 ; The 1982 Japanese Designation, para2and15.

<sup>182</sup> The 2007 Japanese Exclusionary Private Monopolization Guideline, pp 34-38.

<sup>183</sup> Id.

<sup>184</sup> The 2016 Japanese AMA IP Guideline, p.7.

<sup>185</sup> The 2007 Japanese Exclusionary Private Monopolization Guideline, p39.

<sup>186</sup> Somehow, there exists a precedent concerning joint refusal to license, in which ten manufacturers of pachinko

case below, the first judgment by the Supreme Court of Japan to decide a refusal to deal with competitor can constitute private monopolization, address the concept “substantial restraint of competition”, which appears to provide insight in the future application of AMA to refusal to license.

*The NTT East case*<sup>187</sup>

This case in nature is a price margin squeeze conduct committed by *NTT East* in fiber-to-the-home (‘FTTH’) service market, which was condemned by the Supreme Court as exclusionary refusal to deal. *NTT East*, a FTTH service provider under the oversight of the Ministry of Internal Affairs and Communications (‘MIC’), is obliged to offer its service to other telecommunication carriers and consumers. However, *NTT East* offered its retail direct-cable access at a fee lower than the fee charged to retail competitors, which made the competitors unable to profitably resell access to the FTTH service and compete with *NTT East*. Despite the price plan has been reported to MIC, during the subsequent proceeding JFTC and Tokyo high court both recognized the illegality of the conduct under AMA.

The Supreme Court of Japan in *NTT East* decided a conduct will only be exclusionary private monopolization when “the aspect of this conduct as the independent and unilateral refusal to trade or low price sales constitutes an artificial deviation from the scope of normal competitive methods from the perspective of establishing, maintaining, or strengthening market power, and whether it is likely to make it significantly difficult for competing companies to enter the FTTH service market”. The Supreme Court thus found that *NTT East* took advantage of their position as the sole supplier in the relevant market to create entry barrier for competitor, which should be regarded as a deviation from the scope of normal

machines, owning almost 90% market share, assembled a patent pool and declined to license those patents to outsiders. JFTC found this conduct actually precluded new entry, brought a substantial restraint of competition, and constituted private monopolization. Consequently, the refusal behavior was not considered as exercise of IPR, and went beyond the exemption scope of Article 21 of AMA. Finally, members and managing company of the pool were required to abandon their refusal policy. See 公正取引委員会平成9年（勘）第5号、平成9年8月6日勧告審決・審決集44巻238ページ.)

<sup>187</sup> 最判平成22・12・17民集64巻8号2067頁。

competition methods. However, the ruling implemented no concrete assessment as to the relevance of refusal to deal, and just concisely described the exclusionary behavior as an artificial method which is beyond the normal method of competition, until a legal officer stated in a commentary of this ruling that *NTT East's* conducts were supposed to be investigated within the framework of unreasonable refusal to deal.<sup>188</sup>

## 2.4 Summary

In general, the three jurisdictions share certain common principle, priorities, or problems in dealing with the problem of refusal to license during public or private enforcement, with different terminologies used. For example, they all hold the principle that strong market power itself would not be condemned yet the way how the power is exercised matters. Similarly, owning IP itself would not be regarded as having market power or dominant position. They all prioritize exclusionary unilateral enforcement. In the US, despite calls for requiring exploitative effect for exclusionary conduct action, the Antitrust Law in unilateral enforcement cases has focused on exclusionary conduct, and has refrained from attacking purely exploitative conduct such as excessive pricing.<sup>189</sup> By contrast, the EU Competition Law appears to have a broader focus by covering exploitative conduct in TFEU Article 102 yet have limited enforcement against it and according to the European Commission's official communication, the Commission's enforcement priorities in the abuse of dominant area are exclusionary conduct.<sup>190</sup> Japan follows this trend and overall scarcely gave negative remarks for monopolists in its 70 years history.

The regulation of refusal to license, as a typical exclusionary strategy, can be actually seen as a trade-off between *ex ante* and *ex post* incentives for competition

<sup>188</sup> Paulo Burnier Da Silveira, William Evan Kovacic, Global Competition Enforcement: New Players, New Challenges. *Kluwer Law International B.V.* (2019).

<sup>189</sup> Zheng, Wentong. "Transplanting antitrust in China: economic transition, market structure, and state control." *U. Pa. J. Int'l L.* 32 (2010): 643.

<sup>190</sup> *Id.*

law enforcers. Significant differences still exist due to the different economic/political/culture background. Regardless of a case-by-case routine, case law has shown regimes have made their choice upon this issue. The US and Japan support the idea that competition law liability for mere unilateral, unconditional refusals to license will not play a meaningful part in the interface between patent rights and competition law enforcement, while the EU clearly adopts a relatively aggressive approach.

This landscape may lie in the general goal and methodologies of competition regulation. It is argued that compared to the US' steadfast economic focus, the goals of Europe remains muddled, contributing to the more aggressive antitrust enforcer, possibly reflecting a larger anti-tech bias stemming from concern over privacy, the lack of European tech champions, and an overall dearth of support for the market relative to the United States.<sup>191</sup> Under the general philosophy of believing in free-market, the US courts have backed from the early stringent approach and generally allow firms to achieve or defend their legally acquired monopoly position through aggressive competitive behavior except when conducts go beyond acceptable, including refusals to deal for no business purpose other than to injure a competitor.<sup>192</sup> Meanwhile, the EU adopted a looser standard to find dominant position and impose a broad duty to deal in case law<sup>193</sup>, in order to sweep obstacles between member countries. In a significant proportion of the IPR related antitrust cases issued until now, it is said that the court has almost invariably resorted to a rule-based approach, instead of a standard-based approach. The United States is more likely to defend intellectual property rights than the EU. Notably, the procedural mechanism design gave different level of stimulation to parties involved. A lack of a competent EU level IPR protection agency may mitigate possible pressure imposed upon the EU competition bureau and thus indirectly contributed to an impression of more tolerable for compulsory licensing on competition law grounds. The US and Japan did not

<sup>191</sup> Sokol, D. Daniel. "Troubled waters between US and European antitrust." *Mich. L. Rev.* 115 (2016): 955.

<sup>192</sup> Fox, Eleanor M. "US and EU competition law: A comparison." *Global competition policy* (1997): 339-354.p343.

<sup>193</sup> Id.

suffer from this kind of institutional deficit and protecting the exclusive right of IPR has been regarded as common sense in both nations.

The case law for regulation of unilateral refusal to license are also different. For the standard for finding illegality of refusal to license IPR, apparently the current practice of the US, despite ups and downs in history, is much stricter out of a general reluctance imposing a duty to license upon monopolist than EU, while Japan theoretically admitted the applicability but did not offer a precedent until so far. The EU case law indicates that in order to eliminate the consequences of an anti-competitive behavior, the Commission can order a dominant undertaking to share some advantages which have been wrongly denied to the competitors, but without clarity regarding the extent to which the Commission can/should exercise the power.<sup>194</sup> Since the EU *Microsoft* case, the standard for applying essential facility doctrine to IPR, as an input, to secure access to an adjacent or district market, or even a not existing market<sup>195</sup>, becomes comparably more flexible. Given the diverse regulation circumstances in related regions or nations and tightly interconnected global industry chain, clearly the harmonization of international governance of refusal to license become more and more essential.

<sup>194</sup> Kathuria, Vikas, and Jure Globocnik. "Exclusionary conduct in data-driven markets: limitations of data sharing remedy." *EU Competition Law Remedies in Data Economy*, Springer (2019): 19-04.

<sup>195</sup> The 2005 EU Discussion Paper, para. 227.

### **Chapter Three. Standardization related refusal to license**

The first decade of the 21st century witnesses a significant rising of industrial standardization. In the global production chain, standard-related refusal to license apparently can substantially change the landscape of industry map, thus attracting many regulators' attention. High attention is needed to pay to whether regulators and courts around the world adopt suitable methodologies to evaluate the harm to competition process and what kind of remedy should be available, either procedural remedy like injunction or substantive remedy like final royalty setting.

#### **3.1 SEP and market power**

The rapid development of global supply chain has been made possible reliant partly on the widely adopted industrial standardization, which significantly improved produce efficiency based on economies of scale, fully utilization of comparable advantage of different countries worldwide. Without standards, devices like computers, smartphones and tablets cannot connect with each other, and the components made by different companies will not be compatible with each other. Various standard-setting organizations ('SSOs') appeared for the purpose of efficiently setting uniform standards and compromising the benefits of different stakeholders, such as the European Telecommunications Standards Institute ('ETSI') which has successfully leading the setting process of 2G, 3G, and 4G ('LTE') telecommunication standards. Many industries have a rich history of collaborative standard setting that can bring major consumer gains from the benefits of "interoperability" among various companies' products and services.<sup>196</sup> On the other hand, standardization sometimes can produce locked-in effects when implementers in industry with heavy sunk cost find themselves hard to swift to a new standard and vulnerable to unreasonable requirements coming from right holders, or provide a good chance for a price cartel or other concerted suspicious behaviors.

<sup>196</sup> Greenfield, Leon B., Hartmut Schneider, and Joseph J. Mueller. "SEP enforcement Disputes beyond the water's edge: A survey of recent non-US decisions." *Antitrust* 27 (2012): 50.

When a patent is absorbed into such standard, and become indispensable for implementing standard essential patent ('SEP'), it will not only inherit the lock-in ability but also smoothly get solid protection from rights empowered under patent law, thus conferring significant market power. Due to the inequity of transaction bargaining power, implementers may have concerns over the legitimacy of SEP holders' way of right exercising, or SEP holders are unsatisfied with licensees' reluctance to contract performance. Consequently, SEP related disputes have increased considerably over the past 30 years. Especially in the telecommunication sector, there was a noticeable surge in high profile patent litigations involving many important industry players such as Apple, Motorola, Samsung, Google and Microsoft.<sup>197</sup> While technologies keep evolving and come to the time of Internet of Things ('IoT') and 5G, the scale and depth of SEP war will keep accelerating and become more and more influential.

In the context of competition law, SEP has high possibility of being rendered as possessing dominant or significant market position because under a classic substitutability analysis, as one SEP is usually found unique and cannot be replaced in a separate product market of a particular country or area. But the absence of substitutes does not necessarily mean that SEP holder will enjoy monopoly power considering competitive restraint, such as the promises made or licensing conditions required by SSOs, the counter bargaining power enjoyed by rivals. In a typical litigation, when resorting to abuse allegation in the competition law context, the proof burden usually stands on the implementer side who need to adduce in depth professional economic evidence regarding to dominant position or superior bargaining position, if a relevant product or technological or R&D market could have been unarguably defined. Similarly, it would be too expensive and time-consuming to allege fraud or validity of IPR claims.

With the significant market power in hand, SEP holders may theoretically

<sup>197</sup> EU DG Comp, Competition policy brief standard-essential patents, June, 2014, available at [http://publications.europa.eu/resource/cellar/c57ffb7-9aeb-11e6-868c-01aa75ed71a1.0001.01/DOC\\_1](http://publications.europa.eu/resource/cellar/c57ffb7-9aeb-11e6-868c-01aa75ed71a1.0001.01/DOC_1).



holdup users by excluding competitors, charging excessive royalties, or forcing licensees to grant back or give up invalidity claims and so on. In order to eliminate or alleviate those concerns, SSOs formulate their own IPR policies and require SEP holders to claim to license on Fair, Reasonable and Non-discrimination terms ('FRAND'), even though such terms later have been proved ambiguous and confusing when applied in practice. During the process, some agencies like US DOJ could provide general *ex ante* opinions from competition law perspectives about an SSO's IPR policy drafting or revising activities, which may not be binding afterwards when business environment changes.<sup>198</sup> As for issues of refusal to license, the Institute of Electrical and Electronics Engineers ('IEEE')'s 2015 patent policy has clear terms, requiring SEP owners to license to anyone and everyone rather than excluding component suppliers in favor of end-product suppliers, precluding SEP owners from seeking injunctions against willing licensees, and defining reasonable royalty that based on "smallest saleable compliant implementation", "the value that an SEP contributes to that implementation relative to the total value of all SEPs, and prior licenses. While those terms may be regarded as contracts between the SSO and SEP holders, in some jurisdiction, implementer could act as a third-party beneficiary of the agreement and enforce the contracts right against SEP holders in front of court to recover damages or other fees necessary for accessing to remedy mechanism.

Overall, the key for rightfully addressing all SEP related issues, including refusal to license, would eventually depend on the battle between patent holdup or holdout theory, a challenge for decision-making bodies under consistent lobbying conducted by representatives from different stakeholders. To be specific, patent hold-up occurs when a patent owner sues a company when it is most vulnerable-after it has implemented a technology-and is able to? wrest a settlement because it is too late for the company to change course, whilst patent holdout, sometimes referred to as reverse holdup, is the practice of companies routinely ignoring patents and resisting patent

<sup>198</sup> DOJ could provide business review procedure to give detailed analysis of the effect upon competition and consumer in the specific market. Information about the system is available at: <https://www.justice.gov/atr/business-reviews>

owner demands because the odds of getting caught are small.<sup>199</sup> Given the real situations in different industries generally differ, when handling with specific cases in practice, the supporters for each theory unavoidably argue upon essential issues like injunctions or royalty, and sometimes get conflicting conclusions.<sup>200</sup> Considering hold-out and hold-up together on a case by case basis provides a more complete picture than focusing on either theory alone.<sup>201</sup>

### **3.2 Exercise of right to refusal to license by SEP holders: Injunction and royalty issues**

As mentioned above, SEP related refusal to license from the competition law perspective are also tightly entangled with the problems such as, whether or not to issue the injunction order, command compulsory licensing, and if so consequently how to calculate FRAND standard royalty. Through the struggle with the conflicting interests between various stakeholders, *e.g.*, SSOs, SEP holders and SEP implementers, it can be seen jurisdictions slowly develop their own priorities in addressing those problems.

#### **3.2.1 US: Emerging divergence between agencies**

At the first decade of the 21<sup>st</sup> century, DOJ and FTC generally share common idea that there existed a potential of patent holdup in practice and release several documents addressing the agencies' attitude. In 2006's business letter to a SSO issued by DOJ, it mentions the danger of patent holdup, stating "those seeking to implement

<sup>199</sup> Lemley, Mark A., and Carl Shapiro. "Patent holdup and royalty stacking." *Tex. L. Rev.* 85 (2006): 1991; Elhauge, Einer. "Do patent holdup and royalty stacking lead to systematically excessive royalties?." *Journal of Competition Law & Economics* 4.3 (2008): 535-570. Chien, Colleen V. "Holding up and holding out." *Mich. Telecomm. & Tech. L. Rev.* 21 (2014): 1.; Ginsburg, Douglas H. and Wong-Ervin, Koren and Wright, Joshua D., The Troubling Use of Antitrust to Regulate FRAND Licensing (October 15, 2015). *CPI Antitrust Chronicle, Vol. 10, No. 1, pp. 2-8, 2015*; *George Mason Legal Studies Research Paper No. LS 15-37*; *George Mason Law & Economics Research Paper No. 15-46*. available at SSRN: <https://ssrn.com/abstract=2674759>; Cotter, Thomas F. "Patent holdup, patent remedies, and antitrust responses." *J. Corp. L.* 34 (2008): 1151.

<sup>200</sup> For example, concerning whether patent holdup will lead to royalty stacking, Prof. Lemley and Prof. Shapiro believed it does, while Prof. Elhauge, alleged royalties stacking actually tends to produce royalties that are at or below the optimal rate. The former AAG for DOJ, Prof Ginsburg claimed the lack of empirical evidence for patent holdup and relevant harm to competition and consumers.

<sup>201</sup> *Id.*

a given standard may be willing to license a patented technology included in the standard on more onerous terms than they would have been prior to the standard's adoption in order to avoid the expense and delay of developing a new standard around a different technology.”<sup>202</sup> Also in 2007, in the famous report named “Antitrust enforcement and intellectual property rights: promoting innovation and competition” co-issued by DOJ and FTC, the agencies claimed “potential for ‘hold up’ by the owner of patented technology after its technology has been chosen by the SSO as a standard and others have incurred sunk costs which effectively increase the relative cost of switching to an alternative standard.”<sup>203</sup> FTC also released a report in 2011 stating the acute situation of patent holdup in the standard setting context.<sup>204</sup> In a 2013 policy statement released by DOJ and USPTO, the agencies warned that SEP may be used to “pressure an implementer of a standard to accept more onerous licensing terms than the patent holder would be entitled to receive consistent with the FRAND commitment.”<sup>205</sup> With regard to the availability of applying for SEP-encumbered injunction, agencies tried to provide clear policy signals. The 2013 statement was issued against the backdrop of FTC consent decrees asserting that, in certain circumstances, an SEP holder's threat to attain injunctive relief on a F/RAND committed patent could comprise a violation of Section 5 of the FTC Act.<sup>206</sup> The U.S. Trade Representative (‘USTR’) shared the identical concerns mentioned in the 2013 statement, and disapproved an exclusion order issued by International Trade

<sup>202</sup> DOJ, Response to VMEBUS international trade association (VITA)’s request for business review letter, October 30, 2006, .available at

<https://www.justice.gov/atr/response-vmebus-international-trade-association-vitas-request-business-review-letter>.

<sup>203</sup> DOJ,FTC, Antitrust enforcement and intellectual property rights: promoting innovation and competition, April 2007, available at

<https://www.ftc.gov/sites/default/files/documents/reports/antitrust-enforcement-and-intellectual-property-rights-promoting-innovation-and-competition-report.s.department-justice-and-federal-trade-commission/p040101promotinginnovationandcompetitionrpt0704.pdf>.

<sup>204</sup> FTC, The Involving IP Marketplace: Aligning Patent Notice and Remedies with Competition , March 2011, available at

<https://www.ftc.gov/sites/default/files/documents/reports/evolving-ip-marketplace-aligning-patent-notice-and-remedies-competition-report-federal-trade/110307patentreport.pdf>.

<sup>205</sup> DOJ, USPTO, Policy statement on remedies for standards-essential patents subject to voluntary F/RAND commitments, January 8, 2013, <https://www.justice.gov/atr/page/file/1118381/download>.

<sup>206</sup> In re Robert Bosch GmbH, FTC File No.121-0081(Apr.12,2013) (involving consent decree where SEP owner agreed to abandon claims for injunctive relief).

Commission (‘ITC’) in Samsung’s complaint against Apple<sup>207</sup>, which was the first time a president reversed an exclusion order since Ronald Reagan did so in 1987 and regarded as reinforcing a growing trend in favor of denying injunctive relief.<sup>208</sup> And courts also react. When coming to the motion for injunction filed by Motorola (the SEP holder) in *Microsoft v. Motorola*, the court followed the eBay four factor text<sup>209</sup> for injunction, and finally did not grant it. Especially the judge said “the development of standards...create an opportunity for companies to engage in anti-competitive behavior” and that “using that standard-development leverage, the SEP holders are in a position to demand more for a license than the patented technology, had it not been adopted by the SSO, would be worth”.<sup>210</sup> As for royalty and damages calculation, the non-exhaustive Georgia-Pacific 15 factors<sup>211</sup> for assessment of patent damages has become the preferred way to compute a reasonable royalty or a viable analytical

<sup>207</sup> USTR, Disapproval of the U.S. International Trade Commission’s Determination in the Matter of Certain Electronic Devices, Including Wireless Communication Devices, Portable Music and Data Processing Devices, and Tablet Computers, Investigation no.337-TA-794, August 3,2013, available at [https://ustr.gov/sites/default/files/08032013%20Letter\\_1.PDF](https://ustr.gov/sites/default/files/08032013%20Letter_1.PDF).

<sup>208</sup> Richard P. Gilly, The international Trade Commission: easier injunctive relief-except for standard-essential patent holders, available at <https://www.lexology.com/library/detail.aspx?g=faebe6bc-bc5a-4108-90f7-ddaf228eb2be>, published at Sep17,2013;伊藤隆史、松田世理奈、水本貴久「異業種間の標準必須特許ライセンスに関する独占禁止法上の考察」公正取引委員会競争政策研究センターディスカッション・ペーパー（CPDP-72-J July 2019） available at [https://www.jftc.go.jp/cprc/discussionpapers/r1/index\\_files/CPDP-72-J.pdf](https://www.jftc.go.jp/cprc/discussionpapers/r1/index_files/CPDP-72-J.pdf)、； 口ノ町達朗「標準必須特許のライセンスに関する欧米調査報告及び我が国への示唆」公正取引委員会競争政策研究センターディスカッション・ペーパー（CPDP-69-J August 2018） available at [https://www.jftc.go.jp/cprc/discussionpapers/h30/index\\_files/CPDP-69-J.pdf](https://www.jftc.go.jp/cprc/discussionpapers/h30/index_files/CPDP-69-J.pdf)

<sup>209</sup> *eBay, Inc. v. MercExchange, L.L.C.*, 547 U.S.388, No.05-130(2006). The Supreme Court established a four-factor test for determining whether to grant permanent injunctive relief: (1) that it suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balancing of hardships between plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.

<sup>210</sup> *Microsoft Corporation v. Motorola Inc, et al*, No. 2:2010cv01823 (W.D. Wash. 2012)

<sup>211</sup> In the *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F.Supp.1116, 1119 (S.D.N.Y, 1970), modified and aff’d, 446 F.2d 295 (2d, cir.) 15 factors are listed as follow: 1. Royalties patentee receives for licensing the patent in suit; 2. Rates licensee pays for use of other comparable to the patent in suit; 3. Nature and scope of license in terms of exclusivity and territory/customer restrictions; 4. Licensor’s established policy and market program to maintain patent monopoly by not licensing others to use the invention; 5. Commercial relationship between licensor and licensee, such as whether they are competitors or inventor and promoter; 6. Effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or conveyed sales; 7. Duration of patent and term of license; 8. Established profitability of the products made under the patent, its commercial success and its current popularity; 9. Utility and advantages of patent property over old modes and devices; 10. The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits of those who have used the invention; 11. The extent to which the infringer has made use of the invention and the value of such use; 12. The portion of profit or selling price customarily allowed for the use of the invention; 13. The portion of realizable profit attributable to the invention as distinguished from non-patented elements, significant features/improvements added by the infringer, the manufacturing process or business risks; 14. Opinion testimony of qualified experts; 15. Outcome from hypothetical arm’s length negotiation at the time of infringement began.

framework for FRAND damages.<sup>212</sup> In the same case mentioned above, the Georgia-Pacific framework was reasonably modified into new terms fit into FRAND commitment.

However, some practitioners believe that since shortly after the beginning of the Trump administration, DOJ has been moving away from its previous position on FRAND, and on patent enforcement more generally, and moving toward a position more skeptical of the Antitrust Law's restrictions on patent holders.<sup>213</sup> Makan Delrahim, current AAG of DOJ believed that "antitrust laws should not be used to transform an inventor's one-time decision to offer a license to a competitor into a forever commitment that the inventor will continue licensing that competitor perpetuity," and submit "a New Madison approach" that believe the value of strong IP protection as a means of fueling innovation and technological progress<sup>214</sup>, after receiving a letter from a group with distinguished professors who have concerns over the patent hold up theory.<sup>215</sup> This expression clearly indicated the new agency leader's pro-patent tendency, sending the outsider a signal of future less restraints upon the refusal to license. It received echoes from many supporters, like former AAG and senior judge Douglas Ginsburg who thought "turning such refusal into a violation of competition laws, with a potential for treble damages in the U.S., without the stamp of legislative approval, would be completely inappropriate and very very

<sup>212</sup> Chrysoula Pentheroudakis, Justus A. Baron, Licensing terms of standard essential patents-a comprehensive analysis of cases, 2017, available at <https://publications.jrc.ec.europa.eu/repository/bitstream/JRC104068/jrc104068%20online.pdf>, p51.

<sup>213</sup> Sonia Kuester Pfaffenroth, Peter J. Levitas, Dylan S. Young, DOJ withdraws from 2013 joint statement with PTO on FRAND Injunction, January 15, 2019, available at <https://www.arnoldporter.com/en/perspectives/publications/2019/01/doj-withdraws-from-2013-joint-statement-wit-h-pto>; Jessica K. Dehbaum, Geert Goeteyn, US policy shifts in intellectual property antitrust enforcement, August 9, 2019, available at <http://www.mondaq.com/unitedstates/x/835616/Antitrust+Competition/US+Policy+Shifts+In+Intellectual+Property+Antitrust+Enforcement>.

<sup>214</sup> Makan Delrahim, The "New Madison" Approach to Antitrust and Intellectual Property Law, Feb 2, 2019, available at <https://www.justice.gov/opa/speech/file/1044316/download>

<sup>215</sup> Jonathan Barnett, Ronald A. Cass, Richard A. Epstein, Douglas H. Ginsburg etc. , letter to Assistant Attorney General Makan Delrahim, February 13, 2018, available at <https://cpip.gmu.edu/wp-content/uploads/sites/31/2018/02/Letter-to-DOJ-Supporting-Evidence-Based-Approach-to-Antitrust-Enforcement-of-IP.pdf>.

inefficient.”<sup>216</sup> Under Delrahim’s leadership, DOJ withdrew the 2013 statement mentioned before, and co-issued the new 2019 policy statement with U.S. Patent & Trademark Office (‘USPTO’), the National Institute of Standards and Technology (‘NIST’). The agencies believed that the 2013 approach “would be detrimental to a carefully balanced patent system, ultimately resulting in harm to innovation and dynamic competition,” and “courts-and other relevant neutral decision makers-should continue to determine remedies for infringement of standards-essential patents subject to F/RAND licensing commitments pursuant to the general laws.”<sup>217</sup> And to support their argument, the agencies refer to two federal circuit decisions that declined to create special rules for injunctions or damages in cases involving SEPs.<sup>218</sup> One footnote of the statement states the antitrust laws are not generally applicable to FRAND disputes. On the side of FTC, things seem to have not changed too much. Taking into consideration the clear agreement about the necessity of applying competition law to address the real patent holdup problem made by former Commissioner Terrell McSweeney<sup>219</sup>, and FTC’s recent enforcement against *Qualcomm*, in which SEP holders’ right to refuse to license competitors are deemed as anti-competitive by the district court for the northern district of California but relevant injunction order being held partial stay by the appeals for the ninth circuit<sup>220</sup>, how would FTC, or relevant agencies like USTR, react to DOJ’s movement remains to be seen.

<sup>216</sup> CPI, Leadership EUinnovation, IP& Competition Challenges, *Antitrust Chronicle*, March, Winter2019.Volune3(1), p.13, available at [https://www.competitionpolicyinternational.com/wp-content/uploads/2019/03/AC\\_March\\_1.pdf](https://www.competitionpolicyinternational.com/wp-content/uploads/2019/03/AC_March_1.pdf), last visited June1,2019.

<sup>217</sup> DOJ, USPTO, NIST, Policy statement on remedies for standards-essential patents subject to voluntary F/RAND Commitments, December 19, 2019, available at <https://www.justice.gov/atr/page/file/1228016/download>

<sup>218</sup> Id. at 6-7. *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286,1331(Fed.Cir.2014) (“To the extent that a district court applied a *per se* rule that injunctions are unavailable for SEPs, it erred.”); *Ericsson v. D-link Sys.,Inc.*, 773 F.3d 1201,1232(Fed.Cir.2014) (“We believe it unwise to create a new set of Georgia-Pacific-like factors for all cases involving RAND-encumbered patents.”)

<sup>219</sup> Terrell McSweeney, Holding the line on patent holdup: why antitrust enforcement matters, March 21, 2018, available at [https://www.ftc.gov/system/files/documents/public\\_statements/1350033/mcsweeney\\_-\\_the\\_reality\\_of\\_patent\\_hold-up\\_3-21-18.pdf](https://www.ftc.gov/system/files/documents/public_statements/1350033/mcsweeney_-_the_reality_of_patent_hold-up_3-21-18.pdf).

<sup>220</sup> *Qualcomm*, *Qualcomm* welcomes Ninth Circuit stay ruling in FTC case, August 23, 2019, available at <https://www.Qualcomm.com/news/releases/2019/08/23/Qualcomm-welcomes-ninth-circuit-stay-ruling-ftc-case>

For SEP related issues, it can be predicted, at least in the enforcement activities launched by DOJ, to some degree SEP related refusal to license case will be subject to a traditional pro-patent scrutiny pattern, with less restrictions in the near future. In all, the civil jurisdictional conflicts existed between DOJ and FTC, despite the existence of former jurisdiction clearance claim, and? necessary consultation<sup>221</sup>, will surely give rise to uncertainty to future enforcement activities.

### **3.2.2 EU: More neutral standard**

On 29 November, 2017, the EC launched its latest approach towards SEP, after realizing there is an urgent need to set out key principles that foster a balanced, smooth and predictable framework for SEPs in the development of EU standardization and IoT<sup>222</sup> and assembled a group of experts on licensing and valuation of standard essential patents, to deepen the expertise on evolving industry practices related to the licensing of standard essential patents.<sup>223</sup> At first sight, this non-binding guideline provides a general neutral approach to the SEP related disputes, a result of compromise between different interested parties, however leaving space for argument.

As for injunction remedy for SEP, noting that injunctions are governed by each member state that implements the European Union Directive on the Enforcement of Intellectual Property Rights ('IP Directive'), the EC did not specify any particular test, but suggested that injunctive relief should be effective, proportionate and dissuasive.<sup>224</sup> Such kind of approach should be analyzed under principle derived from the *Huawei v. ZTE* case<sup>225</sup>, in which CJEU believed that seeking an injunction against

<sup>221</sup> FTC and DOJ, Memorandum of agreement between the federal trade commission and the antitrust division of the United States Department of Justice concerning clearance procedures for investigations, March 5, 2002, available at <https://www.justice.gov/sites/default/files/atr/legacy/2007/07/17/10170.pdf>; FTC, The enforcers, available at <https://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws/enforcers>.

<sup>222</sup> EC, Communication from the Commission to the Institutions on Setting out the EU approach to Standard essential Patents, Nov.29, 2017, available at <https://ec.europa.eu/docsroom/documents/26583>.

<sup>223</sup> EC, Group of experts on licensing and valuation of standard essential patents(E03600), July 2<sup>nd</sup>,2018, available at <https://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=3600&news=1>

<sup>224</sup> Doris Johnson Hines, MingTao Yang, Worldwide activities on licensing issues relating to standard essential patent, WIPO magazine 2019 January, available at [https://www.wipo.int/wipo\\_magazine/en/2019/01/article\\_0003.html](https://www.wipo.int/wipo_magazine/en/2019/01/article_0003.html)

<sup>225</sup> CJEU, Case C-170/13, Decision of 16 July 2015, Huawei Technologies Co.Ltd v. ZTE Corp.,ZTE Deutschland



a willing licensee of a SEP could constitute an abuse of a dominant position offense under EU competition law and set 5 steps framework for negotiations, but let national courts to decide what a willing licensee is in a case by case scenario. This case has been cited as setting safe harbor for willing licensees of standard essential patents. It is also more neutral compared with the earlier statements made by EC in *Motorola* decision and *Samsung's* commitments, in what EC believed in a standardization context SEP holders' seeking of injunctions against a willing licensee can distort licensing negotiations and lead to licensing terms with a negative impact on consumer choice and prices.<sup>226</sup> Potential licensees cannot be regarded as unwilling merely because they challenge the validity, infringement or essentiality of a SEP.<sup>227</sup> EC seemed stress the enforcement did not aim to deprive IP holders' right to recourse to remedy. Another EU agency, DG Internal Policy, also addresses that SEP owners, who commit to grant third parties a FRAND license, do not abuse their dominant position in seeking an injunction or the recall of products provided that they comply with certain strict obligations.<sup>228</sup> But clearly procedural hurdle had been set for SEP holders based on their FRAND promise. With regard to the evaluation of the value of those patents, the Communication suggests that the licensing conditions should reflect the economic value *per se* of the patented technology, regardless of its inclusion in the standard and of the success thereof, which asides with the Commission's 2011 Guidelines on the applicability of Article 101 of the TFEU to horizontal co-operation agreements, where the commission first explained what in principle would constitute a FRAND royalty in licensing practices in connection with standardization agreements.<sup>229</sup>

Gmbh.

<sup>226</sup> Case AT.39985-Motorola; Case AT.39939-Samsung ; EC, Antitrust decisions on standard essential patents(SEPs)-Motorola Mobility and Samsung Electronics-frequently asked questions, April 29, 2014, available at [https://ec.europa.eu/commission/presscorner/detail/en/MEMO\\_14\\_322](https://ec.europa.eu/commission/presscorner/detail/en/MEMO_14_322).

<sup>227</sup> EC, Intellectual property and standard setting, December 2, 2014, available at [https://ec.europa.eu/competition/international/multilateral/2014\\_dec\\_intellectual\\_property\\_en.pdf](https://ec.europa.eu/competition/international/multilateral/2014_dec_intellectual_property_en.pdf).p.9.

<sup>228</sup> EU DG Internal Policies of the Union, Standard Essential Patents and the Internet of Things,,January 2019, available at [http://www.europarl.europa.eu/RegData/etudes/IDAN/2019/608854/IPOL\\_IDA\(2019\)608854\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/IDAN/2019/608854/IPOL_IDA(2019)608854_EN.pdf).p6.

<sup>229</sup> Enzo Marasa, IOT and SEPs: What's the EU prospective, January 17, 2018, available at <https://portolano.it/en/news/iot-and-seps-whats-the-eu-prospective>.



Yet, what is important is that has been omitted. Clearly, the length debated issues concerning the most controversial argument of “use-based licensing” and “licensing to all” has not been touched because of conflicting interests of relevant parties, and different attitudes of EU DGs.<sup>230</sup> Under the consistent lobbying activities by two groups, the Fair Standards Alliance (FSA) representing benefits of manufacturers, and IP Europe more supportive of SEP holders’ side, while DG COMP reportedly was more concerned of the interests of implementers and had been pushing for the licensing to all principle, other DGs turned to be more tolerable of SEP holders.<sup>231</sup> The communication now turns out to be a compromise between those parties, which cannot stop the court fights at members level.

For Member States’ level, Germany famous for its bifurcated court system in fact benefits SEP holder for a period of time. Currently, Germany turns out to be a charming venue for SEP litigation, because a finding of patent infringement can result in the automatic grant of an injunction unless narrow exceptions are met.<sup>232</sup> Germany has traditionally been the workhorse of European patent enforcement, handling over 70% of all European patent infringement cases largely because of short term of first-instance proceedings under the country’s bifurcated legal system: invalidity and infringement are handled by different courts.<sup>233</sup> Prior to *Huawei v. ZTE*, German courts have traditionally taken a more favorable position towards the patentee following a strict *Orange Book* standard, ruling that an alleged infringer can be subject to an injunction even if willing to take a license, unless it has conducted itself in every way as a dutiful licensee should do, including paying royalties (into escrow if

<sup>230</sup> Ibid. Citing: “use-based licensing” refers to licensing patents under differing conditions and rates depending on the prospected use and application of the underlying technology; while “licensing to all” refers to a licensing practice by which SEP holders are requested to license out their SEPs to any willing licensee, irrespective of where it sits in the chain of production.

<sup>231</sup> Richard Vary, Commission adopts light touch in SEP guidelines, November .2017, available at <https://www.twobirds.com/en/news/articles/2017/global/commission-adopts-light-touch-in-sep-guidelines>.

<sup>232</sup> Greenfield, Leon B., Hartmut Schneider, and Joseph J. Mueller. "SEP enforcement Disputes beyond the water's edge: A survey of recent non-US decisions." *Antitrust* 27 (2012): 50.

<sup>233</sup> Michael T.Renaud,James Wodarski, Matthew S. Galica, Key considerations for Global SEP litigation-Part2, November 5, 2019,available at <https://www.mintz.com/insights-center/viewpoints/2231/2019-11-key-considerations-global-sep-litigation-part-2>.

necessary) and abiding by other terms of a regular commercial license.<sup>234</sup> The old *Orange Book* standard, even though it did not directly address standards related issues, obviously had placed heavy burden on the implementers side. The multi-step process outlined by the CJEU in *Huawei* is accordingly understood as a tiered system of possible obstacles preventing the court from entering an injunction against the implementer, which, however, has not fundamentally tipped the scales in implementers favour in German litigation.<sup>235</sup> German judicial system seeks solution to the phenomenon. German federal ministry of justice and consumer protection published several rounds of draft bill of a new patent law, but no progress has been made so far. Meanwhile, UK high court's interpretation and application of the *Huawei v. ZTE* framework in *Unwired v. Huawei* case has offered SEP owners significant legal redress against intransigent implementers, which should encourage meaningful licensing discussions. The UK court held that a price above FRAND rate cannot be assumed to infringe Article 102 of TFEU, and could amount to an abuse only when, considering the circumstances of the case, it is substantially above FRAND or when the offer is so extreme that it disrupts or prejudices license negotiations. In Netherlands, in the decision in *Philips v. Asus* of May 7 2019, the court of Appeal of the Hague considered that the steps described in *Huawei* should not be considered as strict requirements but rather as guidelines and granted an injunction against the unwilling licensee. Clearly, the confusion will last.

### 3.2.3 Japan: A fairly consolidated practical guide

Similar SEP legal disputes happened in Japanese market, for example, *Samsung v. Apple* judgment handed by Tokyo IP High Court, civil disputes between *Imation* and *One-Blue* handed by Tokyo district court and JFTC's closing decision on

<sup>234</sup> Pentheroudakis, Chryssoula, Justus A. Baron, Licensing terms of standard essential patents-a comprehensive analysis of cases, available at

<https://publications.jrc.ec.europa.eu/repository/bitstream/JRC104068/jrc104068%20online.pdf.p69>

<sup>235</sup> Herrmann, Nadine. "Injunctions in Patent Litigation Following the CJEU Huawei v ZTE Ruling (Germany)." *Journal of European Competition Law & Practice* 9.9 (2018): 582-589.

One-Blue.<sup>236</sup> The former case stands as the first Japanese SEP litigation, also a part of global legal battle, in which *Samsung* as the SEP holder applying for a temporary injunction against *Apple*, while Apple offered a counterclaim requiring a confirmation of no damage to Samsung. Tokyo IP High Court finally decided, according to Japanese patent and civil law, SEP holder's claim for injunction and damages was unacceptable, even though some commentators argue such kind of right exercising could constitute AMA infringement. Similarly stated in EU, considering the hold-up problem, Tokyo IP High Court decided that holders of FRAND-encumbered SEPs should not be allowed to seek an injunction against a party willing to obtain a license under the FRAND terms, while the burden of proof of the willing licensee requirement is on the alleged-infringer. Claims for damages exceeding the FRAND royalty should be denied as an abuse of right, as long as the alleged-infringer successfully proves the fact that the patentee had made a FRAND declaration.

The latter case is related to a AMA Article2(9) claim. *One-Blue*, has been a patent pool that manages SEPs for the use of Blu-ray Disc standard. It failed to engage in effective royalty negotiation but instead send notice to three of major customers of *Imation*, stating that *One-Blue* licensor had right to seek injunction against their conduct of infringement on the relevant patent right. Consequently, one of those three customer retailers suspended the transaction with *Imation* for a period of time. In response, *Imation* filed a lawsuit against *One-Blue* to Tokyo District Court and won a decision that considered *One-Blue*'s conduct of seeking injunction as an abuse of right. JFTC later initiated an investigation and found the conduct of *One-Blue*, constituted an interference of competitor's transaction, a violation falling under para. 14 of the 1982 Japanese General Designation instead of refusal to deal. But eventually *Imation* withdrew from the manufacture and sales of Blu-ray Discs around December 2015. So no cease and desist order has been issued by JFTC when

<sup>236</sup> JFTC, Closing the investigation on the suspected violation by One-Blue, LLC of the Antimonopoly Act, Nov16, 2016, available at <https://www.jftc.go.jp/en/pressreleases/yearly-2016/November/161118.html>; Cotter, Thomas F., Japan's Two FRAND cases, January 11, 2016, available at <http://comparativepatentremedies.blogspot.com/2016/01/japans-two-frand-cases.html>; OECD, Licensing of IP rights and competition law-Note by Japan, June 6, 2019, available at [https://one.oecd.org/document/DAF/COMP/WD\(2019\)6/en/pdf](https://one.oecd.org/document/DAF/COMP/WD(2019)6/en/pdf)

the case was closed.

In order to release clear policy signals with regard to the new SEP issues that has not been touched by the former IP guideline, as aforementioned, on January 21, 2016, JFTC partially amended its IP Guideline to respond new challenges born in industry.<sup>237</sup> The guideline traditionally addressed unilateral refusal to license in two tier scenario, private monopolization or unfair trade practices depending on whether the harm effect on market are substantial. Accordingly, refusal to license or bringing an action for injunction against a party who is willing to take a license by a FRAND-encumbered SEP holder, or doing so after the withdrawal of the FRAND declaration for that SEP may fall under the exclusion of business activities of other entrepreneurs by making it difficult to research & develop, produce or sell the products adopting the standards. Also, the guideline set the principle to determine a willing license by taking into consideration the actions taken by the two companies during the negotiations.<sup>238</sup> Then, JPO provided more detailed descriptions of SEP related licensing negotiations and royalty calculation methods between rights holders and implementers based on international experience available.<sup>239</sup>

Very interestingly, few SEP litigation information has been filed or put into public domain. It seems that government and undertakings have a strong motive in the cost reduction of SEP licensing transaction by encouraging ADR measures for royalty negotiations.

### **3.3 Case study: License to end or component level**

#### **3.3.1 The *Qualcomm* case**

<sup>237</sup> Supra note 164.

<sup>238</sup> The One-Blue case mentioned above is actually the first case to test new SEP related rules added in the new guideline. Imation has been considered as a willing licensee, based on the fact it represented to One-Blue it was willing to pay One-Blue a fair and reasonable license fee, and proposed a license fee etc.. One-Blue, however, did not fully respond to Imation's offer, and instead intentionally interrupt Imation's business by sending notice to Imation's business partners, which is exactly the situation stated in the guideline.

<sup>239</sup> JPO, Guide to licensing negotiations involving standard essential patents, June 5, 2018, available at <https://www.meti.go.jp/press/2018/06/20180605003/20180605003-2.pdf>.

*Qualcomm*, a US tech giant specialised in telecommunication technology and cellular chip making, has unparalleled market power from 3G to even 5G in the last two decades. It generates revenue from the elaborate combination of its high quality modem chipsets and cellular technologies. Such kind of complicated business licensing strategies received continuous complaints from rivals, dealers and consumers, finally burst into a series of global competition probes led by JFTC (2009 to 2019), EC (2015 to 2019), NDRC (2015), TFTC (2015 to 2018), KFTC (2010, since 2015), and FTC (2017~).<sup>240</sup> *Qualcomm*'s competitors, downstream business partners, or consumers have also taken an active part in the process, such as making complaints to agencies, initiating civil litigation against *Qualcomm*'s business model to seek remedies. One of the most famous is Apple's global legal war strategy against *Qualcomm*, which however have finally reached settlement in April, 2019.<sup>241</sup> While each jurisdiction holds particular anti-competitive concerns according to its specific market situation, the investigations led by FTC and KFTC turn out to have direct connection with issues of refusal to license. Particularly, FTC won the case of duty to deal at district court, which contravened long established legal principle established since *Trinko* case in the US and sparked the unusual division between FTC and DOJ upon the propriety of the case and its impact on public interest. Also in 2016, KFTC found *Qualcomm* had infringed competition law by refusing or restricting the licensing of mobile communication SEPs that were essential in manufacturing and selling chipsets.

In January 2017, FTC filed a complaint in federal district court charging *Qualcomm* with using anti-competitive tactics to maintain its monopoly, including maintaining a "no license, no chips" policy, refusing to license SEPs to competitors,

<sup>240</sup> 国家发展与改革委员会 2015 (1) 号 (20150209) ; EC Case AT.39711-*Qualcomm*(predation)(20190718); EC Case At.40220-*Qualcomm*(exclusivity payments)(20180124);公正取引委員会「よるクアルコム・インコーポレイテッドに対する審決(CDMA 携帯電話端末等に係るライセンス契約に伴う拘束条件付取引)」(平成 31 年 3 月 15 日) ; FTC v. *Qualcomm* Inc.,2019 U.S. Dist. LEXI 86219;

<sup>241</sup> Apple, *Qualcomm* and Apple agree to drop all litigation, April 16, 2019, available at <https://www.apple.com/newsroom/2019/04/Qualcomm-and-apple-agree-to-drop-all-litigation/>.

and extracting exclusivity from Apple in exchange for reduced patent royalties.<sup>242</sup> During the trial, FTC's partial summary application was approved by the district court on November 6, 2018, in which FTC argued *Qualcomm* was obliged to license its SEPs to competing modem chip suppliers because of FRAND commitments made to Telecommunications Industry Association ('TIA') and the Alliance for Telecommunications Industry Solutions ('ATIS'), despite *Qualcomm* insisted on licensing to complete devices suppliers. Finally, Judge Lucy Koh ruled in favor of FTC, concluding that *Qualcomm* violated Article 5 "unfair trade practice" of the FTC Act and ordered a series of remedy measures including renegotiation and duty to deal with rival chip makers on May 21, 2019.<sup>243</sup> The district court held that *Qualcomm* has hold dominant position in both CDMA and premium LTE global modem chip markets, based on evidence of market share, entry barriers, counter bargaining power of competitors etc. The emphasis of the district court's decision was put upon the proof of harm to competition. As regard to refusal to license, the court previously stated the purpose of *Qualcomm*'s refusal to provide chips to 15 OEMs was to charge unreasonably high royalties and exclusive dealing. Then it disclosed *Qualcomm* intentionally refused to license SEP for rival chip producers in order to exclude or hinder the competition inside the market. Such refusal to license SEP has constituted a deliberate FRAND duty violation.

After *Qualcomm* appealed to ninth circuit, *Qualcomm* has got a permission from ninth circuit to temporarily suspend the fulfillment of the two duties requiring (i) *Qualcomm* must make exhaustive SEP license available to modem-chip suppliers, and (ii) *Qualcomm* must not condition the supply of modem chips on a customer's patent license status and must negotiate or renegotiate license terms, as stipulated in Judge Lucy Koh's decision, out of concerns for the possibility that *Qualcomm* may win in the appeal proceeding, the potentially irreparable harm brought to *Qualcomm* absent a

<sup>242</sup> FTC, FTC charges *Qualcomm* with monopolizing key semiconductor device used in cell phones, January 17, 2017, available at <https://www.ftc.gov/news-events/press-releases/2017/01/ftc-charges-Qualcomm-monopolizing-key-semiconductor-device-used>.

<sup>243</sup> *FTC v. Qualcomm Inc.*, No. 17-CV-00220-LHK, 2019 U.S. Dist. LEXIS 86219 (N.D. Cal. May 21, 2019)

stay, the effects upon public interests such as national security.<sup>244</sup> This enforcement has been closely watched from beginning and attracted fierce arguments from both inside and outside country. Notably the divergence between US agencies needs to be mentioned. The FTC commissioners' vote to file the complaint was 2-1, conducted just on few days before a new presidential administration, following with a dissenting statement of a commissioner based on reason for lack of economic and evidentiary support.<sup>245</sup> Also, the DOJ showed high level attention throughout the trial. Before the granting of the partial grand summary judgment, on May 2 2019, DOJ surprisingly submit a statement of interest and argued that "because an overly broad remedy could result in reduced innovation, with the potential to harm American consumers, this court should hold a hearing and order additional briefing to determine a proper remedy that protects competition while working minimal harm to public and private interests."<sup>246</sup> Furthermore, during the appeal to ninth circuit, on July 16, 2019, DOJ/DOE/DOD's joint statement of interest concerning the judgment of district court upon *Qualcomm* alleged that " Immediate implementation of the remedy could put our nation's security at risk, potentially undermining US leadership in 5G technology and standard-setting, which is vital to military readiness and other critical national interests."<sup>247</sup> Influential scholars have also expressed opinions. Professor Carl Shapiro, as economic expert witness of FTC, have given testimony about how *Qualcomm*'s anti-competitive tactics contributes to high royalties and ultimately passed on to consumers, which was accused by *Qualcomm* for lack of empirical evidence. But the Judge did not mention this part in the decision and instead focus on testimony of industry participators and *Qualcomm*'s internal communications.

<sup>244</sup> Ninth circuit order to grant *Qualcomm*'s motion to partial stay  
[http://cdn.ca9.uscourts.gov/datastore/general/2019/08/23/19-16122\\_Order.pdf](http://cdn.ca9.uscourts.gov/datastore/general/2019/08/23/19-16122_Order.pdf)

<sup>245</sup> Maureen K. Ohlhausen, Dissenting Statement of Commissioner Maureen K. Ohlhausen in the matter of *Qualcomm*, Inc. File no.141-0199, January 17, 2017,available at  
[https://www.ftc.gov/system/files/documents/public\\_statements/1055143/170117Qualcomm\\_mko\\_dissenting\\_statement.pdf](https://www.ftc.gov/system/files/documents/public_statements/1055143/170117Qualcomm_mko_dissenting_statement.pdf).

<sup>246</sup> DOJ, Statement of Interest of the United States in *FTC v. Qualcomm*, available at  
<https://assets.documentcloud.org/documents/5987678/DOJ-Statement-of-Interest-in-FTC-vs-Qualcomm.pdf>,  
published May2, 2019.

<sup>247</sup> DOJ, United States' Statement of interest concerning *Qualcomm*'s Motion for partial stay of injunction pending appeal, July 16, 2019, available at <https://www.justice.gov/atr/case-document/file/1183936/download>.



### 3.3.2 The *Nokia* complaint

A similar potentially influential SEP war related duty to deal with components or end product producers is on its way in EU's automobile industry. *Nokia*, alleging to hold SEP over mobile connectivity technology, failed to agree on a license deal with *Daimler* and its suppliers. *Daimler* and four suppliers have lodged antitrust complaints with the European Commission over *Nokia*'s refusal to license component makers, followed by an urging letter signed by at least 27 companies, while *Nokia* filed at least 10 patent infringement lawsuits against *Daimler* on March 21 2019 before the Munich I District court and other courts.<sup>248</sup> As parallel proceeding, *Huawei* is also suing *Nokia* in Dusseldorf in Germany also for the purpose of obtaining a component-level license, and *Continental* is doing the same in the Northern District of California, pending before Judge Lucy Koh.<sup>249</sup> With more and more members joining the debate, it turns out to be a cross-continental issue, a legal battle between SEP owner, sometime in the form of IPR coalition named *Avanci* and group of famous automobile manufacturers aiming to improve connectivity and self-driving technologies in the time of IoT. The EU has not officially initiated an investigation until now but closely watched the developments between the negotiation of the relevant parties. Following complaints aforementioned lodged in March 2019 from *Daimler* and later joined by four parts maker, the EC sent questionnaire to communication module auto-parts makers, *inter alia*, whether they have suspended research spending because *Nokia* has refused to license SEP, the details of their licensing negotiations with *Nokia*, whether they have no alternatives for *Nokia*'s license.<sup>250</sup> This case again deliberate the new challenge with regard to the regulation

<sup>248</sup> See news reports such as

<https://www.bury.com/en/business/news/up-to-date/news-detail/news/bury-erwartet-faire-lizenzierung/>;  
<https://mlexmarketinsight.com/insights-center/editors-picks/area-of-expertise/antitrust/nokias-connected-cars-sep-l-licensing-prompts-eu-quer>;

<https://www.reuters.com/article/us-eu-daimler-nokia-patents/daimler-asks-eu-antitrust-regulators-to-probe-nokia-patents-idUSKCN1RA2KFies-on-r-and-d-to-parts-makers>;

<https://www.ft.com/content/46e0e4c0-20ea-11ea-92da-f0c92e957a96>.

<sup>249</sup> Id.

<sup>250</sup> Id.



of refusal to license under the background of IoT, which has the potential to spread to more industries.

### 3.4 Summary

During the process of globalization, standardization and IoT, issues of refusal to license appear to generate even more significant influence upon economy than before. SEP related cases repeatedly turn out to overlap between contract law, competition law and IP law cases depending on different litigation strategy. Particularly, the IPR holders prefer to choose IP infringement lawsuit, asking for injunction or royalty, while implementers often use AML as defense, accusing the IPR holder of abusing of dominant position by violating FRAND obligations or otherwise. The development from global enforcement activities upon the *Microsoft* case to the global *Qualcomm* investigations provide numbers of solid evidence for the need to rethink about regulatory principles on refusal to license SEP under the background of IoT.

First, disputes concerning refusal to license bear a cross industry character, which is more apparent than before. The fast evolving telecommunication technology enable the effective interconnection between equipment in different industry sphere worldwide, like cars, lights, air conditioners, refrigerators. Second, the core issues concerning refusal to license also changes from disputes with particular undertaking towards to which level of the value chain right holder should license, whilst in the original scheme to license to end products are designed to bypass patent expiration principle. The ongoing legal war can substantially change the long established trade practices. Third, national security or sovereignty issues could exact major influence upon decision making mechanism. Whilst the increasing importance of IPR in economy, enforcement bodies will face growing national security policies challenges. Whether SEP right holders with FRAND promise should license all comers show great uncertainty in the near future. Lastly, the worldwide continued SEP wars again prove the urgency to establish a harmonious global competition enforcement network.

A blurring or conflicting attitude can unavoidably contribute to expanding legal uncertainty and thus to proliferating opportunism such as forum shopping activities.

## **Chapter Four. Refusal to share data in E-commerce**

Another novel challenge for modern competition law comes from the new emerging economic digitization, which substantially changes business model from traditional industry to internet innovative industry. Along with transaction digitization, abundant data concerning consumers' profile or trading history has been generated and accumulated on the large scale platformers, which conversely contribute to research and development of new products or services by taking advantage of advanced technologies, thus becoming unparalleled competitive advantage for market participators. Therefore, data has been deemed the new oil, capital, or input of economy. Yet, the inevitable problem remains. While the ownership or protection framework has not been harmoniously set for data, whether essential data should be compulsorily made public or to rival has become an urgent issue waiting to be solved.

### **4.1 Data, IPR and competition law**

#### **4.1.1 Data protection as IPR**

Protection of data as a kind of IPR against unfair competition can be found under Article 39 of the 1994 TRIPS Agreement.<sup>251</sup> Article 39.1 provides that WTO members must protect undisclosed information and test data submitted to governments as means to “ensure effective protection against unfair competition as provided in Article 10bis of the Paris Convention”, under the general title of Section 7 “protection of undisclosed information”. In the following Article 39.2 of the 1994 TRIPS Agreement sets out standard minimum levels of protection of trade secrets as IPR and provides a definition of the information that can be protected, focusing on three requirements: (i) secrecy; (ii) commercial value; and (iii) reasonable steps to keep the information secret. Article 39.3 of the 1994 TRIPS Agreement further stipulates that WTO members are required to protect against “unfair commercial use” certain test data in pharmaceutical industry submitted to the government as part of the

<sup>251</sup> See texts at [https://www.wto.org/english/docs\\_e/legal\\_e/27-trips.pdf](https://www.wto.org/english/docs_e/legal_e/27-trips.pdf)

regulatory approval process. Consequently, it can be seen data, in a general perspective, could have actually been seen as “undisclosed information”, a term interchangeable with trade secrets, under the framework of IPR.<sup>252</sup> Until now no novel kind of property has been brought up to the protection of data so far. However, concerning whether classical IPR system still fits well in today’s data-driven economy, the WIPO Director General Francis Gurry acknowledged that “One of the big questions we face today is whether these existing IP rights provide the incentives required to promote innovation in the digital age.”<sup>253</sup>

It can be seen just as opinions expressed in IPR context, the marginal costs of transmitting, processing and dealing data can be near zero, with large scale initial investments required. The familiar arguments of incentives mitigation, free riding risk for mandatory access to data also exist. But data protection does have its own specialties. Indeed, the current collection, storage and use of data in a large scale, committed mainly by private big techs, plays a more significant role in analyzing consumer behavioral pattern, designation and manufacturing of products more efficient for consumers. Jurisdictions have different protection models for those data. As aforementioned in Chapter Two, IPR protection in EU still fragmented among three main possible options for the protection of data right: Copyright, trade secret and database *sui generis* right. The 1996 EU Database Directive provides a dual regime of protection of databases by granting copyright protection to the structure of original databases and by establishing a newly created *sui generis* right protecting the content of databases in general. Meanwhile, the protection of data as trade secrets varies significantly at EU level, with the existence of definition, eligibility divergence and Member States have adopted different legal protection models.<sup>254</sup>

<sup>252</sup> de Carvalho, Nuno Pires. The TRIPS regime of antitrust and undisclosed information. *Kluwer Law International BV*, 2008.p190.

<sup>253</sup> WIPO, Intellectual property in a data-driven world, October 2019, available at [https://www.wipo.int/wipo\\_magazine/en/2019/05/article\\_0001.html](https://www.wipo.int/wipo_magazine/en/2019/05/article_0001.html)

<sup>254</sup> Banterle, Francesco. "The interface between data protection and IP law: the case of trade secrets and the database *sui generis* right in marketing operations, and the ownership of raw data in big data analysis." *Personal Data in Competition, Consumer Protection and Intellectual Property Law*. Springer, Berlin, Heidelberg, 2018, 411-443 (Citing: trade secrets are regulated with ad hoc legislation in Sweden; as types of intellectual property rights in Italy, Portugal, and only partially France; relying on unfair competition laws in Austria, Germany, Poland

#### 4.1.2 Data, platform and market power

In the recent decade, digital platform including search engines, social networks and e-commerce website or app, intervene into the transaction between consumers and suppliers, either as a proxy or middle retailer, efficiently improving the speed and scale of the movement of economic elements by mitigating transaction cost and time. The competition between digital platforms plays around two dimensions: Prices and product innovation, while in other industries reducing costs can be a major source of competitive advantage.<sup>255</sup> It should be noted in the digital economy a variety of IoT devices are interconnected through software control, thus becoming a comprehensive closed ecosystem. Big techs actually, as conglomerates aggregating multiplies industries, compete among ecosystems, by restricting the entrance of the ecosystems and controlling trading conditions inside.

At the same time, abundant data has been accumulated on those private big techs through various application program interface ('API') sources such as the data collected from website transactions or IoT with the consent of consumer, scraped from public data on Internet, bought from third parties, or authorized from government sharing. Those tech champions afterwards analyze those data extensively through algorithms or AI in order to precisely identify consumer or predict consumer preference. In addition to using data as an input to improve their services on the user and advertiser sides of their platform<sup>256</sup>, providers may rely on their datasets as an additional revenue stream if they sell it as a commodity or a raw material to third

and Spain; and based on tort law in Netherlands and Luxembourg or on breach of confidence in UK, Ireland and Malta.).

<sup>255</sup> EC, Competition policy for the digital era, May 20, 2019, available at <https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf>, p32 ('The 2019 EU Digital Report').

<sup>256</sup> Advertisement business plays a key role in the continuous development of many platforms. As known, a typical platform economy, based on cross-side network effects, is providing free service to attract consumers on one side, and persuading advertisers on the other side to pay for ad service in order to increase sales revenue. The revenue comes from advertisement business covers the cost or other fees of the platformers. Furthermore, recently platforms have improved their service, and provide consumers with personalized ads, or targeted ads, based on history data and advanced technologies.

parties.<sup>257</sup> As most of the data by nature is personal identifiable data, the processing of personal data for commercial purposes can be generally divided into three main operations: (i) direct marketing, *i.e.*, processing data to send commercial offers; (ii) profiling, *i.e.*, the automated analysis of customers' habits to provide tailored services; and (iii) assignment of customers' data to third parties for their own marketing and use. The process of technically efficient utilization of data can also be referred as "Big Data", which need two basic elements, the data and analytic skills. A US FTC report released in 2016 ('The 2016 US FTC Data Report') explains that the term "big data" refers to a confluence of factors, including the nearly ubiquitous collection of consumer data from a variety of sources, the plummeting cost of data storage, and powerful new capabilities to analyze data to draw connections and make inferences and predictions.<sup>258</sup> A common framework for characterizing big data relies on the "3 Vs", (i) the volume, (ii) velocity<sup>259</sup>, and (iii) variety of data, each of which is growing at a rapid rate as technological advances permit the analysis and use of this data in ways that were not possible previously,<sup>260</sup> or a more detailed "6V" which further included (iv) value; (v) veracity; and (vi) validation.<sup>261</sup> The objective need to get advanced data and analytics pushes the increasingly enlarging cross-sector cloud-based big data solution market, whether public or private data. In the 2018 global Big Data market, which is valued at 4.99 billion, North America has dominated the global market, while Asia-Pacific region is expected to grow as numbers of startups, SMEs and well established companies are opting for Big Data as a service to bring diversification in their business solutions.<sup>262</sup>

<sup>257</sup> Graef, Inge. "Market definition and market power in data: The case of online platforms." *World Competition* 38 (2015): 473. p478.

<sup>258</sup> FTC, Big data: A tool for inclusion or Exclusion?-Understanding the issues, January 2016, available at <https://www.ftc.gov/system/files/documents/reports/big-data-tool-inclusion-or-exclusion-understanding-issues/160106big-data-rpt.pdf>, p1.

<sup>259</sup> Kathuria, Vikas, and Jure Globocnik. "Exclusionary conduct in data-driven markets: limitations of data sharing remedy." *EU Competition Law Remedies in Data Economy*, Springer (2019): 19-04. (Citing, Velocity, which is often referred to as the freshness of data, defines the speed of change and occupies the centre stage in the dynamic markets.)

<sup>260</sup> Id.

<sup>261</sup> Agnellutti, Cody. "Big Data: An Exploration of Opportunities, Values, and Privacy Issues". *Nova Science Publishers, Inc.*, 2014.

<sup>262</sup> See details at <https://www.alliedmarketresearch.com/big-data-as-a-service-market>

Anyway, from the perspective of competition law, the new business model and the special character of data or big data bring challenge to the identification of market power in the relevant market, subsequent analysis of anti-competitive harm with regard to data accessibility, and reasonable remedy mechanism for access to data, or data interoperability. To be clear, the new business model combining data with platform gave rise to both technical difficulty and theoretical obstacles for defining relevant market. In traditional cases, a particular category of data may itself constitute an appropriate relevant market. For instance, the US FTC found in *Dun & Bradstreet/Quality Education Data* (2010) that the merging parties were the only significant US suppliers of [K-12] educational marketing data.<sup>263</sup> In a multi-sided market, a typical platform business model is now generally providing certain free service to consumers who are sensitive to price or dealers in order to reap the valuable consumer attention, and generating interest in other market to subsidize the free service provided, by cooperating with advertisers who need to attract the consumers attention to their products and then increase the possibility of concluding a actual business contract. Personal data deposited upon platforms become a bargaining chip for next round of data extraction or data mining. It is often stated that personal data is the currency that pays for 'free' services in two-sided markets<sup>264</sup>, or multi-sided markets, a terminology sometimes interchangeable with platform economy. In cases when the platforms are actually conducting conglomerate-type business ecosystem, data generated from one market but actually utilized in another one or several markets under the effect of indirect network, which is used to describe situations in which the value of the platform to one side depends on either the revenue generated or the number of users on the other side. Under such circumstance, traditional tools utilized

[https://www.researchandmarkets.com/reports/4992328/global-big-data-analytics-market-size-market?utm\\_source=dynamic&utm\\_medium=GNOM&utm\\_code=jjrj62&utm\\_campaign=1359321+-+Big+Data+Analytics+Industry+Report+2020+-+Rapidly+Increasing+Volume+%26+Complexity+of+Data%2c+Cloud-Computing+Traffic%2c+and+Adoption+of+IoT+%26+AI+are+Driving+Growth&utm\\_exec=joca220gnomd](https://www.researchandmarkets.com/reports/4992328/global-big-data-analytics-market-size-market?utm_source=dynamic&utm_medium=GNOM&utm_code=jjrj62&utm_campaign=1359321+-+Big+Data+Analytics+Industry+Report+2020+-+Rapidly+Increasing+Volume+%26+Complexity+of+Data%2c+Cloud-Computing+Traffic%2c+and+Adoption+of+IoT+%26+AI+are+Driving+Growth&utm_exec=joca220gnomd)

<sup>263</sup> FTC, Analysis of Agreement containing consent order to aid public comment, in the matter of the Dun & Bradstreet Corporation, Docket No.9342, available at

<https://www.ftc.gov/sites/default/files/documents/cases/2010/09/100910dunbradstreetanal.pdf>

<sup>264</sup> Costa-Cabral, Francisco, and Orla Lynskey. "Family ties: the intersection between data protection and competition in EU Law." *Common Market Law Review* 54.1 (2017): 11-50.

to define relevant market, such as analysis of the demand- and supply- side substitutability accompanied with SSNIP test, cannot be directly utilized now because the basic service provided for customers is free on the surface, while the pricing strategy for advertisers can give rise to indirect network externalities on the customer side. As regards to theoretical substitute small but significant non-transitory decrease in quality ('SSNDQ'), it is unclear how this test could be made operational in practice without a precise measurement of quality that would allow competition authorities and courts to determine an equivalent to a 5-10% price increase, and without a way to quantify the effects of the quality degradation on the firm's revenues in order to determine whether such a degradation would be profitable.<sup>265</sup> Furthermore, as multi-sided markets may be particularly prone to a cellophane fallacy due to a concentration tendencies that multi-sided markets may exhibit, it is not surprising that so far competition authorities do not seem to have applied a modified version of the SSNIP test that accounts for multi-sidedness.<sup>266</sup>

Moreover, the measurement of anti-competitive harm of refusal to share, give access to, data in the new business pattern can be confusing. As OECD observes, the competition in digital markets has its own characteristic, including tendencies toward "winner takes all" competition in the market, network effects, two-sided markets, fast paced innovation and high rates of investment.<sup>267</sup> Apart from the traditional competitive concern in traditional industry, the new concern is: While entry is possible, expansion will likely be controlled by super-platforms; While choice is ample, competition is limited; and while disruptive innovative threats emerge, they are eliminated through acquisitions or exclusionary practices.<sup>268</sup> The interaction between network effects, market entry barrier and data in internet industry appears to

<sup>265</sup> OECD, The role and Measurement of Quality in Competition Analysis, DAF/COMP(2013)17, available at [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP\(2013\)17&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP(2013)17&docLanguage=En), p15.

<sup>266</sup> OECD, Rethinking Antitrust Tools for Multi-Sided Platforms 2018. April 6, 2018, available at [www.oecd.org/competition/rethinking-antitrust-tools-for-multi-sided-platforms.htm](http://www.oecd.org/competition/rethinking-antitrust-tools-for-multi-sided-platforms.htm)

<sup>267</sup> OECD, The Digital Economy, DAF/COMP(2012)22, available at <http://www.oecd.org/daf/competition/The-Digital-Economy-2012.pdf>, p5.

<sup>268</sup> Ezrachi, Ariel, and Maurice E. Stucke. "Virtual competition." *Journal of European Competition Law&Practice*, Vol.7, No.9 (2016): 585-586.



be more controversial for the analysis of benefits and harm than ever. Data, as the source for identification of consumer needs, has undoubtedly become one of the most important competitive advantages in the modern market competition. The new disrupt innovation relies heavily on the ability to get access to continuous new data flow? and advanced analytic techniques, based on which the undertaking can put forward with new products and services satisfying consumers' needs better. The data supply chain may also appear to be a feedback loop inside the platform ecosystem, thus creating high entry barrier for outsider. The strategy of refusal to give access to data, or discriminatory allowing access to data, may be used to distort competition. Anti-competitive data-driven strategies may also include preventing rivals from accessing data through exclusivity provisions with third-party providers or foreclosing opportunities for rivals to procure similar data by finally making it harder for consumers to adopt their technologies or platforms.<sup>269</sup> As regards search engines and social networking services, their significant market position might be furthermore protected by high entry barriers, especially through the large amount of data collected in the past, which permits the incumbent platforms to provide a higher quality of services.<sup>270</sup> But critics argued "both theory and actual cases support a finding that the characteristics of data are such that rivals cannot be foreclosed from replicating the benefits of big data enjoyed by larger online firms, and big data in the hands of large firms does not necessarily pose a significant risk."<sup>271</sup> "Efforts to coordinate interdependent markets-and thereby produce potential efficiency gains in multi-sided markets-need to be distinguished from efforts to extend a monopoly from one product to another."<sup>272</sup> Furthermore, market power may be restricted by the ability of consumers to "multi-home", referring to the conduct of taking advantage of the

<sup>269</sup> Lasserre, Bruno, and Andreas Mundt. "Competition law and big data: the enforcers' view." *Antitrust & Public Policies* 4.1 (2017).

<sup>270</sup> Evans, David S., and Richard Schmalensee. The industrial organization of markets with two-sided platforms. No. w11603. *National Bureau of Economic Research*, 2005.

<sup>271</sup> Sokol, D. D., and R. Comerford. "Does Antitrust Have a Role to Play in Regulating Big Data? En. RD Blair y DD Sokol." *The Cambridge Handbook of Antitrust, Intellectual Property, and High Tech* (2017), *Cambridge University Press*; Tucker, Catherine. "Digital data, platforms and the usual [antitrust] suspects: Network effects, switching costs, essential facility." *Review of Industrial Organization* 54.4 (2019): 683-694.

<sup>272</sup> Evans, David S. "The antitrust economics of multi-sided platform markets." *Yale J. on Reg.* 20 (2003): 325.

service provided by different undertakings at the same time. Data asset can hardly be a target for applying essential facility doctrine, because it is difficult to prove the development of new product depends totally on certain data owned by the big techs, which cannot meet the indispensability requirement. A question mark need to be made for the possibility to conduct a precisely quantitative measurement of the cross market pro-competitive and anti-competitive effects, even if justifications have been argued. With regard to the following specific data sharing remedy, modern government tends to encourage relevant parties to negotiate, instead directly intervening into the contract. Considering the importance of fresh data to reflect the real time consumer needs and market situation, and the current fact that behavior remedy has shown an advantage in digital merger case than before, it may provide insights for conduct case concerning data access problem. As an alternative strategy, the FRAND access remedy, which has been widely used in merger case, including IP assets, can also ensure that existing market player or new entrants are placed in a position where they can effectively compete with the merged company.<sup>273</sup>

In the data-driven economy, issues of access to data in private sector may be under the effect of more general strategy to promote open digital economy, because enhanced data access and sharing across industry enable greater returns to scale in theory. To further clarify the current regulatory trends surrounding access to data , in a more general perspective broader than competition law, OECD experts examined more than 200 policy initiatives across 37 countries, which reveal the following policy trends:(i) 65% of the policy initiatives still focus on public-sector data; (ii)15% of the countries have policy initiatives to facilitate data sharing within the private sector; (iii)12% of the initiatives address increasing data analytic capacities, either in the public or private sector.<sup>274</sup> This result also reveals the difficulty of harmonizing conflicts of interests, whether for the purpose of public interest, or the regulation of

<sup>273</sup> Heim, Mathew, and Igor Nikolic. "A FRAND Regime for Dominant Digital Platforms." *J. Intell. Prop. Info. Tech. & Elec. Com. L.* 10 (2019): 38.

<sup>274</sup> OECD, Enhancing Access to and Sharing of Data: Reconciling Risks and Benefits for Data Re-use across Societies(2019), available at [https://www.oecd-ilibrary.org/sites/276aaca8-en/index.html?itemId=/content/publication/276aaca8-en&\\_csp\\_=\\_a1e9fa54d39998ecc1d83f19b8b0fc34&itemIGO=oecd&itemContentType=book](https://www.oecd-ilibrary.org/sites/276aaca8-en/index.html?itemId=/content/publication/276aaca8-en&_csp_=_a1e9fa54d39998ecc1d83f19b8b0fc34&itemIGO=oecd&itemContentType=book)

particular big techs in particular sector. But it is clear this phenomenon for promoting public access to data could have overlap or power vacuum with the mandatory duty to share data under competition law in a particular case.

## **4.2 Current regulation of access to data**

### **4.2.1 US: Reluctance to force data sharing**

One of the most significant moves adopted by US DOJ and FTC against big techs would be the investigations launched against the famous big techs like Google, Amazon, Facebook and Apple ('GAFA') since July 2019.<sup>275</sup> The wide range ongoing investigations have shown US regulators' concern over the effect of platforms' conduct upon market competition. However, within the data context, currently US regulators seem to continue to be reluctant to require monopolists to share data with competitors. On the one hand, it roots in the current Trump administration and courts' suspicious attitude for duty to share or essential facility doctrine theory. The DOJ AAG Delrahim in 2018 repeats that "we do not generally require firms, even dominant ones, to deal with competitors. I am not yet convinced that we should have different rules for data...Neither antitrust agencies nor courts are equipped to make determinations on how much data should be shared, with whom, and at what price. But free and competitive markets can do this."<sup>276</sup> On the other hand, US agencies' reluctance to accept the idea that market power can be derived from the mere possession of big data.<sup>277</sup> No conduct case has been dealt with so far. Similarly, even

<sup>275</sup> DOJ, Justice Depart Reviewing the Practices of Market-Leading Online Platforms: Review Focuses on Practices that Create or Maintain Structural Impediments to Greater Competition and User Benefits, July 23, 2019, available at

<https://www.justice.gov/opa/pr/justice-department-reviewing-practices-market-leading-online-platforms>; Reuters, FTC chief says has "multiple" investigations of tech platforms, November 18, 2019, available at <https://www.reuters.com/article/us-usa-tech-antitrust/ftc-chief-says-has-multiple-investigations-of-tech-platforms-idUSKBN1XS2AE>

<sup>276</sup> DOJ, Assistant Attorney General Makan Delrahim Delivers Remarks at the University of Haifa in Israel, "Start Me Up": Start-Up Nations, Innovation, and Antitrust Policy, October 17, 2018, available at <https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-university-haifa-israel>

<sup>277</sup> Gris, Ben and Sara Ashall, European Union and United States: Antitrust And Data, January 9, 2020, available at

though US agencies have investigated traditional type database services related merger cases, until now the theories of harm regarding big data have not led to merger challenges or remedies.<sup>278</sup>

In the US, big data is protected by a computer-related law called Computer Fraud and Abuse Act ('CFAA'), under which a rival platform's access to the dominant platform's data constitutes crime, even when individual users have given permission to the rival platform for using their personal data.<sup>279</sup>

#### **4.2.2 EU: Strong concern for data portability and data availability**

In the EU massive amount of data generated by IoT connections and devices is also considered necessary to create fresh resources for growing data analytics and AI in Europe, which will give another boost to the competitiveness of the EU economy. On April 4, 2019, the EC published the "Competition policy for the digital era" ('The 2019 EU Digital Report') written by a panel of special advisers<sup>280</sup>, which should be regarded as follow-up efforts to facilitate the creation of EU Digital Single Market ('DSM') launched since 2015.<sup>281</sup> Considering the complexity of multi-sided market, the 2019 EU Digital Report suggests less emphasis on market definition and more emphasis on theories of harm and anti-competitive strategies.<sup>282</sup> It recognized that data is often an important input for online services and production processes, thus becoming a decisive competitiveness for competition. The importance of data and data access for competition will always depend on an analysis of the specificities of a

<https://www.mondaq.com/unitedstates/Anti-trustCompetition-Law/881748/European-Union-And-United-States-Antitrust-And-Data#footnote-052>

<sup>278</sup> Bitton, Daniel S, Leslie C Overton, *United-E-commerce and Big Data: Merger Control*, October 15, 2019, available at

<https://globalcompetitionreview.com/insight/e-commerce-competition-enforcement-guide-second-edition/1209650/united-states-%E2%80%93-e-commerce-and-big-data-merger-control>

<sup>279</sup> Takigawa, Toshiaki. "Super Platforms, Big Data, and the Competition Law: The Japanese Approach in Contrast with the US and the EU." *ASCOLA Conference, New York University*, June. 2018.

<sup>280</sup> EC, *Competition policy for the digital era*, May 20, 2019, available at <https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf>

<sup>281</sup> EC, *Communication from the commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the regions: A Digital Single Market Strategy for Europe*, June 5, 2015, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52015DC0192>

<sup>282</sup> The 2019 EU Digital Report, section 3.

given market, the type of data and data usage in a given case. The report argued that a duty to grant access to data may arise under Article 102, for which the indispensability will be regarded as a central criterion.<sup>283</sup> Meanwhile, data protection itself can provide a normative benchmark for identifying exploitation in relation to non-price parameters, which has been acknowledged in the German and French joint report upon the topic “Competition law and Data” (‘The German and French Joint Data Report’).<sup>284</sup> Actually the practical aspects of data access, how to define the condition and oversight for data access or data interoperability, attracts hot debate. With regard to the boundary of the remedy measures which can be imposed by the EC’s authority, Regulation 1/2003 empowers the Commission in the event of violation of Article 102 TFEU to impose on “undertakings and associations of undertakings any behavioral or structural remedies which are proportionate to the infringement committed and necessary to bring the infringement effectively to an end.” No clear restriction concerning the compulsory data sharing order can be seen from the text. Nevertheless, as aforementioned there exists a regulatory dilemma for data relevant cases to encounter multiply potential probes such as privacy, consumer protection at the same time. The option of granting other competitors access to the data accumulated by a dominant platform (as an essential facility) for eliminating a very substantial entry barrier might admittedly help competition but can be viewed critically from the perspective of privacy protection due to the further dissemination of private data.<sup>285</sup> Particularly, the possible remedy for mandatory access to data may intervene the regime of Article 20 of EU General Data Protection Regulation (‘GDPR’), which gives control to individuals over their personal data and is applicable to any processing of personal data, *i.e.*, information directly or indirectly relating to an identified or identifiable natural person. To be clear, the fact that some specific legal instruments serve to resolve sensitive issues on personal data does not

<sup>283</sup> The 2019 EU Digital Report, pp. 98-105.

<sup>284</sup> See texts at

[https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Berichte/Big%20Data%20Papier.pdf;jsessionid=C4D7ACCA7AB3A7726971C97C733A4F7.1\\_cid371?\\_blob=publicationFile&v=2](https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Berichte/Big%20Data%20Papier.pdf;jsessionid=C4D7ACCA7AB3A7726971C97C733A4F7.1_cid371?_blob=publicationFile&v=2)

<sup>285</sup> Kerber, Wolfgang. "Digital markets, data, and privacy: competition law, consumer law and data protection." *Journal of Intellectual Property Law & Practice* 11.11 (2016): 856-866.p861.

entail that competition law is irrelevant to personal data<sup>286</sup>, or immune the remedy measures from being challenged by other legislation. The report concluded this way: “Very likely, mandated data access will therefore, in the end, be a sector-specific regime, subject to some sort of regulation and regulatory oversight. Nonetheless, competition law can specify the general preconditions and give a more fundamental, pro-competitive orientation to the regulatory regimes that are likely to arise.”<sup>287</sup>

More recently, on February 19, 2020 the Commission published a communication on a European strategy for data (‘2020 EU Data Strategy Communication’)<sup>288</sup>, also as part of its strategy to shape Europe’s single digital market. It discusses big techs companies accumulating large amounts of data, which can result in competitive advantages that enable those firms to spread into neighbouring markets relatively easily. It states that the Commission will also consider to update the Horizontal Co-operation Guidelines to provide more guidance to stakeholders. A potential data access right may be set in the future, which should be sector-specific and only given if a market failure in this sector is identified that competition law cannot solve.<sup>289</sup>

Member countries have also endeavored to make adaptations to domestic competition law. Germany is constantly considering to take an aggressive approach to the digital antitrust law. It amended its Competition Act (‘The GWB’) in 2017 to explicitly mention network effects, access to data, and multi- and single-homing as factors in the assessment of market power, clarified that a market may exist even where there are no monetary payments, and added new thresholds in respect of merger notifications.<sup>290</sup> In October 2019, the data ethics commission of Germany released a report (‘The 2019 Germany Data Report’) of recommendations for the

<sup>286</sup> Id. p.20.

<sup>287</sup> The 2019 EU Digital Report, p.109.

<sup>288</sup> EC, Communication from the commission to the European Parliament, the council, the European economic and social committee and the Committee of the regions: A European strategy for data, February 19,2020, available at [https://ec.europa.eu/info/sites/info/files/communication-european-strategy-data-19feb2020\\_en.pdf](https://ec.europa.eu/info/sites/info/files/communication-european-strategy-data-19feb2020_en.pdf)

<sup>289</sup> The 2020 EU Data strategy, p.13, note39.

<sup>290</sup> Jones, Alison, and Brenda Sufrin. *EU competition law: text, cases, and materials*. Oxford University Press, 2019, p. 63.

adaptions to digital economy.<sup>291</sup> It points out the essential facilities doctrine can be used (in a slightly modified form if necessary) if a market-dominant company holds exclusive control over a resource (e.g., a network/infrastructure) that is crucially important for competition on a neighbouring market<sup>292</sup>, while admitting the regulation of abusive conduct was not a fix-all solution to data access problems. In January 2020, the draft ministerial bill on the 10<sup>th</sup> amendment of the GWB particularly provides that data would be considered as a factor in determining a dominant market position.<sup>293</sup> The concept “intermediary power” has been regarded as a factor for determining a dominant position in the new Section 18(3b). According to the new proposed section 18(3) GWB, refusal of access to data that is objectively necessary for a market participant to operate in an upstream or downstream market will be regarded as an abuse of market power. A new highly controversial section 19(2) No.4 stipulates the refusal to grant another company access to data can be classified as abusive under certain conditions<sup>294</sup>, as an alternative when EU fails to solve the issue of data governance.

#### **4.2.3 Japan: A quick move in legislation and regulatory preparation**

Digital economy has also provoked new move inside Japan. The spread of IoT and the advancement of AI-related technology enable companies to increasingly reach across industry lines to tackle new business cooperation models. For example, *Mitsubishi Electric*, industrial robot maker *Fanuc*, machine tool maker *DMG Mori*

<sup>291</sup> Available at [https://datenethikkommission.de/wp-content/uploads/DEK\\_Gutachten\\_engl\\_bf\\_200121.pdf](https://datenethikkommission.de/wp-content/uploads/DEK_Gutachten_engl_bf_200121.pdf)

<sup>292</sup> The 2019 Germany Data Report. p153.

<sup>293</sup> Max Planck Institute for Innovation and Competition, 10<sup>th</sup> Amendment to the GWB: New Instruments for a Competition Policy in the Digital Age, February 20<sup>th</sup>, 2020, available at <https://www.ip.mpg.de/en/nc/the-institute/institute-news/10th-amendment-to-the-gwb-new-instruments-for-a-competition-policy-in-the-digital-age.html>; and two law firm newsletter, available at <https://www.ashurst.com/en/news-and-insights/legal-updates/competition-law-newsletter-february-2020/cn08-10th-amendment-to-germanys-competition-act/> <https://www.luther-lawfirm.com/en/newsroom/press-releases/detail/referentenentwurf-zur-10-gwb-novelle-offiziell-veroeffentlicht>

<sup>294</sup> Id.



and *Hitachi* have agreed to share data through a platform of connected devices.<sup>295</sup> Such kind of partnership has the possibility of creating monopolies on customer data when the data becomes an indispensable asset for certain businesses, a competitive disadvantage for companies left out. JFTC quickly reacted to the change brought by digital market, increase budgets, human resources and infrastructure to enhance the enforcement against big techs. It adopted a series of measures to respond to new challenges, such as releasing policy report, assembling policy and academic discussions, conducting sector inquiries and amending guidelines or even laws. To bear in mind, the measures taken by JFTC are generally under the leadership a new established “Headquarters for Digital Market Competition” with a council and a working group supporting its daily work, in order to tackle the issues which run across ministries and agencies, or cross-sectional. Currently, five issues have been chosen as main targets in preliminary stage.<sup>296</sup> No wonder potential conflicts between agencies will arise during the whole process.<sup>297</sup>

On June 6, 2017, the JFTC released its “Study Report on Data and Competition Policy” (‘The 2017 Japan Data Report’) to discuss the interactive relationship between data and competition policy.<sup>298</sup> While as a general rule the probability of violating the AMA is low when an enterprise accumulating data refuses access to this data to other enterprises, it clearly points out there is possibility that such conduct

<sup>295</sup> Nikkei, Japan’s antitrust body to set rules for data-sharing tie-ups, December 1, 2018, available at <https://asia.nikkei.com/Economy/Japan-s-antitrust-body-to-set-rules-for-data-sharing-tie-ups>

<sup>296</sup> Japan Cabinet, Headquarters for Digital Market Competition, Five issues on Digital Market Competition Council, October 4, 2019, available at [https://www.kantei.go.jp/jp/singi/digitalmarket/pdf\\_e/documents\\_191004.pdf](https://www.kantei.go.jp/jp/singi/digitalmarket/pdf_e/documents_191004.pdf) (Currently, five issues have been decided for the preliminary stage: (i) Amendments to Guidelines to Application of the Antimonopoly Act concerning Review of Business Combination; (ii) Consideration of a Bill on improving transparency of transactions of digital platform operators; (iii) Guidelines concerning Abuse of a Superior Bargaining Position in transactions between digital platform operators and consumers; (iv) Revision of the Act on the Protection of Personal Information; (v) Competition Assessment on digital markets).

<sup>297</sup> Mlex, JFTC’s control over competition policy for digital platforms challenged by new government expert group, available at <https://mlexmarketinsight.com/insights-center/editors-picks/area-of-expertise/antitrust/jftcs-control-over-competition-policy-for-digital-platforms-challenged-by-new-government-expert-group>; Mainichi, Editorial: Japan should set explicit criteria for protection of personal info, October 21, 2019, available at <https://mainichi.jp/english/articles/20191021/p2a/00m/0bu/013000c>. (The two articles mentioned different opinions held by different agencies, concerning the power dilution of JFTC to expert group under cabinet, the protection scope of personal information, respectively.)

<sup>298</sup> See details at [www.jftc.go.jp/en/pressreleases/yearly-2017/June/170606\\_files/170606-4.pdf](http://www.jftc.go.jp/en/pressreleases/yearly-2017/June/170606_files/170606-4.pdf)



constitutes exclusionary private monopolization, refusal to trade constituting one of the unfair trade practices, or interference with transactions, depending on whether the degree of influence upon market is substantial or not.<sup>299</sup> The report specifically mentioned two cases for evaluating “artificial deviation from the scope of normal competitive methods” or the “refusal to trade as a means of achieving unreasonable objectives”: (i) existence of previous transaction relationship, without reasonable objective other than exclusion of competitors from the market of products utilizing the data; (ii) when an obligation to allow competitors (or customers) access to data has been recognized, such as a customer requires the business operator to disclose the retained personal data defined in Article 28 of the Act on the Protection of Personal Information, refusing competitors (or customers) access to data without justifiable grounds even though such refusal will lead to competitors being excluded from the market of products utilizing the data.<sup>300</sup> It can be found a similar standard in the general refusal to deal has been utilized in the report for data accumulation and utilization. With respect to the relevant market definition, the report clearly recognized the free service business as a relevant market, which provides a general example for the definition of multi-sided markets. During the process of defining a service for free market, the report discusses that demand substitutability shall be evaluated based on the result of the review of the customers’ recognition on the target service, although the SSNIP test is difficult to apply in defining such a market.<sup>301</sup> Data trading markets are separately admitted when data is collected and traded accompanying the products at the same time or in the future. Meanwhile, on December 12, 2018, a study group “on the improvement of the Trading Environment of the trading environment surrounding digital platforms”, assembled by the Ministry of Economy, Trade and Industry (‘METI’), the Ministry of Internal Affairs and Communications (‘MIC’) and JFTC, released an interim discussion paper “Improvement of Trading Environment surrounding Digital Platforms” (‘The 2018

<sup>299</sup> The 2017 Japan Data report, p. 51.

<sup>300</sup> The 2017 Japan Data report, pp. 54-55.

<sup>301</sup> The 2017 Japan Data report, p. 31.

Japan Digital Report’).<sup>302</sup> It mentioned the technical difficulty in applying the AMA analysis, the feasibility of essential facility doctrine and data access and open data issues. The cooperative working system shows the agencies are clearly aware of their own roles in the new regulatory system.

As for the legislation part, on December 17, 2019, JFTC amended the guidelines to application of the anti-monopoly act concerning review of business combination (‘The 2019 Japan Merger Guideline’)<sup>303</sup>, and the policies concerning procedures of review of business combination (‘The 2019 Japan Merger Policies’)<sup>304</sup>, which can provide insight with respect to JFTC’s attitude towards platform business’ related cases. Concerning the relevant market in digital platform, the 2019 Japanese Merger Guideline would define relevant markets by each layer of users, and considers the characteristic of the multi-sided market when it determines the influence in the relevant market by the proposed transaction.<sup>305</sup> Direct network effect will be taken into account when the value of the parties’ product increase by securing a certain number of users subsequent to the proposed merger, and thereby a further increase in the number of users for the products is expected. In the case of single-homing type platform, direct network effects would be stronger. R&D is also considered as one possible factor when determining the influence on the relevant market.<sup>306</sup> Particularly, JFTC will conduct substantial review for cases falling in the safe harbor, if and when a party has potential competitiveness that is not reflected in the current market share, for instance, when the party has data and/or intellectual property rights that are important for competition.<sup>307</sup>

Among limited previous investigations against digital platform business, JFTC has not imposed one single surcharge order until now, and issued only one cease and desist order.<sup>308</sup> No data access conduct case has been found from the public records.

<sup>302</sup> See texts at [www.jftc.go.jp/en/policy\\_enforcement/survey/index\\_files/190220.2.pdf](http://www.jftc.go.jp/en/policy_enforcement/survey/index_files/190220.2.pdf)

<sup>303</sup> See texts at [www.jftc.go.jp/en/legislation\\_gls/imonopoly\\_guidelines\\_files/191217GL.pdf](http://www.jftc.go.jp/en/legislation_gls/imonopoly_guidelines_files/191217GL.pdf)

<sup>304</sup> See texts at [www.jftc.go.jp/en/legislation\\_gls/imonopoly\\_guidelines\\_files/191217policy.pdf](http://www.jftc.go.jp/en/legislation_gls/imonopoly_guidelines_files/191217policy.pdf)

<sup>305</sup> The 2019 Japan Merger Guideline, p13.

<sup>306</sup> The 2019 Japan Merger Guideline, p29.

<sup>307</sup> The 2019 Japan Merger Guideline, p24.

<sup>308</sup> Fumio Sensui, Digital Platform and Competition Law in Japan, remarks at the 2d CPRC international symposium on December 7<sup>th</sup>, 2018, available at [www.jftc.go.jp/cprc/koukai/sympo/181207sympo01.pdf](http://www.jftc.go.jp/cprc/koukai/sympo/181207sympo01.pdf)

It is understandable that JFTC took a cautious attitude because of specialty of multi-sided economy. Meanwhile, part of the reasons may be the commitment procedure implemented since December 2018, through which undertaking can get a closing of investigation with no surcharge imposed, by negotiating with JFTC based on commitment.<sup>309</sup> But the JFTC continuously did numbers of market inquiries in order to better understand digital economy. In the near future, refusal of data access still has the risk of facing potential probe under private monopolization or unfair trade practices.

### 4.3 Case study

#### *HiQ Labs, Inc. v. LinkedIn Corp*<sup>310</sup>

*HiQ*, a data analytics company, sued *LinkedIn* at northern district of California for violation of Computer Fraud and Abuse Act ('CFAA'), California's Unfair Competition Law ('UCL') etc., by issuing a cease and desist letter and terminating *HiQ*'s ability to access publicly available information on profiles of *LinkedIn* users. On August 14, 2017, the district court issued order granting plaintiff's motion for preliminary injunction<sup>311</sup> to stop *LinkedIn* from blocking *HiQ*'s data scraping conduct, which has been affirmed by the Ninth Circuit on September 9, 2019.<sup>312</sup> It is reported *LinkedIn* has filed a petition for a writ of certiorari asking the Supreme Court to overturn the Ninth circuit's blockbuster ruling, while *HiQ* has filed an amended complaint to add more antitrust claims.<sup>313</sup> This substantial part of case has not been

<sup>309</sup> For example, the Rakuten commitment case approved by JFTC on October 25, 2019, available at <https://www.jftc.go.jp/en/pressreleases/yearly-2019/October/191025.html>. Rakuten was found to require operators on its platform to make prices and numbers of rooms equal or better than those set for other distribution channels (the so called most favored nation ('MFN') article). After JFTC showed concern for the suspected violation, Rakuten offered a commitment plan and successfully persuade JFTC to accept the plan and drop the relevant investigation.

<sup>310</sup> *HiQ Labs, Inc. v. LinkedIn Corp*, 938 F.3d 985 (9th Cir. 2019)

<sup>311</sup> *HiQ Labs, Inc. v. LinkedIn Corp*, 273 F. Supp. 3d 1099, No. 17-cv-03301-EMC (N.D. Cal. 2017) <https://digitalcommons.law.scu.edu/cgi/viewcontent.cgi?article=2539&context=historical>

<sup>312</sup> *HiQ Labs, Inc. v. LinkedIn Corp*, 938 F.3d 985 (9th Cir. 2019) <http://cdn.ca9.uscourts.gov/datastore/opinions/2019/09/09/17-16783.pdf>

<sup>313</sup> Neuburger, Jeffrey D., *LinkedIn Files Petition to the Supreme Court in HiQ Web Scraping Case*, March 12, 2020, available at <https://www.natlawreview.com/article/linkedin-files-petition-to-supreme-court-HiQ-web-scraping-case>

finally solved yet, but reflected US court's concern for the applicability of antitrust to data refusal issues.

In the part of competition law argument, *HiQ* asserted *Linkedin*, as a dominant power in online professional networking market, blocked *HiQ*'s access to data for anti-competitive purposes of eliminate competition, after it decided to release products to compete with *HiQ* in data analytics business. The district court agreed *HiQ* has raised serious question under California's UCL, which prohibits any unlawful, unfair or fraudulent business act or practices, with respect to its claim that *Linkedin* has been unfairly leveraging its power in the professional networking market and block *HiQ*'s access to public available data. *Linkedin* put forward a defense that the refusal to data access was for the protection of users' privacy and personal preferences and its users' trust. But the district court rejected the defense based on the fact *Linkedin* itself makes user data available to third parties and gave totally conflicting opinion in other litigation. It is a pity the district court only admitted serious concern has existed which is sufficient for the purpose of the reasoning for preliminary injunction, and the Ninth circuit totally did not touch this part. That may be the reason why *HiQ* has decided to add arguments based on Sherman Act Sections 1 and 2 to seek for injunction and damage at the district court.

#### 4.4 Summary

New regulation uncertainty has arisen along with the expanding digital economy around the world, with potential conflicts among jurisdictions remained. Theoretical and technical barriers arise in digital time, due to the immature competition law analytical framework. Even though whether data can be seen as an IP, and whether data can be treated as an essential facility in digitization is still uncertain, accumulated data can be deemed as an essential input for big techs and their competitors to improve the quality of their products and targeted adds. Until now, not high profile

The petition submitted on March 9, 2020, to the Supreme court can be available at <https://newmedialaw.proskauer.com/files/2020/03/LinkedInVHiQ-LinkedIn-Petition.pdf>

cases have appeared in public area. But data interoperability problem has the potential to attract another similar round of global legal war, just like what happened in the SEP area. Until now, major competition law watchdogs such as the EU and Japan seem move fast currently whilst the US' attitude still remains to be seen. Again, global conflicts among jurisdictions continue to wait to be seen in the future.

## **Chapter Five. Chinese experience and Implication for China**

As a young competition law, Chinese AML has provided influential and high profile precedents for the modern development of international competition law. But China AML has its own characteristics compared with its counterpart laws in other jurisdictions. Taking into consideration the China's economic volume in the world economic framework, China's attitude towards AML regulation of refusal to license matters for the rest of the world, and should be checked in order to carefully avoid potential conflicts with those jurisdictions.

### **5.1 Legal Framework**

#### **5.1.1 Background**

##### **5.1.1.1 Legislation and enforcement of Chinese AML**

The Anti-monopoly law ('AML'), the Chinese version of competition law, was promulgated on August 30, 2007 and entered into force on August 1, 2008. It is similarly structured in line with the mainstream competition law model, especially the EU model. Currently, there are four pillars: monopolistic agreements, abuse of dominant position, merger control and administrative monopolies. Violation of Chinese AML can only result in two kinds of liability: administrative and civil one. Chinese AML was born after more than ten years, numerous rounds of drafting, revising, arguing or stagnation periods. The long struggling process of absorbing competition policy into Chinese government's fundamental policy should be understood against the special Chinese history. Since the reform and opening-up policy set in 1979, China finally shifted the main purpose away from political movements, and has gradually move from a state planned economy towards a market economy with the Chinese characteristics in the subsequent four decades. Chinese society experience an overall reshaping during the significant transition, including the basic concept that free market competition would be the most efficient tool for resources allocating and public authority should refrain from aggressively interfering

market participants' choice or price regulation. As a developing country with thousands years of centralism tradition and a short history of commercialism, competition policy promoted by the AML in China has a different and long way to go compared with its counterparts. There also exists a series of competition related articles stated in other laws with looser scrutiny standards, such as the anti-unfair competition law ('AUCL', effective since December 1st, 1993), Price law (effective since May 1, 1998), Bidding law (effective since January 1st, 2000), E-commerce law (effective since January 1, 2019)<sup>314</sup> and so on. When the AML came into effect, those laws continue to coexist while somehow giving rise to uncertainties of enforcement conflicts in practice. Considering price regulation still exists in several major industrial sectors and the special functionality of state-owned enterprises ('SOE') and State-owned Assets Supervision and Administration Commission of the State Council ('SASAC') role in economy, it is challenging to deeply understand market situation with Chinese characteristics, because elements of both free-market and controlled-market principles are still competing with one another, also reflecting the variation in competition standards that exist across the capitalist world.<sup>315</sup> Meanwhile, at the beginning of 2020, the AML enforcer released a draft revision to the AML in order to respond new changes in economy, for the first time since effective in 2008.

With respect to public enforcement bodies of the AML, originally three agencies had been entrusted with the enforcement power to investigate and sanction illegal conducts violating the AML, with the State administration for Industry and Commerce ('SAIC') responsible for non-price related concerted and unilateral offenses, the National Development and Reform commission ('NDRC') responsible for price related behaviors, and the Ministry of Commerce of the People's Republic of China ('MOFOM') responsible for merger control, while the anti-monopoly commission ('AMC') is responsible for developing general competition policy,

<sup>314</sup> 川島富士雄「中国における電子商取引分野に関する法規制—独占禁止法、反不正当競争法及び電子商取引法を中心に—」RIETI Discussion Paper Series 20-J-22 2020 年 4 月  
<https://www.rieti.go.jp/jp/publications/dp/20j022.pdf>

<sup>315</sup> Kennedy, Scott. "The Price of Competition: Pricing Policies and the Struggle to Define China's Economic System." *The China Journal* 49 (2003): 1-30.

publishing guidelines and coordinating the administrative enforcement activities. Based on the first decades of enforcement experience, such kind of mechanism had been proved to be vulnerable to power overlapping or vacuum, conflict with industrial policy and multiply unnecessary resource waste, thus attracting criticism from both inside and outside. Consequently, in March 2018, a new body, the State Administration for Market Regulation ('SAMR'), has been set up for, among other functions, a unified enforcement of AML. Concerning distribution of specific enforcement responsibility, anti-competitive concerted or unilateral behavior plus administrative monopoly are handled by the Anti-monopoly Bureau ('AMB') of the SAMR or its local designated branches under the general authorization mechanism, which is different with the previous case-by-case authorization, while merger control issues remain at the central level as before.<sup>316</sup> The general authorization pattern may also come out as the serious human resource deficiency problem in the SAMR, with just 41 positions being allocated at the state level, and four of the seven enforcement divisions' focus primarily on merger review work and one division on abuse of administrative power, leaving just two divisions pursuing investigation of monopolistic agreements and abuse of dominance.<sup>317</sup> It is worthy to note that the SAMR also get involved with other enforcement job, such as E-commerce law, the Cybersecurity law and IP related laws. The SAMR will definitely encounter and be forced to suitably manage AML, IP or data related enforcement issues in the coming years.

For private enforcement of AML, the Supreme People's Court of China ('SPC') choose the parallel model with public enforcement, set jurisdiction and judicial interpretations for relevant AML cases. Considering the complexity of AML cases, the first instance of AML cases were originally required to be handled by the IP division of intermediate level people's court.<sup>318</sup> Then SPC established special

<sup>316</sup> SAMR, "市场监管总局关于反垄断执法授权的通知", 国市监反垄断【2018】265号  
[http://gkml.samr.gov.cn/nsjg/bgt/201902/t20190217\\_289791.html](http://gkml.samr.gov.cn/nsjg/bgt/201902/t20190217_289791.html)

<sup>317</sup> Stephanie Wu, The Asia-Pacific Antitrust Review 2019 China: Overview, GCR, available at  
<https://globalcompetitionreview.com/insight/the-asia-pacific-antitrust-review-2019/1188991/china-overview>

<sup>318</sup> SPC, 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, 法释【2012】5号, available at [http://zscq.court.gov.cn/sfjs/201304/t20130408\\_183102.html](http://zscq.court.gov.cn/sfjs/201304/t20130408_183102.html)



intellectual property court in Beijing, Guangzhou and Shanghai in 2015, and approved special IP division in 18 intermediate people's court of China, to hear AML cases. More significantly, since January 1, 2019, the appeal AML civil cases shall be directly handled by the IP tribunal of the SPC, which is also called leapfrog appeal.<sup>319</sup> Obviously, SPC took such measures to make sure AML cases handled by competent expertise and mitigate mistakes or divergences inside the court system, sharing the same level of jurisdiction with complicated IP cases.

#### **5.1.1.2 Chinese IP protection system**

Since the reform and opening-up policies set in the late 1970s, IPR protection system had been established gradually yet rapidly. Since 1980s, the state has promulgated and put into effect a number of laws and regulations covering the major contents in IPR protection, including patent law, trademark law, copyright law, regulations for the protection regarding computer software, layout designs of integrated circuits and so on.<sup>320</sup> IP protection laws, regulations and relevant enforcement interpretations have also been substantially revised to meet China's accession commitments made whilst joining the WTO in 2001 and other international treaties and organizations like Paris convention, WIPO, sometimes bearing duty heavier than normal member country as a strategy to earn eligibility. Currently, as a country with the second GDP in the world, China has acted as the world factory for more than decades and paid uncountable high environmental and human resource cost for squeezing into the global production chain. The country has been seeking to upgrade national economic development model to a more innovative and environment friendly one. Along with international pressure coming from developed countries like the US, IP protection also become one of the top priorities of the national policy agenda. While several administrative bodies and judicial enforcement bodies have increased workload with respect to IPR protection, due to relative limited time and

<sup>319</sup> SPC, 最高人民法院关于知识产权法庭若干问题的规定, 法释【2018】22号, available at <http://www.court.gov.cn/zixun-xiangqing-137461.html>

<sup>320</sup> Information office of the State council, New progress in China's protection of Intellectual Property Rights, April, 2005. available at [http://www.china-un.ch/eng/dbtyw/zmjg\\_1/jgzfbps/t193102.htm](http://www.china-un.ch/eng/dbtyw/zmjg_1/jgzfbps/t193102.htm).

shortage of intelligent human resource or enforcement deficiencies in the huge domestic market, from time to time international community kept criticizing Chinese government for ineffective enforcement of IP protection. Particularly, China and the US have decades' history of IPR related conflicts. The US had launched several rounds of "Special 301" investigations since late 1980s and initiated complaints concerning poor IP enforcement issue by resorting to WTO dispute settlement procedure.<sup>321</sup> More significantly, in recent ongoing fierce China-US trade war, basically outside of the nearly paralyzed WTO framework, the US has put IP protection as a major issue in the general negotiation agenda and reached phase one trade agreement, while the content of which remains unclear until now.<sup>322</sup> Under such kind of sensitive background, the legislation of compulsory licensing on competition law grounds has made foreign countries worry about the risk of being depriving legal intellectual property rights or provoking debates concerning discrimination against foreign enterprises.

### **5.1.2 Provisions concerning unilateral refusal to license**

#### **5.1.2.1 Articles 17 and 55 of AML, guidelines and judicial interpretations**

As for the general relationship between IP and AML, Article 55 provides if a business operator misuses its IPR in order to eliminate or restrict competition, the AML shall apply. With respect to unilateral refusal behavior, Article 17 of AML clearly prohibits a series of unilateral behaviors, including refusing to trade with a trading counterparty without any justifiable causes. Considering general law provisions with lack of clarity and the difficulty to deal with IP issues, agencies and courts endeavor to draft general and IP misuse related rules and guidelines addressing

<sup>321</sup> See e.g., *China-Measures Affecting the Protection and Enforcement of Intellectual Property Rights*, WT/DS 362, available at [https://www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds362\\_e.htm](https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds362_e.htm)

<sup>322</sup> USTR, United States and China reach phase one trade agreement, available at <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2019/december/united-states-and-china-reach>, published at December 13, 2019.

core issues necessary for enforcement, for the purpose of transparency and foreseeability.

The AMC issued the first guideline for the definition of relevant market in 2009 ('AMC Relevant Market Guideline').<sup>323</sup> In the same year, among the former three agencies, the SAIC was the first to legislate IP issues and issued the Rules on Prohibitions of Misuse of Intellectual Property Rights to Eliminate or Restrict Competition on April 7, 2015 ('The 2015 SAIC IP Rules'), which took effect on August 1, 2015 and now obviously remain effective in the subsequent new SAMR term.<sup>324</sup> Then, under the initiative from the AMC to draft 6 guidelines for AML enforcement including one on IP related issues, four agencies, SAIC/NDRC/MOF/COM/SIPO, were all asked to draft IP guideline respectively, while only the version of SAIC and NDRC can be found by public.<sup>325</sup> On March 23, 2017, the AMC released the consolidated version of the draft IP guideline ('The 2017 AMC Draft IP Guideline'). However, the relevant drafting process stifled ever since, partially as a result of the agency's consolidation or the aforementioned rising hot US-China trade war. Recently, out of the IP box, SAMR also released a general guideline on abuse of dominant position on June 26, 2019 ('The 2019 SAMR AML Abuse Guideline'),<sup>326</sup> which provide an official basic analytical framework for the detection of illegal unilateral behaviors. By the way, the SAIC once released a version of guideline for non-price related enforcement against abusive dominance in 2011 named "Rules of SAIC on prohibition of abuse of dominant market position" ('The 2011 SAIC Abuse Guideline'). Clearly, it has been superseded by the new rules issued by the SAMR.

<sup>323</sup> AMC, 国务院反垄断委员会关于相关市场界定的指南, available at [http://www.gov.cn/zwhd/2009-07/07/content\\_1355288.htm](http://www.gov.cn/zwhd/2009-07/07/content_1355288.htm).

<sup>324</sup> See SAMR website <http://www.samr.gov.cn/fldj/zcfg/>.

<sup>325</sup> AMC, 关于滥用知识产权的反垄断指南 (征求意见稿), March 23, 2017, available at [https://www.jetro.go.jp/ext\\_images/world/asia/cn/ip/law/pdf/origin/opinion20170323.pdf](https://www.jetro.go.jp/ext_images/world/asia/cn/ip/law/pdf/origin/opinion20170323.pdf); NDRC, 国家发展改革委有关部门就《关于滥用知识产权的反垄断指南》(征求意见稿)公开征求意见, December 31, 2015, available at [http://www.gov.cn/xinwen/2015-12/31/content\\_5029970.htm](http://www.gov.cn/xinwen/2015-12/31/content_5029970.htm); 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), February 4, 2016, available at [https://www.jetro.go.jp/ext\\_images/world/asia/cn/ip/law/pdf/origin/opinion20160204.pdf](https://www.jetro.go.jp/ext_images/world/asia/cn/ip/law/pdf/origin/opinion20160204.pdf).

<sup>326</sup> SAMR, 禁止滥用市场支配地位行为暂行规定 (国家市场监督管理总局令第11号公布), April 7, 2015, available at [http://gkml.samr.gov.cn/nsjg/fldj/201907/t20190725\\_305166.html](http://gkml.samr.gov.cn/nsjg/fldj/201907/t20190725_305166.html)

On the other hand, in 2012 SPC specifically issued the interpretation on the application of laws in hearing civil disputes arising from monopolistic conduct ('The 2012 SPC AML Civil Case Interpretation'), while the AML private administrative litigation follows the law of Chinese Administrative Review, the law of Chinese administrative proceedings and Relevant implementation rules and judicial interpretation rules, such as the 2018 SPC judicial interpretation concerning the application of the administrative litigation law ('The 2018 SPC Administrative Case Interpretation').

The provisions, guidelines and judicial interpretation above, along with others, constituted basic analytical framework for public and private enforcement. In practice, courts may also refer to guidelines issued by administrative bodies. For example, the applicable rules may be summarized as follows:

**General principle** The 2017 AMC Draft IP Guideline clearly stated that undertaking would not be presumed to have a dominant position in the relevant market merely because of ownership of IPRs. The same rules also equally apply to IP and non-IP subjects. Therefore, Chinese public enforcement against abuse of dominant position also follows the four-step test: defining relevant market, determining whether dominant position exists, whether undertaking abuses its dominant position, and justifications. Meanwhile, Chinese civil litigation can be brought by the plaintiff, either direct or indirect purchaser, without the precaution of an administrative AML decision according to Article 2 of the 2012 SPC AML Civil Case interpretation. As Article 50 of AML does not stipulate fault as being an important element of civil liability, monopolist should bear tort or contract civil liability regardless of whether he is at fault or not.<sup>327</sup>

**Relevant market** When defining relevant market, traditional objective standards of demand and supply side substitutability analysis, problematic SSNIP test accompanied with other economic tools are regarded as major tools to find relevant

<sup>327</sup> Liu, Honghuan and Xi Zhou, Antitrust litigation 2019, September 18, 2019, available at <https://practiceguides.chambers.com/practice-guides/antitrust-litigation-2019/china>.

product and geographic market according to the Guidelines of the AMC of the State Council on Defining Relevant Market issued in 2009 ('The 2009 China Relevant Market Guideline'). In the case of IP, the relevant product market can be a technology market or a market of relevant products containing specific IPRs according to SAIC IP Rules. Besides, the 2017 AMC Draft IP Guidelines also acknowledge the necessity of defining the relevant innovation market where the exercise of IPR may affect business operator's competition in innovation.

**Dominant position** The determination of dominant market position in Chinese public enforcement turns out to be a comprehensive process of assessing various factors, with market share acting as one of the main indicator. Article 18 of the AML enumerates a non-exhaustive list of factors for reference: (i) the market share of the undertaking in the relevant market and the competition situation in the relevant market; (ii) the ability of the undertaking to control the sale market or the procurement market for raw materials; (iii) the financial strength and technological capabilities of the undertaking; (iv) the extent of reliance upon the undertaking by other firms; (v) the level of difficulty of market access for other undertakings into the relevant market; and (vi) other factors relating to the determination of dominant market position of the undertaking. Also, Article 19 of the AML stipulated a rebuttable presumption of dominant market position based on market shares, taking into consideration both the accused party and other market participants.<sup>328</sup> This provision also has acted as an indication for detecting collective dominant position, which has been tested in three precedents in active pharmaceutical ingredients ('API') sector. Furthermore, the 2019 SAMR AML Abuse Guideline adds, except for factors mentioned in the AML, it will further consider market structure, market transparency,

<sup>328</sup> Accordingly, undertakings may be considered to have a dominant position if: (i) the market share of one undertaking accounts for 1/2 of the relevant market; (ii) the joint market share of the two undertakings accounts for 2/3 of the relevant market; or (iii) the joint market share of three undertakings accounts for 3/4 of the relevant market.

With regard to the undertakings that fall within categories (ii) or (iii), if any of the undertakings has a market share of less than 10%, that undertaking shall not be considered to have a dominant market position.

Undertakings that are construed to have a dominant market position shall not be considered to have a dominant market position provided that there is opposite evidence.

the degree of homogeneity of relevant commodities and consistency of business operators' behavior, etc.

In the IP related scenario, Article 12 of the 2019 SAMR AML Abuse Guideline stresses the need to consider the special character of IP for deciding whether undertaking holds a dominant position or not. Article 13 of the 2017 AMC Draft IP Guideline particularly stipulates three factors applicable: (i) the possibility and the cost for the counterparties to turn to substitutable technologies or commodities; (ii) the degree of dependency of downstream market players on the goods offered by using the relevant IPRs; and (iii) the counterbalance ability of the trading counterparties against the undertaking.

For private enforcement, Article 8 of the 2012 SPC AML civil case interpretation states the burden of proving dominant position and the existence of abusive behavior lies on the plaintiff, while afterwards the defendant may need to prove evidence for defense. In the case the defendant is a public utility enterprises or other legitimate monopolists, the court may presume the company hold a dominant position in the relevant market unless otherwise proved wrong. Information released by defendant itself can also be regarded as proof of dominance.

**Criteria for abusive refusal to license** A general refusal to deal without justification will be deemed illegal under Article 17(3) of the AML. Besides, the 2015 SAIC IP Rules listed three elements needed to take into consideration simultaneously: (1) the concerned IP cannot be reasonably replaced in relevant market, and be essential for other undertaking to compete in the relevant market; (2) refusal to license such IPR would have a negative effect on competition or innovation in the relevant market, whereby it will harm the consumers' welfare and public interest; and (3) the licensing of such IPR will not cause unreasonable harm to the IPR holder. In the consolidated 2017 AMC Draft IP Guideline, elements that could be used expanded to five: (1) the licensing commitment made by the business operator; (2) whether the relevant IPRs are necessary for entering into the relevant market by other business operators; (3) the influence and degree on business operators' innovation by refusing

to license the relevant IPRs; (4) whether the refused party is lack of willingness and capability of paying reasonable royalties; (5) whether the refusal to license IPRs will harm consumers or public interest. Comparing side by side 3 factors in the 2015 SAIC IP Rules, and optional 6 elements in the 2017 AMC Draft IP Guideline, it can be noted that elements for considering have enlarged given the complicated business environment, and the AMC cares more about the public interest instead of the patent holder, which is consistent with AML's purpose to protect competition rather than competitors' interest.

Concerning the notable “essential facility doctrine”, Article 7 of the SAIC IP Rules, Article 24 of the SAIC Draft IP guideline and Article 15 of the 2017 AMC Draft IP Guideline all have incorporated the specific “essential facility” concept, providing that the holder of an IPR that constitute an “essential facility”, without justification, shall not refuse to license its IPR for other business operators' reasonable usage, thereby eliminating or restricting market competition. Meanwhile, the NDRC version of draft IP guidelines do not directly use the “essential facility” concept. Nevertheless, it acknowledges that if a business operator with dominant position, in particular when the relevant IPR are indispensable for production and operation activities, refuses to license the relevant IPRs without justifiable causes, such conduct may eliminate or restrict market competition and harm consumers' welfare and public interest. It turns out the AMC finally adopted SAIC's idea despite strong opposite opinions from inside and abroad.<sup>329</sup>

**Justification** The 2019 SAMR AML Abuse Guideline provides example, such as countervailing buying power, force majeure, being necessary for getting legitimate return for investment specifically made for that transaction.

<sup>329</sup> For example, America Bar Association (‘ABA’) published joint comments upon the 2017 AMC Draft IP Guideline and expressed concern over the potential negative effects for applying essential facility doctrine to IPR, April 24, 2017, available at [https://www.americanbar.org/content/dam/aba/administrative/antitrust\\_law/at\\_comments\\_salsipsil\\_20170420.pdf](https://www.americanbar.org/content/dam/aba/administrative/antitrust_law/at_comments_salsipsil_20170420.pdf).  
p24

Moreover, in recent years the serious competition problems existed in active pharmaceutical industry (‘API’) <sup>330</sup> or shortage drugs, in 2017 NDRC once published a guideline for the price conduct of undertakings of shortage drugs and API (‘The 2017 NDRC API Guideline’).<sup>331</sup> Article 5 of the guideline stipulates that undertakings of drugs and APIs with dominant position may not, without justified reason, refuse to deal with the relative party in disguise by setting an excessively high selling price or an excessively low purchase price, and provides a non-exclusive list of factors for the justification and impact upon competition in downstream market: (1) The existence of bad transaction records or continuous business deterioration etc. which may give rise to major risk; (2) The counter-party can purchase/sell the same kind of shortage drugs or API from/to other competitor at a reasonable price; (3) The trading conditions concerning package, transportation, and characteristic of product deviate from usual market tradition; (4) The undertaking’s existing capacity cannot meet the market supply, or the product needs to be produced for its own use, and its supply or self-use conduct has not seriously excluded competition, (5) other relevant factors.

#### **5.1.2.2 Article 48(2) of Patent law**

Once being defined as misuse by AML agencies or court, a possible remedy may be compulsory licensing order. The concept of compulsory license was absorbed into Chinese Patent law originally in 1984. During the third revision version published in 2008, compulsory license issued on competition ground was absorbed into article 48 (2), stating SIPO can grant compulsory license order when the exercising of patent rights was deemed anti-competitive in order to eliminate or mitigate the negative effect upon competition. Such kind of revisions are usually regarded as part of efforts to erase divergences between the previous law and the TRIPS Agreement according to China’s WTO accession protocol. There exists a decree concerning the procedural and substantive issues for SIPO’s issuance of compulsory license order based relevant

<sup>330</sup> See API expression here and NDRC’s decision upon Zhejiang Second Pharma and Tianjin Handewei case stand as different abbreviation compared with other parts of the dissertation.

<sup>331</sup> See texts in Chinese at <chrome-extension://oemmndcbldboiebfnladdacbfmadadm/https://www.ndrc.gov.cn/xxgk/zcfb/gg/201711/W020190905485749561348.pdf>



decision of an AML agency or a court<sup>332</sup>, but such mechanism has never been tested in a single case.

Actually, there are also ambiguities with regard to how courts and SIPO should cooperate with each other, anyway when dealing with the unsuccessful royalty negotiation related issues, courts may directly decide according to the complaints of petitioners, without the interference of the SIPO. Similarly, during the ongoing fourth revision process of Chinese Patent Law, Article 20 of the fourth draft revision provides that the exercising of patent rights shall be in line with the good faith principle and no abusive actions of patent rights that eliminate or restrict competition shall be allowed. While the final version has not been released, the draft Article 20 revision would therefore be duplicative in addressing and remedying the issue, and would create additional uncertainty with potentially inconsistent standards and remedies (*i.e.*, should abuse of patent rights result in compulsory licenses or unenforceability).<sup>333</sup> In short, in the interaction of the AML and Patent Law concerning compulsory licensing, there exists both substantive and procedural issues needed to be further addressed.

## **5.2 Enforcement of unilateral refusal to deal**

### **5.2.1 General regulatory experience**

In the first decades of Chinese AML enforcement period, generally speaking, Chinese AML public enforcement had predominated private enforcement, because of the difficulty for private persons or undertakings to prove the existence of dominant position, abuse allegations and lack of justifications.

<sup>332</sup> SIPO, 专利实施强制许可办法（局令第 64 号）, May 1<sup>st</sup>, 2012, available at <http://www.sipo.gov.cn/zcfg/zcfgflfg/flfgzl/zlbmgz/1020112.htm>

<sup>333</sup> ABA, Comments of the American Bar Association's sections of antitrust law and international law to the national people's congress of the people's republic of China on the draft amendment of China's patent law, February 5, 2019, available at [https://www.americanbar.org/content/dam/aba/administrative/antitrust\\_law/comments/february-2019/comments\\_sil-sil-comments-on-china-patent-law-final-252019.pdf](https://www.americanbar.org/content/dam/aba/administrative/antitrust_law/comments/february-2019/comments_sil-sil-comments-on-china-patent-law-final-252019.pdf)

### 5.2.1.1 Non-IP related refusal to deal

Yunnan Yingding v. Sinopec and Sinopec Yunnan case<sup>334</sup>

On March 31, 2020, the Supreme Court dismissed a claim for abuse of dominant position against Sinopec, made by a biodiesel manufacturer Yunnan Yingding co. in relation to allegations for refusal to deal. It is the first case in which a privately-owned company filed a law suit against a SOE energy giant, but unfortunately failed, despite the fact that in the first instance decision issued by Kunming intermediate court before the remand for retrial, Sinopec was found to abuse its dominant position by refusing to resell Yingding's biofuel at its gas station, thus being required to purchase and distribute Yingding's product. During the remand process, the decision was reversed towards supporting for Sinopec's argument and later sustained by Yunnan High People's court in the second instance, and the Supreme Court in the retrial application.

A foremost concern in this case would be the concurrence relationship between Chinese Renewable Energy Law ('REL') and AML. Article 16(3) of the REL imposes a duty upon petrochemical retailer entrepreneur to purchase and distribute biofuel that fulfils the standards set by National energy agencies. However, the court of first and second instance in remand both conclude it would not be suitable to fulfill this duty by compulsory order, due to the lack of national or local regulation or standards concerning biofuel production, resale etc., except a few non-binding local guidance paper. In the following analysis on abuse of dominant position, Sinopec was found to own dominant position by utilizing the market share presumption defined in the AML. But the Supreme Court held as there exists alternative resale channel except Sinopec in Yunnan, such refusal cannot enhance Sinopec's competitive advantage, or restrict other undertaking's business ability, thus having no elimination or restriction of competition in the relevant market. The quality and safety problem of biofuel manufactured by Yingding has also been mentioned as a justification for refusal to deal.

<sup>334</sup> (2015) 昆知民重字第 3 号; (2017) 云民终 122 号; (2017) 最高法民申 5063 号。

NDRC's decision upon Zhejiang Second Pharma and Tianjin Handewei<sup>335</sup>

In July 2017, NDRC fined the two pharmaceutical firms a total of 443,900 yuan for selling isoniazid active pharmaceutical ingredients ('API') at excessively high prices and refusal to deal. Notably, NDRC applied the collective dominance doctrine to find the two companies to be collectively dominant, where the combined market shares of the two companies exceeded two-thirds of the relevant market and each of them has exceeded the 10 percent safe line. The agency believed that the companies adopt exclusive distribution business model and refused to deal with third party, for the purpose of improving the price of the drug. In this case the companies allegedly failed to provide justifications.

#### **5.2.1.2 IP related refusal to license**

*Ningbo Ketian Magnet, and three others v. Hitachi Metal (pending)*<sup>336</sup>

At the end of 2014, four Ningbo companies ('the plaintiffs') sued Hitachi Metal at Ningbo Intermediate Court, alleging the defendant has abused its dominant position at neodymium-iron-boron magnet market by refusal to license non-essential patents and bundling. Even though this case is still pending and limited public information available regarding to the detail, it attracts wide attention because it had the potential to be the first case to address the application of essential facility theory to IPR in China.

The parties' legal battle has occurred in the customs, patent office and court system of the US and China, focusing on both validity and infringement issues. When the dispute happened, the defendant owned more than 600 sintered neodymium-iron-boron ('NdFeB') magnet patents globally but has only licensed

<sup>335</sup> 国家发展和改革委员会行政处罚决定书【2017】1号及2号。

<sup>336</sup> 川島富士雄、[中国におけるライセンス規制—独占禁止法による知的財産権濫用規制を中心に] ITI, 平成28年主要国のライセンス規制等の最新動向、ITI調査研究シリーズ No.48,201703, available at [http://www.iti.or.jp/report\\_48.pdf](http://www.iti.or.jp/report_48.pdf); CHINA IPR, IPR Abuse and Refusals to License, March 13, 2016, available at <https://chinaipr.com/2016/03/13/ipr-abuse-and-refusals-to-license/>

selected patents to certain Chinese companies, without giving permission to the plaintiffs. The plaintiffs argued that without defendant's permission for the relevant patents, it is actually impossible for the plaintiffs to enter the market and compete with the defendant. Potential arguments concerning whether Hitachi held dominant position, whether the patents should be indispensable for downstream market, and justifications would fundamentally affect the final decision of the case.

*Hytera v. Motorola case*<sup>337</sup>

In September 2017, Hytera brought litigation against Motorola at Beijing Intellectual Property Court for Motorola's refusal to open application programming interface ('API') sources for interconnection between the competitor's communication system. The court has held in its first-instance ruling issued on December 31, 2019, that Motorola's conduct does not constitute abuse of dominant position, even though it did have dominant position at Chengdu subway communication system market.

Similar with other IPR litigation framework, this case also stands as one part of the global legal war. Considering the products in this case should be procured through bidding process, and the defendant Motorola has previously won bids for Chengdu subway TERA system communication service products, the court deems that every bid constitutes a market, and Motorola has 100% market share in every relevant bid product market. The interaction requirement between previous equipment and the target products of the following-on procurement bid of the Chengdu subway line 2, 3 and 4, which Motorola has won, gives Motorola a dominant market position in the relevant market. Even though Motorola refuses to provide API access, which is indispensable for other TERA system providers to compete in the market, the court found no precedents of API interaction in the industry practice, and such behavior will not result in competition elimination or restriction. No further information

<sup>337</sup> The verdict has not been published right now. See three newsletters from the representatives of the case, and the court, available at <http://www.zhonglun.com/Content/2020/02-14/1458591282.html>  
<http://www.dehenglaw.com/EN/tansuocontent/0008/017944/7.aspx?AID=00000000000000001923>  
<https://hk.weibo.com/user/3508612897/4462468112157674>

concerning how the court conducted analysis of the applicability of essential facility theory in the bidding market.

## **5.2.2 China's experience in SEP area**

### **5.2.2.1 SEP and FRAND duty in China**

As mentioned before, in recent years SEP legal wars frequently happened, especially in telecommunication area. China has played an important role in the SEP related global legal battle because of its position in the global supply chain and huge domestic market. To respond to the new challenge, apart from the general analysis of abuse of dominant position aforementioned in Chapter Three, guidelines and judicial interpretations in China provide some special insights concerning SEP related refusal to license cases. Article 13 of AMC Draft IP Guideline provides additional factors for consideration of SEP holders dominant market position: (i) the market value, application scope and degree of the relevant standards; (ii) the existence of substitutable standards, including the possibility and the cost of switching; (iii) the degree of dependency of the industry on the relevant standards; (iv) the evolution and compatibility of different generations of the relevant standards; (v) the possibility of substituting the related technology.

Inside judicial system, Article 24 of the interpretation II of SPC on several issues concerning the application of law in the Trial of patent infringement dispute cases (effective since April 1, 2016, 'The SPC patent interpretation II') provides that, if recommended national standards evolved SEP holder deliberately avoids its FRAND obligations, causing failure to reach licensing agreement, and the accused infringer has no apparent fault for that failure, the court shall not uphold an injunction claim. However, the SPC patent interpretation II does not address the availability of injunction under other circumstances, and intentionally avoid the applicability of the terms to compulsory standards or international standards, waiting for the practice to

explore.<sup>338</sup> Regional courts also have formulated working guidelines in order to provide guidance in trial of SEP related cases. The Beijing High Court issued the 2017 guideline for patent infringement determination ('The 2017 Beijing High Court Guideline'), Articles 149-153 which similarly emphasizes the role of fault factor for issuing injunctions. Guangdong High Court likewise issued a Working Guideline for the Trial of Standard Essential Patent Dispute Cases (for trial implementation) on April 26 2018 ('The 2018 Guangdong High court SEP guideline'), which established a fault-based test for injunctive relief, a positive negotiation duty with clear requirements for written confirmation, and particular aspects which should be taken into account when determining FRAND royalty rates.

Meanwhile, the Standardization Administration of China ('SAC') under the General Administration of Quality Supervision, Inspection & Quarantine ('AQSIQ') of State Council monitored national standards setting activities. In 2014, SAC and SIPO releases the Provisional Administration Regulation of National Standards Involving Patents. It stipulates compulsory national standards are not generally involve patents, but if it is determined that patents must be included and if patentees of or applicants for a relevant patent refuse to license that patent under FRAND terms, SAC, SIPO and relevant parties will need to negotiate a solution, but leaving the uncertainty of the consequence if such mechanism does not work out.<sup>339</sup>

#### **5.2.2.2 Precedents related to refusal to license SEP**

Inside China, injunction and royalty issues are also key words for the scrutiny of AML related to refusal to license SEP. In early days, a few national standards related cases emerged touching the relationship between the scope of patentee's right and the range of authorization for national compulsory or recommended standards, even

<sup>338</sup> Bharadwaj, Ashish. "Multi-dimensional Approaches Towards New Technology Insights on Innovation, Patents and Competition." *Springer open* (2018), p152; 王斌. "关于标准必要专利禁令问题的理解." *今日财富 (中国知识产权)* 3 (2016): 23.

<sup>339</sup> Prud'homme, Dan. "FRAND and other requirements in China's Announcement on Releasing (Provisional) Administration Regulations of National Standards Involving Patents." *Journal of Intellectual Property Law & Practice* 9.5 (2014): 346-349.

though by nature they are patent infringement and damage litigation, which can still be regarded as reference for the subsequent AML reasoning under a frequently used framework of parallel legal strategy. Particularly, when IPR are absorbed into government-led standards, whether implementation without permission can constitute infringement behavior or whether an automatic permission can be assumed when the patentee has participated into standard setting. In 2008, the Supreme Court found no patent infringement in a judicial reply<sup>340</sup>, denying IPR holder's right to resort to injunction remedy and restricting their right of remuneration to a standard obviously lower than normal royalty deserved on foundation of the fact that they have previously been involved in standard setting or given permission to include the IPR into the standard, against a backdrop of a total lack of regulation of information disclosure and utilization of SEP issues. As time goes on, in 2014 the Supreme Court later changed its attitude in the *Zhang JingTing v. Hengshui Ziyahe Construction Co., Ltd.*<sup>341</sup>, noting as a general rule remedies against patent infringement should not be limited where an implementer who has used the technologies without the patentee's authorization refuses to pay the license fees. It is not until in 2018 Beijing High Court upholds China's first SEP injunction in *Iwncomm v. Sony*<sup>342</sup>, *inter alia*, regarding Sony's refusal to sign a non-disclosure agreement before asking for a claim chart during the negotiation process as an unwilling licensee applying delay tactics.

In the latest decades, however, more and more international industry standards related cases coming along with the frequent interaction between Chinese and foreign trade activities, often with FRAND promise made, have been litigated inside and abroad, especially between mobile device manufacturers, for instance, Huawei, ZTE, Xiaomi and OPPO who have entered into foreign markets only recently, and non-performing entities ('NPE') such as *Unwired Planet*, *conversant* and *Sisvel*, in telecommunication sector. As for cases concerning SEP royalty determination, the high profile Huawei case sued in 2011 could be the most influential one and needs to

<sup>340</sup> (2008) 民三他字第 4 号复函

<sup>341</sup> (2012) 民提字第 125 号

<sup>342</sup> (2017) 京民终 454 号

be extensively addressed later on. Another example would be the first instance *Huawei v. Conversant* decision adjudicated by Nanjing intermediate court in September, 2019<sup>343</sup>, which is still under appeal procedure. The court adopted the top-down approach and set the FRAND royalty rate in Chinese market as following: 0 for single-model 2G or 3G mobile terminal products because of the invalidity of relevant patents, 0.00225% for single-model 4G mobile and 0.0018% for multi-model 2G/3G/4G mobile products. It is noted that *Conversant* has initiated a global FRAND royalty rate litigation at UK court against *Huawei* and *ZTE*, including the Chinese market. The jurisdictional dispute of the case concerning whether the UK court can determine a global FRAND rate is under appeal at UK Supreme Court. A similar situation happened between *Sisvel* and *Xiaomi/OPPO*. In December 2019, *Xiaomi* and *OPPO* sued *Sisvel* at Beijing Intellectual Property Court and Guangzhou Intellectual Property Court, respectively, asking for a determination of SEP royalty rates in Chinese market, while *Sisvel* has commence legal proceedings against *Xiaomi* and *OPPO* in the UK, Netherlands and Italy.

#### *Huawei v. IDC*<sup>344</sup>

In 2011, *Huawei* sued Inter Digital Corporation ('IDC') in two separate litigations at Shenzhen Intermediate Court, which alleged *IDC* had abused its dominant position by requesting excessive royalties for licensing its SEPs, tying-in and refusal to deal, and asked the court to determine the specific royalty rate for the SEPs involved, respectively. The significance of these cases would be that it is perhaps the first time worldwide for the court to decide a FRAND rate not exceeding 0.019% of the actual sales prices of each *Huawei*'s wireless devices. Nearly a decade later, however, this case has been through retrial process by the Supreme Court<sup>345</sup>, and finally got settled both for royalty in China<sup>346</sup> and worldwide<sup>347</sup>. Still, the reasoning

<sup>343</sup> (2018) 苏 01 民初 232, 233, 234 号

<sup>344</sup> (2013) 粤高法民三终字第 305 号; (2013) 粤高法民三终字第 306 号。

<sup>345</sup> (2014) 民申字第 677 号

<sup>346</sup> Newsletter of the representative law firm <https://www.jingtian.com/Content/2019/01-07/1642380267.html>



in these two cases provide basic reasoning framework concerning the abusive SEP injunction application and royalty rate deciding in China.

The defendant *IDC* is an NPE, owning numerous wireless telecommunication standards of 2G, 3G, 4G in China. From 2009 to 2012, *IDC* sent four letters to *Huawei* to offer the rate for the SEP *Huawei* has been using but not end with a successful negotiation. Part of the reason is the price offered turns out be significantly higher than the offer received by *Apple* or *Samsung*. Before *Huawei*'s legal move in Shenzhen, *IDC* first sued *Huawei* and other telecommunication companies, including *Nokia* and *ZTE*, in the US Federal District Court of Delaware and the ITC in 2011 and 2012, seeking for preliminary and permanent injunctions, damages, and exclusion orders. *Huawei* counter claimed the two cases mentioned above.

In the abusive claim, the court found each SEP constitutes a separate relevant technology market, because SEPs have to be implemented in order to comply with the standard and by definition there is no alternative or substitute for each patent. Also, whether a SEP holder enjoys dominance depends on the scope of the implementation of the related standards. The court found *IDC* indeed had charged unfair high price and tying. More importantly, *IDC*'s application for injunction at the US court and ITC during the negotiation has been recognized as a coercive measure to push *Huawei* to accept the deal, thus violating FRAND principle and constitute abusive conduct.

In the royalty dispute, concerning whether court should intervene licensing negotiation, the Court's approach to the judicial role in the determination of the FRAND rate is similar to that of *Microsoft v. Motorola* case in the US, which is that the court should undertake the complex task of determining the FRAND royalty rate.<sup>348</sup> As to specific royalty rate determination, Guangdong High Court then took into consideration of the factors below:(i) The profits generated by employing the subject SEPs or similar patents, and the proportion of such profits in the licensee's

<sup>347</sup> News from South China Morning Post

[https://www.scmp.com/tech/enterprises/article/3082048/us-mobile-technology-company-interdigital-signs-patent-l  
icense](https://www.scmp.com/tech/enterprises/article/3082048/us-mobile-technology-company-interdigital-signs-patent-license)

<sup>348</sup> Lee, Jyh-An. "Implementing the FRAND standard in China." *Vand. J. Ent. & Tech. L.* 19 (2016): 37.

overall profits and revenue; (ii) Whether the patentee can profit only from its patent, not the standard; (iii) The number of valid patents in the standard held by the patentee; and (iv) Whether the royalty should account for part of, not all, the licensee's profits from the product because SEPs contribute only part of the product's value, but not explained in detail. As reference for non-discriminatory basis, the court also calculated *Apple* and *Samsung*'s royalty to IDC based on public information or other sources, and finally decided to set the royalty rate at 0.019% of the actual sales price of each *Huawei* product, similar to *Apple*'s rate without detailed reasoning, which attracts criticism from abroad.

### **5.2.3 China's data sharing issue in platform economy**

#### **5.2.3.1 Platform and Data in China**

Chinese internet industry have experienced a decade boom at the beginning of the 21<sup>st</sup> century and totally changed Chinese society to a more cashless and internet reliant model. Abundant data reflecting details of individuals' and firms' general business activities have been generated on the platforms built by Chinese internet giants *Baidu*, *Alibaba*, *Tencent*, *Jingdong* ('BATJ'). Like the rivals GAFA, with the rapid development of big data technology, those giants can precisely predict consumers' next move based on advanced algorithms, IoT model, sharing economy and in turn contribute to the company's choice making mechanism. Meanwhile, agencies and courts also received numerous complaints about their problematic business behaviors, for example, inappropriate data collection/price discrimination and unreasonable refusal to share data. Faced with a similar regulatory challenge, contrary to the counter parties in the US, the EU or Japan, it seems that until recently Chinese AML enforcer appears to have a more conservative attitude. In several conferences held in and outside China during the first half of 2019, officials of SAMR generally reiterated that: "We will pay more attention to the antitrust issues with regards to the new economy and new business models. We will hold a tolerant and

prudent attitude on enforcement so as to promote an innovation-friendly environment for market participants”, which is briefly consistent with the Ministry of Industry and Information Technology (‘MIIT’).<sup>349</sup> Eventually, general office of state council officially determines a tolerant-prudent approach towards Chinese platformers.<sup>350</sup> The reason for such kind of strategies may lie in the underdevelopment of the anti-competitive harm theory for multi-sided market aforementioned. More notably, it has relevance with the unsettled regulation uncertainty on variable interest entity (‘VIE’) inside China. The major platforms in China now usually adopt this structure to circumvent restrictions imposed on foreign investment into certain sectors. The Government has been aware of this fact but has not directly touched it due to its deep relevance of Chinese economy.

Currently, Chinese data market participants, such as internet giants, SMEs data company and IT companies, very active. Chinese internet giants, widely known as specialized in social networking, e-commerce and search engine, have collected and dug consumers’ or transaction entities’ data for quite a long period of time reliant on IoT and AI technologies in daily life. They set up their own affiliated big data companies, such as *Alibaba cloud*, also providing big data service to customers to aid their business resources optimization. At the same time, there are also plenty of SMEs like *Kingbase* and *Datatang*, as well as big IT companies like *Huawei*, and *ZTE* in this area. State-level data exchange center has been built in numerous places, like Guiyang, Shanghai, Wuhan, etc. Generally speaking, compared with foreign countries, Chinese big data industry develops relatively late. It was not until 2014 that Big Data was written into government’s working report.<sup>351</sup> Big Data industry in China has experienced a period of robust development, before the strong regulatory actions were taken by agencies since the summer of 2019, when many small-sized data companies have been shut down for illegally obtaining citizens’ personal information, with a

<sup>349</sup> MIIT regulates China’s telecommunication and software industry, as well as the electronics and information technology manufacturing industries.

<sup>350</sup> State Council, 国务院办公厅关于促进平台经济规范健康发展的指导意见(国办发【2019】38号), effective since August 1, 2019 available at [http://www.gov.cn/zhengce/content/2019-08/08/content\\_5419761.htm](http://www.gov.cn/zhengce/content/2019-08/08/content_5419761.htm).

<sup>351</sup> 中国信通院, 大数据白皮书(2018年), available at [http://www.cac.gov.cn/wxb\\_pdf/baipishu/dashuju020180418587931723585.pdf](http://www.cac.gov.cn/wxb_pdf/baipishu/dashuju020180418587931723585.pdf), p4.

criminal charge. Also, in the premature Chinese Big data market, clearly data interoperability has not been realized either between public or private sectors, or among these big platforms, which gives chances to the data access, or data scraping conflicts.

The competition law regulation of data access issues also should be analyzed under such general policy tendency towards digital economy. Competition law, *inter alia*, may theoretically be applicable to solve the problem of data access problem. Complaints and litigation against those giant who are rich in data resources obviously also exist. However, until now the Chinese AML agencies have not officially initiated significant probes against the Chinese internet giants.<sup>352</sup> It is very hard and sensitive to prove a dominant position, and subsequent competition harm, when the extreme fierce competition between those companies supports the continuous rapid development of Chinese digital economy against a backdrop of tendency of economic decline. A series of judicial decisions have also reflected the same hesitant attitude. As early as 2013, a milestone case *Beijing Qihu Technology co., ltd. v. Tencent Technology (Shenzhen) Co. Ltd. et al.*,<sup>353</sup> usually referred to as “3Q”, firstly reveals current Chinese judicial attitude to deal with technical issues in abusive dominant cases happened in internet industry, particularly, in which the SPC held that in the digital economy characterized as highly dynamic innovation and low market entry barrier, the market share indicator is misleading and will not be regarded as the only standard to measure market power. This logic has been followed in a series of case initiated by private consumers against *Tencent*. For example, in the retrial of *Xushuqing v. Tencent Technology (Shenzhen) company*<sup>354</sup>, the Supreme Court again reiterated too much focus upon market share during the analysis of dominant market position is not perfectly suitable in the dynamic market, let alone the plaintiff did not provide reasonable evidence, and refused to admit *Tencent*’s dominant market

<sup>352</sup> For example, SAMR may unofficially investigates *Tencent music*’s exclusive dealing business model at online market retail market, but finally decides to suspend it without a formal decision.  
<https://www.scmp.com/tech/apps-social/article/3049258/tencent-music-antitrust-probe-suspended-china-authorities-amid>

<sup>353</sup> (2013) 民三终字第4号.

<sup>354</sup> (2017) 最高法民申4955号

position in the general internet emoji market. Particularly, in consumer led private litigation the plaintiff usually lacks the expertise and resources to get access to persuasive evidence, thus incompetent to meet the burden of proof for dominant market position, and specific anti-competitive harm in a multi-sided market, where the Chinese court has clearly indicated that the foundation market is distinguished from the derivative market service.<sup>355</sup>

To respond the new challenges brought by internet industry, Article 21 of the 2020 Draft AML Amendment adds a paragraph requiring additional considerations of the network effect, economies of scale, the lock-in effect, and abilities to obtain and process relevant data, for the determination of a company's dominant position in the internet industry, which is very similar to those stipulated in Article 11 of the 2019 SAMR AML Abuse Guideline.

#### **5.2.3.2 Data refusal related precedents**

As aforementioned, until now there are obstacles for the application of AML to refusal of data access. However, the first data scraping without consent under AUCL case has founded the preliminary step for the analysis of the nature of data, the process for data authorization, the standard for the applicability of Article 2 of the AUCL. Data interoperability disputes have also appeared, revealing the potential for the future application of AML.

*Beijing Micro Dream Network Technology Co., Ltd. v. Beijing Taoyou World Technology Co., Ltd. And Beijing Taoyou World Technology Development Co., Ltd.*<sup>356</sup>

The plaintiff, who owns the famous brand “Sino Weibo”, sued the defendant, the operator of “Maimai” app, for violation of the AUCL by engaging with a series of acts, including illegally obtaining user data from the Sino Weibo platform without both the plaintiff's and consumer's content. The defendant was found to violate

<sup>355</sup> (2017) 粤 03 民初 250 号

<sup>356</sup> (2016) 京 73 民终 588 号

Article 2 of the AUCL and to need to compensate 2 million yuan along with the order to cease unfair competition, etc.

The court firstly held the two companies constitute competitive relationship, because both of the two brands provide social networking services with overlaps upon user groups, despite different service models. Notably, for the first time the court has acknowledged data resources as an important competitive advantage with huge commercial value for enterprises, and recognized platforms' right to resort to remedy under consumer consent. Consequently, the court set the three step consent (consumer-platform-consumer) during the scraping of public available data by third parties.

*SF express and Cainiao dispute*<sup>357</sup>

This was a two-day data blocking incident lasting from June 1 to June 3, 2017 happened between *SF express* and *Alibaba's Cainiao* logistic affiliate, which has been reconciled under the intervention of State Post Bureau of China. Prior to this dispute, *Cainiao* has acted as a digital platform coordinating the delivery of *Alibaba's* e-commerce orders among various logistics partners. *SF express*, famous for its quality service in business delivery market, was the largest partner of *Cainiao*. For a long time, the two parties both sought to get access to customer data controlled by each other. In May 2017, *SF express* refused *Cainiao's* request to upload its logistic customer data to *Cainiao* platform, thus being threatened to close the data interface in the name of data security. On June 1, *Cainiao* stopped the data sharing with *SF express* and excluded the option of *SF express* on *Alibaba's* e-commerce platform. Consumers choosing *SF express* during the two days cannot smoothly receive their products. Even though this dispute has ended without judicial decision due to the conservative attitude for platforms, the importance of access to big techs' platform and data, which is clearly indispensable for the delivery of consumer's product, has been showed. The possibility of the future intervention of AML has been remained.

<sup>357</sup> See details in:  
[http://www.xinhuanet.com//fortune/2017-06/04/c\\_1121082162.htm](http://www.xinhuanet.com//fortune/2017-06/04/c_1121082162.htm)

### **5.3 Implication for China**

In general, Chinese AML is relatively young with limited budget and personnel backup, compared with US/EU/Japan which all have hundreds or decades years of experience and strong support in terms of financial and human resources. As a competition law jurisdiction with a shorter history, Chinese AML enforcement turns out to be immature at certain degree given its complicated history. It is not until recent year Chinese undertakings choose to rely on weapon of domestic AML when faced with anti-competitive charges from foreign competitors or potential partners. With the improving competitiveness of Chinese undertakings in global supply chain, AML will attract more and more attention in the foreseeable future. AML enforcers still have to strike the balance between the respect for the international tradition and establishing its own applicable rules according to the real situation inside the country.

Similarities and divergences between the regulation of refusal to license in four jurisdictions can be clearly seen. On the one hand, due to close cooperation and communication system between the four jurisdictions, there exists certain amount of consensus inside the public and private enforcement. All the jurisdictions acknowledged the CL order can be issued only under limited circumstances. A cautious balancing test is needed for dealing with the policy dilemma during the evaluation of strategy of refusal to license. IPR protection should be continuously acknowledged as a top priority inside national policy scheme because of its decisive influence for national competitiveness. Unreasonably depriving IPR owner of the right to resort to remedy for unauthorized use would contribute to irreparable harm to innovation motivation. On the other hand, difference in methodology, philosophy of regulation of refusal to deal issues is also obvious, giving rise to potential interest conflicts. As aforementioned, China adopts a legislative framework favoring EU model. Considering the fact that the concept of essential facility has been put into the draft 2017 AMC IP Guideline, and the historical record of positive intervention into economic activities including pricing strategy, it is fair enough to classify China's

regulatory logic for refusal to license problem into the EU team. China still lacks of precedents in this field right now. The experience of foreign countries can also give implications for China in the near future.

The foremost factor would be the sensitive issue of price. An unavoidable step for the regulation of refusal to license would be the determination of remuneration for IPR holders. Refusal strategy can be effectively combined with other measures to achieve the fundamental purpose for seeking illegal high income. Competition law jurisdictions outside China are generally reluctant to directly regulate price level at which a monopolist can charge because of the concern for incompetency of agencies to intervene private parties' business, at least so long as that price is not predatory. Consequently, Chinese regulation of excessive price charge attracts much attention and it leads to criticism to Article 17(1) of Chinese AML. Especially for the US Antitrust Law, it does not ordinarily welcome the idea to decide a price, or impose an obligation upon anyone (even monopolists) to deal with others. But within the scheme of IP Laws, courts are more open to the royalty determination. With regard to FRAND rates, even though legal bases and outcome of the decisions are different in nature, a top-down framework, and factors taken into account seem to overlap and counter influence with each other, such as the fault factor during negotiation, and caution for the issuance of injunction.

The second one would be the jurisdictional conflict. The patent wars have shown companies, especially NPEs, develop a pattern to simultaneously take advantage of judicial and administrative complaints, as well as arbitration system, in order to push implementers to compromise under pressure. But the extent to which each jurisdiction can touch has potential for fierce debate. For instance, when the competition law liability has been found, whether one court in a certain country can decide a global FRAND rate is still under debate between courts, arising uncertainty for international business. Alternatively, the ADR system sometimes may be efficient. However, concerning the availability of arbitration for competition law related disputes, divergence has been shown among different jurisdictions, feasible in US and EU, and



not allowed inside China. Likewise, the process for getting access to public available data is also obviously different between China, which regards AUCL as a weapon due to current inapplicability of AML and US, favoring discussion under the framework of CFAA.

Thirdly, the fact that the underdevelopment of theory of anti-competitive harm concerning refusal to license, especially data access issues in internet industry, increases difficulty for public and private development, and should not be used as a shield for AML immunity. In China, the lack of effective AML public or private enforcement against tech giants until now is obviously unhealthy for the protection of normal competitive process and consumer welfare. At least the basic principle for carefully putting those tech giants under AML scrutiny should be clearly stated, in order to provide alert for those undertakings.

Fourthly and finally, a standard-based regulatory logic should be continuously maintained. Some critics may focus on the potential hostile actions taken in the name of AML violation, which actually result from the influence of industrial policy. Along with the gradually enhancing IPR power of China, how to reasonably protect both foreign and domestic enterprises IPR property become an important subject, particularly the regulation of refusal to license and subsequent remuneration issue which are sensitive under the current situation. While the same problem can also be found in other jurisdictions, agencies and courts in China should utilize AML based on the actual competition situation of particular case inside certain sector, for the purpose of promotion of undistorted competition.

## **Conclusion**

Market failures disrupt normal competition process from time to time with better-concealed form. Regulation of unilateral refusal to license may need to be reexamined timely in order to react to new economy echo. Along with the general trend of economic concentration based on disruptive innovation and “winner takes all” phenomenon, the need for public force to intervene into the closed system to ensure fair competition process shows emergency at certain degree, while the extent and the way to eliminate or diminish such effects become more and more difficult. Considering the underdeveloped theory of competition harm for new economy, the refusing conduct by monopolist has the potential to arise fiercer argument in the future. For China, while respecting the interest of IPR holders, agencies and courts also should not hesitate to intervene into the interoperability problem existed in economy for the purpose of protecting normal competition order.

## Bibliography

### Books

(English)

Arai, Koki. LAW AND ECONOMICS IN JAPANESE COMPETITION POLICY. *Springer*, 2019

Caggiano, Giandonato, Gabriella Muscolo, and Marina Tavassi, eds. Competition law and intellectual property: a European perspective. *Wolters Kluwer Law & Business*, 2012.

Contreras, Jorge L., ed. The Cambridge Handbook of Technical Standardization Law: Competition, Antitrust, and Patents. *Cambridge University Press*, 2017.

Devlin, Alan James. Antitrust and patent law. *Oxford University Press*, 2016.

De Carvalho, Nuno Pires. The TRIPS regime of antitrust and undisclosed information. *Kluwer Law International BV*, 2008.

Emch, Adrian, and David Stallibrass. China's Anti-monopoly Law: The First Five Years. *Kluwer Law International BV*, 2013.

Evans, David S., ed. Microsoft, Antitrust and the New Economy: Selected Essays. *Vol. 2. Springer Science & Business Media*, 2002.

Graef, Inge. EU Competition Law, Data Protection and Online Platforms: Data as Essential Facility: Data as Essential Facility. *Kluwer Law International BV*, 2016.

Hovenkamp Herbert. Principles of Antitrust. *West Academic*, 2017.

Hovenkamp Herbert, Janis, Mark D., et al. "IP and Antitrust: An Analysis of Antitrust Principles Applied to Intellectual Property Law." (2016).

Jiang, Tiancheng. China and EU Antitrust Review of Refusal to License IPR. *Vol. 3. Maklu*, 2015.

Kathuria, Vikas, and Jure Globocnik. Exclusionary conduct in data-driven markets: limitations of data sharing remedy." *EU Competition Law Remedies in Data Economy*, Springer (2019): 19-04.

Leslie, Christopher R. Antitrust law and intellectual property rights: cases and materials. *Oxford University Press*, 2011

Matsushita, Mitsuo. The Antimonopoly Law of Japan. *Law Japan* 11 (1978): 57,  
Ng, Wendy. The Political Economy of Competition Law in China. *Cambridge University Press*, 2018.

Pearlstein, Debra J., et al., eds. Antitrust law developments (Fifth). American Bar Association, 2002.

Paulo Burnier Da Silveira, William Evan Kovacic, Global Competition Enforcement: New Players, New Challenges. *Kluwer Law International B.V.* (2019).

Schumpeter, Joseph A. Capitalism, socialism and democracy . *Routledge*, 2013.

Van Themaat, Weijer VerLoren, and Berend Reude, eds. European Competition Law: A Case Commentary. *Edward Elgar Publishing*, 2018.

(Japanese)

金井貴嗣、川浜昇、泉水文雄編著『独占禁止法「第6版」』（弘文堂、2018）

川浜昇ほか編『競争法の理論と課題：根岸哲先生古稀祝賀：独占禁止法・知的財産法の最前線』（有斐閣、2013）

滝川敏明著『実務知的財産権と独禁法・海外競争法：技術標準化・パテントと知財ライセンスを中心として』（法律文化社、2017）

### **Journals and reports**

(English)

Aziz, Azam H. "Defining Technology and Innovation Markets: The DOJ's Antitrust Guidelines for the Licensing of Intellectual Property." *Hofstra L. Rev.* 24 (1995): 475.

Ahlborn, Christian, and David S. Evans. "The Microsoft judgment and its implications for competition policy towards dominant firms in Europe." *Antitrust Law Journal* 75.3 (2009): 887-932.

Agnellutti, Cody. "Big Data: An Exploration of Opportunities, Values, and Privacy Issues". Nova Science Publishers, Inc., 2014.

- Areeda, Phillip. "Essential facilities: an epithet in need of limiting principles." *Antitrust Lj* 58 (1989): 841.
- Basedow, Jürgen, and Wolfgang Wurmnest, eds. "Structure and Effects in EU Competition Law: Studies on Exclusionary Conduct and State Aid." Vol. 47. *Kluwer Law International BV*, 2011
- Czapracka, Katarzyna A. "Where antitrust ends and IP begins-On the roots of the Transatlantic clashes." *Yale JL & Tech.* 9 (2006): 44.
- Chien, Colleen V. "Holding up and holding out." *Mich. Telecomm. & Tech. L. Rev.* 21 (2014): 1.
- Coyle, Patrick. "Uniform patent litigation in the European Union: an analysis of the viability of recent proposals aimed at unifying the European patent litigation system." *Wash. U. Global Stud. L. Rev.* 11 (2012): 171.
- Cotter, Thomas F. "Patent holdup, patent remedies, and antitrust responses." *J. Corp. L.* 34 (2008): 1151.
- Cremers, Katrin, et al. "Patent litigation in Europe." *European journal of law and economics* 44.1 (2017): 1-44.
- Elhauge, Einer. "Do patent holdup and royalty stacking lead to systematically excessive royalties?." *Journal of Competition Law & Economics* 4.3 (2008): 535-570
- Feldman, Robin. "Patent and antitrust: Differing shades of meaning." *Va. JL & Tech.* 13 (2008): 1.
- Fine, Timothy H. "Misuse and Antitrust Defenses to Copyright Infringement Actions." *Hastings LJ* 17 (1965): 315.
- Graef, Inge. "Market definition and market power in data: The case of online platforms." *World Competition* 38 (2015): 473.
- Greenfield, Leon B., Hartmut Schneider, and Joseph J. Mueller. "SEP enforcement Disputes beyond the water's edge: A survey of recent non-US decisions." *Antitrust* 27 (2012): 50.
- Geroski, Paul, and Rachel Griffith. "Identifying antitrust markets." *The International Handbook of Competition* (2004): 290-305.

Hovenkamp, Herbert. "Unilateral Refusals to Deal, Vertical Integration, and the Essential Facility Doctrine." *U Iowa legal studies research paper* 08-31 (2008).

Hovenkamp, Herbert. "The Obama Administration and Section 2 of the Sherman Act." *BUL Rev.* 90 (2010): 1611. p1616.

Hovenkamp, Herbert. "Antitrust and the Patent System: A Reexamination." *Ohio St. LJ* 76 (2015): 467.

Heim, Mathew, and Igor Nikolic. "A FRAND Regime for Dominant Digital Platforms." *J. Intell. Prop. Info. Tech. & Elec. Com. L.* 10 (2019): 38.

Herrmann, Nadine. "Injunctions in Patent Litigation Following the CJEU Huawei v ZTE Ruling (Germany)." *Journal of European Competition Law & Practice* 9.9 (2018): 582-589.

Huang, Yong, Elizabeth Xiao-Ru Wang, and Roger Xin Zhang. "Essential Facilities Doctrine and Its Application in Intellectual Property Space under China's Anti-Monopoly Law." *Geo. Mason L. Rev.* 22 (2014): 1103.

Lidgard, Hans Henrik. "Refusal to Supply or to License." *Europarättslig Tidskrift* 4 (2009): 694-712.

Kirkwood, John B., and Robert H. Lande. "The fundamental goal of antitrust: Protecting consumers, not increasing efficiency." *Notre Dame L. Rev.* 84 (2008): 191.

Krattenmaker, Thomas G., Robert H. Lande, and Steven C. Salop. "Monopoly power and market power in antitrust law." *Geo. Lj* 76 (1987): 241.

Katz, Ariel. "Making Sense of Nonsense: Intellectual Property, Antitrust, and Market Power." *Ariz. L. Rev.* 49 (2007): 837.

Kennedy, Scott. "The Price of Competition: Pricing Policies and the Struggle to Define China's Economic System." *The China Journal* 49 (2003): 1-30.

Lamping, Matthias. "Declaration on Patent Protection." *IIC-International Review of Intellectual Property and Competition Law* 45.6 (2014): 679-698.

Leaffer, Marshall. "Patent Misuse and Innovation." *J. High Tech. L.* 10 (2009): 142.

Lemley, Mark A. "Industry-specific antitrust policy for innovation." *Colum. Bus. L. Rev.* (2011): 637.

Lemley, Mark A. "A new balance between IP and antitrust." *Sw. JL & Trade Am.* 13 (2006): 237.

Leaffer, Marshall. "Patent Misuse and Innovation." *J. High Tech. L.* 10 (2009): 142

McDonough III, James F. "The myth of the patent troll: an alternative view of the function of patent dealers in an idea economy." *Emory LJ* 56 (2006): 189

Pitofsky, Robert, Donna Patterson, and Jonathan Hooks. "The essential facilities doctrine under us antitrust law." *Antitrust LJ* 70 (2002): 443.

Posner, Richard A., "The Chicago School of antitrust analysis." *University of Pennsylvania Law Review* 127.4 (1979): 925-948.

Reichman, Jerome H. "Comment: compulsory licensing of patented pharmaceutical inventions: evaluating the options." *The Journal of Law, Medicine & Ethics* 37.2 (2009): 247-263.

Rapp, Richard T. "The misapplication of the innovation market approach to merger analysis." *Antitrust LJ* 64 (1995): 19.

Schlam, Lawrence. "Compulsory Royalty-Free Licensing as an Antitrust Remedy for Patent Fraud: Law, Policy, and the Patent-Antitrust Interface Revisited." *Cornell JL & Pub. Pol'y* 7 (1997): 467.

Shapiro, Carl. "Navigating the patent thicket: Cross licenses, patent pools, and standard setting." *Innovation policy and the economy* 1 (2000): 119-150.

Sidak, J. Gregory, and David J. Teece. "Dynamic competition in antitrust law." *Journal of Competition Law & Economics* 5.4 (2009): 581-631.

Terrell McSweeney, Brian O'Dea, "Data, Innovation, And Potential Competition In Digital Markets-Looking Beyond Short-term Price Effects In Merger Analysis", *CPI Antitrust Chronicle* ,February 2018

Takigawa, Toshiaki. "Super Platforms, Big Data, and the Competition Law: The Japanese Approach in Contrast with the US and the EU." *ASCOLA Conference, New York University*, June. 2018.

Tudor, Jarrod. "Compulsory licensing in the European Union." *Geo. Mason J. Int'l Com. L.* 4 (2012): 222.

Waller, Spencer Weber, and William Tasch. "Harmonizing essential facilities." *Antitrust Lj* 76 (2009): 741.

Wils, Wouter PJ. "Private Enforcement of EU Antitrust Law and its Relationship with Public Enforcement: Past, Present and Future." *World Competition* 40.1 (2017): 3-45.

Zheng, Wentong. "Transplanting antitrust in China: economic transition, market structure, and state control." *U. Pa. J. Int'l L.* 32 (2010): 643.

EC, Competition policy for the digital era, May 20, 2019, available at <https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf>

OECD, Enhancing Access to and Sharing of Data: Reconciling Risks and Benefits for Data Re-use across Societies(2019), available at [https://www.oecd-ilibrary.org/sites/276aaca8-en/index.html?itemId=/content/publication/276aaca8-en&\\_csp\\_=a1e9fa54d39998ecc1d83f19b8b0fc34&itemIGO=oecd&itemContentType=book](https://www.oecd-ilibrary.org/sites/276aaca8-en/index.html?itemId=/content/publication/276aaca8-en&_csp_=a1e9fa54d39998ecc1d83f19b8b0fc34&itemIGO=oecd&itemContentType=book)

OECD, Licensing of IP Rights and Competition law, April 29, 2019, available at [https://one.oecd.org/document/DAF/COMP\(2019\)3/en/pdf](https://one.oecd.org/document/DAF/COMP(2019)3/en/pdf)

OECD, Licensing of IP rights and competition law -Note by the EU, published at June 6 2019, available at [https://one.oecd.org/document/DAF/COMP/WD\(2019\)52/en/pdf](https://one.oecd.org/document/DAF/COMP/WD(2019)52/en/pdf)

OECD, Roundtable on refusals to deal, DAF/COMP(2007)

OECD, Roundtable on market definition-note by the delegation of the United States-, June 7, 2012, available at <https://www.justice.gov/sites/default/files/atr/legacy/2012/08/22/286279.pdf>

OECD, Licensing of IP rights and competition law-Note by Japan, June 6, 2019, available at [https://one.oecd.org/document/DAF/COMP/WD\(2019\)6/en/pdf](https://one.oecd.org/document/DAF/COMP/WD(2019)6/en/pdf)

(Japanese)



伊藤隆史.「標準規格必須特許の権利行使に対する独占禁止法の適用可能性-アップル・サムスン知財高裁大合議事件-」ジュリスト 1475 号 100～103 頁 (有斐閣 2015)

越知保見.「日米欧中韓クアルコム事件についての横断的検討 (下)」公正取引 817 号.2018.

ロノ町達朗.「標準必須特許のライセンスに関する欧米調査報告及び我が国への示唆」.公正取引委員会競争政策研究センター. (CPDP-69-J August 2018) .

川島富士雄.「中国における電子商取引分野に関する法規制—独占禁止法、反不正当竞争法及び電子商取引法を中心に—」.経済産業研究所 RIETI. Discussion Paper Series 20-J-22. 2020 年 4 月.

川濱昇.「標準規格必須特許問題への競争法的アプローチ」.経済産業研究所 RIETI Discussion Paper series 15-J-043 2015 年 7 月.

鈴木将文.「標準必須特許を巡る法的問題—国際動向と日本の対応の考察」.経済産業研究所 RIETI. Discussion Paper Series 18-J-020. 2018 年 5 月.

土佐和生.「デジタル PF による単独行為に関する競争政策上の論点整理—イノベーション競争に対するデータ保有の意義」.公正取引委員会競争政策研究センター. (CPDP-73-J December 2019).

平山賢太郎.「独禁法から考える知的財産権ライセンス拒絶・差止請求 (特集 ライセンスビジネス最前線)」.パテント 67.12 (2014): 13-20.

南かおり.「5G/IoT 時代に向けた標準必須特許のライセンスに関する欧州委員会の考え方 の概要」NBL1114 号 18 頁 (2018)

和久井理子.「技術標準をめぐる法システム—企業間協力と競争、独禁法と特許法の交錯—」.商事法務. 2010.

和久井理子.「技術標準と特許—欧州公的標準化機関における知的財産権取扱い指針 (IPR ポリシー) の検討—」.特許研究 39 号.2005.

(Chinese)

- 黄勇. "知识产权与反垄断法的基本关系." *电子知识产权* 7 (2007): 11-12.
- 黄勇, 李慧颖. "技术标准制定及实施中的反垄断法问题分析." *信息技术与标准化* 3 (2009): 58-61.
- 李剑. "论反垄断法对标准必要专利垄断的规制." *法商研究* 35.1 (2018): 73-82.
- 李剑. "标准必要专利许可费确认与事后之明偏见 反思华为诉 IDC 案." *中外法学* 1 (2017): 230-249.
- 林秀芹. "中国专利强制许可制度的完善." *法学研究* 6 (2006): 30-38.
- 苏华. "多边平台的相关市场界定与反垄断执法发展." *价格理论与实践* 8 (2013).
- 苏华. "不公平定价反垄断规制的核心问题——以高通案为视角." *中国价格监管与反垄断* 8 (2014): 21-25.
- 苏华. "标准必要专利反垄断案件管辖权分析——以美国高通公司反垄断调查为例." *中国价格监管与反垄断* 5 (2016): 34-38.
- 苏华. "药品专利反垄断的美国经验." *中国价格监管与反垄断* 3 (2017): 20-26.
- 苏华. "标准必要专利纠纷：管辖权，许可范围与反垄断——以无线星球诉华为案为视角." *中国价格监管与反垄断* 3 (2018): 22-26.
- 王晓晔. "知识产权行使行为的法律规制——知识产权滥用行为的反垄断法规制." *法学* 3 (2004): 100-106.
- 王晓晔. "知识产权强制许可中的反垄断法." *现代法学* 4 (2007): 91-96.
- 王晓晔. "标准必要专利反垄断诉讼问题研究." *中国法学* 6 (2015): 217-238.
- 王先林. "知识产权行使行为的反垄断法规制——《反垄断法》第 55 条的理解与适用." *法学家* 1 (2008): 25-27.
- 王先林. "我国反垄断法适用于知识产权领域的再思考." *南京大学学报 (哲学 人文科学 社会科学版)* 1 (2013).
- 王先林. "涉及专利的标准制定和实施中的反垄断问题." *法学家* 4 (2015): 62-70.