到不了的安全港？
—歐洲共同體技術授權豁免法之研究

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摘　要

首先，本文探究禁止聯合行爲之立法目的，並分析歐洲共同體條約第 81 條之規範重點（涉及聯合行爲之禁止與例外規定）。其次，本研究探討歐洲共同體技術授權豁免法之適用範圍與主要規定，以系統性的分析方法，全面評析相關法理以及學界和實務界之見解。根據該法之規定，無論競爭者間或非競爭者間之技術授權協議，即便協議內容未含聯合訂價、割裂市場或限制產出等應禁止之重大限制，契約商品或服務之市場占有率尚須低於百分之二十（競爭者間之技術授權協議）或百分之三十（非競爭者間之技術授權協議）之比例，方能享有自動豁免。此等關於市占率之限制過於嚴苛；立法者似假設，技術授權契約當事人若掌握較高之市占率，渠等終將挾其市場力量，破壞特定市場之秩序，進而侵害消費者權益。然而，本研究顯示，此項假設既非奠基於任何經濟學研究成果，亦非歐盟司法實務之見解，立基點極爲薄弱。準此，本文建議刪除契約商品或服務市占

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率之相關規定，保留禁止重大限制之條文，使技術授權協議豁免與否之判斷，全然以契約當事人市場行為之正面效益與負面效益為衡量準據，避免成功之研發者因高市占率而喪失自動獲免之機會，未蒙其研發成功之利，反受其阻礙。

關鍵詞：技術授權協議、歐洲共同體條約第 81 條、反競爭協議、卡特爾、市場占有率之限制、應禁止之重大限制

A SAFE HARBOUR OUT OF REACH? EU APPROACH TO THE ANTITRUST ANALYSIS OF TECHNOLOGY TRANSFER

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ABSTRACT

This Article makes a critical examination of the 2004 Technology Transfer Regulation. Compared to the 1996 Technology Transfer Regulation containing both a blacklist and a white list, the blacklist approach of the 2004 Regulation leaves more flexibility for the parties to design a licence to their commercial needs. However, the thresholds of market share are too low, rendering the 2004 Regulation tougher than the 1996 Regulation. The officials who drafted the 2004 Regulation have noted that this legislation has an economic approach, and some practicing lawyers note that it takes an effects-based approach. Nonetheless, little economic investigations have been carried out in order to set appropriate thresholds of market share. The EU legislator should abolish the current thresholds of market share and make much higher ceilings. Even if a technology transfer agreement does not infringe Article 81 EC, crucial intellectual property rights relating to the agreement may lead to a dominant position and the duty to supply or license its competitors under Article 82 EC. The task of raising the market-share thresholds should be completed following the collection and reviews of relevant investigations by economists. Otherwise, the safe harbour provided by the 2004 Regulation may be an area in which only a few undertakings are able to reach.

KEY WORDS: Technology Transfer Agreements; Article 81 EC; Anti-competitive Agreements; Aartels; Market-share Thresholds; Hardcore Restrictions

1 Introduction

Intellectual properties can be commercially exploited by their owners or by other people with the permission of the owners. A way for other people to exploit an intellectual property is through licensing the intellectual properties from the owners. The phrase "licence" refers to permission granted by the owner of the intellectual property right to another person to use the right on mutually agreed terms and conditions for a defined purpose, for an agreed period of time, and in a defined area. Generally, intellectual property licensing agreements are taken into consideration in three categories, i.e. technology transfer agreements, publishing and entertainment licenses, as well as trademark and merchandising licenses. Only the first category falls within the scope of this study. This Article focuses on the European Union (EU) approach to the antitrust analysis of technology transfer agreements. In the EU, technology transfer agreement is a term that covers many, but not all, intellectual property licensing agreements. These agreements concern intellectual property law and competition law. The states across the world have adopted a significant number of international agreements on intellectual property rights, but they have achieved very little in drafting an international treaty on competition regulation.[1] As regards the regulation of technology transfer, differences between diverse domestic rules on the licence agreements would presumably jeopardise cross-nation business. It is then not at all surprising

[1] Dr. Peirre Arhel has stated that "[i]t is also evident that, as of now, some Members of the WTO, particularly developing countries, have not felt ready to enter into negotiations on the subject [of a multilateral framework of competition policy], in the WTO. Only time will tell if this will change in the future". Pierre Arhel, 'Multilateral and Regional Dimensions of Competition Policy', Address at the Taiwan 2006 International Conference on Competition Laws/Policies – The Role of Competition Law/Policy in the Socio-Economic Development.

that many countries have crucial interests in the choices that other jurisdictions make about how their competition authorities analyse the restrictions that could be included in the licence agreements.

This Article does not attempt to present an overview of the relationships between competition law and intellectual property rights.[2] It focuses its attention on Commission 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 (hereinafter as the "2004 Regulation").[3] In this Article,

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[2] For an overview of the relationships between competition law and intellectual property rights, *see* THE INTERFACE BETWEEN INTELLECTUAL PROPERTY RIGHTS AND COMPETITION POLICY (Steven Anderman ed., 2007); Ian Forrester, *Regulating Intellectual Property via Competition? Or Regulating Competition via Intellectual Property? Competition and Intellectual Property: Ten Years on, the Debate still Flourishes*, TENTH ANNUAL EU COMPETITION LAW AND POLICY WORKSHOP: THE INTERACTION BETWEEN COMPETITION LAW AND INTELLECTUAL PROPERTY LAW 2005, *available at* http://www.iue.it/RSCAS/Research/Competition/2005/200510-CompForrester.pdf; Gustavo Ghidini & Emanuela Arezzo, *On the Intersection of IPRs and Competition Law with Regard to Information Technology Markets*, TENTH ANNUAL EU COMPETITION LAW AND POLICY WORKSHOP: THE INTERACTION BETWEEN COMPETITION LAW AND INTELLECTUAL PROPERTY LAW 2005, *available at* http://www.iue.it/RSCAS/Research/Competition/2005/200510-CompGhidini.pdf; Rochelle Dreyfuss, *Unique Works/Unique Challenges at the Intellectual Property/Competition Law Interface*, TENTH ANNUAL EU COMPETITION LAW AND POLICY WORKSHOP: THE INTERACTION BETWEEN COMPETITION LAW AND INTELLECTUAL PROPERTY LAW 2005, *available at* http://www.iue.it/RSCAS/Research/Competition/2005/200510-CompDreyfuss.pdf

[3] OJ 2004 L123/11. For those interested in an introduction to the implications and limitations of the 2004 Regulation, *see* VALENTINE KORAH, AN INTRODUCTORY GUIDE TO EC COMPETITION LAW AND PRACTICE 315-335 (8th ed. 2004); Jean-Michel Coumes, *IP Rights and EU Competition Law: Can Your IP Licensing Agreement Benefit From Safe Harbour?*, 1 EUROPEAN COMPETITION LAW REVIEW 23 (2007); Lucas Peeperkorn & Lars Kjolbye, *The New Technology Transfer Block Exemption Regulation and Guidelines*, TENTH ANNUAL EU COMPETITION LAW AND POLICY WORKSHOP: THE INTERACTION BETWEEN COMPETITION LAW AND INTELLECTUAL PROPERTY LAW 2005, *available at* http://www.iue.it/RSCAS/Research/Competition/2005/200510-CompPeeperkorn&Kjolbye.pdf; John Lambert, *Technology Transfer Regulation*, IP/IT-Update, *available at* http://www.ipit-update.com/compec04.htm; Graham Burnett-Hall, *The 2004 Technology Transfer Block Exemption Regulation*, Marks & Clerk Solicitors, *available at* http://www.marksclerk.co.uk/solicitors/sol_publications_techtransfer.htm; Richard Eccles & Romain Ferla, *The Anti-trust and IP Interface in the US and EU*, Bird & Bird Solicitors, *available at* http://www.

references are also made when necessary to Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements (hereinafter as the "Guidelines").[4] It is, however, worth noting that Guidelines are not listed amongst the sources of Community law in Article 249 EC.[5] Lawyers often refer them to as "soft law". This does not mean that Guidelines are definitely non-legally binding. They may sometimes be strongly persuasive.

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twobirds.biz/english/publications/articles/The_Antitrust_and_IP_Interface_in_the_US_and_EU.cfm?RenderForPrint=1

[4] OJ 2004 C101/2. In interpreting the Articles of a regulation or directive, it is unclear how much reliance should be placed on its recitals and any guidelines adopted by the Commission if these do not conflict with judgments of the ECJ or CFI. *See* VALENTINE KORAH, INTELLECTUAL PROPERTY RIGHTS AND THE EC COMPETITION RULES 22 (2006). Professor Korah has said she heard that in the directives on intellectual property, the official who loses an argument and finds the Article drafted contrary to his wishes, may be compensated by a recital that contradicts the Article, making interpretation difficult, for those not involved in the drafting process. Korah, at 23.

[5] Article 249 EC lists five kinds of acts and contains a description of the characteristics they have. It provides that:

> In order to carry out their task and in accordance with the provisions of this Treaty, the European Parliament acting jointly with the Council, the Council and the Commission shall make regulations and issue directives, take decisions, make recommendations or deliver opinions.
>
> A regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States.
>
> A directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods.
>
> A decision shall be binding in its entirety upon those to whom it is addressed.
>
> Recommendations and opinions shall have no binding force.

Professor Trevor Hartley says that Article 249 EC appears to form a neat and tidy system in which formal designations correspond to differences in function. The differences suggest a hierarchy. Nevertheless, one of the major complications is that resolutions and guidelines do not fall into any of the categories enumerated in Article 249 EC. *See* TREVOR HARTLEY, THE FOUNDATIONS OF EUROPEAN COMMUNITY LAW 104 (5th ed. 2003). For those interested in the elaborate analysis of the five kinds of acts listed in Article 249 EC, *see* JO SHAW, LAW OF THE EUROPEAN UNION (3rd. 2000), and KLAUS-DIETER BORCHARDT, THE ABC OF COMMUNITY LAW (5th ed. 2000).

During the early years of the 21st century and following decades, patents were equated with monopolies and patent licensing was subject to strict restrictions set out in competition law, initially following a doctrine of patent misuse and later by the regime of the "Nine No-Nos" in the United States and its counterpart in the EU.[6] New competition legal frameworks have emerged in the US and the EU since the 1970s with a greater appreciation of the economic benefits of intellectual property rights. In Europe, the first European Community block exemption regulation regime for intellectual property licensing was the Patent Licensing Regulation in 1984. This legislation was followed by the Know-how Licensing Regulation in 1989. These two Regulations were replaced in 1996 by Regulation (EC) No 240/96 of 31 January 1996 on the application of Article 85(3) of the Treaty to certain categories of technology transfer agreements (hereinafter as the "1996 Regulation").[7]

The 2004 Regulation has become the most important legislation governing licensing agreements for the transfer of technology, replacing the 1996 Regulation. Mr. Cyril Ritter stated in 2004 that the 1996 Regulation was widely considered to be a "dinosaur awaiting extinction".[8] "It was impractical, very restrictive and prescriptive, unnecessarily complex and above all it was not in line with the Commission's latest

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6 Anderman, *supra* note 2, at 7, and the references cited. Professor Anderman has emphasised that from the early years of the 21st century, "the conflict between the excise of IPRs and competition policy tended to be exaggerated by judicial and administrative doctrines initially in the USA and later in the EU".

7 OJ 1996 L31/2. The 1996 Regulation applied both to pure or mixed patent licensing and know-how agreements. Compared to the 1984 and 1989 Regulations, the scope of the unified block exemption was wider as it defined certain other intellectual property rights such as utility models, semi-conductor topographies, and plant breeder certificates to be "patents" for the purpose of the legislation.

8 Cyril Ritter, *The New Technology Transfer Block Exemption under EC Competition Law*, 3 LEGAL ISSUES OF ECONOMIC INTEGRATION 162 (2004).

economic thinking".[9] The 2004 Regulation entered into force on 1 May 2004 and should expire on 30 April 2014.[10] Compared to the 1996 Regulation, one of the important points concerning the 2004 Regulation is that it is no longer possible to notify an agreement to the Commission and thereby obtain protection against terms being held to be anti-competitive.

The officials of the European Commission who drafted the 2004 Regulation have boasted that the 2004 Regulation and the Guidelines "represent an important improvement compared to the previous Regulation in terms of clarity and scope and economic approach. While providing more freedom to companies to draw up licence agreements according to their commercial needs, they will also enhance the protection of competition and therewith innovation".[11] But is this really the case? This Article makes a critical examination of the 2004 Regulation.[12]

The officials have stated that "[t]he new rules bring about an important degree of convergence between the application of competition

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9 *Id*. After the 2004 Regulation was adopted, a series of conferences were held with a view to obtain a clearer idea of the best way to apply competition law to the commercial exercise of intellectual property rights. Steven Anderman, *The Competition Law/IP 'Interface': An Introductory Note*, *in* THE INTERFACE BETWEEN INTELLECTUAL PROPERTY RIGHTS AND COMPETITION POLICY 4 (Steven Anderman ed. 2007).

10 Article 11 of the 2004 Regulation.

11 Peeperkorn & Kjolbye, *supra* note 3, at 1.

12 Some other academic writers have analysed the policy aspects of the 2004 Regulation, for instance, Hanns Ullrich, *The Interaction between Competition Law and Intellectual Property Law: An Overview*, TENTH ANNUAL EU COMPETITION LAW AND POLICY WORKSHOP: THE INTERACTION BETWEEN COMPETITION LAW AND INTELLECTUAL PROPERTY LAW 2005, *available at* http://www.iue.it/RSCAS/Research/Competition/2005/200612-CompUllrichOVERVIEW.pdf and Philip Lowe & Lucas Peeperkorn, *Intellectual Property: How Special is It for the Purposes of Competition Law Enforcement?*, TENTH ANNUAL EU COMPETITION LAW AND POLICY WORKSHOP: THE INTERACTION BETWEEN COMPETITION LAW AND INTELLECTUAL PROPERTY LAW 2005, *available at* http://www.iue.it/RSCAS/Research/Competition/2005/200510-CompLowe.pdf

policy to licence agreements in the EU and US".[13] Practising lawyers have stated that this Regulation has embraced an economic effects-based model, an approach that the U.S. regime has adopted since 1995.[14] Nonetheless, it is very doubtful whether this "economic approach" is based on results of economic studies.

The next section considers the broader picture of the subject, analysing the rationale behind regulation of anti-competitive agreements and the requirements for finding a breach of Article 81 of the Treaty Establishing European Community. Section 3 examines the 2004 Regulation, considering its coverage and a couple of important issues, namely those concerning market-share thresholds and hardcore restrictions set out in the Regulation. The fourth and final section pulls together the conclusions reached in the previous sections and puts forwards suggestions for reform of the existing law.

2 The broader picture

2.1 Rationale behind regulation of anti-competitive agreements

Open and free markets constitute the foundation of a vibrant economy. Where there is competition, the market economy functions perfectly. In such circumstances, numerous sellers make every effort to be efficient. They buy inputs, namely labour and materials, at the lowest prices before they produce goods and services of sufficient quality and at acceptable

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13 Peeperkorn & Kjolbye, *supra* note 3, at 2.

14 Eccles & Ferla, *supra* note 3. For those interested in the relationships between intellectual property rights and competition law in the United States, *see* Hewitt Pate, *Competition and Intellectual Property in the US: Licensing Freedom and the Limits of Antitrust*, TENTH ANNUAL EU COMPETITION LAW AND POLICY WORKSHOP: THE INTERACTION BETWEEN COMPETITION LAW AND INTELLECTUAL PROPERTY LAW 2005, *available at* http://www.iue.it/RSCAS/Research/Competition/2005/200510-CompPate.pdf

prices. Also, the sellers use these inputs in a way that total production costs can be kept to a minimum.[15] To put it differently, aggressive competition between sellers in an open marketplace provides consumers, including individuals and businesses, with the benefits of higher quality products, services, and lower prices, as well as greater innovation and more choices.

Sometimes, private participants in the market may be tempted to avoid competing with each other and try to set their own rules for the game. In such circumstances, competition may fail as the participants undermine competition and thus prevent market forces from operating in a free manner. As John Shenefield and Irwin Stelzer have noted, when competition fails, government can on the one hand choose to protect consumer from market abuse by regulating the enterprise with monopoly power. On the other hand, government can choose to restore the vigour of competition through antitrust enforcement that prevents competitors from conspiring to fix prices or individual firms from dominating markets.[16] What antitrust enforcement prevents here is so-called a cartel. It is a group of similar, independent companies which join together to control prices or divide up markets and limit competition. Participants in a cartel can rely on their agreed market share and do not need to provide new products or quality services at competitive prices. Consumers end up paying more for less quality.

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15 John Shenefield & Irwin Stelzer, The Antitrust Laws, A Primer 7 (4th ed. 2001).

16 Shenefield & Stelzer, *supra* note 15, at 8. William Page has pointed out that the ideology behind this government intervention views the market as a mechanism within which powerful interests can coerce consumers, labour, and small businesses; market structures, consequently, tend toward monopoly. In such intentional vision, the unfair outcomes of market processes can and should be corrected by democratic, governmental intervention, including direct regulation. *See* William Page, *The Ideological Origins and Evolution of U.S. Antitrust Law*, *in* ISSUES IN COMPETITION LAW AND POLICY 1 (Wayne Collins ed., 2008).

As a result, agreements, which have as their object or effect the restriction of competition are unlawful, e.g., to fix prices, to share markets, or to restrict output. These horizontal agreements are cartels, which are often highly secretive and evidence of cartels is not easy to find. Cartels are illegal under EC competition law and the European Commission imposes heavy fines on companies involved in a cartel. In some systems of competition law, cartels can even lead to the imprisonment of the individuals responsible for them.[17] For instance, in some Asia Pacific states, e.g. the United States, Taiwan, and Japan, criminal penalty are imposed on the owners of the enterprises. Also, agreements between firms at different levels of the market, known as vertical agreements, may be prohibited where they could be harmful to competition. For example, a supplier may instruct its retailers not to resell its goods at less than a certain price.[18] This agreement, which fixes resale prices, may be struck down. Nonetheless, as a general proposition, vertical agreements are not harmful to competition.

It is worth noting that not all agreements which restrict competition are necessarily illegal. Agreements which have more positive than negative effects are allowed. Generally, agreements are more likely to be allowed when they are not concluded between competitors or where the companies involved have only a small part of the market.[19]

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17 Richard Whish, COMPETITION LAW TOOLKIT ch. 2 (2007), *available at* http://www.adb.org/Documents/Others/OGC-Toolkits/Competition-Law/complaw020000.asp

18 This is often referred to as "resale price maintenance".

19 EUROPEAN COMMISSION, EU COMPETITION POLICY AND THE CONSUMER 3 (2004).

2.2 The requirements for finding a breach of Article 81 EC

Prior to the analysis of the relationships between Article 81 EC and intellectual property rights, it is necessary to consider the architecture of Article 81 EC and the requirements of finding a breach of this article. Article 81 EC provides that:

1. The following shall be prohibited as incompatible with the common market: all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the common market, and in particular those which:
   (a) directly or indirectly fix purchase or selling prices or any other trading conditions;
   (b) limit or control production, markets, technical development, or investment;
   (c) share markets or sources of supply;
   (d) apply dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;
   (e) make the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.
2. Any agreements or decisions prohibited pursuant to this article shall be automatically void.
3. The provisions of paragraph 1 may, however, be declared inapplicable in the case of:
   - any agreement or category of agreements between undertakings,

- any decision or category of decisions by associations of undertakings,
- any concerted practice or category of concerted practices,

which contributes to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit, and which does not:

(a) impose on the undertakings concerned restrictions which are not indispensable to the attainment of these objectives;
(b) afford such undertakings the possibility of eliminating competition in respect of a substantial part of the products in question.

Generally, Article 81 EC protects competition on the market to promote consumer welfare and an efficient allocation of resources.20 Finding a breach of Article 81(1) EC requires showing:

(1) the existence of undertakings;
(2) collusion between those undertakings: agreement, decision or concerted practice;
(3) the collusion has as its object or effect the prevention, restriction or distortion of competition;
(4) an effect on trade between Member States;
(5) the effect on both competition and trade is not de minimis (meaning the effect is appreciable).

Under Article 81(2) EC, an agreement that falls within the scope of Article 81(1) EC is void, namely unenforceable. As to Article 81(3) EC, this provision

[20] The agreements between competitors, whereby all the producers in an industry fixed minimum prices and allocated markets by quota or otherwise, were common before the Second World War. At present, such agreements are clearly forbidden. Economic theory predicts that they are likely to lead to prices being raised and less being sold than when competition determines the price of goods and services. *See* Korah, *supra* note 3, at 39.

is an exception to Article 81(1). Article 81(1) EC may be declared inapplicable in the case of any agreements which, *inter alia*, contribute to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit. To put it differently, Article 81(1) EC prohibits anti-competitive agreements unless they can be saved under Article 81(3) EC. Article 81(3), in effect, requires a balancing act; if the pro-competitive benefits of an agreement outweigh its anti-competitive effects on competition, it may be granted an exemption.[21] This exemption can take place in two ways – either by an individual exemption as above or by falling within the ambit of a block exemption. This study thus examines the conditions for block exemption set out in the 2004 Regulation. Where a technology transfer agreement is drafted according to the requirements of the 2004 Regulation, it is automatically

[21] Guidelines on the application of Article 81(3) of the Treaty elaborates on the assessment under Article 81, OJ 2004 C101/97. This assessment consists of two parts. According to Guideline 11:

> The first step is to assess whether an agreement between undertakings, which is capable of affecting trade between Member States, has an anti-competitive object or actual or potential anti-competitive effects. The second step, which only becomes relevant when an agreement is found to be restrictive of competition, is to determine the pro-competitive benefits produced by that agreement and to assess whether these pro-competitive effects outweigh the anti-competitive effects. The balancing of anti-competitive and pro-competitive effects is conducted exclusively within the framework laid down by Article 81(3).

Guideline 12 states that:

> The assessment of any countervailing benefits under Article 81(3) necessarily requires prior determination of the restrictive nature and impact of the agreement. To place Article 81(3) in its proper context it is appropriate to briefly outline the objective and principal content of the prohibition rule of Article 81(1). The Commission guidelines on vertical restraints, horizontal co-operation agreements and technology transfer agreements contain substantial guidance on the application of Article 81(1) to various types of agreements. The present guidelines are therefore limited to recalling the basic analytical framework for applying Article 81(1).

exempted and thus lawful under Article 81 EC.[22] Self-assessments under the legislation is thus of great importance.

3 The 2004 Regulation

The 2004 Regulation entered into force on 1 May 2004, but this does not mean that the technology transfer agreements entered into before that date must immediately adapt to the new rules. The licences that had entered into before 1 May 2004 remained valid until 31 March 2006, when they must also comply with the new legislation. As of 1 April 2006, therefore, undertakings must ensure that recent and pre-May 2004 agreements are in line with the requirements of the block exemption. This section examines the coverage of the 2004 Regulation and analyses the issues relating to market-share thresholds and hardcore restrictions set out in the 2004 Regulation. The main argument here is that the rules relating to the market-share thresholds are flawed, because they are not based on sufficient economic evidence.

3.1 Coverage

The phrase "technology" may mean many things to people in the modern world. Generally, technology refers to end products of scientific research and development in the form of inventions and know-how employed as means or processes for creating new or improved products and services that meet the market needs in a better manner. This definition helps people understand what the term refers to. Nonetheless, such an extremely broad definition may prove to be unhelpful as to the analysis of

[22] If not, a party may claim that the agreement is unlawful in order to escape his or her contractual obligations, and possibly claim damages from the other party. In the worst-case scenario, the parties may also face legal action by the Commission leading to fines. *See* Ritter, *supra* note 8, at 161.

what the 2004 Regulation covers. Thus, it is necessary to go into the details of Articles 1, 2 and relevant recitals of the 2004 Regulation in order to examine of coverage of the legislation.

Article 2 of the 2004 Regulation provides that:

> Pursuant to Article 81(3) of the Treaty and subject to the provisions of this Regulation, it is hereby declared that Article 81(1) of the [EC] Treaty shall not apply to *technology transfer agreements* entered into between two [i.e. and not more than two] undertakings permitting the production of contract products".
>
> This exemption shall apply to the extent that such agreements contain restrictions of competition falling within the scope of Article 81(1). The exemption shall apply for as long as the intellectual property right in the licensed technology has not expired, lapsed or been declared invalid or, in the case of know-how, for as long as the know-how remains secret, except in the event where the know-how becomes publicly known as a result of action by the licensee, in which case the exemption shall apply for the duration of the agreement. (emphasis added)

The nature of technology transfer agreements must be considered in the first place. Recital 5 of the 2004 Regulation provides that:

> Technology transfer agreements concern the licensing of technology. Such agreements will usually improve economic efficiency and be pro-competitive as they can reduce duplication of research and development, strengthen the incentive for the initial research and development, spur incremental innovation, facilitate diffusion and generate product market competition.

Secondly, what is the likelihood that such efficiency-enhancing and pro-competitive benefits could outweigh any anti-competitive effects?

Recital 6 of the 2004 Regulation answers this question by stating that:

> The likelihood that such efficiency-enhancing and pro-competitive effects will outweigh any anti-competitive effects due to restrictions contained in technology transfer agreements depends on the degree of market power of the undertakings concerned and, therefore, on the extent to which those undertakings face competition from undertakings owning substitute technologies or undertakings producing substitute products.

This subsection now turns to focus on the issues concerning the simplicity in Article 2 of the 2004 Regulation. The simplicity seen in this article is only apparent, if not misleading. There are complex definitions in Article 1 of the 2004 Regulation. It is important to consider what amounts to a technology transfer agreement. Under Article 1(a) of the 2004 Regulation, "agreement" means an agreement, a decision of an association of undertakings or a concerted practice. According to Article 1(1)(b) of the 2004 Regulation:

> [A technology transfer] agreement means a patent licensing agreement, a know-how licensing agreement, a software copyright licensing agreement or a mixed patent, know-how or software copyright licensing agreement, including any such agreement containing provisions which relate to the sale and purchase of products ***or*** which relate to the licensing of other intellectual property rights or the assignment of intellectual property rights, provided that those provisions do not constitute the primary object of the agreement and are directly related to the production of the contract products; assignments of patents, know-how, software copyright or a combination thereof where part of the risk associated with the exploitation of the technology remains with the assignor, in particular where the sum payable in consideration

> of the assignment is dependent on the turnover obtained by the assignee in respect of products produced with the assigned technology, the quantity of such products produced or the number of operations carried out employing the technology, shall also be deemed to be technology transfer agreements. (emphasis added)

Strictly speaking, this provision indicates that the 2004 Regulation does not cover all intellectual property rights. "Technology transfer agreement" is defined to include licences not only of patents and/or know-how, but also of designs and software copyright.

The 2004 Regulation does not apply to, *inter alia*, trade mark licensing. The only exception to the exclusion of trade marks and certain types of copyright is the rule set out in Article 1(1)(b) of the 2004 Regulation. Under this provision, such intellectual property rights fall within the scope of the block exemption when they directly concern the exploitation of the licensed technology and do not constitute the primary object of the licensing agreement. Agreements containing clauses about the purchase and sale of products are only covered by the 2004 Regulation to the extent that those provisions do not constitute the primary object of the agreement and directly concern the application of the licensed technology. In other words, the 2004 Regulation may exempt limitations on the sales or purchases of licensee. It exempts all restrictions on active sales. It relates, however, only to the bilateral agreement with the licensor. Both blacklists in Article 4 limit the technology transfer regulation so as not to allow all restrictions on passive sales to protect other licensees.[23]

Finally, Article 2(2) of the 2004 Regulation suggests that the agreements remain exempt until the last qualifying intellectual property right expires or the know-how ceases to be confidential.

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[23] Korah, *supra* note 4, at 50.

3.2 Market-share thresholds

The 2004 Regulation is different from the 1996 Regulation because, *inter alia*, the new regime provides for an effects-based approach: whether the 2004 Regulation applies to an agreement depends on the combined market share of the parties have on any relevant markets. This subsection, as a result, analyses the issues relating to market-share thresholds, which are often referred to as the "ceilings of market share". First of all, it is necessary to consider the reasoning behind Article 3 of the 2004 Regulation. The legislator in the EU believes that:

> For technology transfer agreements between competitors *it can be presumed* that, where the combined share of the relevant markets accounted for by the parties does not exceed 20% and the agreements do not contain certain severely anti-competitive restraints, they *generally* lead to an improvement in production or distribution and allow consumers a fair share of the resulting benefits. (emphasis added)[24]

The legislator is also convinced that:

> For technology transfer agreements between non-competitors *it can be presumed* that, where the individual share of the relevant markets accounted for by each of the parties does not exceed 30% and the agreements do not contain certain severely anti-competitive restraints, they *generally* lead to an improvement in production or distribution and allow consumers a fair share of the resulting benefits.[25] (emphasis added)

Based on these presumptions, Article 3 entitled "Market-share thresholds" of the 2004 Regulation states that:

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[24] Recital 10 of the 2004 Regulation.
[25] Recital 11 of the 2004 Regulation.

1. Where the undertakings party to the agreement are competing undertakings, the exemption provided for in Article 2 shall apply on condition that the combined market share of the parties does not exceed 20% on the affected *relevant technology and product market*.

2. Where the undertakings party to the agreement are not competing undertakings, the exemption provided for in Article 2 shall apply on condition that the market share of each of the parties does not exceed 30% on the affected *relevant technology and product market*.

3. For the purposes of paragraphs 1 and 2, the market share of a party on the relevant technology market(s) is defined in terms of the presence of the licensed technology on the relevant product market(s). A licensor's market share on the relevant technology market shall be the combined market share on the relevant product market of the contract products produced by the licensor and its licensees.[26] (emphasis added)

Some academic writers stated that the thresholds of market share are very low.[27] It is of little doubt that such ceilings of market share, alongside with

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[26] It is worth noting that the Commission Notice on *de minimis* agreements remains available. According to the Commission Notice, agreements do not restrict competition under Article 81(1) if the combined market share of the parties does not exceed 10 percent on any of the relevant markets affected by the agreement, where the parties are competitors, or 15 percent, where the parties are not competitors. Commission Notice on agreements of minor importance which do not appreciably restrict competition under Article 81(1) of the Treaty establishing the European Community (*de minimis*) OJ 2001 C368/13.

[27] For example, Professor Valentine Korah. *See* Korah, *supra* note 4, at 46 and 75, and Ritter, *supra* note 8, at 175. Professor Korah has stated that "[t]he ceilings [of market share] are low and, in concentrated markets, it may not be possible for the holder of a right to find licensees competent to exploit a patented invention with a market share sufficiently low. Indeed its own market share may exceed the ceiling, especially where the parties are competitors". Korah, *supra* note 4, at 46. Mr. Cyril Ritter has noted that "[e]merging technologies may become victims of their own success. He stated that the market share of an emerging technology increases when the sales of the technology accumulate. "Therefore, as a technology becomes more successful, the licensing agreement also becomes vulnerable to an increased legal risk. If the technology

the condition that the agreements do not contain certain severely anti-competitive restraints, *generally* lead to an improvement in production or distribution. However, a key issue here is whether higher ceilings of market shares also improve production or distribution. If the functions of higher percentage market-share thresholds, e.g. 40 percent for non-competitors and 50 percent for competitors, are identical to the functions of the market-share thresholds set out in Article 3 of the 2004 Regulation, it is then absolutely necessary to consider whether Article 3 should be revised. This question is crucial, because the level of market-share thresholds to a large extent determines the number of agreements that could fall within the scope of the block exemption.

3.2.1 An economic approach based on little economic studies

Article 3 of the Regulation and Recitals 10 and 11 do not answer the question above. As a matter of fact, there have been economists reminding the public that they are unaware of any empirical studies investigating the market shares of parties to technology transfer agreements.[28] According to Recital 4 of the 2004 Regulation, this Regulation is "an economics-based approach which assesses the impact of agreements on the relevant market". However, the lack of sufficient results of economic research indicates that the so-called economics-based approach might become a controversial system.

The economists suspect that only a small proportion of agreements would actually qualify for block exemption under the 2004 Regulation.[29]

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represents a radically innovative solution, it may create its own market and thus take a 100% market share within the first year". *See* Ritter, *supra* note 8, at 175.

[28] Simon Bishop & Dan Gore, *From Black and White to Enlightenment? An Economic View of the Reform of EC Competition Rules on Technology Transfer*, TENTH ANNUAL EU COMPETITION LAW AND POLICY WORKSHOP: THE INTERACTION BETWEEN COMPETITION LAW AND INTELLECTUAL PROPERTY LAW 2005, *available at* http://www.iue.it/RSCAS/Research/Competition/2005/200510-CompBishop.pdf

[29] Bishop & Gore, *supra* note 28, at 11.

It is worth noting that in many cases, innovative technologies serve to create new product markets on which the patent holder and its licensor hold a 100 percent market share. Inexpensive R&D is not often seen. Where R&D projects are expensive as to the various costs for production and distribution, markets would presumably be concentrated. It might be the case that no one to whom a licence can be granted to come below the ceilings. In fact, the very holder of the intellectual property may exceed the ceiling on its own.

It must be stressed that the EU legislator adopted the 2004 Regulation in order to "[improve] the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit" (Article 81(3) EC). The object of the 2004 Regulation may not be realised where the market shares relating to a large proportion of technology transfer agreements exceed the thresholds set out in Article 3 of the 2004 Regulation. The EU legislator should consider abolishing the ceilings of market share because the blacklist contains proper conditions for application of block exemptions.

3.2.2 Relevant market and calculation of market shares

The markets for both the products and the technology are relevant.[30] Nevertheless, potential market is not. Just as Professor Valentine Korah has noted, "[t]his makes the application of the Regulation more predictable, as almost anyone in an industry might be looked upon as a potential entrant to the technology market".[31] It should be added that:

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[30] Under Article 1(1)(e) of the 2004 Regulation, the phrase "product" refers to "a good or a service, including both intermediary goods and services and final goods and services".

[31] Korah, *supra* note 4, at 47.

> In order to promote predictability beyond the application of the [2004 Regulation] and to confine detailed analysis to cases that are likely to present real competition concerns, the Commission takes the view that outside the area of hardcore restrictions Article 81 is unlikely to be infringed where there are four or more independently controlled technologies in addition to the technologies controlled by the parties to the agreement that may be substitutable for the licensed technology at a comparable cost to the user.[32]

However, the issues relating to scope of relevant market could be very complicated. Under Article 3 of the 2004 Regulation, the ceilings are based on market shares, but it is not always clear what the relevant market may be. Two experts in the field of economics for competition policy, Mr. Simon Bishop and Mr. Dan Gore have also noted that "while market definition will never be an exact science, it becomes all the more subject to debate in application to technology markets as per the [2004 Regulation]".[33] Calculation of market shares could be a difficult task as well.[34] Professor Korah has pointed out, "[m]arket shares are to be calculated on the basis of data relating to the preceding calendar year. This may be unnecessarily difficult when the undertaking uses a non-calendar accounting period".[35]

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32 Guideline 131.

33 Bishop & Gore, *supra* note 28, at 12.

34 For instance, in the circumstances where an emerging technology takes a 100% market share during the first year after it is made available on the relevant market, this technology does not fall outside the safe harbour offered by the 2004 Regulation. The reason is that the market shares in the previous year determine whether the agreement is covered by the 2004 Regulation. An agreement remains covered by the legislation for two years after the year in which the market-share thresholds are exceeded. *See* Article 8(1) of the 2004 Regulation and the examples in Guideline 73.

35 Korah, *surpa* note 4, at 52.

3.2.3 Towards clearer rules

Only agreements between parties with market shares that satisfy the market share thresholds of the 2004 Regulation can be automatically exempted, subject to the other elements being satisfied. The group exemption does not apply if the market shares of the parties exceed the ceilings imposed by Article 3. Where the ceilings are exceeded, their agreements fall outside the safe harbour of the 2004 Regulation. Although there is no presumption that the agreements infringe Article 81(1), there is huge uncertainty for the parties, because the agreements are subject to individual assessment under Article 81 EC. The legal statuses of such agreements must be determined by an assessment of their clauses in the light of a two-step test: applying the criteria of the scope of Article 81(1) EC and the balancing test set out in Article 81 (3) EC.

Consequently, it is the time for the EU legislator to consider revising or even abolishing of the market-share thresholds in order to reduce such uncertainty. It is worth noting that where R&D cost a fortune, R&D may be economically worthwhile only if a large part of a technology market can be supplied. Most, if not all, technology markets are as a result concentrated. As regards technology transfer agreements, the only possible licensors and licensees have large market shares. Taking the pharmaceutical industry as an example, Professor Korah has noted that "[m]any fear that in the pharmaceutical industry the limitations to the safe harbour of the regulation will cause firms to carry on their R&D and production outside Europe, supplying Europe by export. This may endanger many good quality jobs in the Common Market".[36] The revision of the market-share thresholds definitely helps to prevent the firms from developing and producing their products outside Europe.

[36] Valentine Korah, An Introductory Guide to Ec Competition Law and Practice 374 (9th ed. 2007).

3.3 Hardcore restrictions

Another main feature of the 2004 Regulation is its blacklist approach.[37] Under this legislation, where a technology transfer agreement contains a blacklisted clause, the agreement as a whole falls outside the safe harbour. There is no severability for hardcore restrictions. Such exclusion from the benefit of the safe harbour can have dramatic consequences for the licensor and the licensee, given the considerable investment the R&D of new technology usually requires. The blacklist can be found in Article 4 of the 2004 Regulation, a list of "hardcore restrictions". The Commission considers these restrictions to be severely anti-competitive. Lucas Peeperkor and Lars Kjolbye, the officials who drafted the 2004 Regulation, have referred to the rationale behind the design of the blacklist. They point out that "[t]hese restrictions of competition by object have such a high potential for negative effects on competition that it is unnecessary for the purposes of applying Article 81(1) to demonstrate any effects on the market".[38] This approach is different from that in the 1996 Regulation because the old regime contained not only a blacklist but also a white list. The white list specified the restrictions that could be included or even should be included in a licensing agreement for it to be block exempted.

Different hardcore restrictions apply depending on whether the parties are competing or non-competing undertakings. Article 4 entitled "hardcore restrictions" provides that:

1. Where the undertakings party to the agreement are competing undertakings, the exemption provided for in Article 2 shall not apply to agreements

[37] The officials who participated in the drafting of the 2004 Regulation believe that the blacklist is the most important part of this legislation. Peeperkorn & Kjolbye, *supra* note 3, at 10.

[38] Peeperkorn & Kjolbye, *supra* note 3, at 10. Thus, the conditions set out in Article 81(3) EC are unlikely to be fulfilled in the case of hardcore restrictions.

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;
(b) the limitation of output, except limitations on the output of contract products imposed on the licensee in a non-reciprocal agreement or imposed on only one of the licensees in a reciprocal agreement;
(c) the allocation of markets or customers except: …

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;
(b) the restriction of the territory into which, or of the customers to whom, the licensee may passively sell the contract products, except: …
(c) the restriction of active or passive sales to end-users by a licensee which is a member of a selective distribution system and which operates at the retail level.

First of all, the first three kinds of blacklisted clause in agreements between competitors are the classic cartel provisions, which most antitrust systems condemn: price fixing, limitation of output, and allocation of markets. The Commission treats them as restrictions by object. It bears noting that a hardcore restriction in an agreement is not only illegal and

void in itself but also prevents the application of the block exemption to other provisions in the agreement.

Secondly, there are several exceptions to limitations on output or the allocation of markets even where an agreement is between competing undertakings, especially when the agreements are not reciprocal.[39] Article 1(1)(c) and Article 1(1)(d) define the phrases "reciprocal agreement" and "non-reciprocal agreements":

> (c) 'reciprocal agreement' means a technology transfer agreement where two undertakings grant each other, in the same or separate contracts, a patent licence, a know-how licence, a software copyright licence or a mixed patent, know-how or software copyright licence and where these licences concern competing technologies or can be used for the production of competing products;
>
> (d) 'non-reciprocal agreement' means a technology transfer agreement where one undertaking grants another undertaking a patent licence, a know-how licence, a software copyright licence or a mixed patent, know-how or software copyright licence, or where two undertakings grant each other such a licence but where these licences do not concern competing technologies and cannot be used for the production of competing products;

The blacklist of Article 4(1) does not apply when the parties are not competing undertakings. In Article 4(2), the Commission has adapted the list of hardcore restrictions from the vertical restraints regulation.

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[39] Korah, *supra* note 4, at 57.

4 Conclusion

This Article makes a critical examination of the 2004 Regulation. It is fair to say that compared to the 1996 Regulation containing both a blacklist and a white list, the blacklist approach of the 2004 Regulation leaves more flexibility for the parties to design a licence to their commercial needs. However, the thresholds of market share are too low, rendering the 2004 Regulation tougher than the 1996 Regulation. The officials who drafted the 2004 Regulation have noted that this legislation has an economic approach, and some practicing lawyers say that it takes an effects-based approach.[40] Nonetheless, little economic investigations have been carried out in order to set appropriate thresholds of market share.

The EU legislator should abolish the current thresholds of market share and make much higher ceilings. Even if a technology transfer agreement does not infringe Article 81 EC, crucial intellectual property rights relating to the agreement may lead to a dominant position and the duty to supply or license its competitors under Article 82 EC. The task of raising the market-share thresholds should be completed following the collection and reviews of relevant investigations by economists. Otherwise, the safe harbour provided by the 2004 Regulation may be an area in which only a few undertakings are able to reach.

[40] Eccles & Ferla, *supra* note 3.

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