

# Article

## A More Economic and Cross-Jurisdiction Study on Patent Pools

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### ABSTRACT

*This paper traces the growing acceptance of the more economic approach to IPR and competition law in state practices, and summarizes its characteristics. It then compares how five jurisdictions weigh the IPR licensing agreements against competition law in the context of patent pools, which have become critically effective mechanism for both patent enforcement and the deployment of new technology. It further analyzes the major difference found, namely the abuse of a dominant position by patent pools, and how to look at this difference and even how to harmonize it. It then moves on to study the impact of antitrust violation by patent pools on the cease-and-desist request based on IPR and on the licensing agreements. The concluding section brings forward three points worthy of further attention: the transparency of patent pools toward competition authorities, the need of maintaining comprehensive guidelines on IPR licensing agreements, and the effects that the more economic approach should pursue.*

**Keywords:** *IPR, Competition Law, Patent Pool, Patent Enforcement, More Economic Approach, Per Se Rule, Rule of Reason, Abuse of Dominance*

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## CONTENTS

I.	INTRODUCTION .....	52
II.	THE ADOPTION OF THE MORE ECONOMIC APPROACH .....	53
	A. <i>USA</i> .....	53
	B. <i>EU</i> .....	54
	C. <i>Japan</i> .....	56
	D. <i>Korea</i> .....	56
	E. <i>Taiwan</i> .....	57
III.	THE CHARACTERISTICS OF THE MORE ECONOMIC APPROACH .....	58
	A. <i>Recognition of the Economics of IPR</i> .....	58
	B. <i>Intervention Threshold</i> .....	59
	C. <i>Rule of Reason over Per Se Rule</i> .....	60
	1. <i>Per Se Illegal Rule Phasing Out</i> .....	61
	2. <i>Per Se Legal Rule Remains a Rarity</i> .....	62
IV.	PATENT POOLS IN THE ASSESSMENT OF NATIONAL AUTHORITIES.....	63
	A. <i>USA</i> .....	63
	1. <i>DOJ and FTC: Including Substitute Patents Not Presumptively Anticompetitive</i> .....	63
	2. <i>CAFC: Rule of Reason Analysis of Any Pooling Agreement</i> .....	64
	B. <i>EU</i> .....	66
	1. <i>Highly Intolerance of Patent Pools with Substitute Technologies</i> .....	67
	2. <i>Refusal to License the Pooled IPR: Concern About Competition in the Downstream Market</i> .....	68
	C. <i>Japan</i> .....	69
	1. <i>Highly Intolerance of Patent Pools with Substitute Technologies</i> .....	69
	2. <i>If Refusal to License the Pooled IPR Substantially Restrains Competition: Private Monopolization</i> .....	70
	D. <i>Korea</i> .....	70
	1. <i>Patent Pools with Substitute Technologies Likely to be Unjust</i> .....	70
	2. <i>Refusal to License Pooled IPR: Concerned About Fair Trade in the Relevant Market</i> .....	71
	F. <i>Taiwan</i> .....	71
	1. <i>Much Emphasis on Not Including Substitute Patents in Patent Pool</i> .....	71

2. <i>Refusal to License Pooled IPR via Refusing Royalty Negotiation: Abuse of Monopolistic Position</i> .....	73
V. MAJOR DIFFERENCE—HOW TO LOOK UPON AND HARMONIZE IT .....	74
A. <i>The Dividing Line: Abuse of a Dominant Position by Patent Pools</i> .....	74
1. <i>Refusal to License</i> .....	74
2. <i>Charging Prohibitive Royalty</i> .....	75
B. <i>How to Look Upon Differences</i> .....	77
C. <i>The Governance of Patent Pools</i> .....	77
1. <i>Independent Patent Controller</i> .....	78
2. <i>Openness</i> .....	78
3. <i>Firewalls</i> .....	79
VI. THE IMPACT OF ANTITRUST VIOLATION BY PATENT POOLS ON IPR .....	80
A. <i>On the Cease-and-Decease Request Based on IPR</i> .....	80
B. <i>On IPR Licensing Agreement</i> .....	80
VII. FUTURE PROSPECTS .....	82
A. <i>The Transparency of Patent Pools toward Competition Authorities</i> .....	82
B. <i>Comprehensive Guidelines on IPR Licensing Agreements Needed</i> .....	83
C. <i>The Effects that the More Economic Approach Should Pursue</i> .....	83
REFERENCES .....	84

## I. INTRODUCTION

The traditional and normative view on the relationship between intellectual property rights (hereinafter IPR) and competition law<sup>1</sup> was that IPR was an ‘exception’ to competition law which applied only where IPR was used to constrain competition outside the scope of the exclusive right.<sup>2</sup> However, the dominant theory has evolved and now perceives a complementary relationship between IPR and competition law, with both sharing the common goal of promoting innovation and enhancing consumer welfare while balancing the interests of IPR holders on the one hand and the public interest,<sup>3</sup> competition in particular, on the other.

Nonetheless, different jurisdictions interpret and apply this complementary relationship differently when assessing the legality of various IPR licensing agreements. These differences can undermine cross-border IPR enforcement, the certainty and legitimacy of the IPR, and have ramifications on the development and use of new technologies. To bridge these differences, a more economic approach has been advocated, which takes into consideration the competitive effects of licensing agreements and supplements the ultimate legal judgment with objective measurement and evaluation, without however ignoring other values and normative concerns.

This paper endeavors to trace and confirm the growing acceptance of the more economic approach to IPR and competition law in state practices, and to pinpoint its characteristics. It then proceeds to compare how five jurisdictions (USA, EU, Japan, Korea and Taiwan) weigh the IPR licensing agreements against competition law in the context of patent pools, which

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1. More than 100 countries around the world have adopted competition law in one way or another. See Christopher Bellamy, *Foreword* to BELLAMY & CHILD: EUROPEAN COMMUNITY LAW OF COMPETITION, at ix (Peter Roth & Vivien Rose eds., 6th ed. 2008).

2. See SHITEKI-DOKUSEN NO KINSHI OYABI KŌSEITORHIKI NO KAKUHO NI KANSURU HŌRITSU [DOKUKINHŌ] [ACT ON PROHIBITION OF PRIVATE MONOPOLIZATION AND MAINT. OF FAIR TRADE] 1947, art. 21 (Japan) (“The provisions of this Act shall not apply to such acts recognizable as the exercise of rights under the Copyright Act, Patent Act, Utility Model Act, Design Act or Trademark Act.”); Fair Trade Act, art. 45 (1991) (amended 2011) (Taiwan), *available at* <http://law.moj.gov.tw/Eng/LawClass/LawSearchNo.aspx?PC=J0150002&DF=&SNo=45>; Dokjeom gyuje mit gongjeong georaerae gwanhan beobyul [Monopoly Regulation and Fair Trade Act], Act No. 6651, Jan. 26, 2002, art. 59 (S. Kor.); Fanlungtuan Fa [Anti-monopolization Law] (promulgated by the Standing Comm. Nat’l People’s Cong., Aug. 30, 2007, effective Aug. 1, 2008), art. 55 (China) (going a step further in prohibiting the abuse of IPR that eliminates or restricts competition, and “[t]his Law does not govern the conduct of business operators to exercise their intellectual property rights under laws and relevant administrative regulations on intellectual property rights; however, business operators’ conduct to eliminate or restrict market competition by abusing their intellectual property rights shall be governed by this Law.”).

3. Josef Drexel et al., *Comments on the Draft Technology Transfer Block Exemption Regulation*, 35 INT’L REV. INTEL. PROP. & COMPETITION L. 187, 187-88 (2004); Josef Drexel, *Is there a ‘more economic approach’ to intellectual property and competition law?*, in RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY AND COMPETITION LAW 27, 35 (Josef Drexel ed., 2008).

have become critically effective mechanism for both patent enforcement and the deployment of new technology. This paper further analyzes the major difference found, namely the abuse of a dominant position by patent pools and how to look upon and even harmonize it. It then moves on to study the impact of antitrust violation by patent pools on the cease-and-desist request based on IPR and on the licensing agreements. The concluding section brings forward three points worthy of further attention: the transparency of patent pools toward competition authorities, the need of maintaining comprehensive guidelines on IPR licensing agreements, and the effects that the more economic approach should pursue.

## II. THE ADOPTION OF THE MORE ECONOMIC APPROACH

To approach IPR from a more economic approach represents a sensible departure from the old-school “form(norm)-based” legalist dogma that failed to explain the rationale behind the IPR regime establishment and its shifting dynamics. An economic approach can help clarify IPR as absolute or natural rights and place it more reasonably in the ecology of numerous exchanges and mutual enrichment between the public and private sectors. Economically speaking, IPR is there to remedy market failure due to the nature of public goods nature and not to engender market failure. In other words, IPR is not meant to cause monopoly power as such, nor does it guarantee profit for or recoument of investment.<sup>4</sup> Competition-oriented legislation and interpretation of IPR is conducive to the promotion of competition in general and also an effective tool to put IPR in the evenhanded role of balancing competing interests.<sup>5</sup> As will be explained in the following, the more economic approach is gaining wider acceptance by nations around the world.

### A. USA

The wholesale economic approach to IPR originates from the

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4. See Drexler et al., *supra* note 3, at 45-46, 50-51.

5. Anti-Counterfeiting Trade Agreement art. 27, ¶ 3, Oct. 1, 2011, USTR-2010-0014 [hereinafter ACTA] (“Each Party shall endeavor to promote cooperative efforts within the business community to effectively address trademark and copyright or related rights infringement while preserving legitimate competition . . .”), available at [http://www.mofa.go.jp/policy/economy/i\\_property/pdfs/acta1105\\_en.pdf](http://www.mofa.go.jp/policy/economy/i_property/pdfs/acta1105_en.pdf). ACTA is probably the first international treaty to mention “preserving competition” in the context of IPR. Of course, whether this is just a lip service, remains to be seen. For related discussion, see ROBERTO D’ERME ET AL., OPINION OF EUROPEAN ACADEMICS ON ANTI-COUNTERFEITING TRADE AGREEMENT (2011), available at <http://www.statewatch.org/news/2011/jul/acta-academics-opinion.pdf>; EUROPEAN COMMISSION, COMMENTS ON THE “OPINION OF EUROPEAN ACADEMICS ON ANTI-COUNTERFEITING TRADE AGREEMENT” (Apr. 27, 2011), available at [http://trade.ec.europa.eu/doclib/docs/2011/april/tradoc\\_147853.pdf](http://trade.ec.europa.eu/doclib/docs/2011/april/tradoc_147853.pdf).

Department of Justice (hereinafter ‘DOJ’) of the United States when it appointed the UC Berkeley economics professor Richard Gilbert as its Deputy Assistant Attorney General for Economics in 1993, who was the driving force behind the famous “Antitrust Guidelines for the Licensing of Intellectual Property” (hereinafter ‘U.S. Guidelines’) in 1995 by the DOJ and the Federal Trade Commission (hereinafter ‘FTC’). The Guidelines continue and amplify the trend set by the 1986 watershed case of *Windsurfing International, Inc. v. AMF, Inc.*, in which the alleged infringer in resorting to patent misuse was required to ‘show that the patentee has impermissibly broadened the “physical or temporal scope” of the patent grant with anticompetitive effect, marking a clear deviation from the 1960s and 1970s when courts adopted per se rule of patent misuse and routinely refused to enforce patents where extension of the monopoly-type abuse was demonstrated, without requiring evidence of anticompetitive effect.

More than a decade later, the DOJ and the FTC issued in April 2007 the “Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition” Report (hereinafter ‘AE & IPR Report’) which maintains that the U.S. Guidelines are an integral part of their analysis of IPR and antitrust issues.<sup>6</sup> The AE & IPR Report analyzes in great length the antitrust considerations for many licensing agreements, including patent pools, which makes it the most authoritative and discussed document in the field.

## B. *EU*

The economic approach to IPR was uttered in Europe when the esteemed German Max Planck Institute for Foreign and International Patent, Copyright and Competition Law appointed new directors and changed its name that includes “Intellectual Property and Competition Law” (hereinafter ‘Max Planck Institute’) in 2002. The overall research profile of the Max Planck Institute as posted on its website states clearly “intellectual property should correctly be understood within the context of competition law”. The Max Planck Institute’s approach influences or inspires many European scholars.<sup>7</sup> A latest manifestation of such inspiration is seen in the Proposals

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6. U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION (2007) [hereinafter AE & IPR REP.], available at <http://www.justice.gov/atr/public/hearings/ip/222655.pdf>. Prior to the AE & IPR Report, the FTC issued a report entitled “To promote Innovation: The Proper Balance of Competition and Patent Law and Policy,” to present its conclusions about and recommendation for the improvement of patent system to work with competition in the proper balance. See FED. TRADE COMM’N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY (2003), available at <http://www.ftc.gov/os/2003/10/innovationrpt.pdf>.

7. See, e.g., Christophe Geiger et al., *Declaration on a Balanced Interpretation of the “Three-Step Test” in Copyright Law*, 1 J. INTELL. PROPERTY, INFO. TECH. & ELEC. COM. L. 119 (July, 2010),

for Amendment of TRIPS by several European universities in cooperation with the Max Planck Institute which proposed a new Article 8b into the TRIPS Agreement to specifically address the interface between IPR and competition law.<sup>8</sup>

Beginning from the 1999 Umbrella Regulation on vertical agreements, the European Commission started to depart from the previous legalistic approach and introduced the new market-share approach.<sup>9</sup> The European Commission takes up an “economic-based approach” to IPR most notably in its Regulation (EC) No. 772/2004 of 27 April 2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements (Technology Transfer Block Exemption Regulation, hereinafter ‘EU TTBER’),<sup>10</sup> which replaces the 1996 Block Exemption Regulation on Technology Transfer Agreements. On the same day, the Commission issued the “Guidelines on the application of Article. 81 of the EC Treaty to technology transfer agreements” (hereinafter ‘EU Guidelines’) in order to provide guidance on the application of the EU TTBER as well as on the application of Article 81 to technology transfer agreements that fall outside the scope of the EU TTBER.<sup>11</sup>

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<http://www.jipitec.eu/issues/jipitec-1-2-2010/2621/Declaration-Balanced-Interpretation-Of-The-Three-Step-Test.pdf>.

8. The Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, 1869 U.N.T.S. 299 [hereinafter TRIPS], *available at*

[http://www.wto.org/english/tratop\\_e/trips\\_e/t\\_agm0\\_e.htm](http://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm). The proposed new Article 8(b) titled “Interface Between Intellectual Property Rights and Competition Law” stipulates:

1. For the purposes of maintaining a fair balance between intellectual property rights and free competition: (a) Members shall provide for legislative or administrative measures, in particular, in the form of limitations of the rights or in the form of compulsory licenses, if the use of the product protected by an intellectual property right is indispensable for competition in the relevant market, unless the application of such measures would have a significantly negative effect on the incentives to invest in research and development; (b) Members should further provide for remedies if the use of an intellectual property right results in the abuse of a dominant position on the relevant market or in behaviour violating anti-trust principles. 2. To the extent that compliance with para. 1 depends on the establishment of an efficient system for control of competition, Art. 8.3 shall apply *mutatis mutandis*.

INTELLECTUAL PROPERTY RIGHTS IN A FAIR WORLD TRADE SYSTEM: PROPOSALS FOR REFORM OF TRIPS 455 (Annette Kur & Marianne Levin eds., 2011).

9. Drexl et al., *supra* note 3, at 29.

10. Commission Regulation No. 772/2004, On the Application of Article 81(3) of the Treaty to Categories of Technology Transfer Agreements, 2004 O.J. (L 123) 11 [hereinafter EU TTBER], *available at* <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004R0772:EN:HTML>. All references to Articles 81 and 82 EC should be understood as references to the current Articles 101 and 102 of the Treaty on the Functioning of the European Union (hereinafter TFEU) as renamed by the Treaty of Lisbon, which entered into force on 1 December 2009. Article 101(1) prohibits cartel activities, (2) declares such activities automatically void, and (3) provides exceptions under certain conditions. Article 102 outlaws the abuse of dominant market position.

11. *Guidelines on the Application of Article 81 of the EC Treaty to Technology Transfer Agreements*, 2004 O.J. (C 101) 2 [hereinafter Guidelines on the Application of Art. 81], *available at* <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2004:101:0002:0042:EN:PDF>. The EU TTBER has a rather limited scope of application. First, the Council Regulation 19/66 did not empower the Commission to block exempt technology transfer agreements concluded between more than two

C. *Japan*<sup>12</sup>

Article 21 of the Japanese Antimonopoly Act precludes the provisions of this Act from applying to acts recognizable as the exercise of rights under IPR law. The Japan Fair Trade Commission published the Guidelines for Patent and Know-how Licensing Agreements under the Antimonopoly Act on 30 July 1999. This was replaced by the Guidelines for the Use of Intellectual Property under the Antimonopoly Act (Japanese Guidelines) issued on 28 September 2007.<sup>13</sup> The Guidelines are applicable to those intellectual property rights that are concerned with technology. They are meant to comprehensively specify the principles by which the Antimonopoly Act is applied to restrictions pertaining to the use of technology.<sup>14</sup> In the Japanese Guidelines, the categorical classification has been diminished and a more flexible and economic approach has been adopted.<sup>15</sup>

D. *Korea*

Article 59 of the Korean Monopoly Regulation and Fair Trade Act states that the provisions of this Act shall not apply to any act deemed to be an exercise of rights under the Copyright Act, Patent Act, Utility Models Act, Design Act, or Trademark Act. The Korean Fair Trade Commission (hereinafter 'KFTC') issued Review Guidelines on Undue Exercise of Intellectual Property Rights in 2000 (last amendment on 31 March 2010,

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undertakings. Consequently the EU TTBER only deals with technology transfer agreements between a licensor and a licensee (Recital 19). Second, the EU TTBER does not cover all IPR and is limited to licensing agreements that involve patent (including patent applications, utility models, applications for registration of utility models, designs, topographies of semiconductor products, supplementary protection certificates for medicinal products or other products for which such supplementary protection certificates may be obtained and plant breeder's certificates) know-how, software copyright or the mix thereof (Article 1). Third, the EU TTBER excludes licensing agreements that set up technology pools (pooling of technologies with the purpose of licensing the created package of IPR to third parties) (Recital 7). However, to those technology transfer agreements concluded between more than two undertakings, including patent pools, which are of the same nature as those covered by the EU TTBER, the Commission will apply by analogy the principles set out in the EU TTBER (Guidelines on the Application of Art. 81 ¶ 40). EU TTBER, *supra* note 10, Recitals 7, 19, art. 1; Guidelines on the Application of Art. 81, ¶ 40.

12. For a comprehensive description of the development of the interface between IPR and competition law in Japan before 2005, see Christopher Heath, *The Interface Between Competition Law and Intellectual Property in Japan*, in THE INTERFACE BETWEEN INTELLECTUAL PROPERTY RIGHTS AND COMPETITION POLICY 250, 250-311 (Steven D. Anderman ed., 2007).

13. JAPAN FAIR TRADE COMM'N, GUIDELINES FOR THE USE OF INTELLECTUAL PROPERTY UNDER THE ANTIMONOPOLY ACT (2007) [hereinafter GU], available at [http://www.jftc.go.jp/en/legislation\\_guidelines/ama/pdf/070928\\_IP\\_Guideline.pdf](http://www.jftc.go.jp/en/legislation_guidelines/ama/pdf/070928_IP_Guideline.pdf).

14. *Id.* pt. 1(2).

15. Junko Shibata, *Patent and Know-how Licenses Under the Japanese Antimonopoly Act*, in RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY AND COMPETITION LAW 201, 211 (Joseph Drexler ed., 2008).

hereinafter ‘Korean Guidelines’).<sup>16</sup> The Korean Guidelines also follow an economic approach. It is stated as one of its basic principles that,

[I]n the event that the exercise of intellectual property rights produces the effects of impeding fair trade and improving efficiency at the same time, such exercise shall, in principle, be reviewed by comparing its positive and negative effects to determine whether or not the exercise is contrary to the Act. If the effect of improving efficiency outweighs the effect of impeding fair trade, it may be determined that the said exercise is not a breach of the Act.<sup>17</sup>

#### E. *Taiwan*

The Taiwanese FTA<sup>18</sup> prohibits the abuse of dominant market position (Article 10) and the forming of cartels (Article 14). In addition, the FTA also prohibits certain activities that are likely to restrain competition or to impede fair competition in relevant markets (Article. 19). With regard to the relationship between IPR and competition law, Article 45 of the FTA reads: “No provision of this law shall apply to any proper conduct in connection with the exercise of rights pursuant to the provisions of the Copyright Law, Trademark Law, or Patent Law.”

The Taiwan Fair Trade Commission (hereinafter ‘TFTC’) promulgated Guidelines on Technology Licensing Agreements (hereinafter ‘Taiwanese Guidelines’) on 20 January 2001,<sup>19</sup> to explain how it would treat patents and/or know-how licensing agreements according to the FTA as a whole.<sup>20</sup> The Taiwanese Guidelines were revised in 2005 and 2007 exclusively for formatting reasons. In February 2009 the Taiwanese Guidelines were in part substantially amended, deleting the so-called gray clauses, leaving white clauses unchanged and expanding the coverage of the examples of prohibited clauses while completely relaxing the previous rigid stance of illegal per se. This was a move that implicitly followed the European Commission and the more economic approach. Its review and analysis

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16. Review Guidelines on Undue Exercise of Intellectual Property Rights (2000) (amended 2010) (S. Kor.), *available at* [http://eng.ftc.go.kr/files/static/Legal\\_Authority/Review%20Guidelines%20on%20Undue%20Exercise%20of%20Intellectual%20Property%20Rights.pdf](http://eng.ftc.go.kr/files/static/Legal_Authority/Review%20Guidelines%20on%20Undue%20Exercise%20of%20Intellectual%20Property%20Rights.pdf).

17. *Id.* II(2)(C).

18. Fair Trade Act (1991) (amended 2011) (Taiwan), *available at* <http://law.moj.gov.tw/Eng/LawClass/LawContent.aspx?PCODE=J0150002>.

19. Fair Trade Commission Disposal Direction (Guidelines) on Technology Licensing Arrangements (2001) (amended 2009) (Taiwan), *available at* <http://www.ftc.gov.tw/internet/english/doc/docDetail.aspx?uid=746&docid=10254>.

20. *See id.* point 2.

emphasize on possible or actual restraint of competition or unfair competition created by such arrangements in the relevant goods, technology and innovation markets.<sup>21</sup>

### III. THE CHARACTERISTICS OF THE MORE ECONOMIC APPROACH

There are at least three major features of the more economic approach to IPR and its licensing agreements, namely recognition of the economics of IPR, the intervention threshold and rule of reason.

#### A. *Recognition of the Economics of IPR*

The economics of IPR lies in its fundamental function of enhancing innovation and the development of new products and services (hereinafter ‘dynamic competition’), and in its inherent characteristics such as the ease of misappropriation, high fixed costs exacerbated by low/zero marginal costs, uncertainty of right’s boundary (claim interpretation in patent law, the likelihood of confusion and dilution in trademark law, the case-dependence of fair-use defense in the copyright law), and the value of IPR depends on combination of other factors of production.<sup>22</sup> If access to IPR is denied, the level of innovation would in principle be adversely impacted, as opposed to the denial of access to tangible property.<sup>23</sup>

The economics of IPR could legitimately take on different facets and paradigms in the highly connected global economy, especially when essential IPR that involves network effects, compatibility (not in the least backward compatibility), de jure or de facto standards, and popularity-induced indispensableness (e.g. pachinko machines in Japan) is at stake and possessed by dominant market players. As internal regulatory failures of IPR may exclude dynamic competition,<sup>24</sup> it is incumbent on IPR specialists to reform the IPR regime from within by following the more economic approach. In the patent field, it would be desirable to recognize that the maintenance of competition is a public policy objective worthy of protection via compulsory patent licensing.<sup>25</sup> Just as Reto Hilty convincingly argues that there are inherent competition policy considerations

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21. See *id.* points 4(C)(ii) & 4(C)(vi).

22. AE & IPR REP., *supra* note 6, at 4.

23. Drexel et al., *supra* note 3, at 49-50; Reto Hilty, *Patent Enforcement*, in THE ENFORCEMENT OF PATENTS 11 (Kung-Chung Liu & Reto Hilty eds., Max Planck Series on Asian Intell. Prop. Set, 2011).

24. Drexel et al., *supra* note 3, at 53.

25. Kung-Chung Liu, *Rationalizing the Regime of Compulsory Patent Licensing by the Essential Facilities Doctrine*, 39 INT’L. REV. INTELL. PROP. & COMPETITION L. 757, 773 (2008); Rupprecht Podszun, *Lizenzverweigerung—Ernstfall im Verhältnis von Kartell- und Immaterialgüterrecht*, in JAHRBUCH KARTELL- UND WETTBEWERBSRECHT 57, 74 (Peter Matousek et al. eds., 2010).

in the compulsory licensing regimes both in the Berne and Paris Convention, compulsory patent licensing according to patent law (e.g. Article 24(1)(2) of the German Patent Act) also allows the intervention of compulsory licensing to eliminate problematic situations from the viewpoint of competition policy.<sup>26</sup>

In order to pursue the realization of such a goal, countries need to free themselves from the seemingly binding TRIPS Agreement. Commendably, the German Supreme Court took a liberal stance in interpreting the TRIPS Agreement in the “Orange-Book-Standard” case (May 6, 2009) decision.<sup>27</sup> It started from the assumption that Article 31 of the TRIPS Agreement in principle grants the right to use the patent without authorization from the patentee, so long as the permission is based on the circumstances of individual cases. In addition, condition of Article 31(b) (on reasonable commercial terms and conditions) is satisfied if the patent infringer prior to the commencement of use has tried fruitlessly to acquire a license on non-discriminating terms (Paragraph 28 of the decision).<sup>28</sup>

#### B. *Intervention Threshold*

IPR agreements would only harm competition if there was sufficient market power. Thus it is a popular practice among countries to set up intervention threshold (safety zone or harbor) that would exclude IPR agreements of minor market significance from scrutiny. Under the U.S. Guidelines (section 4.3), except under extraordinary circumstances, the DOJ and the FTC will not challenge a restraint in an IPR licensing arrangement if (1) the restraint is not prima facie anticompetitive<sup>29</sup> and (2) the licensor and

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26. Reto Hilty, *Renaissance der Zwangslizenzen im Urheberrecht? Gedanken zu Ungereimtheiten auf der urheberrechtlichen Wertschöpfungskette*, 111 GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT [GRUR] 633, 641-42 (2009) (Ger.). Richard Li-Dar Wang argues for a compulsory license system that charges reach-through royalties, which are measured by the contribution that patented research inputs make to the individual research. See Richard Li-Dar Wang, *Biomedical Upstream Patenting and Scientific Research: The Case for Compulsory Licenses Bearing Reach-through Royalties*, 10 YALE J.L. & TECH. 251, 251 (2008).

27. Bundesgerichtshof [BGH] [Federal Court of Justice] May 6, 2009, NEUE JURISTISCHE WOCHENSCHRIFT RECHTSPRECHUNG-REPORT ZIVILRECHT [NJW-RR] 1047, 2009 (Ger.).

28. Kuei-Jung Ni also argues for the freedom of Members to decide on the grounds for compulsory licensing, especially from the perspective of the Vienna Convention on the Law of Treaties. See Kuei-Jung Ni, *WTO Huiyuan Sheting Chiangchih Shouchuan Shihyu te Chuanhsien: Yi Weiyehna Tiaoyuehfa Kungyueh chih Chiehshih Yuantse Fenhsi Feilipu CD-R Chuanli Tehsu Shihshih Shihyu yu TRIPS te Hsiangkuanhsing* [The Competence of a WTO Member in Determining the Grounds for Compulsory Licensing: The Compatibility of the Ground for Triggering Compulsory Licensing on Philips' CD-R Patents with the TRIPS Agreement in Light of the Vienna Convention on the Law of Treaties], KUOLI TAIWAN TAHSUEH FAHSUEH LUNTSUNG [NTU L. J.], Sept. 2010, at 369, 415-16.

29. According to footnote 30 of the U.S. Guidelines, “facially anticompetitive” refers to restraints that normally warrant per se treatment, as well as other restraints of a kind that would always or almost always tend to reduce output or increase prices. U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N,

its licensees collectively account for no more than 20% of each relevant market significantly affected by the restraint. The EU block exempts technology agreements by parties whose combined market share does not exceed 20% on the affected relevant technology and product market when they are competing undertakings. Where the undertakings parties to the agreements are not competing undertakings and the market share of each of the parties does not exceed 30% on the affected relevant technology and product market, the block exemption will also apply (Article 3 EU TTBER).

The Japanese Guidelines adopt a 20% threshold of sorts.<sup>30</sup> The Guidelines list cases where restrictions may have major impacts on competition (acts between competitors and when influential technologies are involved) and cases where restrictions are deemed to have minor effect in reducing competition. In principle, restrictions pertaining to the use of technology are deemed to have a minor effect in reducing competition when the entrepreneurs using the technology subject to the restrictions in the business activity have a share in the product market of 20% or less in total. This is not applicable however to the conduct of restricting sale prices, sales quantity, market share, sales territories or customers for the product incorporating the technology or to the conduct of restricting research and development activities or obliging entrepreneurs to assign rights or grant exclusive licenses for improved technology.<sup>31</sup> The impact of a particular restriction on competition in the technology market is also deemed to have a minor effect in reducing competition if the product share is in principle 20% or less in total.<sup>32</sup>

### C. *Rule of Reason over Per Se Rule*

There are two types of per se rule: per se illegal and per se legal. Per se rule has its appeal and drawbacks. It can provide better legal certainty, but at the same time its rigidity is a mismatch for market and commercial realities. So following the more economic approach, the rule of reason gradually triumphs over the per se rule.

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ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY 22 n.30 (1995), available at <http://www.justice.gov/atr/public/guidelines/0558.pdf>.

30. See Ting-Tong Yen, *Jihpen Tuchan Chinchihfa Tuiyu Chishu Shouchuan Hsingwei chih Kueifan—Chienlun tui Wokuo Kungpingfa Kueifan chih Chishih* [The Rules of Technology Licensing Agreements Under Japanese Antimonopoly Law—Reflections on Taiwan's Fair Trade Act], KUNGPING CHIAOYI CHIKAN [FAIR TRADE Q.], July 2009, at 99, 108; Masako Wakui, *Standardisation and Patent Pools in Japan*, in VALUING INTELLECTUAL PROPERTY IN JAPAN, BRITAIN AND THE UNITED STATES 81, 99 (Ruth Taplin ed., 2004).

31. One referee inquires why the 20% threshold does not apply to such conducts. The Japanese Guidelines do not provide further explanation. Presumably it is because such conducts are in themselves cartels which are strictly prohibited. GU, *supra* note 13.

32. *Id.* pt. 2(5).

### 1. *Per Se Illegal Rule Phasing Out*

With regards to the per se illegal rule, the U.S. DOJ had in the 1970s demonstrated a general hostility toward patent licensing and ultimately promulgated a list of “Nine No-Nos” that were presumed per se violations of the antitrust laws.<sup>33</sup> However, the tide changed; by the early 1980s the DOJ began to repudiate the Nine No-Nos which were replaced by the 1995 Guidelines. The 1995 Guidelines basically take a rule of reason approach in the vast majority of cases. The per se illegal rule will only be applied in some cases where the courts have concluded that a restraint’s “nature and necessary effect are so plainly anticompetitive” and accorded it an unlawful per se treatment (such as naked price-fixing, output restraints, and market division among horizontal competitors, as well as certain group boycotts and resale price maintenance) and that particular restraint does not in fact contribute to an efficiency-enhancing integration of economic activity. As a matter of fact, these per se illegal agreements are already illegal due to being illegal cartel or prohibited by law.

The EU TTBER follows the U.S. experiences and limits the hardcore clauses that are excluded from the benefit of block exemption and subject to individual assessment by the Commission to only the fixing of prices charged to third parties (Article 4).<sup>34</sup> Even according to Paragraph 75 of the

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33.

[T]he Nine No-Nos were: 1. Requiring a licensee to purchase unpatented materials from the licensor (tying). 2. Requiring a licensee to assign to the licensor patents issued to the licensee after the licensing arrangement is executed. 3. Restricting a purchaser of a patented product in the resale of that product. 4. Restricting a licensee’s freedom to deal in products or services outside the scope of the patent. 5. Agreeing with a licensee that the licensor will not, without the licensee’s consent, grant further licenses to any other person. 6. Requiring that the licensee accept a “package” license. 7. Requiring royalties not reasonably related to the licensee’s sales of products covered by the patent. 8. Restricting the licensee’s sales of (unpatented) goods made with the licensed patented process. 9. Requiring a licensee to adhere to specified or minimum prices in the sale of the licensed products.

Daniel P. Homiller, *Patent Misuse in Patent Pool Licensing: From National Harrow to “The Nine No-Nos” to Not Likely*, DUKE L. & TECH. REV. ¶ 13 (2006), available at <http://www.law.duke.edu/journals/dltr/articles/pdf/2006dltr0007.pdf>.

34. Among other things, Article 4 of the EU TTBER provides:

1. Where the undertakings party to the agreement are competing undertakings, the exemption provided for in Article 2 shall not apply to agreements which, directly or indirectly, in isolation or in combination with other factors under the control of the parties, have as their object: (a) the restriction of a party’s ability to determine its prices when selling products to third parties; . . . 2. Where the undertakings party to the agreement are not competing undertakings, the exemption provided for in Article 2 shall not apply to agreements which, directly or indirectly, in isolation or in combination with other factors under the control of the parties, have as their object: (a) the restriction of a party’s ability to determine its prices when selling products to third parties, without prejudice to the possibility of imposing a maximum sale price or recommending a sale price, provided that it does not amount to a fixed or minimum sale price as a result of pressure from, or incentives offered by, any of the parties . . . .

EU TTBER, *supra* note 10, art. 4.

EU Guidelines, the Commission considers “that in the context of individual assessment hardcore restrictions will only in exceptional circumstances” fulfill the four conditions of the exception to the prohibition, and the term illegal per se was never used.

In parallel to the above-mentioned development, the Taiwanese Guidelines completely abolished the per se illegal position in 2009. The determination of the listed examples of prohibited clauses in Point 6 is either subject to the condition that it is “in a manner sufficient to influence the functions of the relevant market” or it is “likely to lessen competition or to impede fair competition in relevant markets.”

Nevertheless, for countries on the importing side of the IPR licensing trade and undertakings, the per se illegal rule might have a special attraction as a tool to strengthen their bargaining position vis-a-vis powerful licensors from advanced countries, and to bluntly refuse certain clauses and lessen the burden of proving anticompetitive effects.<sup>35</sup> The Proposals for Amendment of TRIPS take a similar view in demanding members to take measures to prevent specific licensing practices without inquiring their anti-competitive effects: “Members shall adopt, consistently with the other provisions of this Agreement, appropriate measures to prevent or control such practices, which may include for example exclusive grantback conditions, conditions preventing challenges to validity and coercive package licensing, in the light of the relevant laws and regulations of the Member concerned.”<sup>36</sup>

## 2. *Per Se Legal Rule Remains a Rarity*

The per se legal rule, such as the White Clauses once enshrined in the EU TTBER, the Japanese Guidelines of 1999 and the still existing Point 5 in the Taiwanese Guidelines (Point 5), remains a rarity. Such a rule can turn out to be a straightjacket in practice, due to the fact that undertakings will be misled into believing that only those clauses listed are exempted and therefore avoid other clauses that are not listed, although they might in fact be procompetitive.<sup>37</sup>

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35. According to § 39(1) of the Thai Patent Act, patentees may not impose restriction or any royalty term which is unjustifiably anti-competitive. Restrictions or terms which are unjustifiably anti-competitive shall be prescribed in the Ministerial Regulations. Patent Act B.E. 2522, § 39(1) (1979) (amended 1999) (Thai.).

36. TRIPS, *supra* note 8, art. 40.

37. That is why the Max Planck Institute asserts in its Comments on the Draft Technology Transfer Block Exemption Regulation that with the abolition of the White Clauses, undertakings gain significantly more contractual leeway. *See* Drexler et al., *supra* note 3, at 188-89.

## IV. PATENT POOLS IN THE ASSESSMENT OF NATIONAL AUTHORITIES

Patent pools are joint licensing agreements between plural right holders and licensees for a large number of patents with one royalty formula and package licensing of patents. This section will contrast the main viewpoints expressed by national agencies and thereby expose their common ground and divergence.

## A. USA

1. *DOJ and FTC: Including Substitute Patents Not Presumptively Anticompetitive*

The U.S. Guidelines provide only a broad-brush assessment of patent pools: patent pool arrangements may provide procompetitive benefits by integrating complementary technologies, reducing transaction costs, clearing blocking positions, and avoiding costly infringement litigation. However, pooling arrangements can have anticompetitive effects in certain circumstances. For example, collective price or output restraints in pooling arrangements, such as the joint marketing of pooled IPR with collective price setting or coordinated output restrictions, may be deemed unlawful if they do not contribute to an efficiency-enhancing integration of economic activity among the participants.<sup>38</sup> The Guidelines stop short of shedding light on the competitive effects of including substitutes within a patent pool. But the DOJ's favorable business review letters regarding patent pools relied heavily on assurances from the parties that the pools contain only complementary patents; and the FTC's Summit-VISX Complaint challenged the combining of patents in a pool that were alleged to cover substitute technologies.<sup>39</sup>

However, the AE & IPR Report discusses this issue in detail and states that the Agencies' previous guidance should not be interpreted to exclude the possibility of including some substitutes in the pool and the Agencies will consider the inclusion of some substitutes as one of the many factors in their rule of reason analysis of any pooling agreement.<sup>40</sup> In other words, including substitute patents in a pool does not make the pool presumptively anticompetitive; competitive effects will be ascertained on a case-by-case basis.<sup>41</sup>

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38. U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, *supra* note 29, at 28.

39. AE & IPR REP., *supra* note 6, at 76.

40. *Id.* at 78.

41. *Id.* at 9.

## 2. *CAFC: Rule of Reason Analysis of Any Pooling Agreement*

The Court of Appeals for the Federal Circuit (hereinafter ‘CAFC’) expresses a similar rule of reason analysis of any pooling agreement in the long-running dispute over the patent package licenses offered by U.S. Philips Corp. on behalf of the CD-R patent pool<sup>42</sup> to compact disc makers, such as Princo, for compliance with the CD-R/RW standards.<sup>43</sup> After years of

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42. Philips, Sony and Taiyo Yuden have developed standards through a series of Red Book, Yellow Book and Orange Book, pooled their patents on CD-R together and started to jointly license the pooled patents through a Joint Licensing Agreement (JLA) in 1992 with one royalty formula: 3% of the net sales price and not lower than 10 JPY. Philips was designated as the sole contact for licensing the pooled patents. The market price of a CD-R at the time the licensing agreements were entered into was approximately 300 JPY. As the market price of CD-Rs dropped drastically. The retail price of a CD-R disc was around USD 50 to USD 60 when it was first put on market in the early 1990s. When production started to gain momentum, the retail prices decreased to a level of around USD 10 to USD 15. By 1997, the trade price for a CD-R disc dropped significantly to around USD 2.55. By 2000, the worldwide prices for a CD-R disc fell further to USD 0.44 and continue to fall to USD 0.2 in 2006. See *Examination Procedure Concerning an Obstacle to Trade, Within the Meaning of Council Regulation (EC) No. 3286/94, Consisting of Measures Adopting by the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu Affecting Patent Protection in Respect of Recordable Compact Discs*, ¶¶ 34-35 (Jan. 30, 2008) [hereinafter TBR REP.], available at [http://trade.ec.europa.eu/doclib/docs/2008/january/tradoc\\_137633.pdf](http://trade.ec.europa.eu/doclib/docs/2008/january/tradoc_137633.pdf). The minimum royalty of 10 JPY became unbearable. However, Philips et al. refused to accommodate the repeated requests from Taiwanese licensees to lower the minimum royalty. Such licensing agreements and related practices have been challenged at least in Germany, Taiwan, and USA from the perspective of antitrust law.

43. At first the International Trade Commission (ITC) found Philips misused its patents, which was overruled by the CAFC. The CAFC remanded the case to the ITC for further proceedings because it had not addressed all the grounds on which the administrative law judge had based his ruling. On remand, the ITC first rejected Princo’s argument that Philips committed patent misuse by combining with its horizontal competitors to fix the price of patent licenses in the market for licensing CD-R/RW patents. The ITC found that there was no evidence in the record that the patents in the joint package licenses covered technologies that were close substitutes, or that the pool licensors would have competed in the technology licensing market absent the pooling arrangements. Consequently, the ITC found that the joint package licenses had not been shown to constitute horizontal price fixing. In particular, the ITC rejected Princo’s argument that Sony’s Lagadec patent should not have been included in the patent packages. The ITC noted Philips’s contention that claim 6 of the Lagadec patent covered a portion of the Orange Book standard and therefore was technically a “blocking patent,” and explained if Philips was correct that Lagadec was a necessary part of the Orange Book patent package, then “no misuse flows from including the [Lagadec] patent in the joint licenses.” Even if a license to the Lagadec patent was not necessary to manufacture Orange-Book-compliant discs, there was no merit to Princo’s theories of patent misuse based on the Lagadec patent, because “there has been no showing that the Lagadec...patent competes with another patent in the pool, no showing that the pool licensors would have competed in the technology licensing market absent the pooling arrangement, and no showing of the anti-competitive effect required under a rule of reason analysis.” With respect to the contention that including the Lagadec patent in the license packages enabled Philips to secure Sony’s adherence to the Orange Book standards and thereby foreclose competition, the ITC found it speculative and unsupported by the evidence. Because there was no evidence that Sony would have entered the CD-R/RW market with a system based on the Lagadec technology and no evidence that such a system would have become a significant competitive force in that market, the Commission held that theory insufficient to support a finding of patent misuse. On Princo’s appeal, a divided panel of the CAFC ruled against the ITC and Philips. Although the panel rejected several of Princo’s arguments, it vacated the ITC’s remedial orders and remanded the case for further proceedings on one issue: (1) whether Lagadec was a potentially workable alternative to the Orange Book technology and (2) whether Princo has established that Sony and Phillips agreed that Lagadec would not be licensed in

litigation, the CAFC, sitting en banc, upheld on 30 August 2010 the ITC's rejection of Princo's defense of patent misuse by an 8 to 2 vote for the following reasons and affirmed the ITC's orders granting relief against Princo:

(a) No Patent Misuse by Inducing a Third Party Not to License Its Separate, Competitive Technology

Given that the patent grant entitles the patentee to impose a broad range of conditions in licensing the right to practice the patent, the doctrine of patent misuse "has largely been confined to a handful of specific practices by which the patentee seemed to be trying to 'extend' his patent grant beyond its statutory limits."<sup>44</sup> Patent misuse is not available to a presumptive infringer simply because a patentee engages in some kind of wrongful commercial conduct, even conduct that may have anticompetitive effects.<sup>45</sup>

For the CAFC the decisive question was: When a patentee offers to license a patent, does he/she misuse that patent by inducing a third party not to license its separate, competitive technology? The CAFC opines that Princo has not pointed to any authority suggesting that such a scenario constitutes patent misuse, and nothing in the policy underlying the judge-made doctrine of patent misuse would support such a result.<sup>46</sup> The Orange Book licensing agreements control what the licensees may do; the purported agreement between Philips and Sony controls what Sony may do. Princo's underlying complaint is not that its license to the Raaymakers patents is unreasonably conditioned, but that the Lagadec patent has not been made available for non-Orange-Book uses. And that is not patent misuse under any court's definition of the term. If the purported agreement between Philips and Sony not to license the Lagadec technology is unlawful, that can only be under antitrust law, not patent misuse law; nothing about that agreement, if it exists, constitutes an exploitation of the Raaymakers patents against Philips' licensees.<sup>47</sup>

(b) Agreement Not to License Competing Technology Analyzed Under the Rule of Reason

Philips and Sony acted legitimately in choosing not to compete against

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a manner allowing its development as competitive technology. *See Princo Corp. v. Int'l Trade Com'n*, 563 F.3d 1301 (Fed. Cir. 2009). Philips, Princo, and the ITC all filed petitions for rehearing en banc. The court granted the petitions filed by Philips and the ITC, but denied the petition filed by Princo. Although Philips and the ITC have raised a number of issues in their petitions and in their briefs on rehearing en banc, CAFC address only one—Philips's argument that regardless of whether Philips and Sony agreed to suppress the technology embodied in Sony's Lagadec patent, such an agreement would not constitute patent misuse and would not be a defense to Philips's claim of infringement against Princo.

44. *Princo Corp. v. Int'l Trade Com'n*, 616 F.3d 1318, 1329 (Fed. Cir. 2010).

45. *Id.*

46. *Id.* at 1331.

47. *Id.* at 1333.

their own joint venture. Princo failed to show that the asserted agreement had any anticompetitive effects because, as the ITC found, the Lagadec technology was not a viable potential competitor to the technology embodied in the Raaymakers patents.<sup>48</sup> Research joint ventures such as the one between Philips and Sony can have significant procompetitive features, and it is now well settled that an agreement among joint venturers to pool their research efforts is analyzed under the rule of reason.<sup>49</sup>

Cooperation by competitors in standard-setting “can provide procompetitive benefits the market would not otherwise provide, by allowing a number of different firms to produce and market competing products compatible with a single standard.” Congress has recognized those procompetitive features and has directed that the activities of a “standards development organization while engaged in a standards development activity” are subject to the rule of reason.<sup>50</sup>

What Princo had to demonstrate was that there was a “reasonable probability” that the Lagadec technology, if available for licensing, would have matured into a competitive force in the storage technology market. It was not enough that there was some speculative possibility that Lagadec could have overcome the barriers to its technical feasibility and commercial success and become the basis for competing disc technology.<sup>51</sup> Princo has failed to show that the putative agreement between Sony and Philips not to license the Lagadec technology for non-Orange-Book purposes had any market effect at all—actual or prospective. The record and the findings of the ITC made it clear that the Lagadec technology lacked both the technical and the commercial prospects that would have made it a possible basis for a product that could compete with Orange-Book-compliant discs.<sup>52</sup>

#### B. *EU*<sup>53</sup>

The EU TTBER is of the opinion that the vast majority of licensing agreements is pro-competitive,<sup>54</sup> and therefore blocks exempt from the prohibition of Article 81(1) those technology transfer agreements that do not exceed the market thresholds and do not contain hardcore restrictions.

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48. *Id.* at 1334.

49. *Id.* at 1334-35.

50. *Id.* at 1335-36.

51. *Id.* at 1338.

52. *Id.* at 1340. For a well-grounded critique of the decision that abridged patent misuse and created gap with antitrust law, see Richard Li-Dar Wang, *Deviated, Unsound, and Self-Retreating: A Critical Assessment of the Princo v. ITC en banc Decision*, 16 MARQ. INTELL. PROP. L. REV. 51, 51-79 (2012).

53. For a detailed overview of the EU situation, see GUY TRITTON, *INTELLECTUAL PROPERTY IN EUROPE* 888-912 (3d ed. 2008).

54. Guidelines on the Application of Art. 81, *supra* note 11, ¶ 17.

Consequently, the EU TTBER moves away from the approach of listing exempted clauses to an economics-based approach that distinguishes agreements between competitors from agreements between non-competitors (Recital 4 EU TTBER).<sup>55</sup> There is no presumption that technology transfer agreements falling outside of the block exemption are caught by Article 81(1),<sup>56</sup> they just need to be individually exempted by the Commission.

### 1. *Highly Intolerance of Patent Pools with Substitute Technologies*

As a general rule, the European Commission seems highly intolerant of patent pools which include substitute technologies and reverts almost to the illegal per se rule. According to the EU Guidelines, the competitive risks and the efficiency enhancing potential of technology pools depend to a large extent on the relationship between the pooled technologies and their relationship with technologies outside the pool. Therefore, two basic distinctions must be made: (a) between technological complements and substitutes; and (b) between essential and non-essential technologies.<sup>57</sup>

For the Commission, the inclusion in the pool of substitute technologies restricts inter-technology competition and amounts to collective bundling. Moreover, where the pool is substantially composed of substitute technologies, the arrangement amounts to price fixing between competitors. As a general rule the Commission considers that the inclusion of substitute technologies in the pool constitutes a violation of Article 81(1).<sup>58</sup> In addition, when patent pools support an industry standard or establish a de facto industry standard, they can result in a reduction of innovation by foreclosing alternative technologies by making it more difficult for new and improved technologies to enter the market.<sup>59</sup>

When a pool is composed only of technologies that are essential and therefore by necessity also complements, the creation of the pool as such generally falls outside Article 81(1), irrespective of the market position of the parties. However, the conditions on which licenses are granted may be

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55. EU TTBER, *supra* note 10, Recital 4.

56. Guidelines on the Application of Art. 81, *supra* note 11, ¶ 37.

57. *Id.* ¶ 215. Two technologies are complements when they are both required to produce the product or carry out the process to which the technologies relate. Conversely, two technologies are substitutes when either technology allows the holder to produce the product or carry out the process to which the technologies relate. A technology is essential if there are no substitutes for that technology inside or outside the pool and the technology in question constitutes a necessary part of the package of technologies for the purposes of producing the product or carrying out the process to which the pool relates. A technology, for which there are no substitutes, remains essential as long as the technology is covered by at least one valid IPR. *See id.* ¶ 216.

58. *Id.* ¶ 219.

59. *Id.* ¶ 213.

caught by Article 81(1).<sup>60</sup> For example, where non-essential but complementary patents are included in the pool there is a risk of foreclosure of third party competitive technologies. In addition, the inclusion of technologies which are not necessary for the purposes of producing the pool-related product(s) or carrying out the process(es) will also force licensees to pay for technology that they may not need. When a pool encompasses non-essential technologies, the agreement is likely to be caught by Article 81(1) where the pool has a significant position on any relevant market.<sup>61</sup>

2. *Refusal to License the Pooled IPR: Concern About Competition in the Downstream Market*

According to the EU Guidelines, pools that hold a strong position on the market should be open and non-discriminatory<sup>62</sup> and where the pool has a dominant position on the market, royalties and other licensing terms should be fair and non-discriminatory and licenses should be non-exclusive.<sup>63</sup> It remains to be seen whether “pools that hold a strong position on the market should be open and non-discriminatory” means no refusal to license the pooled IPR by patent pools with dominant market position.

Noteworthy, however, is the “Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings” published on 9 February 2009 (EU Guidance Paper).<sup>64</sup> The EU Guidance Paper though only relates to abuses committed by single dominance (an undertaking holding a single dominant position) and excludes collective dominance (by two or more undertakings),<sup>65</sup> lists refusal to supply as abuse among other specific forms of abuse, such as exclusive dealing, tying and bundling, predation and margin squeeze.<sup>66</sup>

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60. *Id.* ¶ 220.

61. *Id.* ¶ 221.

62. *Id.* ¶ 224.

63. *Id.* ¶ 226.

64. Communication from the Commission—Guidance on the Commission’s Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings, 2009 O.J. (C 45) 2, available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:045:0007:0020:EN:PDF>.

65. *Id.* ¶ 4. The Commission considers that low market shares are generally a good proxy for the absence of substantial market power. The Commission’s experience suggests that dominance is not likely if the undertaking’s market share is below 40% in the relevant market. *See id.* ¶ 14.

66. The EU Guidance Paper understands the concept of refusal to supply as covering a broad range of practices, such as a refusal to supply products to existing or new customers, refusal to license IPR, including when the license is necessary to provide interface information, or refusal to grant access to an essential facility or a network. *See id.* ¶ 78. Likewise, it is not necessary for there to be actual refusal on the part of a dominant undertaking; “constructive refusal” is sufficient. Constructive

The Commission will consider an enforcement priority if all the three following circumstances are present: “the refusal relates to a product or service that is objectively necessary for undertakings to be able to compete effectively in a downstream market, the refusal is likely to lead to the elimination of effective competition in the downstream market, and the refusal is likely to lead to consumer harm.”<sup>67</sup>

It is highly likely for the Commission to apply *mutatis mutandis* this standard to refusal to license the pooled patents by patent pools.

### C. Japan

#### 1. *Highly Intolerance of Patent Pools with Substitute Technologies*

According to the Japanese Guidelines, a patent pool can be useful in encouraging the effective use of technologies required for business activities and a patent pool itself does not immediately constitute an unreasonable restraint of trade. It is an unreasonable restraint of trade if the parties holding the rights to the substitute technologies in a particular technology market establish a patent pool and jointly set forth licensing conditions (including the scope of use of technologies) for their rights to substitute technologies and substantially restrain competition in the field of trade associated with these technologies. The Japanese Guidelines then refer to the scenario of a refusal to license by patent pools: “where entrepreneurs participating in a patent pool refuse to grant a license to any new entrant or any particular existing entrepreneurs without any reasonable grounds, to hinder it from using the technology, the restriction may fall under the exclusion of business activities of other entrepreneurs.”<sup>68</sup>

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refusal could, for example, take the form of unduly delaying or otherwise degrading the supply of the product or involve the imposition of unreasonable conditions in return for the supply. *See id.* ¶ 79.

67. *Id.* ¶ 81.

68. GU, *supra* note 13, pt. 3(1)(i). In addition, consequent to the enactment of Law No. 51 of 2009 for amending the Antimonopoly Act in June 2009, the JFTC formulates on 18 October 2009 the “the Guidelines for the Exclusionary Private Monopolization under the Antimonopoly Act,” which include refusal to supply as one of the four typical exclusionary conducts. The Japanese Exclusion Guidelines in principle respect an entrepreneur’s discretion to select to whom and on what conditions it supplies products. However, if an entrepreneur carries out, beyond reasonable degree, refusal to supply, imposing restriction on the quantity or contents, or applies discriminatory treatment to the condition or implementation of supply in the upstream market concerning a product necessary for the trading customers to carry out business activities in the downstream market, such conduct may cause difficulty in the business activities in the downstream market of the trading customers who are unable to easily find an alternative supplier in the upstream market, and may undermine competition in the downstream market. Thus, carrying out refusal beyond reasonable degree concerning a product necessary for the trading customers to carry out business activities in the downstream market may fall

2. *If Refusal to License the Pooled IPR Substantially Restrains Competition: Private Monopolization*

The Japanese Guidelines also deal with the issue of refusal to license the pooled IPR s from the perspective of private monopolization pursuant the Antimonopoly Act. Restrictions by the right-holder to a technology such as not to grant a license for the use of the technology to an entrepreneur (including cases where the royalties requested are prohibitively expensive and the licensor's conduct is in effect equivalent to a refusal to license) is seen as an exercise of rights and normally constitutes no problem. However, if any such restriction is found to deviate from or run counter to the intent and objectives of the IPR systems, it is not recognizable as an exercise of rights. It then constitutes private monopolization if it substantially restrains competition in a particular field of trade and an infringement of Article 3 (prohibition of private monopolization or unreasonable restraint of trade) occurs.<sup>69</sup> In practice, in the 1997 pachinko game machines case the JFTC has found the refusal to license patents owned by 10 pachinko-manufacturing companies and administered by an association (Japan Amusement Machine Patent Managing Federation) to other pachinko-manufacturing companies a violation of Article 3 of the Antimonopoly Act.<sup>70</sup>

D. *Korea*

1. *Patent Pools with Substitute Technologies Likely to be Unjust*

If the technologies included in the patent pool are a substitute for one another, the exercise of rights related to such patent pool is likely to be determined as unjust. In addition, if unessential or invalid patents are included in the joint working of patents, there is a high possibility that the exercise of rights related to the relevant patent pool will be determined as unjust as it can increase a licensee's costs and unfairly allow invalid patents to exist.<sup>71</sup>

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under exclusionary conduct. See JAPAN FAIR TRADE COMM'N, THE GUIDELINES FOR THE EXCLUSIONARY PRIVATE MONOPOLIZATION UNDER THE ANTIMONOPOLY ACT 5, 25 (2009) [hereinafter Japanese Exclusion Guidelines], available at [http://www.jftc.go.jp/en/legislation\\_guidelines/ama/pdf/guidelines\\_exclusionary.pdf](http://www.jftc.go.jp/en/legislation_guidelines/ama/pdf/guidelines_exclusionary.pdf).

69. GU, *supra* note 13, pt. 3(1).

70. Wakui, *supra* note 30, at 92-93.

71. Review Guidelines on Undue Exercise of Intellectual Property Rights 17 (2000) (amended 2010) (S. Kor.), available at [http://eng.ftc.go.kr/files/static/Legal\\_Authority/Review%20Guidelines%20on%20Undue%20Exercise%20of%20Intellectual%20Property%20Rights.pdf](http://eng.ftc.go.kr/files/static/Legal_Authority/Review%20Guidelines%20on%20Undue%20Exercise%20of%20Intellectual%20Property%20Rights.pdf).

2. *Refusal to License Pooled IPR: Concerned About Fair Trade in the Relevant Market*

Act of unfairly rejecting the grant of license to non-participants in the patent pool or signing a license agreement with such non-participants on discriminatory conditions which threaten to impede fair trade in the relevant market, may be viewed as being outside the bounds of the just exercise of patent rights.<sup>72</sup>

F. *Taiwan*

1. *Much Emphasis on Not Including Substitute Patents in Patent Pool*

The Taiwanese Guidelines do not address the issue of patent pool at all. However, the TFTC has held that patent pools comprising of potentially substitutable patents by competitors, such as that between Philips, Sony and Taiyo Yuden (with a uniform royalty rate and a sole licensing channel), are cartel in disguise. However, the Taipei Administrative High Courts overruled on the following grounds: Local CD-R manufacturers must use all the patents owned by Philips et al in order to make CD-R; Using patents of any one of the three companies would not be sufficient to manufacture CD-R; therefore, patents owned by Philips et al were complementary in nature and every pooled patent was indispensable, which made the patented technology no longer substitutable, therefore no horizontal competitive relationship existed between Philips et al and Article 14 of the FTA that bans cartel could not be applied. The Taipei Administrative High Court's finding of "no substitutability for the patented technology and no competition relationship between Philips et al" was upheld by the Supreme Administrative Court as "ascertaining the facts according to the law."<sup>73</sup>

On 30 March 2011 the TFTC cleared the first patent pool that sought its

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72. *Id.* at 16, 18.

73. For more details of the case and some critique, see Kung-Chung Liu & Wei-Ke Chien, *CD-R An chih Chiehhsi yu Pingshieh—Yi Kungpingfa chi Chuanli Chiangchih Shouchuan wei Chunghsin* [Analysis of and Comments on CD-R-related Cases: Focusing on Competition Law and Patent Compulsory Licensing Issues], KUNGPING CHIAOYI CHIKAN [FAIR TRADE Q.], Jan. 2009, at 1-37; Shio-Ming Wu, *Chuanli Lienmeng yu Kungpingfa chih Lienhe Hsingwei Kuanchih—Yi "Feilipu Kuangtieh An" chung Tiaokuei te Chingcheng Kuanhsi wei Hehsin, Shang* [Patent Pool and the Regulation of Cartel According to the Fair Trade Act, Part I], YUEHTAN FAHSUEH TSACHIH [TAIWAN L. REV.], Nov. 2009, at 120-35; Shio-Ming Wu, *Chuanli Lienmeng yu Kungpingfa chih Lienhe Hsingwei Kuanchih—Yi "Feilipu Kuangtieh An" chung Tiaokuei te Chingcheng Kuanhsi wei Hehsin, Hsia* [Patent Pool and the Regulation of Cartel According to the Fair Trade Act, Part II], YUEHTAN FAHSUEH TSACHIH [TAIWAN L. REV.], Dec. 2009, at 85-101.

approval. The TFTC decided not to oppose the merger between Hitachi, Panasonic, Philips, Samsung, Sony and CyberLink which takes the form of a new company, One-Blue, with each company controlling one-sixth of its share. One-Blue will act as a licensing agent for the patent pool to license essential blue-ray disc (BD) patents for the manufacturing of back-ward compatible BD products (such as CD, DVD etc.). One-Blue assures that (1) the patent pool will be composed exclusively of patents that will be periodically reviewed by independent patent experts (selected by the Administrative Commission from independent and professional patent experts of different countries. The patent experts will provide their patent evaluation service on an hourly charge basis and the outcome of their evaluations on the patents essentiality have nothing to do with their compensations for the service) to be necessary, complementary and valid; (2) the patent pool will be open to all patent holders; (3) licensors of the patent pool are required to conduct individual licensing activities to any licensee on a FRAND (fair, reasonable, and non-discriminatory terms) basis; (4) licensors of the patent pool are prohibited from disclosing their confidential information, and shall not get access to licensee's information provided in the application of per-batch license before each shipment of product; (5) grant back is limited to essential patents, the royalties will be paid under the same royalty rate as the patent pool, and licensors of such grant back licensing are free to individually license their patents.

In order to ensure that the overall economic benefit of the merger outweighs the disadvantages resulting from competition restraints and to ensure that participating parties will not restrain competition through the patent pool, the TFTC imposes the following conditions on participating parties and One-Blue<sup>74</sup>: (1) Not to engage in any concerted action by entering into any agreement that restricts the quantities or prices of the BD products or by exchanging important transaction information; (2) Not to restrict licensees' use of technology, trading counterparts and product prices; (3) Not to restrict licensees from challenging the essentiality and validity of the licensed patents; (4) Not to restrict licensees from researching and developing, manufacturing, using and selling the competitive products and/or adopting competitive technologies within the license term or after the expiration of the license; (5) Not to refuse to provide licensees with the content, scope and term of the licensed patents; (6) To provide executed copies of the pool agreements for the TFTC's review.<sup>75</sup>

It is evident that the TFTC puts much emphasis on the fact that substitute patents are not included in the patent pool, and strives to avoid

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74. Fair Trade Comm'n, Kungchieh No. 100002 (Mar. 31, 2011) (Taiwan), available at <http://www.ftc.gov.tw/uploadDecision/ftc229308-2070-4498-9f4e-a845bcea7c55.pdf>.

75. *Id.*

restraint of licensees' freedom to decide prices, use or challenge the pooled patents, and to research and develop competitive products or technologies. In addition, it is noteworthy that the TFTC abandons its prior skepticism about the sole licensing channel through a particular pool member it exhibited against the CD-R patent pool and concludes that "Therefore, licensing the essential BD patents through a patent pool is expected to make it easier for Taiwanese manufactures to obtain the license of essential patents, to lower the transaction cost and to avoid the risk of infringement and litigation, which will make it easier for Taiwanese manufactures to compete with each other for consumer's interest."

2. *Refusal to License Pooled IPR via Refusing Royalty Negotiation: Abuse of Monopolistic Position*

The Taiwanese Guidelines do not deal with the abuse of monopolistic market power derived from patent pools. However, the CD-R cases prompted the TFTC to interpret and apply Article 10 (abuse of monopolistic market power) to the refusal to license the pooled patents. In 2000, Philips et al were accused of abusing their monopoly power in the CD-R market through the JLA by demanding excessive royalties and obscuring information about the patents to be licensed. Philips et al were further accused of engaging in cartels by bundling patents and licensing in packages, tying in patents that had already expired. In January 2001 the TFTC found that Philips et al had a joint monopoly power in the CD-R patent-licensing technology market because they own all the important patents for the manufacture of CD-R. From the drastic price drop and the sixty-fold growth in volume worldwide, the TFTC concluded that the maintenance of the minimum royalty of 10 JPY and the refusal to negotiate on a royalty scheme to match the market situation would give rise to the situation where Philips et al would earn royalties between twenty to sixty times more than the expected amount; hence Philips et al were guilty of abusing their joint monopoly power and violated Article 10(2) of the FTA. The Taipei Administrative High Court and the Supreme Administrative Court concurred with this finding.<sup>76</sup>

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76. Fair Trade Comm'n, Kungchu No. 098156 (Oct. 20, 2009) (Taiwan), *available at* <http://www.ftc.gov.tw/uploadDecision/faed94a8-34ce-4f8e-b59a-239a9eaece1d.pdf>. The TFTC's determination of the relevant product market has not been upheld. But on remand the TFTC reached the same conclusions, which was appealed to and upheld by the Executive Yuan, the Taipei Administrative High Court and the Administrative Supreme Court. However, the Taipei Administrative High Court took into consideration the fact that the TFTC imposed different fines on Philips, Sony and Taiyo Yuden respectively in one administrative decision (not three administrative decisions) and found itself unable to render an "affirmed-in-part, vacated-in-part" decision and instead compelled to rescind the TFTC's decision as a whole. Both the TFTC and Phillips et al. appealed the case to the Supreme Administrative Court which rejected the appeal in 2007 and the retrial appeal by

## V. MAJOR DIFFERENCE—HOW TO LOOK UPON AND HARMONIZE IT

The following analysis will identify the area where countries are most divided, arguably the abuse of a dominant position by patent pools, and discuss how we should look upon the major difference and harmonize it via the governance of patent pools.

A. *The Dividing Line: Abuse of a Dominant Position by Patent Pools*

There is a fundamental difference between U.S. and European antitrust law, namely that U.S. antitrust law does not have any specific regulation on the abuse of dominant position while the European antitrust law (mirrored by countries including China, Japan, Korea, and Taiwan) does. According to the latter, it is not in itself illegal for an undertaking to be in a dominant position and such a dominant undertaking is entitled to compete on its merits. However, a dominant undertaking has a special responsibility not to allow its conduct to impair genuine undistorted competition in the market. Patent pools often give rise to a dominant position in the licensing (or technology) market which in turns triggers the issue of the abuse of such dominance.<sup>77</sup> The abuse of dominance is commonly embodied in the form of refusal to license and charging prohibitive royalty.

1. *Refusal to License*

The unilateral, unconditional refusal to license patents by individual patentee is a core part of the patent grant. Accordingly, the AE & IPR REPORT states “Antitrust liability for mere unilateral, unconditional refusals to license patents will not play a meaningful part in the interface between patent rights and antitrust protections.”<sup>78</sup> However, the unilateral,

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the TFTC in 2009. So the case was remanded back to the TFTC for further treatment. On 29 October 2009 the TFTC again comes to the same conclusion that Philips et al. had violated Articles 10(2) and (4) of the FTA in the following exploitative abuse of monopoly power: refusing to renegotiate royalty with licensees while there have been significant changes on the market. For more details, see Kung-Chung Liu, *The Taiwanese “Philips” CD-R Cases: Abuses of a Monopolistic Position, Cartel and Compulsory Patent Licensing*, in LANDMARK INTELLECTUAL PROPERTY CASES AND THEIR LEGACY 83-104 (Christopher Heath & Anselm Kamperman Sanders eds., 2010).

77. For jurisdictions that have special regulation on dominance, there exist also thresholds of sorts. Under the Japanese Exclusion Guidelines, the JFTC will prioritize the case where the share of the product that the said entrepreneur supplies exceeds approximately 50% after the commencement of such conduct and where the conduct is deemed to have a serious impact on the lives of the citizenry, comprehensively considering the relevant factors such as market size, scope of business activities of the said entrepreneur, and characteristics of the product. For the European Commission dominance is not likely if the undertaking’s market share is below 40% in the relevant market. See *supra* note 64, ¶ 14.

78. AE & IPR REP., *supra* note 6, at 6. However, AE & IPR Report continues to say on the same page that “conditional refusals to license that cause competitive harm are subject to antitrust liability,”

unconditional refusal to license by patent pools, especially those holding dominant market position cannot be equally harmless, especially in jurisdictions with abuse-of-dominance antitrust law.<sup>79</sup> The AE & IPR REPORT in the context of patent pools is only willing to recall that the DOJ relied on the representations made by pool proponents that the license agreement would be available to all interested licensees.<sup>80</sup>

Under what conditions will a refusal to license by patent pools with dominant market power constitute an abuse of dominance? The German Supreme Court in the “Orange-Book-Standard” has drawn a fine line that can be followed by other countries with European-style antitrust law: dominant patent pools only abuse their dominant market position and act faithlessly when the following two conditions have been satisfied: (1) the license-seeking party must have made an unconditional offer to sign a licensing agreement and abided by the offer, which the patentee if refused to accept would have inequitably excluded the license-seeking party or violated the prohibition of discrimination; (2) the license-seeking party who has already used the patent must abide by the obligations which the to-be-signed licensing agreement attaches to the use of the licensed object, before the patentee accepts the offer. This means in particular that the license-seeking party must pay or guarantee the payment of royalties resulting from the licensing agreement (Paragraph 29 of the Orange-Book-Standard decision).<sup>81</sup>

An issue related to the refusal to license by patent pools is the refusal to grant partial-pool licenses. Its competitive effects are discussed below.

## 2. Charging Prohibitive Royalty

Collective royalty setting is an integral part of pooling agreements for the avoidance of royalty stacking with individual IPR holders charging royalties on top of royalties already charged by other IPR holders (double marginalization), which would make royalties prohibitively high. Collective royalty setting can also send out a clear price signal to on-lookers who are contemplating entering the market but are hesitant due to the uncertainty of royalties.

However, royalty set by patent pools can be excessive. Based on Article 102 TFEU, the European Court of Justice is prepared to find that an excessive royalty is an abuse of dominant position as it pronounced in the 1987 *Basset v. SACEM* case (Case 402/85) that “it was possible that the

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without giving any specific example of such conditional refusals.

79. TRITTON, *supra* note 53, at 1075-77.

80. See AE & IPR REP., *supra* note 6, at 71-72.

81. Bundesgerichtshof [BGH] [Federal Court of Justice] May 6, 2009, NEUE JURISTISCHE WOCHENSCHRIFT RECHTSPRECHUNG-REPORT ZIVILRECHT [NJW-RR] 1049, 2009 (Ger.).

level of royalty fixed by a copyright society is such that Article 82 may be applied".<sup>82</sup> In contrast, the U.S. DOJ and FTC will not generally assess the reasonableness of royalties set by a pool and their analysis will focus on the pool's formation and whether its structure would likely enable pool participants to impair competition.<sup>83</sup> Nor does the CAFC accept the "assumption that a license to fewer than all the patents in a package would presumably carry a lower fee than the package" because it "ignores the reality that the value of any patent package is largely, if not entirely, based on the patents that are essential to the technology in question."<sup>84</sup> "It is entirely rational for a patentee who has a patent that is essential to particular technology, as well as other patents that are not essential, to charge what the market will bear for the essential patent and to offer the others for free."<sup>85</sup> Following that line of thought, the AE & IPR Report concludes that:

In general, a refusal to license less than all of a pool's intellectual property will not raise competitive concerns, provided that the licensors retain the ability to license their patents individually and the pool's design is otherwise procompetitive. In this way, licensees are not required to purchase access to more technology than they need.<sup>86</sup>

In setting royalties, there are at least two ways of doing so, that is, percentage-wise or by charging a fixed amount. Royalty by percentage can fluctuate with the price levels on the market and is very popular,<sup>87</sup> but suffers from licensees underreporting the prices they sold the patented products. Conversely, fixed amounts of royalty protect the minimum returns collectable for licensors, but are equally plagued with licensees underreporting product volume sold. However, fixed amounts of royalty by patent pools are likely subject to stricter examination in the event that the prices of the patented product fall significantly such that the fixed amount of royalty results in an abusive use of dominant market power.

In addition, collective royalty setting should not prevent licensees of patent pools from only choosing and paying for patents that they actually need, in order to avoid tie-in, unfairness against technologically more advanced licensees, and the foreclosure of (potentially) competitive

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82. TRITTON, *supra* note 53, at 1074-75.

83. AE & IPR REP., *supra* note 6, at 9.

84. U.S. Philips Corp. v. Int'l Trade Comm'n, 424 F.3d 1179, 1191 (Fed. Cir. 2005).

85. *Id.*

86. AE & IPR REP., *supra* note 6, at 84.

87. In Germany, the remuneration of employees for their contribution to the granted patents owned by the companies they work for is commonly calculated according to percentage. See ORTWIN HELLEBRAND ET AL., LIZENSÄTZE FÜR TECHNISCHE ERFINDUNGEN 57-76 (2006).

technology. The EU Guidelines (Paragraph. 229), Japanese Guidelines (Part 4-5-(4)), Korean Guidelines (p. 18), and the Taiwanese Guidelines (Point 6(2)(xii)) are all very mindful of the risk that invalid patents may be included in the package, which would force licensees to pay higher royalties and prevent innovation in the field covered by the invalid patents. Consequently, the practice of package licensing “essential” and “non-essential” patents at one price will seem to be questionable in these jurisdictions.<sup>88</sup>

### B. *How to Look Upon Differences*

To some people differences between jurisdictions are a source of legal uncertainty and costs and would see their complete eradication as the most desirable result of comparative legal study. However, differences reflect divergent legal background and social values. Therefore no one law and treatment of patent pools is in itself better than the other and demands deference. A forced unification of differences would not only impair national sovereignty, but also neglects and possibly even negate the potential they might hold for solving the pooling problems in the future.<sup>89</sup> Bearing in mind the major difference identified in the preceding subsection, the following discussion will deal with the issue of patent pool governance and hope to use this as an effective vehicle to bridge the difference.

### C. *The Governance of Patent Pools*

Despite the widely acknowledged integrative efficiency-enhancing benefits, patent pools consisting of substitutes held by competitors can facilitate horizontal collusion that would reduce price and inter-technology competition and lead to margin squeeze.<sup>90</sup> Patent pools comprised of complementary and non-essential patents raise the danger of foreclosing third party new R&D and innovation and forcing licensees to pay for technology that they may not need. To offset these perils and maximize the

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88. For example, Philips offered four different pools of patents for licensing: (1) a joint CD-R patent pool that included patents owned by Philips and two other companies (Sony and Taiyo Yuden); (2) a joint CD-RW patent pool that included patents owned by Philips and two other companies (Sony and Ricoh); (3) a CD-R patent pool that included only patents owned by Philips; and (4) a CD-RW patent pool that included only patents owned by Philips. After 2001 Philips offered additional package options by grouping its patents into two categories, “essential” and “nonessential” for producing compact discs compliant with the technical standards set forth in the Orange Book. The “essential” and “nonessential” patents are licensed in package; however licensees do not have to pay any additional royalty fee for “nonessential” patents. See *U.S. Philips Corp.*, 424 F.3d at 1182.

89. Hanns Ullrich, *Patent Pools—Policy and Problems*, in RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY AND COMPETITION LAW 139, 161 (Joseph Drexler ed., 2008).

90. Rudolf Peritz, *Competition Policy and Its Implications for Intellectual Property Rights in the United States*, in THE INTERFACE BETWEEN INTELLECTUAL PROPERTY RIGHTS AND COMPETITION POLICY 214-15 (Steven D. Anderman ed., 2007).

pro-competitive effects of patent pools, first and foremost, patent pools must be subject to good governance. Good governance of patent pools requires at least an independent oversight mechanism with internal and external openness and firewalls.

### 1. *Independent Patent Controller*

Without exception, the patent pools to whom the U.S. DOJ issued business review letters have all engaged an independent expert to exclude substitute technologies and to admit to the pool only those complementary patents essential to manufacturing products complying with the product standards.<sup>91</sup> The One-Blue patent pool is the latest case in point. It is therefore imperative to have a neutral third party expert, both technically and financially not bound by the patent pools, to conduct technical evaluation, either upon his own initiative or request, with regard to the essentiality and substitutability of the pooled patents and confidential know-how.<sup>92</sup> With an independent patent controller put in place, the related legality elaborations surrounding the no challenge clause would be superfluous.<sup>93</sup>

### 2. *Openness*

Openness of patent pools can ease the burden of competent agencies in discerning procompetitive ones from the anti-competitive and help prevent patent pools from denaturing into cartels and means to monopolizing the market. To ensure external openness, patent pools should allow licensors to retain the right to license their patents individually and the license agreement should be available to all interested licensees.<sup>94</sup> With respect to internal openness, patent pools should provide a clear understanding of the contents

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91. AE & IPR REP., *supra* note 6, at 71.

92. Guidelines on the Application of Art. 81, *supra* note 11, ¶¶ 225, 232. See also Wakui, *supra* note 30, at 101.

93. Art. 5 (1)(c) of the EU TTBER states that any direct or indirect obligation on the licensee not to challenge the validity of IPRs held by the licensor shall not be block exempted, provided that without prejudice to the possibility of terminating the technology transfer agreement in the event that the licensee challenges the validity of one or more of the licensed IPR. Point 7 of the Taiwanese Guidelines provides that licensing arrangements that involve restrictions on the licensee's ability to challenge the validity of the licensed technology and are likely to restrain competition or to impede fair competition in relevant markets would probably contravene Article 19(6) of the FTA. In practice, the TFTC found the demand by Philips et al. that the Taiwanese licensees withdraw their invalidity applications against patents held by Philips et al. as a precondition for concluding the licensing contracts an improper exercise of patent rights and amounted to exploitative abuse of monopoly power derived from such patents and therefore violated Art. 10(4) of the FTA. The Taipei Administrative High Court and the Administrative Supreme Court concurred with the TFTC on its ruling. For more details, see Fair Trade Comm'n, *supra* note 75.

94. See AE & IPR REP., *supra* note 6, at 71-72. See also Wakui, *supra* note 30, at 102-03.

of the license,<sup>95</sup> and the scope, terms and number of the patents owned by each licensor.<sup>96</sup>

### 3. *Firewalls*

An antithesis to internal openness needs to be mentioned, namely the necessity to establish firewalls within patent pools. Often, in the names of overcoming underreporting by the licensee and calculating accurate royalty, competitively sensitive information such as pricing and output data and sales reports are asked to be provided to the pool administrator or licensors.<sup>97</sup> The exchange or provision of such information will lead to collusion among patent pool members who are (potential) competitors. To preempt such attempts, there should be a safeguard mechanism installed in patent pools to prevent the departments other than the one overseeing the execution of licensing agreements from gaining access to the business secrets of others and using them to gain competitive advantages. In the US, the MPEG-2 patent pool hired an independent licensing administrator so that the licensors would not be privy to information gathered from other pool participants; in both DVD patent pools, the parties designed “walls” to sufficiently limit access to each other’s sensitive information.<sup>98</sup>

Out of similar concerns for the institutional framework governing pool management, the EU Guidelines state:

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95. AE & IPR REP., *supra* note 6, at 72.

96. The TFTC has found Philips et al. elusive about important trading information, such as the contents, scope, terms and number of patents they individually owned and constituted a so-called exploitative abuse of monopoly power and therefore violated Article 10(4) of the FTA. The Taipei Administrative High Court and the Administrative Supreme Court concurred with the TFTC’s ruling. See Zuigao Hsingcheng Fayuan [Sup. Admin. Ct.], 96 Pan No. 553 (2007) (Taiwan).

97. In Taiwan an actual legal case was fought over the legality of the licensor’s demanding of the list of manufacturing equipments and the sales reports to be provided by the licensee. The TFTC was of the opinion that such demand was categorically illegal, a violation of the general clause against unfair competition, namely Article 24 of the FTA (“in addition to what is provided for in this Law, no enterprise shall otherwise have any deceptive or obviously unfair conduct sufficient to affect trading order.”) and fined Philips NTD 6 million for imposing such demand on its CD-R patents licensees in Taiwan, *see* Taiwan Fair Trade Comm’n, Kungchu No. 095045 (2006) (Taiwan). However, the Taipei Administrative High Court did not see the “list of manufacturing equipments, suppliers, dates of installing and testing” as trade secrets of the licensees because the licensor knew already the manufacturing procedures (the same across all CD-R manufacturers) and equipments, and many other factors (e.g. orders, actual work dispatch and operation, and prices of dyes and PCs) contributed to the price determination of CD-R. At the same time, the Court found a violation of Article 24 of the FTA in Philips’ demanding of the information about the identification of CD-R buyers and the trademarks used by the buyers to be contained in the “written sales report.” For the Court these were sensitive business information and unrelated to the calculation of royalty, not even after taking into account of the common phenomenon of underreporting by the licensees, which can be dealt with through other lawful means. The Supreme Administrative Court upheld this decision. The Supreme Administrative Court rejected both the appeals filed by the TFTC and Philips for their failing to raise an issue of law, *see* Zuigao Hsingcheng Fayuan [Sup. Admin. Ct.], 99 Tsai No. 2028 (2010) (Taiwan).

98. AE & IPR REP., *supra* note 6, at 82.

In oligopolistic markets exchanges of sensitive information such as pricing and output data may facilitate collusion. In such cases the Commission will take into account to what extent safeguards have been put in place, which ensures that sensitive information is not exchanged. An independent expert or licensing body may play an important role in this respect by ensuring that output and sales data, which may be necessary for the purposes of calculating and verifying royalties is not disclosed to undertakings that compete on affected markets.<sup>99</sup>

## VI. THE IMPACT OF ANTITRUST VIOLATION BY PATENT POOLS ON IPR

### A. *On the Cease-and-Decease Request Based on IPR*

As a relevant issue caught in the intersection between IPR and competition law is whether the cease-and-decease request based on IPR is barred by the determination of an antitrust law violation on the part of the IPR-holder. In the US, the answer would likely be the affirmative if a patent misuse has been determined under competition law on the ground that the patentee has asserted the patent in an anticompetitive way, akin to an antitrust violation. As long as the patent owner is using his patent in violation of the antitrust laws, he cannot restrain infringement of it by others. This is also otherwise known as the unenforceability of patents. The German Supreme Court answered a similar question (whether the cease-and-decease request based on Article 139(1) of the German Patent Act can be countered by a claim derived from competition law, namely Article 33(1) of the Anti-Cartel Law in combination with Article 82 EC or Articles 19 and 20 of the Anti-Cartel Law) also positively in the “Orange-Book-Standard” case with a rather simple reason: Behavior that is prohibited by competition law cannot be ordered by the courts. It further reasoned that when a dominant undertaking discriminates against the license-seeking undertaking or inequitably excludes it by refusing to accept its offer to signing a licensing agreement, then the enforcement of the cease-and-decease request according to the Patent Act by the dominant undertaking would be an abuse of the dominant market position (Paragraph 27 Orange-Book-Standard).<sup>100</sup>

### B. *On IPR Licensing Agreement*

In cases where IPR licensing agreements have been found by the

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99. Guidelines on the Application of Art. 81, *supra* note 11, ¶ 234.

100. Bundesgerichtshof [BGH] [Federal Court of Justice] May 6, 2009, NEUE JURISTISCHE WOCHENSCHRIFT RECHTSPRECHUNG-REPORT ZIVILRECHT [NJW-RR], 1049, 2009 (Ger.).

authorities as violating antitrust law, what impact would it have on such agreements? At least the royalty should be adjusted in accordance with equitable estimation to a certain degree that would complement the IPR with competition law. Bewilderingly, the question has first been answered negatively by the Taiwan Intellectual Property Court (IP Court) with very straightforward reasoning: the licensing agreement is valid notwithstanding the fact that abusively high royalty demanded by a dominant patent pool has violated the FTA.<sup>101</sup> Among its flawed reasoning,<sup>102</sup> above all, it contradicts the final decision of the administrative courts which found abuse of collective monopoly power by improperly maintaining high royalties via the continual charge of the same high royalties.

In contrast, the German Supreme Court correctly acknowledges a co-relationship between antitrust law and patent law in the “Orange-Book-Standard” decision and came to a different conclusion in a similar case: damages that the patentee can demand from an unauthorized infringer who has a right to compulsory license according to the competition law are limited to an amount that is uncontroversial according to the German Anti-Cartel Law.<sup>103</sup> So long as the infringer has made an unconditional offer

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101. The Hsinchu District Court first suspended the royalty payment suit brought by Philips against its former licensee Princo due to the then pending antitrust cases brought by Princo against Philips. The Hsinchu District Court came to a decision on 15 August 2008 and awarded Philips the full royalty of 2,353,850,000 JPY (calculated by 10 JPY per CD-R produced by Princo, total number of production: 235,385,000), with a monthly interest of 2% as agreed in the licensing agreement for the belated payment. A monthly interest of 2% equals an annual interest of 24%, despite the fact that the Supreme Administrative Court, the Taipei Administrative High Court and the TFTC all found that Philips violated the FTA by refusing to negotiate royalty and hence maintaining improperly high royalty with Princo. The Intellectual Property Court concurred and did not question the unreasonableness of the royalty either, *see* Chihhui Tsaichan Fayuan [Intell. Prop. Ct.], 97 Minchuan Shang No. 14 (Apr. 23, 2009) (Taiwan).

102. The damages rewarded to Philips et al. are too high for several reasons. Firstly, according to Princo, it paid Sony and Taiyo Yuden a royalty of USD 700,000 respectively after the TFTC ordered that Philips, Sony and Taiyo Yuden may not use the JLA anymore and must each license its own patents. Under the JLA, the collected royalty for the pooled patents will be distributed to Philips, Sony and Taiyo Yuden by the ratio of 7:2:1. If this ratio is merit-based, i.e. in line with each company's contribution to the patent pool, then starting from the 1 unit of USD 700,000 royalty due to Taiyo Yuden, royalty for Philips could be calculated by seven times of 1 unit of USD 700,000, namely about USD 4,900,000. But in comparison, the Intellectual Property Court awarded Philips USD 26,358,000—difference of five times. Secondly, compared with the standard rate and reward rate for the Philips-only license agreement that Philips introduced after the JLA was found by the TFTC as illegal cartel on 20 January 2001, the damages are excessive. The standard rate was USD 0.06 per disc and a reward rate of USD 0.045 was set for those who are in full compliance with the licensing agreement. The reward rate was lowered to USD 0.035 from the third quarter of 2004 to the second quarter of 2005. In the beginning of 2006, Philips started to offer the so-called Veeza program with even lower reward rate. *See* TBR REP., ¶ 16. Thirdly, the annual interest of 24% for the belated payment to be paid by the licensees of Philips et al. is far too high by any measure and possibly also the result of the abuse of joint monopoly power.

103. According to the German Supreme Court, even this number is not readily clear for the infringer, it does not constitute an inequitable burden on him, because in principle he is already obliged to bear the burden of explanation and proof in order to satisfy the requirements for claiming a right to a (compulsory) license from the patentee. *See* Bundesgerichtshof [BGH] [Federal Court of

to acquire a license from the patentee and deposited a sufficient amount for the benefit of the patentee at the court,<sup>104</sup> the court in charge of the patent infringement case can make the determination that the patentee is obliged to accept the offer for a licensing agreement and to decide equitably on the payable royalty.<sup>105</sup>

On appeal, the Taiwanese Supreme Court annulled the decision by the Taiwan IP Court on the ground that the applicable law had not been correctly chosen and remanded the case back to it.<sup>106</sup> This time the Taiwan IP Court reasoned that whenever the basic terms of a contract have been regulated or prohibited by public action and if enforced could lead to obviously unfair situations, then courts are entitled to resort to the principles of “change of circumstances (or the discontinuance of the basis of contract)” and “equity” to increase, decrease the amount of payment or to alter the original effects of the contract. It therefore exercised its discretionary and reduced the royalty from 10 to 3 JPY to eradicate the obvious unfairness.<sup>107</sup>

## VII. FUTURE PROSPECTS

### A. *The Transparency of Patent Pools toward Competition Authorities*

Patent pools involve substantial amount of patents, one would not expect all members and licensees to use all of them. “This makes it harder to distinguish between innocuous pools from those meant to reduce competition. In addition, the number of patents involved multiplies the potential for ‘multi-market contact’ between pool members, making tacit collusion easier to support. It is therefore paramount to make patent pool

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Justice] May 6, 2009, NEUE JURISTISCHE WOCHENSCHRIFT RECHTSPRECHUNG-REPORT ZIVILRECHT [NJW-RR] 1051, 2009 (Ger.).

104. The German Supreme Court reasoned, by analogy to Article 11(2) of the German Act on the Exercise of Copyrights and Related Rights (UrhWahrnG), the fact that the to-be-paid amount is not yet clear, which in this case depends on Article 315 of the Civil Code (BGB), does not hinder the deposition of the royalty. *See id.* at 1051. Article 11(2) of UrhWahrnG provides that in case no agreement can be reached with regard to the royalty, it will be deemed that a license has been issued when the user paid the amount he recognized to the collecting society and under reservation paid the amount the collecting society demands, which exceeds the former amount under, to the collecting society or deposit for the benefit of it. Article 315(1) of the Civil Code stipulates that if the performance to be decided by one contracting party, in case of doubt, it will be decided in accordance with equitable estimation. URHEBERRECHTSWAHRNEHMUNGESETZ [URHWAHRNG] [Act on the Exercise of Copyrights and Related Rights], Sept. 9, 1965, BGBl I at 1294, last amended by Gesetz [G], Oct. 26, 2007, BGBl I at 2513, art. 11(2) (Ger.); BÜRGERLICHES GESETZBUCH [BGB] [Civil Code], Aug. 19, 1896, REICHSGESETZBLATT [RGL.] 195, as amended, §315, para. 1 (Ger.).

105. Bundesgerichtshof [BGH] [Federal Court of Justice] May 6, 2009, NEUE JURISTISCHE WOCHENSCHRIFT RECHTSPRECHUNG-REPORT ZIVILRECHT [NJW-RR] 1051, 2009 (Ger.).

106. Zuigao Fayuan [Sup. Ct.], Civil Division, 98 Taishang No. 1933 (2009) (Taiwan).

107. Chihhui Tsaichan Fayuan [Intell. Prop. Ct.], 100 Minchuan Shangkeng (1) No. 9 (2011) (Taiwan).

agreements transparent to competition authorities,”<sup>108</sup> which can ex officio pass them on to their counterparts in jurisdictions that will also be affected by them.

### B. *Comprehensive Guidelines on IPR Licensing Agreements Needed*

Issuing guidelines on IPR licensing agreements is a common practice. But their coverage, degree of clarity and transparency vary across national borders; some of which begs improvement. Almost without exception, many documents have to be pieced together and constantly cross-referenced before a clear understanding of the law in certain jurisdictions can emerge. It is hoped that through studies like this paper national authorities can put forward comprehensive and complete guidelines on IPR licensing agreements. Such guidelines should not shy away from shedding light on widely used local licensing arrangements, which are crucial to the production, uptake and penetration of innovative products, services and competition in their respective markets. After all, the more economic approach does not mean universal uniformity, otherwise the per se rule would reign.

### C. *The Effects that the More Economic Approach Should Pursue*

The more economic approach will inevitably require greater economic literacy from IPR specialists.<sup>109</sup> We then need to enquire which kind of effects is relevant for the assessment of the pro and anti-competitiveness of a specific-IPR related conduct, whether it is the “effective competition structure” (the European Courts),<sup>110</sup> “consumer harm” (U.S. courts and European Commission) or the “consumer choice” advocated by Josef Drexl.<sup>111</sup> It is tentatively submitted that the “effective competition structure” approach can be taken as a starting point as it is the least invasive into IPR and minimizes the costs of regulation. Ultimately, it is the consumer welfare, either in form of increase in choices or reduction of harm, which will be the final gauge for balancing competition law and IPR.

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108. Pierre Régibeau & Katharine Rockett, *The Relationship Between Intellectual Property Law and Competition Law: An Economic Approach*, in THE INTERFACE BETWEEN INTELLECTUAL PROPERTY RIGHTS AND COMPETITION POLICY 505, 532-33 (Steven D. Anderman ed., 2007).

109. Steve D. Anderman, *The New EC Competition Law Framework for Technology Transfer and IP Licensing*, in RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY AND COMPETITION LAW 107, 138 (Joseph Drexl ed., 2008).

110. Podszun, *supra* note 25, at 75.

111. Josef Drexl, *Real Knowledge is to Know the Extent of One's Own Ignorance: On the Consumer Harm Approach in Innovation-related Competition Cases*, Ser. No. 0915, MAX PLANCK PAPERS ON INTELL. PROP., COMPETITION & TAX L. RES. PAPER (2009), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1517757](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1517757).

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# 一個更經濟取向與跨法制的專利庫研究的專利庫研究

劉 孔 中

## 摘 要

本文以美國、歐盟（兼及德國）、日本、韓國及臺灣法制為主，比較研究各國日益以經濟取向看待智慧財產權與競爭法之法律實務，並且歸納出其共同的特徵：認知智慧財產權法的經濟性、設置介入干預的門檻（安全港）以及論理（合理）原則取代當然（合法／非法）原則。本文接著研究上述法制之競爭法如何處遇在專利落實與新技術開發運用上日趨重要的專利庫授權條款，並整理出其彼此間最大差異點之所在（僅美國沒有「具有市場支配地位之專利庫濫用其支配地位」的問題），並探討應如何看待或調和此種差異。專利庫授權條款一旦被認定違反競爭法，將對基於智慧財產權法的禁制令以及專利授權約款之效力有何影響，是本文關心的第三個主題。本文在結論部分提出三點值得進一步研究的議題：專利庫應對競爭法主管機關透明、涵蓋全部智慧財產權的授權約款單一準則有其必要性，以及經濟取向應該以何種效益為依歸。

**關鍵詞：**智慧財產權法、競爭法、專利庫、專利落實、經濟取向、當然（合法／非法）原則、論理（合理）原則、濫用市場支配地位