8

The Intersection Between Intellectual Property and Antitrust Law

Mariateresa Maggiolino and Laura Zoboli

I. Introduction

This chapter aims to provide an overview of the intersection between intellectual property (IP) and antitrust law and to show the major relevance this intersection has for intellectual property scholars. Antitrust law and intellectual property law frequently overlap with each other, and a good scholar or practitioner of either subject must necessarily understand the other. Against this background, this chapter aims to address some of the most relevant issues that relate to this intersection and to the conceptualization of antitrust principles for intellectual property scholars and vice versa.

To this end, it is first necessary to elaborate—albeit in a nutshell—an oriented definition of the two branches of law and to clarify their intrinsic relationship.

In particular, intellectual property creates exclusive rights in a wide and diverse range of things (see the subject-matters of copyright, patents, and trademarks). Once someone becomes the owner of an intellectual property right (IPR), she can somehow *exclude* third parties.[1] In this sense, we are talking about property. This right to *exclude* third parties is a consequence of the need to encourage innovation because it allows the creators of this innovation to reap most of its benefits.[2] More generally, intellectual property encourages activities on the part of the community, since these activities increase the overall level of innovation.[3]

Antitrust law, instead, protects competition and the competitive process by preventing certain types of behaviour. It is a rather odd instrument within the toolset of economic regulation: it does not grant prerogatives nor does it impose positive obligations; it does not govern specific industries or sectors; it does not entrust agencies, authorities, let alone judges, with the power to adopt decisions with *erga omnes* effects. Antitrust law works at the margins: it focuses on two sets

[1] Lionel Bently & Brad Sherman, Intellectual Property Law 1–4 (4th ed. 2014).
[2] Jorge Padilla, Douglas H. Ginsburg, & Koren W. Wong-Ervin, *Antitrust Analysis Involving Intellectual Property and Standards: Implications from Economics*, Harv. J. L. & Tech. 2–6 (2019).
[3] Edwin C. Hettinger, *Justifying Intellectual Property*, 18 Phil. & Pub. Aff. 31–52 (1989).

Mariateresa Maggiolino and Laura Zoboli, *The Intersection Between Intellectual Property and Antitrust Law* In: *Handbook on Intellectual Property Research*. Edited by: Irene Calboli, Maria Lillà Montagnani, Oxford University Press. DOI: 10.1093/oso/9780198826743.003.0009

of behaviours—agreements and monopolistic practices—and forbids only those of them that, on a case-by-case basis, are likely to alter the functioning of the market. Therefore, antitrust enforcers—whether agencies, authorities, or judges—follow a case-by-case approach and exercise judicial (or almost-judicial) powers to intervene against the sole firms that, in any sector or industry of the economy, pose a threat to competition.

Economics teaches that only firms with a certain amount of market power can harm competition, and that such harm—named antitrust injury—can only manifest itself in certain forms, namely: a decrease in output; an increase in market price; a reduction in the quality and variety of the offer; or a lessening in the pace of innovation.

In mere economic terms, therefore, a specific work, creation, or invention covered by intellectual property law cannot be freely sold or distributed. By conferring control—or monopoly—over a particular asset, intellectual property law evades regular competition dynamics.[4] If we wanted to drastically simplify the reasoning behind the relationship between intellectual property and antitrust law, we could go so far as to say that intellectual property creates monopolies, whereas antitrust law fights against or outright prevents them.

In light of the above, the interface between antitrust law and intellectual property rights (IPRs) pivots around two main concerns: whether IPRs attribute dominance or market power to their holders and what antitrust law should do when firms undertake IPRs-driven practices that harm competition.

The last question, in particular, admits both a legal and a policy answer. As a matter of law, it is first necessary to detail the antitrust-IP interface, and then to find out the cases where these two pieces of law actually collide. Indeed, where all the rules about competition and IPRs converge in allowing or forbidding a practice, no conflict actually arises. As for policy makers, their main interest should lie in promoting competition and innovation. Thus, if there is a collision between antitrust and IP to be solved, the priority will be to understand which of the two is more conducive to such interest. Circumstances will dictate the outcome: either certain IPRs-related business practices will be granted some form of immunity from competition law, or new right and duties will be attributed to IPRs holders – thus having antitrust law act as a 'second-tier regulator'[5].

The chapter discusses these issues, taking also into account the ways in which antitrust scholars may conceptualize IPRs. In particular, Section II addresses the relationship between IPRs and structural characteristics of the market, focusing on the categories of market power and dominance. Section III focuses on the interface

[4] Herbert Hovenkamp et al., IP and Antitrust: An Analysis of Antitrust Principles Applied to Intellectual Property Law 1–12 (3d ed. 2016).

[5] Steven D. Anderman, *The Competition Law/IP 'interface': An Introductory Note*, *in* The Interface Between Intellectual Property Rights and Competition Policy (Steven D. Anderman ed., 2007).

between antitrust and intellectual property laws, by considering the rules, the case law, and the policy debate. Section IV concludes the chapter, by proposing a balance between IP and antitrust law using the considerations developed in the chapter.

II. IP, Dominance, and Market Power

The key concept from which our analysis must start is that of market power. A firm holds market power when it is able to increase its price above marginal cost in a profitable and durable way.[6] However, this definition of market power is hardly applicable in practice. Antitrust authorities appreciate market power indirectly, by developing a heuristic procedure—usually named as 'the definition of the relevant market'—that is aimed at acquiring as much information as possible on the competitive constraints that limit business practices. Therefore, a firm enjoys market power when it manages to avoid, in part or entirely, the competitive pressure exerted by its commercial counterparts and its current and potential competitors and, accordingly, when it enjoys a more or less considerable degree of freedom in determining its own commercial strategies.[7]

As only firms with actual market power may harm competition, those who study the interface between IPRs and antitrust rules wonder whether the very existence of IPRs threatens competition, since, at times, they grant a significant amount of market power to IPRs holders. The solution is not straightforward and it requires an analysis of the relationships between IPRs and dominance on the one hand, and between IPRs and market power, on the other.

As to the first relationship, consider that, during the twentieth century, the United States Supreme Court qualified the exclusive rights conferred by a patent as a kind of monopoly,[8] with the ultimate result of nurturing the idea that every IP holder always enjoys a dominant position. In antitrust law, however, automatic implications are not possible. Like many other antitrust issues, the relationship between IPRs and dominance is a matter of facts. For example, it is evident that the author of a copyrighted book on the Second World War does not hold any dominant position in the market for publishing, not even in the smaller market for

[6] Frederic M. Scherer & David Ross, Industrial Market Structure and Economic Performance (3d ed. 1990); Dennis W. Carlton & Jeffrey M. Perloff, Modern Industrial Organization (4th ed. 2004).

[7] Richard Whish, Competition Law 26–27 (6th ed. 2009).

[8] *See, e.g.*, United States v. Univis Lens Co., 316 U.S. 243, 250 (1942) ('[a patent grants] to the inventor a limited monopoly, the exercise of which will enable him to secure the financial rewards for his invention'); Int'l Wood Processors v. Power Dry, Inc., 792 F.2d 416, 426 (4th Cir. 1986) (reporting that courts often refer to the patent holder's rights 'as either a limited monopoly or a patent monopoly'). This approach has been later abrogated. *See* Illinois Tool Works Inc. v. Independent Ink, Inc., 547 U.S. 28 (2006).

books about the Second World War. Likewise, consider the markets for sunglasses or bags: here a fashion designer holding a famous trademark faces fierce competition from other fashion designers holding other equally famous trademarks. On the opposite, it does happen that a firm holding a patent on a drug for stomach acidity is also dominant in the market for the cure of such disease, if the patented drug does not admit close substitutes equally capable of treating stomach acidity. In brief, as the experience suggests, *circumstances* dictate whether an IPR holder enjoys a dominant position or not. From a methodological perspective, dominance does not follow from the mere existence of an IPR, but from the features of the connected intangible good, which may be good enough to smite rival goods and conquer the market. Thus, to establish whether an IPR holder enjoys a dominant position, antitrust enforcers must undertake a case-by-case analysis and ascertain whether and to what extent the intangible good admits close substitutes that might constrain the ability of the IPR holder to increase market prices, to limit output, to worsen the quality or the variety of the supply,[9] or to decrease the pace of innovation.[10] The dominant position of a firm is indeed rooted in the characteristics of its offer, beyond the intellectual or traditional nature of the property rights that accompany and connote that offer itself.[11]

As to the relationship between IPRs and market power, instead, certain proper economic mechanisms must be taken into consideration. Firstly, as it happens especially with trademarks, IPRs can facilitate product differentiation and consumer loyalty—two factors that, by reducing demand-side substitutability, allow IPRs holders to get rid of some competitive constraints because consumers will be reluctant to switch to rival goods in response to a price increase. Likewise, IPRs can also reduce supply-side substitutability, by increasing the costs for a rival to convert its production into that of the IPR holder. The source of these costs is twofold: first, patents induce rivals to invest in technologies different from the patented one; second, trademarks may bring about a reputation gap that rivals will have to recover by investing in advertising. These are the factors that antitrust enforcers consider when characterizing the scenario under scrutiny and its market dynamics. However, in the great majority of cases where these circumstances occur, no antitrust concerns are raised nor antitrust actions triggered. This happens because antitrust law is not meant to reproduce perfect competition, where product differentiation, consumer loyalty, or low supply-side substitutability do not exist.

[9] *See* Leegin Creative Leather Products, Inc. v. PSKS, Inc., 551 U.S. 877, 885 (2007).

[10] MASSIMO MOTTA, COMPETITION POLICY: THEORY AND PRACTICE 47–50 (2004).

[11] The Court of Justice of the European Union has always made clear that the holding of an IPR does not itself confer a dominant position. *See, e.g.*, Case C-78/80, Deutche Gramophon GmbH v. Metro-SB-Grossmarkte GmbH, 1971 E.C.R. I-487; Joined Cases C-241/91P & C-242/91P, Radio Telefis Eireann (RTE) & Anor v. Commission of the European Communities, EUR-Lex-61991CJ0241, ECLI:EU:C:1995:98, ¶ 47. However, in specific cases, the Court of Justice identified a patent as a tool which confers 'a temporary monopoly on its holder'; Joined Cases C-468/06 to C-478/06, Sot. Lélos kai Sia EE and Ors v. GlaxoSmithKline AEVE, EUR-Lex-62006CA0468, ECLI:EU:C:2008:504, ¶ 64.

Moreover, antitrust law can focus only on monopolistic conducts or agreements whereby firms aggregate certain amounts of market power. Therefore, unilateral conducts introducing product differentiation, consumer loyalty, or low supply-side substitutability are not and cannot be prosecuted.

Finally, IPRs may bolster market power when they act as barriers to entry, since they can increase the costs for potential rivals to enter the market where IPRs holders already operate. Unable to access and reproduce the protected intangible goods, IPRs' rivals are forced to either pay for getting the licenses for those goods, or to invest in research and development to try to replace the protected goods with resources that may enjoy an equal industrial-commercial success. This state of affairs makes the market position of IPRs holders less contestable and, for sure, antitrust enforcers must be well-aware of it to have a good understanding of the relevant market scenario. Once again, however, antitrust law does not aim to eliminate the facts that distinguish real markets from the ideal of perfect competition: it must take barriers to entry as a given and then focus on business behaviours.

In the light of these considerations, an IP scholar should clearly understand the relationship between IPRs and market power and, in doing so, she cannot ignore the conditions under which antitrust law can intervene on conducts that are monopolistic in some way. On the other hand, antitrust scholars cannot ignore the mechanisms of IP regulation, which—in certain factual contexts—contradict the regular competitive dynamics. More generally, both the IP scholar and the antitrust scholar have a more complete and balanced view by understanding the interplay between providing incentives for innovation via IPRs and safeguarding competition.

III. The Interface Between Antitrust and IP Rules

Putting aside the above considerations on the relationships between IPRs and market structural characteristics, such as dominance and market power, we shall now focus on firms' behaviours involving IPRs. Indeed, this topic has always raised many issues, that can be organized in quite a simple way. It is sufficient to say that any business practice may either violate or comply with antitrust rules, on the one hand, and intellectual property rules, on the other. As a consequence, for any business practice, four scenarios are possible (see Figure 8.1).

The second and third scenarios are the simplest because the rules governing competition and IPRs converge in either allowing or forbidding a given behaviour. In these cases, hence, enforcers do not need to solve any legal conflict: the analysis and outcomes that derive from the application of antitrust overlap with those coming from IP laws. Now, finding a piece of news dealing specifically with IP practices that do not violate antitrust law would be rather pointless in our context. The third scenario, instead, is definitely more interesting and the *AstraZeneca* decision

	IP Law	
Antitrust Law	**I** Illegal Legal	**II** Legal Legal
	III Illegal Illegal	**IV** Legal Illegal

Figure 8.1

is a good example of how a business practice may, at the same time, infringe IP rules and harm competition.[12] In this case, the European Commission first ascertained that a patent holder with monopoly power had fraudulently deceived the competent authority to obtain a supplementary protection certificate—a certificate that it did not actually deserve. Since only patent holders are allowed to ask for such certificates, the Commission then verified that this illegal IP-related practice harmed competition: by keeping producers of generics away from the market and by blocking parallel import, this practice prevented the market price of the patented drug from decreasing. Therefore, the case ended with the European Commission applying the fines for the antitrust violation: in the end, if found that it had no jurisdiction to punish the pharmaceutical company for its IP-related fraudulent behaviour. In general, these scenarios, where a practice is illegal according to both antitrust rules and IP laws, recall a principle: as the rule of law teaches, antitrust authorities cannot—and should not—apply pieces of law different from antitrust law and, as a consequence, they cannot—and should not—impose penalties other than antitrust fines. However, considering the conflicting policy goals of optimal deterrence and proportionality, one has to wonder whether the combined application of the available remedies should be allowed or not—that is, the remedies provided by IP laws and the remedies set forth by antitrust rules. In other words, once a conduct has already been punished by an antitrust authority or by a judge with jurisdiction on IP matters, one could discuss if the same conduct should also be prosecuted and punished for the other violations that it perpetrated.

Let us now move to the first scenario, where a specific practice infringes on one or more IP provisions, but it does not violate antitrust law. This may happen, for example, when a firm deceives the patent office to obtain a patent, but does not enforce the connected exclusive right. Clearly enough, in such a case, the functioning of the market mechanism is not at risk and, hence, antitrust law does not—and

[12] *See* Case COMP/A. 37.507/F3, *AstraZeneca*, 2005 EUR-Lex-32006D0857, 328, 817. For an analysis of EU case law on the antitrust–IP intersection, *see* Nicolas Petit, *The Antitrust and Intellectual Property Intersection in European Union Law*, *in* Handbook of Antitrust, Intellectual Property and High Tech (Roger D. Blair & D. Daniel Sokol eds., 2017).

should not—find any application. Likewise, antitrust law does not—and should not—apply when the IP holder does use the fraudulent patent or brings an infringement action to enforce it, but at the same time, said IP holder does not hold any dominant position.[13] Indeed in such a circumstance, no antitrust injury can occur because firms without market power cannot undermine the competitive mechanism. Unfortunately, the linearity of this reasoning that, simply stated, recalls the rule of law and affirms that antitrust law cannot apply beyond the boundaries of its scope, is often disregarded. Antitrust law is conceived as a strict and severe piece of law, and antitrust enforcers are perceived as very qualified, experienced, and expeditious agents, at least because they are often dedicated agencies and authorities. Therefore, those who are not satisfied with the enforcement of other pieces of law, such as IP rules, consumer protection laws, or—as in these days—data protection rules, frequently call for the replacement application of competition law. However, the application of antitrust law is a cumbersome enterprise,[14] which works on a case-by-case basis to remedy against some specific business conduct capable of limiting output, decreasing market price, lowering the quality and variety of the supply, or reducing the pace of innovation. Hence, to employ competition law to strike a behaviour that does not actually harm competition is not only an illegitimate action, but also a waste of time and resources.

Finally, the fourth scenario—i.e. the one that focuses on an IP-compliant behaviour that infringes antitrust law—lies at the heart of the most heated debates. Indeed, every IPRs holder deemed in violation of antitrust law claims that her IPR gives her the right to undertake the conduct that happens to harm competition. The paradigm here is the case of IPRs holders that also enjoy dominance and that refuse to license their IPRs. On the one hand, the very existence of the IPR at stake gives their holders the right to exclude anybody from the use of the protected intangible goods. On the other hand, under some market circumstances, it may happen that a dominant firm refusing to share its IPRs produces an antitrust injury. Therefore, two options are available to solve such a conflict: either the conducts that are dictated by IP laws are stripped away from the scope of antitrust law or antitrust law can work as a second-tier regulator that, on a case-by-case basis, can reshape the rights and obligations of IPRs holders. In summary, the fourth scenario is where the real conflict between IP and antitrust rules takes place and it is here that, as the following paragraphs will show, the solution of the conflict depends more on policy choices than on legal or economic arguments.

[13] Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp., 382 U.S. 172 (1965); Handgards, Inc. v. Ethicon, Inc., 601 F.2d 986, 994 (9th Cir. 1979) (Arguing that a monopolization (or an attempt to monopolize) may occur only when the usual requirements of Section 2 have been satisfied. The existence of a dominant position is one of these requirements.).

[14] Herbert Hovenkamp, The Antitrust Enterprise (2005).

A. Case Law On Dominant Firms Refusing to License Their IP

In the United States' (US) and European Union's (EU) jurisdictions, the law about dominant firms refusing to license their IPRs is an appendix of the more general doctrine on the refusal to deal.[15] In both jurisdictions, it is clear that dominant firms can be obliged to deal only in some or exceptional circumstances. In both jurisdictions, it is understood not only that even dominant firms should enjoy the freedom of contract principle, but also that any obligation to deal pushes rivals to co-operate. However, in antitrust law co-operation may be more of a problem rather than an advantage, and compels antitrust enforcers to act like 'central planners', although antitrust law is not a piece of economic regulation and antitrust enforcers (especially if they are judges) are ill-equipped to identify the inputs to be shared, to fix their prices, and to monitor compliance with these requirements. The US and EU jurisdictions, however, do not identify the same special circumstances, and it is here that the 'great divergence' between the two arises. More importantly for what matters here, the two jurisdictions' radicalized approaches to dominant firms' refusals to deal when IPRs come into play and the refusals at stake become refusals to license.

According to the present US duty-to-deal doctrine, which follows from the *Trinko* ruling,[16] US courts can oblige monopolists to deal under certain conditions. First, the refusal to deal must be detrimental to consumer welfare (1) and unjustifiable (2). But then, the proposed duty-to-deal must *not* require the dominant firm to: share an input that the market could offer otherwise (3); produce an input (or a combination thereof) that the dominant firm does not use in its business (4); and to enter into a new joint venture with its competitors (5). However, when IPRs are at stake this test fails. Some US courts even disregard any possible antitrust injury that a monopolist can cause by refusing to share its IPRs and enforce a quasi *per se* legality rule to protect those refusals,[17] mainly because they claim that any duty

[15] *See* Douglas H. Ginsburg, Damien Geradin & Keith Klovers, *Antitrust and Intellectual Property in the United States and the European Union*, *in* The Interplay Between Competition Law and Intellectual Property: An International Perspective (Gabriella Muscolo & Marina Tavassi eds., 2019); Thorsten Kaseberg, Intellectual Property, Antitrust and Cumulative Innovation in the EU and the US (2012); Ianos Lianos & Rochelle C. Dreyfuss, New Challenges in the Intersection of Intellectual Property Rights with Competition Law: A view from Europe and the United States (CLES Working Paper Series No. 4/2013, April 2013); Josef Drexl, Research Handbook on Intellectual Property and Competition Law (2010).

[16] Verizon Communications, Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 416 (2004) (hereinafter, Trinko). *See also* Pacific Bell Telephone Co. v. linkLine Communications, Inc., 555 U.S. 438 (2009); Covad Communications Co. v. Bellsouth Corp., 299 F.3d 1272 (11th Cir. 2002); Stand Energy Corp. v. Columbia Gas Transmission, 373 F. Supp. 2d 631 (S.D.W. Va. 2005); In re Remeron Antitrust Litigation, 335 F. Supp. 2d 522 (D.N.J. 2004); z-Tel Commc'ns Inc. v. SBC Commc'ns Inc, 331 F. Supp. 2d 513, 527 (E.D. Tex 2004).

[17] *See Independent Service Organizations Antitrust Litigation*, 203 F.3d 1322 (Fed. Circ. 2000) (hereinafter, Xerox), where the Federal Circuit endorsed a quasi-legality rule, by stating that a patent owner who brings suit to enforce the statutory right to exclude others from making, using or selling the claimed invention is exempted from the antitrust law, even though such a suit may have an anticompetitive effect. In the following years, a number of courts have followed Xerox's rule—*see, e.g.*, United Asset

to share IPRs would stifle innovation. First, it is considered that the IPR holder would lose the incentive to innovate, because it would be prevented from taking advantage of all the benefits generated by the protected intangible good. Second, the rivals of the IPR holder would be discouraged from inventing around the monopolists' IPR, because it would be easier for them to simply take a free ride on such innovation.[18] In summary, the US refusal to license doctrine stands for the idea that the conflict between IP and antitrust provisions must and should be solved in favour of the former, to foster innovation.

Conversely, the current EU refusal to deal doctrine—as stated in the 2009 Communication named 'Guidance on the Commission's Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings'[19]—establishes that, regardless of the existence of a previous business relationship, a dominant firm is obliged to share its proprietary resources when the refusal: (1) is likely to lead to the elimination of effective competition on the downstream market; (2) is likely to lead to consumer harm; (3) is not objectively justified; and (4) relates to a product or service that is objectively necessary to be able to compete effectively on a downstream market. Then and again, the involvement of IPRs changes the test to run: to prohibit a refusal to license, EU institutions want the practice at hand to meet a further condition (5): the conduct must also prevent the advent of a new product or a new market, as established in *Magill TV* and *IMS Health*,[20] block follow-on innovations, or the technical

Coverage Inc. v. Avaya Inc., 409 F. Supp. 2d 1008 (N.D. III 2006); Schor v. Abbot Labs, 378 F. Supp. 2d 850 (N.D. III 2005). To be sure, before Xerox, US courts have supported different rules in relation to refusals to license: from the absolute legality rule of SCM Corp. v. Xerox Corp., 645 F.2d 1195, 1296 (2d Cir. 1981); and Miller Insituform v. Insituform of N.A., 830 F.2d 606 (6th Circ. 1987) to the duty to license that the 9th Circuit imposed in Image Technical Servs., Inc. v. Eastman Kodak Co., 125 F.3d 1195, 1202 (9th Cir.1997), to the essential facility approach that a District Court applied in Intergraph Corporation v. Intel Corporation, 3 F. Supp. 2d 1255 (N.D. Ala. 1998), but that was afterwards not only definitively rejected on appeal 195 F.3d 1346 (Fed. Circ. 1999), but also stigmatized on a general ground by the Supreme Court in Trinko.

[18] Indeed, in *In re Microsoft Corp. Antitrust Litigation* the District Court has maintained that, 'to require one company to provide its intellectual property to a competitor would significantly chill innovation'; *see In re Microsoft Corp Antitrust Litigation*, 274 F. Supp. 2d 743, 745 (D. Md. 2003).

[19] *See* 2009 O.J. (C 45/7) 80–89.

[20] *See* Magill TV Guide/ITP, BBC and RTE v. Commission (89/205/EC), 21 December 1988, 1989 O.J (L 78) 43, upheld in Joined Cases C-76, C-77 & C-91/89R, Radio Telefis Eireann and Ors v. Commission, 1989 E.C.R. I-1141, upheld in Joined Cases C-241 & 242/91P, Radio Telefis Eireann and Ors v. Commission, 1995 E.C.R. I-743; NDC Health/IMS Health: Interim Measures (2003/741/EC), 13 August 2003, 2003 O.J. (L 268) 69, upheld in Case T-184/01, IMS Health v. Commission, 2005 ECLI:EU:C:2004:257. The citations here reproduced are taken from Case C-418/2001, IMS Health GmbH & Co. OHG v. NDC Health GmbH & Co. KG, 2004 E.C.R. I-05039. *See also* Case C-7/97, Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs- und Zeischriftenverlag GmbH & Co KG, 1998 E.C.R. I-07791; Case T-201/04, Microsoft v. Commission, 2007 E.C.R. I-03601, ECLI:EU:T:2007:289; Case C-170/13, Judgment of the Court (Fifth Chamber) of 16 July 2015, Huawei Technologies, ECLI:EU:C:2015:477. The relevant cases of the Commission include: AT.39939—*Samsung—Enforcement of UMTS standard essential patents*; Commission decision, AT.39985—*Motorola—Enforcement of GPRS standard essential patents*.

development, as indicated during the *Microsoft* saga.[21] In other words, differently from US courts, EU antitrust enforcers contemplate the possibility of imposing a compulsory license to dominant firms that refuse to share their intangible assets. And this is to strongly support and foster innovation—better, the innovations of the rivals of the dominant firms. Indeed, as the EU test exemplifies, to assess the likelihood of complementary and follow-on innovations, the IPR holder's incentives to innovate are not the only material criterion: antitrust authorities may also consider rivals' incentives to innovate, which can increase when such rivals are allowed to use the proprietary resource to further innovation by developing new products, new markets, and follow-on innovations.[22]

In summary, hence, when dealing with refusals to license, US and EU antitrust take two opposite views: while EU institutions punish these refusals when, among other things, they restrict innovation, US courts deem them quasi per se legal, by maintaining that they enhance innovation. This incompatible transatlantic scenario begs a couple of questions, then: who is right? And why the two jurisdictions have such divergent views?

To answer these questions one must first consider the functions that antitrust scholars (and economists) usually attribute to IPRs.

B. The Role of IPRs in Innovation and Competition

The accumulation of knowledge helps in sustaining both innovation and competitiveness of economic players. Such accrual requires a constant effort, as knowledge is systematically repackaged into patents, procedures, creative works, etc. that have to be distinct and identifiable, so that their owners may effectively access and exploit them—and possibly defend them when control is contested. These discrete pieces of knowledge may have a role in innovation when they represent the 'bricks' with which new products and processes are built. Or they may be exploited by a company to keep its competitive edge, because when merged together, they bring about some competitive advantage that puts the firm in a stronger business position than that of its rivals.

Since IPRs and, in particular, patent and copyright rules govern the access to, and the use of, these pieces of knowledge, IPRs affect both innovation and competition.[23] First, they identify who owns the above mentioned 'bricks' and 'competitive advantages'. Second, they establish the boundaries of such ownership not only in connection to current goods, but also in relation to dependent and future

[21] Commission Decision of 24 March 2004, relating to a proceeding under art. 82 of the EC Treaty (Case COMP/C-3/37.792 Microsoft), COM (2004) 9 final (Brussels 21 April 2004); and Court of First Instance, Case T-201/04, 17 September 2007.

[22] Mariateresa Maggiolino, Intellectual Property and Antitrust 160–68 (2011).

[23] *See* Commission Decision, Case AT.39226, Lundbeck (2013) 3803 final, § 598 ss.

products and processes. Indeed, IPRs give their holders the right to control complementary and follow-on inventions as well as derivative creative works, thus enabling innovators and creators to enjoy a foothold in new markets and to appropriate the benefits that flow not only from present, but also from future spillovers and second-generation innovations.

Thus, IPRs distribute the incentives and opportunities to innovate and compete among economic agents. They distribute such incentives because, as they turn non-excludable intangible goods into proprietary resources, they make economic agents believe that their efforts in innovative and creative activities will be rewarded with all the profits and competitive advantages following from innovation. They distribute opportunities to innovate and compete because, by establishing who can use those pieces of knowledge to develop new products and new processes, IPRs can either strengthen the competitive advantages already possessed by the IPR holder or fill the competitive gap separating the IPR holder from its rivals.

Therefore, excluding IPRs-related practices from the scope of antitrust law means to believe that the way in which those rights distribute the incentives and opportunities to innovate and compete is effective. Going back to the conflict between the US and European refusal to license doctrines, the US solution stands for the idea that IPRs are always and in all circumstances the right legal tools to spur innovation and competition. Conversely, admitting that antitrust law can modify the scope of IPRs and, as a consequence, the rights of IPRs holders means to believe that, under the circumstances, the original IPRs-driven distribution of incentives and opportunities to innovate and compete may fail and that antitrust law can remedy this IP-failure. Thus, while in the US IPRs are deemed to be the best legislative 'device' to govern the innovative process from an *ex ante* and generic standpoint, in the EU jurisdiction IPRs are (only) an ordinary instrument in the hands of antitrust authorities to govern the innovative process by themselves, from an *ex post* and case-by-case perspective.

C. Policy Arguments Underpinning Refusal to License Cases

So far, the discussion has not addressed the reason why the two jurisdictions endorse such divergent approaches. The answer is quite simple: when policy-makers define the scope of IPRs—that is, who can enjoy those incentives and opportunities as well as how broad and lasting they should be—they cannot rely on a unique economic theory. Economics is unable to identify the optimal scope of IPRs, which is how they should be in order to promote innovation and competition. In particular, the scope of IP protection undergoes the same time-consistency problem that torments the optimal duration of temporary monopolies: economists do not know how to provide enough returns and incentives to the production of innovations, on the one hand, and how to promote their quick social diffusion and, hence, a prompt erosion of innovators' exclusive power, on the other hand. Economic theory supplies different, equally plausible, and empirically founded arguments as to the proper balance between creating and disseminating intellectual goods.[24]

Furthermore, economics cannot establish which firms are in the best position to hold IPRs, whether dominant firms or their rivals. Indeed, the theories on what market structures are the most conducive innovators are many: from those which maintain that dominant firms are the best innovators possible, to those which trust small and medium-sized firms and show that they can spur innovation and competition more than incumbents can—with many other possible solutions in between.[25]

As a consequence, the optimal distribution of the incentives to innovate and compete is not an issue of fact or theories: it is an issue of beliefs and, hence, it begs policy questions to which two jurisdictions can answer even in opposite ways. It should not come as a surprise that the US and EU approaches can be explained by looking at arguments from the theories depicting innovation and competition.

First, the US deference towards IPRs mirrors the idea that courts are not allowed to second-guess legislators' decisions and, in particular, IP legislators' decisions to avoid conditioning the enforceability of an IPR on the degree of market power that the IPR holder enjoys. In other words, in dealing with monopolists who refuse to license their IPRs, US courts rely on the 'division of powers' argument, according to which it is not up to the judiciary to question the choices of the legislature. In summary, in the US, those business practices that are authorized by the IP statutes cannot form the basis of antitrust violations.[26] This argument, instead, does not appear in the EU case law, probably because it could easily be rebutted. Indeed, when it comes to the enforcement of IPRs, national laws governing IPRs cannot interfere with the EU concern about competition and thus with the operations of the EU Commission, which is called to guarantee the public interest confronting any specific and private interest.[27]

Second, the more intrusive EU approach stems from a different consideration of the hurdles and risks that public powers' interference into the economy entails. In deciding whether to grant access to dominant firms' proprietary inputs, EU

[24] MAGGIOLINO, *supra* note 23, at 43.

[25] JOSEPH SCHUMPETER, CAPITALISM, SOCIALISM, AND DEMOCRACY 105 (1942); Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Innovation*, *in* THE RATE AND DIRECTION OF INVENTIVE ACTIVITY 609–25 (National Bureau of Economic Research ed., 1962); Philippe Aghion et al., *Competition and Innovation: An Inverted-U Relationship*, 120 Q. J. ECON. 701 (2005).

[26] R. Hewitt Pate, *Competition and Intellectual Property in the US: Licensing Freedom and the Limits of Antitrust 49*, *in* EUROPEAN COMPETITION LAW ANNUAL 2005: THE INTERACTION BETWEEN COMPETITION LAW AND INTELLECTUAL PROPERTY LAW (C.D. Ehlermann & I. Atanasiu eds., 2007).

[27] *See Microsoft V*, § 226 (affirming this argument even in realtion to a piece of EU law). Indeed, the General Court, while speaking about the concept of interoperability and discussing whether the Commission had to comply with what Directive 91/250 envisaged, held that: '[i]n any event, it must be borne in mind that what is at issue in the present case is a decision adopted in application of Article 82 EC, a provision of higher rank than Directive 91/250'.

antitrust enforcers chose to evaluate the likelihood of the advent of new products, new markets, and follow-on innovation. Such analyses risk being highly speculative, especially when the antitrust action occurs in industries that are experiencing fast technological changes. Now, according to US courts, whereas the market can remedy for unlawful conduct that judges fail to strike, there is no remedy against lawful behaviours that judges prohibit. Thus, in order to not produce such a harmful over-deterrence, the Chicago school suggests antitrust authorities refrain from hunting practices that are almost unavoidably illegal.[28] In contrast, EU antitrust institutions are less worried about the risk of false positives and over-deterrence. Because of their history of public monopolies and regulated industries, Europeans are quite comfortable with a strong presence of public powers in the market, so that they tolerate an antitrust law that sometimes stomps into the realm of industrial policy.[29]

Third, in the US, IPRs and antitrust rules are both federal matters. Accordingly, federal courts are equally competent to enforce them and, if there is a problem with an IPR, for example with an invalid IPR, judges can express themselves on the validity of that right, without needing to invoke the application of antitrust law to curb its scope. The Commission and EU courts, in contrast, are not empowered to rule on the validity or infringement of national IPRs,[30] so sometimes their decisions and judgments seem to target questionable IPRs that a US federal court might have declared invalid by enforcing IP laws. Therefore, if the Commission had been entitled to void the copyright in *Magill TV* and *IMS Health*, it might have done so without any need to apply competition law.[31] To be sure, some commentators object to this thesis and the EU authorities have never recognized to have used antitrust law to remedy against overbroad copyrights.[32] Nevertheless, such a thesis has merit: it recalls that jurisdictional issues can affect substantive law.

IV. Conclusion

As elaborated in this chapter, there are at least four questions that an IP scholar should pose when confronted with antitrust law.

[28] Phillip Areeda & Herbert Hovenkamp, An Analysis of Antitrust Principles and Their Application 770 (2018)(

[29] Giuliano Amato, Antitrust and the Bounds of Power: The Dilemma of Liberal Democracy in the History of the Market (1997).

[30] Rita Coco, *Antitrust Liability for Refusal to License Intellectual Property: A Comparative Analysis and the International Setting*, 12 Marq. Intell. Prop. L. Rev. 1 (2008).

[31] Ian S. Forrester, *EC Competition Law as a Limitation on the use of IP rights in Europe: Is there Reason to Panic*, *in* European Competition Law Annual 2003: What Is an Abuse of Dominant Position? 506 (Claus-Dieter Ehlermann & Isabela Atanasiu eds., 2003).

[32] Ariel Katz, *Intellectual Property Rights and Antitrust Policy: Four Principles for a Complex World*, 1 J. Telecomm. & High Tech. L. 325, 351 (2002).

In the first place, antitrust law is highly fact-specific: no evaluation is automatic or applicable to any scenario. Each judgment depends on the circumstances that distinguish the specific case under examination. This is why the first phase of each antitrust analysis is aimed at describing the relevant market by giving space, when necessary, to the role that IPRs play with respect to the attribution of market power.

Secondly, antitrust law does not aim at reproducing the market conditions that lead to perfect competition. Its twofold goal is to prevent practices that may bring about antitrust injury and to restore competition when specific business behaviours have harmed the market mechanism. Therefore, although they may work to reduce demand and supply substitution or to shelter market power, even a significant amount of it, antitrust law can coexist easily with IPRs.

Thirdly, the case of an IPR conflict with antitrust rules is just one of four possible scenarios in which IPRs coexist with antitrust rules. The other three do not raise any significant legal problems but do bring political questions that essentially concern which discipline should intervene to ensure effective deterrence or punishment: only antitrust law, only IP law, or the two combined.

Finally, antitrust law uses economic models to describe reality, i.e. to understand how firms interact with each other and how their behaviour could harm the market mechanism. However, as seen in the case of dominant firms that refuse to license their IPRs, economic models do not always univocally explain the functioning of the market, the growth of the economy, or the flourishing of innovation. Thus, it is here that non-economic arguments find room: purely legal or policy arguments which, in turn, depend on the specific cultural principles and characteristics of each jurisdiction.