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“VEXATIOUS”/“SHAM” LITIGATION IN EU AND US ANTITRUST LAW: A MECHANISM DESIGN APPROACH

Ioannis Lianos & Pierre Regibeau¹

Abstract

In both the US and the EU, the antitrust category of “sham litigation” (in the US) or “vexatious litigation” (in the EU) enables a plaintiff, or a defendant in case this action forms part of a counterclaim, to argue that the introduction of litigation may constitute, under certain conditions, an infringement of competition law. This naturally leads to the question of what is a workable standard for establishing the existence of sham litigation, and how it is possible to distinguish between the legitimate use of the regulatory/litigation process and strategic attempts to use the process in order to restrict competition. Legal and economic literature, as well as the courts, have struggled to define operational tests enabling them to determine the boundaries of the “sham”/“vexatious” litigation antitrust category. The paper examines the intellectual underpinnings of this form of abusive/anticompetitive conduct and puts forward a “mechanism design approach” with the aim to reduce the occurrence of sham litigation.

Keywords: sham litigation, vexatious litigation, regulatory abuse, antitrust, competition law, abuse of dominance, monopolization, mechanism design

JEL: K21, K41, L40, L41

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1. INTRODUCTION

The use of regulatory and litigation processes to inflict harm to competitors and gain competitive advantage is a well-known strategy employed by business, in particular in highly regulated sectors. The regulatory and judicial system is often the theatre of intense business conflict, sometimes resulting from “genuine” disputes between the parties over the interpretation of the law, or the application of the law to the specific fact pattern, each of the parties seeking to secure governmental action in its favour but sometimes also, or uniquely, motivated by the motive of directly harming competitors. Both legitimate and strategic attempts to use the regulatory/litigation process may impose costs on competitors, these being costs incurred in order to ensure the defence of their interests in the regulatory/litigation process, but also costs resulting from delayed application of contractual arrangements or financing, or eventually also delay in entering the market. From this perspective, such costs may affect competition, as it is possible that the undertaking using the regulatory and litigation processes may be able, because of these additional costs, to exclude or marginalise its competitor from the market and therefore charge higher prices, limit output, maintain the status quo price or diminish innovation. The fact that the anticompetitive effect result in this case from the use of governmental processes raises interesting questions as to the boundaries of competition law intervention, should it be considered that such strategies lead to negative welfare effects or clearly harm the competitive process.

On one side, these strategies may offer a cheap way of non-price predation (regulatory predation and/or predatory litigation), as the costs incurred by the predator do not relate to its output or sales, with the result that the profit sacrifice for a firms with a large market share will be lower than what it would have incurred, had it opted instead for predatory pricing.² This is even more harmful for competitors if there is some asymmetry in the regulatory/litigation costs incurred by the parties, either because of an existing differential of (financial) resources, or because of specific competitive circumstances, the same litigation expenses increasing “the small producer’s cost per output more than the large producer’s”.³ On the other side, these governmental processes serve various purposes and have been established regardless of the risk that their use may negatively impact competition. With regard to the regulatory process, one may think of the possibilities offered to a patent holder to instigate patent-related legal actions in order to protect his/her patent, such as the action for infringement, the action for declaration of non-infringement and the action for annulment (or “invalidity action”), or that of a pharmaceutical company to submit to the relevant regulatory authority scientific data demonstrating that its drug is safe and effective for its intended use, in order to get a market authorisation. Similarly, an undertaking may

² CHRISTOPHER C. KLEIN: THE ECONOMICS OF SHAM LITIGATION: CASES, THEORY AND POLICY, Bureau of Economics Staff Report to the Federal Trade Commission, 15 (Apr. 1989); Einer Elhauge, *Making Sense of Antitrust Petitioning Immunity*, 80(5) CAL. L. REV. 1177, 1177 (1992).

³ Elhauge, *supra* note 2 at 1177.

make use of its right to have access to a court in order to secure judicial remedies protecting a specific right.

Certainly, assessing on a case-by-case basis the welfare effects of each use of the regulatory and litigation process through some form of sophisticated cost benefit analysis would be too burdensome and would generate too much uncertainty, chilling the legitimate use of such governmental processes and thus frustrating their aims. For this reason, in practice, the use of the regulatory and/or litigation process stays presumptively outside the scope of competition law, through the operation of some form of antitrust immunity, in both the US and in Europe, this being either explicit, or implicit.⁴ Various explanations have been advanced as to the intellectual foundation of this immunity. Some have put forward the idea that this presumption of lawfulness, from the perspective of competition law, derives from the constitutional protection of fundamental rights whose effectiveness would have been seriously jeopardised if it would have been possible to implement competition law against the simple use of the regulatory/litigation process designed to provide remedies against violations of these rights.⁵ Others have explained this immunity by “functional process considerations”, in particular the belief that decisions made by accountable public servants vested with official authority and who do not have financial interests in restraining competition are presumably compatible with the public interest, this overriding any possible finding of anticompetitive effect, on the basis of the primacy of the political process in democratic capitalism.⁶

However, and this is consistent across jurisdictions, the immunity does not cover the *abuse* of such regulatory and litigation processes, when these are used for foreign purposes than those they have been put in place to serve at the first place. Hence, there is a distinction often established with regard to the application of competition law between the legitimate use of such processes, and what could, more widely, be considered as an unorthodox use.

This raises questions about the definition of the boundaries distinguishing legitimate use from uses that may raise competition law concerns. The latter category cannot be as broad as to include all possible uses of the governmental process as an anticompetitive weapon, as this may englobe also situations where the undertaking in question has mixed motives and introduces, for instance, litigation with the aim to protect its rights *as well as* in order to harm a competitor. Applying competition law in these circumstances would have the effect to discourage a legitimate use of the regulatory or litigation process.

Competition law regimes around the world have excluded from the scope of the immunity several *types* of use of governmental processes that may constitute an infringement of competition law, under certain circumstances, these categories relying on broad standards that are subject to

⁴ For instance, in the US this immunity has been established by the jurisprudence of the Supreme Court (the so called *Noerr-Pennington* doctrine).

⁵ Stephen Calkins, *Developments in Antitrust and the First Amendment: The Disaggregation of Noerr*, 57 ANTITRUST L.J. 327, 328 (1988); James D. Hurwitz, *Abuse of Governmental Processes, the First Amendment, and the Boundaries of Noerr*, 74 GEO. L.J. 65, 66 (1985).

⁶ E. Elhauge, *supra* note 2 at 1177, 1180.

interpretation. Among the various types of use, the category of “sham litigation” or “vexatious litigation” enables a plaintiff, or a defendant in case this action forms part of a counterclaim, to argue that the introduction of litigation may constitute, under certain conditions, an infringement of competition law. Such actions have been a feature of the US antitrust law system for some time⁷, were introduced in Europe relatively more recently⁸, and have expanded in various jurisdictions, in some of them representing a significant number of cases.⁹ A common characteristic of the way these various competition law regimes define the category of “sham litigation” or “vexatious litigation” is that, as the US Supreme court put it in its seminal jurisprudence on sham litigation *City of Columbia v Omni Outdoor Advertising*, the main concern is ‘the use (of) the governmental process as opposed to the outcome of that process as an anticompetitive weapon’.¹⁰ The restriction of competition flows directly from a ‘private’ action, as the injury to competition would have happened no matter what the government official or judge would have decided.¹¹ Anticompetitive (predatory or sham) litigation is illegal because it results in monopolistic or market power rents that arise when actual or potential competition is limited or eliminated, market prices are maintained at or elevated to otherwise unsustainable levels, and innovation is diminished.

The foregoing naturally leads to the question of what is a workable standard for establishing the existence of sham litigation. Legal and economic literature, as well as the courts, in the US, in the EU and around the world have struggled to define operational tests enabling them to determine the boundaries of the “sham” and “vexatious” litigation antitrust category. The key piece of evidence in identifying sham litigation is the absence of genuine interest in receiving judicial relief. Establishing the genuine motive of the plaintiff, therefore, has been the central issue to much of the case law on sham litigation in Europe and in the United States. Predatory intent is clearly demonstrated in situations of misrepresentations of facts or law to tribunals, perjury, fraud or bribery. Some have also considered as sham litigation actions that are manifestly unfounded or without probable cause, as assessed at the time the action was brought, in the presence of course of an anticompetitive effect.¹² According to this view the presumption that a successful suit cannot be a sham is virtually conclusive. Others have referred to the tort of abuse of process, in particular for using litigation fraudulently or without regard to the outcome in order to gain a collateral end,

⁷ KLEIN, *supra* note 2.

⁸ See, e.g., Simonetta Vezzoso, *Towards an EU Doctrine of Anticompetitive IP-Related Litigation*, 3(6) J. OF EUROPEAN COMPETITION LAW & PRACTICE 521, 521 (2012).

⁹ See WIPO, COMMITTEE ON DEVELOPMENT AND INTELLECTUAL PROPERTY (CDIP), STUDY ON THE ANTI-COMPETITIVE ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS: SHAM LITIGATION, CDIP/9/INF/6 REV (2012) (various country reports) [WIPO REPORT].

¹⁰ *City of Columbia v. Omni Outdoor Advertising*, 499 U.S. 365 (1991).

¹¹ In case the defendant did not have any discretion on instigating the action at the first place, in Europe the practice would fall under the state compulsion exception and/or it would have been possible for the complainant to attack directly the anti-competitive state action through the joint use of Article 4(3) TEU and Articles 101 and/or 102 TFEU.

¹² See Milton Handler & Richard A. de Sevo, *The Noerr Doctrine and Its Sham Exception*, 6(1) CARDOZO L. REV. 1 (1984).

noting the effectiveness of alternative tools in deterring frivolous and baseless suits.¹³ A number of other screens have also been suggested, including the existence of market power or the absence of a legitimate intent defence.¹⁴ Some have argued for a law and economics approach relying on a benefit-cost analysis that would qualify litigation as “sham” when the value of a favourable judgment, discounted by the uncertainty of prevailing, is less than the cost of bringing litigation.¹⁵ The existence of sham litigation is evaluated by a purely objective test focusing on the economic interest of the plaintiff to bring legal action. Finally, some have put forward the idea that a litigation would be qualified as “sham” “only if the direct injury was a necessary *and* sufficient objective motivation for the allegedly strategic litigation”, in addition to the finding that the defendant has market power.¹⁶ The test comes close to a significant motive test.

Unlike the vast literature on predatory pricing, however, economists have had little to say on the issue of predatory sham litigation.¹⁷ Most of the approaches put forward rely on a cost-benefit test, examining if the plaintiff’s expected costs from litigation outweigh its expected benefits, which may hint to “sham” litigation, together with some other factors, such as that the parties to the alleged sham dispute are actual or potential competitors, that the alleged sham acts are likely to lead to anticompetitive effects (raise the market price, reduce the market quantity of the relevant product and the existence of fraud and/or the pursuit of a collateral goal).¹⁸

Such approaches aim to detect and then punish situations in which the litigation process has been used as a “sham” in order to pursue anticompetitive ends. They impose stringent information requirements to the courts, as they should rely on information about the strengths of the case at the time litigation was instigated or the litigation expenses of the sham suit plaintiff. Furthermore, those who use “probable cause” as criterion or apply cost-benefit analysis to identifying sham acts, will necessarily confront the problem of case selection bias and the problem that litigants may possess incomplete information about the strengths of their cases and their legal

¹³ Klein, *supra* note 2 at 39; Thies Kölln, *Rule 11 and the Policing of Access to the Courts after Professional Real Estate Investors*, 61(3) UNIV. CHI. L. REV. 1037 (1994); S. Zain, *Antitrust Liability for Maintaining Baseless Litigation*, 54(3) SANTA CLARA L. REV. 729 (2014).

¹⁴ James D. Hurwitz, *Abuse of Governmental Processes, the First Amendment and the Boundaries of Noerr*, 74 GEO. L.J. 65 (1985).

¹⁵ *Grip-Pak v. Illinois Tool Works*, 694 F. 2d 466, 472 (7th Circ. 1982) (Posner, J.).

¹⁶ E. Elhauge, *supra* note 2 at 1177, 1234.

¹⁷ One of the few exceptions is Christopher C. Klein, *Strategic Sham Litigation: Economic Incentives in the Context of the Case Law*, 24-25(6) INT’L REV. OF LAW AND ECONOMICS 241, 241 (1986); KLEIN, *supra* note 2; Christopher C. Klein, *Predation in the Courts: Legal Versus Economic Analysis in Sham Litigation Cases*, 10(1) INT’L REV. OF LAW & ECONOMICS 29, 29 (1990); Christopher C. Klein, *Anticompetitive Litigation and Antitrust Liability* (WORKING PAPERS, Middle Tennessee State University, Department of Economics and Finance, Aug. 2007); Christopher C. Klein, *Predation in the Courts: Legal Versus Economic Analysis in Sham Litigation Cases*, 10(1) INT’L REV. OF LAW AND ECONOMICS 29, 29 (1990) has tested the hypothesis that the courts’ decisions in antitrust suits on claims of sham litigation have been consistent with the economic analysis of litigation as a predatory strategy. Klein provides evidence from 117 Sherman Act claims of sham litigation prior to 1986 confirming the hypothesis that there exists significant relationship between the presence of predatory characteristics and the success of the antitrust litigation.

¹⁸ KLEIN, *supra* note 2 at 70.

expenses. Lawsuits which are highly likely to prevail on the merits, and inexpensive to pursue, are usually settled outside of the courtroom. Conversely, claims with little chance of winning and expensive to allege, are rarely pursued. The only cases proceed to trial are those for which the plaintiff's chance of winning is ambiguous, or the costs of litigation are particularly difficult to estimate before extensive discovery and litigation.¹⁹

Even though there is a large literature on how “sham” litigation should be defined, this is an issue worth revisiting within the confine of a rigorous economic analysis. Following up some previous preliminary analysis of this topic²⁰, and breaking with the detect and punish approaches, we advance a “mechanism design approach” or incentive compatible mechanism, as an alternative approach, with the aim to discourage sham litigation, eventually relying on the parties' incentives, rather than the explicit intervention of competition authorities and courts, in order to reduce the occurrence of sham litigation. Competition law will in this case form part of an array of mechanisms put in place so as to affect the incentives of the litigants.

After exploring the broader context of the “sham” litigation limitation to the antitrust immunity for the use of governmental processes in Section 1, we will explore in Section 2 the different legal standards applying to “sham” or “vexatious litigation” in competition law and will compare these with those applying to other forms of *abuse* of the regulatory and litigation process as an anticompetitive weapon. Our aim will be to show the potential of the incentive compatible mechanism, as well as its limits, to apply to different types of regulatory and/or litigation-related abuses and would the implications be for competition law. Section 3 will proceed to a definition of “sham” litigation and will put forward a typology that may be useful for deciding when detect and punish approaches are superior than the use of the incentive compatible mechanism, or the opposite. In Section 4 we discuss the welfare implications of “sham” litigation and explore the broader theoretical framework to which the two policy approaches we put forward are integrated. Section 5 focuses on the “detect and punish” policy approach, while Section 6 provides an example of an incentive-compatible approach. In Section 7 we examine some applications of our theoretical framework, in the context of patent litigation, as well as more broadly. The final Section concludes.

¹⁹ Professors Priest and Klein argue that failure to reach a pre-trial settlement is due to overoptimistic beliefs by either the plaintiff or the defendant. Since each route of failure is equally probable, they predict that plaintiffs will win approximately half of the time. This prediction is supported by their study of approximately 15,000 litigated civil cases tried by the jury in Cook County, Illinois, over 1959 -1979; the plaintiffs won 48.47% of the time. George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13(1) J. OF LEGAL STUDIES 1, 32 (1984). Many competition law claims for sham litigation concern IP rights-related litigation. Lemley and Shapiro argue that “the risk that a patent will be declared invalid is substantial,” and that “(r)oughly half of all litigated patents are found to be invalid, including some of great commercial significance”. Mark A. Lemley & Carl Shapiro, 19(2) *Probabilistic Patents*, J. OF ECON. PERSPECTIVES 75, 76 (2005).

²⁰ I. Lianos & J. Zhou, *Optimal Test for Strategic Antitrust Sham Litigation – a mechanical design approach*, Mimeo (2007), available at http://www.academia.edu/1670360/Optimal_Tests_for_Strategic_Antitrust_Shram_Litigation_paper_presented_at_the_Centre_for_Law_and_Economics.

2. “SHAM” LITIGATION IN CONTEXT

The fact that some forms of litigation can be used to the detriment of the competitive process and hence, ultimately, to the detriment of consumers has long been recognised. One needs to understand these practices in the context of the concern over the “abuse” of the litigation and regulatory process in order to reduce competition. This has called for antitrust law’s intervention in order to regulate to a certain extent the conduct of potential litigants, in particular in the context of IP litigation.

Corporations may abuse of the litigation and regulatory system with the aim to maintain or extend their market power and to exclude competitors. This may take different forms: (i) a collusive conduct, for instance relating to patent litigation settlements between brand name and generic drug manufacturers involving so called ‘reverse payments’; (ii) unilateral practices by dominant firms which by abusing the regulatory and litigation system aim to exclude competition and ultimately harm consumers. While the first type of practices involves actual or potential competitors acting in order to maximise their joint profit, the second type of practices involves an undertaking “abusing” the litigation process on its own in order to increase its profits. This abuse of the regulatory and litigation process may take different forms, principally (i) a fraudulent use of the regulatory process or some form of misrepresentation in the context of the regulatory process, in particular at patent offices, and (ii) instigating litigation with the collateral purpose of inflicting an anticompetitive injury. In the context of patent litigation, this conduct may also take the form of competition law (antitrust) counterclaims to patent infringement claims alleging that the IP infringement case constitutes what is generally referred to in the US as ‘sham litigation’ and in Europe ‘vexatious litigation’.

It is important here to note that what constitutes a restriction of competition in these cases is not a legitimate use of the regulatory or litigation process itself but the *abuse* of that process. This raises questions as to the circumstances in which the use of the litigation process will constitute an *abuse* that might itself be considered as anticompetitive if the other conditions for the implementation of the specific competition law provision are satisfied. These practices raise difficulties with regard to defining appropriate legal tests, in the sense of establishing criteria enabling the decision-maker to distinguish a legitimate use of the regulatory process or the courts from the abuse of these processes.

On one hand, the risk for competition and consumer, as well as total welfare, is clear. There is evidence that corporations increasingly rely on investing on the use of governmental processes in order to harm competitors and increase their profitability. James Bessen has recently noted the higher aggregate profits of the ‘rent-seeking sector’, such as pharma/chemicals, petroleum refining, transportation equipment/defence, utilities, communication, in comparison to sectors that are less regulated, noting that for each dollar spent lobbying for a tax break, firms received returns

in excess of \$220.²¹ This makes rent seeking and lobbying the second most important driver of firms' profitability, before even R&D spending. In other words, corporations achieve more returns for their investments on lobbying and rent seeking regulation or litigation than on R&D. These empirical findings may of course be related to the specific US context, which is characterised by high litigation costs and prevalence of lobbying activity, but arguably the situation may not be that different in Europe. The cost of engaging in such activity typically is minimal, the likelihood of generating efficiencies rather small, while the anticompetitive effects resulting from it often are significant and durable.²²

One the other hand, one cannot just rely on the welfare effects of the conduct, in view of the importance of guaranteeing the rights of citizens to participate to the democratic decision-making process, eventually campaigning or lobbying for causes they consider important, or having access to the courts in order to defend their rights. Although this activity may have 'rent seeking' aims, and could eventually be considered as inefficient, it is the price to pay for ensuring democratic participation and protecting access to justice and the rule of law.

Competition law in both the US and the EU has taken stock of these tensions by trying to accommodate within the existing competition law framework 'legitimate' rent seeking activities by providing some form of safe-harbour, from the point of view of competition law, or otherwise taking into account the dual aim of promoting efficiency and guaranteeing the rights of democratic participation and access to the courts.

'Rent seeking' activity may take different forms. Political rent seeking, that is the attempt to influence legislation in order to harm rivals, has traditionally fallen outside the radar of competition authorities. In the US, such conduct has been granted immunity from competition law liability, regardless of the extent of anticompetitive effects, because of the need to prevent Congress from abridging 'the right of the people [...] to petition the government for a redress of grievances', following the first Amendment to the US Constitution (the so called *Noerr-Pennington* doctrine).²³ The First amendment to the US Constitution guarantees citizens freedom of speech, of assembly, and 'to petition the government for a redress of grievances'. The *Noerr-Pennington* doctrine ensures that non-competition values protected by these fundamental rights of

²¹ James Bessen, *Accounting for Rising Corporate Profits: Intangibles or Regulatory Rents?* (Boston Univ. School of Law, Law & Economics Working Paper No. 16-18, May 11, 2016), available at ssrn.com/abstract=2778641.

²² Susan A. Creighton, D. Bruce Hoffman, Thomas G. Krattenmaker & Ernest A. Nagata, *Cheap Exclusion*, 72 ANTITRUST L.J. 975, 977-987, 990-992 (2005) (including these practices under the category of "cheap exclusion").

²³ The doctrine takes its name from the following two cases. *E. R.R. Presidents' Conference v. Noerr Motor Freight, Inc.*, 365 U.S. 127 (1961); *United Mine Workers of America v. Pennington*, 381 U.S. 657 (1965).

US citizens are not impinged by antitrust law, by limiting, if need be, the enforcement of the antitrust laws against certain private acts urging government action.²⁴

Similar concerns over the protection of the citizens' right to participate to the political process are included in Articles 20 and 227 of the TFEU, as well as Article 44 of the Charter of Fundamental Rights of the EU, which provide EU citizens, including any natural or legal person that is resident or has a registered office in a Member State, either individually or in association with others, the right to petition to the European Parliament on matters which fall within the EU's fields of activity and which affect the petitioners directly, the latter condition being interpreted very broadly. These provisions do not establish an as broad claim for the protection of the political process, as the First Amendment of the US Constitution. They may also relate to anticompetitive activities generated by legislation voted by the European Parliament, which may set limits to an eventual implementation of a form of *Noerr-Pennington* doctrine in EU competition law, as most of the EU legislation emanated from the co-decision procedure, with the participation of the Council of the EU, which is not listed in the above provisions. EU competition law also provides more tools to go after anti-competitive activity by public authorities than in US law, where the State action doctrine may immunize some anticompetitive conduct from antitrust law, and EU institutions are not exempted from the obligation to comply with the competition law provisions of the Treaty. Notwithstanding these developments, there has not been, to our knowledge, any case involving the application of EU competition law to conduct resulting from the participation to the political process.

The competition immunity, as a result of the *Noerr Pennington* doctrine is narrower when it comes to abusing the adjudicatory process.²⁵ In this case, the restriction of competition is deemed to flow directly from a 'private' action, that of *abusing* the specific governmental process (regulatory or litigation) for anticompetitive purposes. In this case the harm to competition would have happened no matter what the government official would have decided. This situation should therefore be distinguished from that in which a disinterested accountable decision-maker makes a substantive decision in favour of the restriction to competition.

With regard to the abuse of the regulatory process, the US Supreme Court held in *Walker Process Equipment* that a defendant in a patent suit may bring an antitrust counterclaim where the allegedly infringed patent was obtained by fraud on the US Patent and Trademark Office (PTO).²⁶ He must show by clear and convincing evidence that there is some fraud or 'inequitable conduct'

²⁴ See FTC STAFF REPORT, ENFORCEMENT PERSPECTIVES ON THE NOERR PENNINGTON DOCTRINE, 4 (November 2, 2006), available at www.ftc.gov/sites/default/files/documents/advocacy_documents/ftc-staff-report-concerning-enforcement-perspectives-noerr-pennington-doctrine/p013518enfperspectnoerr-penningtondoctrine.pdf (providing a non-exhaustive list of three types of conduct that can use government processes to seek anticompetitive rewards: (i) requests for ministerial government acts; (ii) misrepresentations to a government decision maker in a non-political context; and (iii) repetitive requests for government action filed regardless of merit solely to use the government process to suppress competition).

²⁵ *California Motor Transport Co. v. Trucking Unlimited*, 404 U.S. 508 (1972). See also Elhauge, *supra* note 2 at 1177, 1228.

²⁶ *Walker Process Equip. v. Food Mach. & Chem. Corp.*, 382 US 172 (1965).

from the patent holder. Not any misrepresentation from the patent holder in the patent application process is sufficient to make a patent unenforceable.

The US courts require high standards for the proof of ‘inequitable conduct’: this includes a misrepresentation of a material fact, the falsity of that representation, the intent to deceive, a justifiable reliance upon the representation by the party deceived and a showing of ‘materiality’, that is injury to the party deceived *as result of* the misrepresentation (the patent examiner would not have issued the patent if the misrepresentation was not made).²⁷ The important question to ask, once the infringement action is filed is whether the infringement plaintiff knew or should have known that the action is improper. In addition to ‘fraud’ or ‘inequitable conduct’ element of the offense, which has been broadly interpreted,²⁸ US courts require, as in all Section 2 Sherman Act cases, evidence that the conduct is reasonably capable of maintaining or extending monopoly power by impairing the opportunities of rivals.

In the EU, the Commission and the EU Courts have applied Article 102 TFEU to fraudulent misrepresentations by a dominant undertaking to a Patent Office (during opposition and appeal procedures) or a national court (during patent litigation) in order to procure IP rights. In 2005, the European Commission found Astra Zeneca guilty of having abused dominance by using its IPRs and the pharmaceutical regulatory system to prevent or delay the marketing of generic versions of its ulcer treatment drug, Losec.²⁹ Astra Zeneca had submitted misleading information to national patent offices in order to acquire supplementary protection certificates (SPCs) which would extend the patent protection for Losec and then defending those in court. The General Court upheld the decision of the Commission finding that the misleading nature of representations made to public authorities must be assessed on the basis of objective factors, proof of the deliberate nature of the conduct and of the bad faith of the undertaking in a dominant position not being required for the purposes of identifying an abuse of a dominant position.³⁰ The Commission also found that Astra Zeneca had abused its dominant position by launching a tablet form of the drug and withdrawing authorizations for the original version of its drug Losec in certain national markets where patents or SPCs were due to expire. The General Court also confirmed the Commission’s finding that AstraZeneca’s withdrawal of the marketing authorizations for the original version of Losec was abusive as it delayed access to the market of generic producers and restricted parallel trade in the original capsule version of Losec. Indeed, because of the withdrawal, generic applicants were

²⁷ *Nobelpharma AB v. Implant Innovations, Inc.*, 141 F. 3d 1059 (Fed. Cir. 1998). For a critical analysis of this case, see Herbert Hovenkamp, *The Walker Process Doctrine: Infringement Lawsuits as Antitrust Violations* (Univ. Iowa Legal Studies Research Paper No. 08-36, Sept. 1, 2008), available at ssrn.com/abstract=1259877.

²⁸ Hovenkamp, *supra* note 27 at 4 (noting that “infringement actions can also be qualifying exclusionary practices [...] when they are based on valid patents that are known by the infringement plaintiff to be unenforceable as a result of improprieties in procurement, or on valid patents but where the infringement plaintiff knew or should have known that the infringement defendant was not an infringer,” or “when the infringement plaintiff bases its cause of action on unreasonable and clearly incorrect interpretations of questions of law”).

²⁹ Case COMP/A.37.507/F3, *Astra Zeneca*, Comm’n Decision (June 15, 2005) 2006 O.J. (L 332) 24.

³⁰ Case T-321/05, *Astra Zeneca v. Commission* [2010] ECR II-2805, ¶ 356.

prevented from relying upon test data used in the original patent in their simplified application. The General Court found that the withdrawal of the marketing authorization did not involve the legitimate protection of an investment that came within the scope of competition on the merits because AstraZeneca's exclusive right to make use of the data on its tests and clinical trials had expired. AstraZeneca had also failed to establish an objective justification for the withdrawal because it did not show that the continued maintenance of the marketing authorization would result in a significant burden. Finally, the fact that AstraZeneca was entitled under the relevant pharmaceutical legislation to withdraw the marketing authorization was irrelevant to the assessment of whether the withdrawal constituted an abuse. We will explore this case further in the following Section.

Another situation where the unilateral ‘abuse’ of the regulatory process, in particular IP process, may constitute an antitrust violation can be provided by ‘product hopping’ (also called ‘evergreening’ or ‘line extension’) cases, by which we mean a situation in which a brand-name pharmaceutical company switches from one version of a drug (eg capsule, injection) to another (e.g. tablet, syrup), or any other reformulation of the drug (changing molecule parts or combine two or more drug compositions that had previously been marketed separately), while encouraging doctors to prescribe the reformulated rather than the original product, with the main purpose to shift (‘migrate’) the market to the reformulated drug and thus impair the entry of generics.³¹ These practices may go as far as slightly changing an active ingredient and presenting an old medicine as a new product and registering a new patent, thus extending well beyond the protection period of the patent covering the active ingredient of the previously marketed product.³² These cases lead to a complex balancing of the possible welfare benefits and costs between marginal “innovations” that may be put forward by the pharma companies versus less expensive generics, without however including this marginal innovation.³³

For instance, in the EU, product hopping issues were raised in the EU *Astra Zeneca* case as well as in some cases brought by National Competition Authorities, such as the UK *Gaviscon* case.³⁴ The OFT found that Reckitt Benckiser abused its dominant position in the market for the NHS supply of alginate and antacid heartburn medicines, in breach of the Chapter II CA 98 and

³¹ Michael A. Carrier & Steve D. Shadowen, *Product Hopping: A New Framework*, 92 NOTRE DAME L. REV. 167 (2016).

³² European Commission, *Pharmaceutical Sector Enquiry – Final Report* ¶ 256 (Comm’n, 2009), available at ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/staff_working_paper_part1.pdf.

³³ For a discussion of recent cases brought against “product hopping” in the US and the EU, see M. Sean Royall, Ashley E. Johnson & Jason MacKenney, *Antitrust Scrutiny of Pharmaceutical “Product Hopping”*, 28(1) ANTITRUST 71, 72-76 (2013) (discussing the current state of the law in product hopping); Ingrid Vandendorpe, Julia K. York, & Michael J. Frese, *Product Hopping on Both Sides of the Pond: A Survey of U.S. and EU Case Law*, COMPETITION POL’Y INT’L 1, 1 (Nov. 2, 2014) (providing a comparative analysis focusing on the US and the EU).

³⁴ Decision No. CA98/02/2011, Case CE/8931/08, *Abuse of a dominant position by Reckitt Benckiser Healthcare (UK) Limited and Reckitt Benckiser Group plc* (Apr. 12, 2011), available at http://webarchive.nationalarchives.gov.uk/20140402142426/http://www.ofc.gov.uk/shared_ofc/ca-and-cartels/rb-decision.pdf.

Article 102 TFEU by withdrawing and de-listing Gaviscon Original Liquid drug from the NHS prescription channel after the product's patent expired but before the publication of the generic name for it, so that more prescriptions would be issued for its alternative branded product, Gaviscon Advanced Liquid. The OFT imposed a fine of £10,2 million and subsequently the UK National Health Service (NHS) sued Reckitt Benckiser for £90 million follow-on damages at the High Court. NHS and Reckitt Benckiser settled the dispute in 2014.

Similar competition law concerns may emerge in situations where the process of litigation is abused for anticompetitive aims. However, also for these cases competition authorities must be cautious, first because of the risks their action could set to the protection of fundamental rights, and second, because there is national legislation providing for legal remedies in cases where there is an abuse of the litigation process. The fundamental right to be protected in this case consists in the right to access to the court. Access to justice is a universally recognized right (Art. 8 of the Universal Declaration of Human Rights) that is also protected by the European Convention of Human Rights (Art 6 and 13 ECHR), the EU Charter of Fundamental Rights (Art. 47) and the EU Treaties (Art. 67(4) which notes that the EU “shall facilitate access to justice”). Competition authorities in Europe and the US have found that the commencement of baseless litigation may be abusive and an antitrust violation. One may advance a similar conclusion with regard to the maintenance of baseless litigation.³⁵

The reasons pushing the competition authorities to intervene against this type of conduct, in particular in the context of IP litigation, are not hard to imagine. First, litigation of IPRs is particularly significant in some economic sectors, such as the pharmaceutical industry, as originator companies use a variety of instruments to extend the commercial life of their medicine, including litigation³⁶, or in the IT sector, because of the rather quick product cycles and pace of technological development, which accentuate the costs of delays due to IP litigation in the commercialisation of new products (in particular if injunctions are easily available). Second, litigation costs are important. The European Commission found in its recent *Pharmaceutical Sector Inquiry* that the average duration of opposition and appeal proceedings averages 2,8 years (from 6 months to 6 years in some Member States), litigated infringement proceedings could take about 7 years, the average duration of interim injunctions granted was 18 months and litigation costs significant in view of the fact that patent infringers (in this case generics) face multiple

³⁵ Zain, *supra* note 13 at 729.

³⁶ European Commission, *Executive Summary of the Pharmaceutical Sector Inquiry Report* 11 (Comm'n, 2009), available at ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/communication_en.pdf (noting that “[t]he number of patent litigation cases between originator and generic companies increased by a factor of four between 2000 and 2007”). This litigation covered “any type of court proceedings or other formal adversarial proceedings with the exception of patent opposition proceedings,” including patent-related legal actions such as the action for infringement, the action for declaration of non-infringement and the action for annulment (or “invalidity action”). European Commission, *Pharmaceutical Sector Inquiry – Preliminary Report* ¶ 462 (Comm'n, 2008), available at http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/preliminary_report.pdf.

actions in multiple states, given the absence of a unified EU patent system.³⁷ Third, there has been a considerable increase in recent years of litigation by Patent Assertion Entities (PAEs), that do not develop technologies but whose business model is to generate revenues by asserting their patents or those of third parties. Patent Assertion Entities form part of the larger category of Non-Practising Entities (NPEs) that develop patent portfolios either by patenting their inventions (eg Universities, research institutes) or by acquiring patents from other entities but which, to the difference of Practising Entities, do not practise their patents, but simply derive revenues from licensing them.³⁸ These PAEs typically initiate licensing negotiations with manufacturers alleging that they have infringed their patents and file a patent infringement lawsuit against them in case the negotiations fail. Some of them use this strategy as a way to extract revenue from producers that do not want to enter in litigation and for this reason they are often referred to as patent “trolls”.³⁹ PAEs are ‘pure’ when they acquire patents from a variety of sources with the aim to make a revenue by asserting them, and ‘hybrid’ when there is some relationship between the entities that transferred their IP rights to the PAEs (the operating company) and the PAEs, for instance through a revenue-sharing agreement or the fact that the PAE is authorized by the operating company to attack other competing operating companies (the latter practice being called ‘privateering’, product--producing entities behaving as patent trolls).⁴⁰ As it has been noted by some commentators, ‘pure’ PAEs may create risks of exploitation, while “hybrid” PAEs create exclusionary concerns, as they can be used by operating companies to harm their rivals on downstream product markets.⁴¹

Patent ‘trolls’ or PAEs account for a large and growing percentage of patent litigation in particular in the IT industry, in the US, but also in Europe. It is reported that 2/3 of patents cases in the US are now brought by patent ‘trolls’ and that the number of defendants in suits initiated by patent ‘trolls’ increased six-fold from 2003 to 2013. This increases considerably the costs for technological start-ups, these costs being estimated by some studies to \$29 billion in Venture Capital Investment.⁴² The problem seems to be less prevalent in Europe, in view of the fewer

³⁷ European Commission, *Pharmaceutical Sector Inquiry – Final Report* 202-253 & 394-415 (Comm’n, 2009), available at http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/staff_working_paper_part1.pdf.

³⁸ For a useful clarification of the terminology, see Damien Geradin, *Patent Assertion Entities and EU Competition Law*, (George Mason Law & Economics Research Paper No. 16-08, Feb. 6, 2016), available at ssrn.com/abstract=2728686 or dx.doi.org/10.2139/ssrn.2728686.

³⁹ On these strategies, see Fiona S. Morton & Carl Shapiro, *Strategic Patent Acquisitions*, 79 ANTITRUST L.J. 463 (2014). On the role of “trolls” in general in IP transactions, see FEDERAL TRADE COMMISSION, *THE EVOLVING IP MARKETPLACE: ALIGNING PATENT NOTICE AND REMEDIES WITH COMPETITION* 58-71. (Mar. 2011), available at www.ftc.gov/sites/default/files/documents/reports/evolving-ip-marketplace-aligning-patent-notice-and-remedies-competition-report-federal-trade/110307patentreport.pdf.

⁴⁰ Mark Lemley & A. Douglas Melamed, *Missing the Forest for the Trolls*, 113 COLUM. L. REV. 2117 (2013).

⁴¹ Geradin, *supra* note 38.

⁴² James E. Bessen & Michael J. Meurer, *The Direct Costs from NPE Disputes*, 99 CORNELL L. REV. 387, 389 (2014) (noting that “the estimated direct, accrued costs of NPE patent assertions totaled \$29 billion in 2011”, and that “much of this burden falls on small and medium-sized companies”).

software patents, which constitute the bulk of the cases brought in the US by patent trolls, and, at least in the UK, the ‘loser pays principle’ for litigation costs and the more conservative approach of the UK courts vis-à-vis injunctive relief. However, as some recent empirical studies revealed, PAEs are increasingly active in Europe, although at a lower rate than in the US, and account for roughly ten percent of patent suits filed in Germany and the UK.⁴³ After this brief sketch of the legal and economic context of the “sham” litigation antitrust offence, we now turn to the various legal standards that have emerged for the different types of abuse of regulation and litigation in the IP context, which is often the theatre of extensive regulatory and litigation action.

3. DIFFERENT LEGAL STANDARDS FOR THE ‘ABUSE’ OF REGULATION AND LITIGATION IN THE IP CONTEXT: A NEED FOR CONSISTENCY?

We explore first the legal standards that have emerged in the US and EU competition law regimes regarding “sham” or “vexatious” litigation, before examining the way these interrelate, if at all, with other legal standards for similar or closely-related types of abuse in the specific context of the interaction between competition law and IP.

3.1. LEGAL STANDARDS FOR “SHAM” OR “VEXATIOUS” LITIGATION

3.1.1. The establishment of a separate antitrust category of “sham” or “vexatious litigation

The concept of “vexatious” or “sham” litigation is often used to refer to situations where adjudicative procedures were used and litigation was commenced primarily in order to achieve anticompetitive goals. It may be considered as a typical case of non-price predation⁴⁴: the predator uses legal processes to impose expenses and delay, at little cost to itself. An alternative theory that may be put forward is that “sham” litigation aims to deter entry by strategically raise rivals’ fixed costs, which ultimately affects market structure and enables a first mover with the ability to raise fixed costs for all to monopolise the market or enhance or maintain its dominant position. Indeed, fixed costs determine the number of firms in the industry and hence typically the intensity of competition.⁴⁵ The success of this strategy depends to some extent on cost allocation rules. Where each party pays their own legal costs irrespective of the outcome (the American rule) there is clearly more scope to raise rivals’ costs than in jurisdictions where the loser pays (English rule). However, as Hviid and Olczak note, the direct costs which may be shifted to the losing party may be small in relation to the full opportunity cost of defending a case. As the same authors explain,

⁴³ Brian J. Love, Christian Helmers, Fabian Gaessler & Maximilian Ernicke, *Patent Assertion Entities in Europe*, in PATENT ASSERTION ENTITIES AND COMPETITION POLICY 104 (D. Sokol ed., 2016).

⁴⁴ OECD COMPETITION POLICY AND INTELLECTUAL PROPERTY RIGHTS 25 (1989) (“Abusive litigation represents [...] the most egregious form of non-price predation”).

⁴⁵ Morten Hviid & Matthew Olczak, *Raising Rivals’ Fixed Costs*, 23(1) INT’L J. OF THE ECONOMICS OF BUS. 1, 1 (2015).

additional costs such as court fees, expert advice and the opportunity costs of the officers and other staff of the company tied up in the court proceedings are typically not recoverable and are almost invariably fixed. Hence, even in jurisdictions with a loser pays policy, vexatious litigation may still be able to raise costs significantly.

In the US, sham litigation is an antitrust theory of harm that operates as an exception (or limitation) to the *Noerr-Pennington* doctrine: the doctrine extends immunity unless the litigation constitutes “mere sham to cover [...] an attempt to interfere directly with the business relationships of a competitor”.⁴⁶ In *California Motor*, the Supreme Court held that “a *pattern* of baseless, repetitive claims may emerge which leads the factfinder to conclude that the administrative and judicial processes have been abused”.⁴⁷ Although the Supreme Court accepted that this “may be a difficult line to discern and draw”, it indicated that such practice may result in an antitrust violation⁴⁸. Twenty years later in *Professional Real Estate Investors, Inc. v. Columbia Pictures Indus., Inc.* (“*PREI*”), the Supreme Court held that a single lawsuit may be sham and thus constitute an antitrust violation.⁴⁹ In its most recent pronouncement on sham litigation, in *Octane Fitness, LLC v. ICON Health*, the Supreme Court further explained that the sham exception requires that “the plaintiff must have brought baseless claims in an attempt to thwart competition (i.e., in bad faith)”.⁵⁰

With regard to the EU, in *Industrie des Poudres Sphériques v Commission*, the General Court (GC) found that participation by an undertaking in an investigation conducted by the EU institutions in an antidumping proceeding cannot be deemed, of itself, to be contrary to Article 102 TFEU as ‘to assert that mere recourse to such a procedure is, of itself, contrary to Article [102 TFEU] amounts to denying undertakings the right to avail themselves of legal instruments established in the interest of the EU’.⁵¹ In *Boosey & Hawkes*, the Commission was concerned that Boosey & Hawkes had abruptly ceased supply, started vexatious litigation and adopted other harassing tactics when its distributor started to make its own brass band instruments, while the distributor’s production arrangements were still vulnerable.⁵² The Commission adopted a decision under what is now Article 102 imposing interim measures requiring supplies to be provided.

⁴⁶ *Noerr Motor Freight*, 365 U.S. at 144.

⁴⁷ *Cal. Motor Transport*, 404 U.S. at 513 (emphasis added).

⁴⁸ *Id.*

⁴⁹ *Prof'l Real Estate Invest., Inc. v. Columbia Pictures Indus., Inc.* (“*PREI*”), 508 U.S. 49 (1993).

⁵⁰ *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S.Ct 1749, 1757 (2014).

⁵¹ Case T-5/97, *Industrie des Poudres Sphériques v. Commission* [2000] ECR II-3755. *See also* Case 87/500/EEC, *BBI/Boosey & Hawkes*, Comm’n Decision (July 29, 1987) 1987 O.J. (L 286) 36 (where the Commission found that, when Boosey & Hawkes’ distributor started to make its own brass band instruments Boosey & Hawkes abruptly ceased supply, started vexatious litigation and adopted other harassing tactics while the distributor’s production arrangements were still vulnerable). The Commission adopted a decision under what is now Article 102 imposing interim measures requiring supplies to be provided. Boosey & Hawkes settled, so no final decision on the merits was required.

⁵² *BBI/Boosey & Hawkes*, ¶ 9.

In its seminal *ITT Promedia v. Commission* judgment, the GC accepted that vexatious litigation may “in wholly exceptional circumstances” constitute an abuse of a dominant position, contrary to article 102 TFEU⁵³, a principle that was most recently confirmed in *Protégé International Ltd v Commission*.⁵⁴ The conditions under which Article 102 TFEU may apply in these circumstances will be discussed in the next Section. In *Astra Zeneca* patent-related litigation conduct was considered as a well-structured strategy put in place in order to exclude competitors.⁵⁵ National competition authorities have also employed the same qualification for a pattern of complex conduct to exclude competitors that included patent-related litigation before civil and administrative courts.⁵⁶ The key piece of evidence in identifying sham litigation was the absence of genuine interest in receiving judicial relief. Establishing the genuine motive of the plaintiff, therefore, has been the central issue to much of the case law on sham litigation in Europe and in the United States.

3.1.2. The legal standards applying to “sham” or “vexatious” litigation

In practice, courts adopt two different approaches to identify sham claims. Some took a narrow view and defined sham litigation as a pattern of baseless claims or a single claim made without regard to their merits, and designed to delay and tie up the judicial process. Others based their assessment of the real motive of the plaintiff on a cost-benefit analysis of his economic interest to bring suit, which is broader as it may lead in characterizing as “sham” even claims that are filed with probable cause, if the benefits of the litigation, discounted by the probability of winning would be too low to repay the costs.

With regard to the first approach, the existence of a predatory intent is clearly demonstrated in situations of misrepresentations of facts or law to tribunals, perjury, fraud or bribery. However, the courts also consider as sham litigation actions that are manifestly unfounded or without probable cause. In assessing the existence of probable cause the courts examine the situation existing when the action in question was brought. Probable cause to institute civil proceedings requires no more than a reasonable belief that there is a chance that a claim may be held valid upon adjudication. This approach makes virtually conclusive the presumption that a successful suit cannot be a sham. It requires as a first step of the analysis of the claim of sham litigation by the

⁵³ Case T-111/96 *ITT Promedia NV v. Commission* (1998) ECR II-2937.

⁵⁴ Case T-119/09 *Protégé Int'l Ltd v. European Commission*, ECLI:EU:T:2012:421 (available only in French).

⁵⁵ Case COMP/A.37.507/F3, *Astra Zeneca*, Comm'n Decision (June 15, 2005) 2006 O.J. (L 332) 24, confirmed by Case T-321/05, *Astra Zeneca v. Commission* [2010] ECR II-2805.

⁵⁶ AGCM (Italian Competition Authority), A431- Ratiopharm/Pfizer (Jan. 11, 2012), *Bulletino* note 2/2012; annulled by the Regional Administrative Court of Lazio, I, decision No. 7467 (Sept. 3, 2012), but reaffirmed by Council of State, order No. 2790 (May 22, 2013).

courts, the proof that the lawsuit is objectively baseless, in the sense that no reasonable litigant could realistically expect success on the merits. This is an “essentially retrospective” inquiry.⁵⁷

However, there are important reasons to object to this test. Probable cause may be absent if the claim is not supported by the adequate factual evidence. It is also possible that a claim is considered baseless because of a misconceived interpretation of the law. However, in this some courts may consider baseless an action that other courts will consider meritorious. This risk is particularly present in situations in which the concept of what constitutes a baseless claim may be influenced by the court's conception of the adequate balance to achieve between allocative and dynamic efficiency. The establishment of a bright-line rule may lead to an important risk of false negatives. Furthermore, it might not be objectively reasonable to bring a lawsuit just because there is a probability of some success on the merits, no matter how insignificant the value of the claim might be.

The second approach is much broader. The fact that the claim is not baseless does not preclude the finding that the use of litigation constitutes an antitrust violation. Rather, the existence of sham litigation is evaluated by a purely objective test focusing on the economic interest of the plaintiff to bring legal action⁵⁸. What counts is whether the suit's expected value to the plaintiff exceeds its costs. The economic test for sham litigation is essentially a predation test, as it requires the proof of a profit sacrifice, which cannot be recouped by the plaintiff at a later stage in the event his legal action is successful. The application of this test raises numerous questions. For instance, information with respect to relative legal merits of the opposing parties and the amount of recovery may be privately held. The parties must learn about each other before they can identify suitable settlement terms. This learning is difficult because of incentives to misrepresent private information. Further, economies of scale in legal services may prompt large or dominant firms to follow anticompetitive rent-seeking strategies. As a result, some anticompetitive rent-seeking cases may be wrongly identified as non-predatory.

Turning now to positive law, the US Supreme Court has adopted in *PREI* a two parts test, combining an objective with a subjective approach and concluding that the sham litigation qualification applies when (i) the lawsuit is “objectively baseless in the sense that no reasonable litigant could realistically expect success on the merits” and (ii) “the baseless lawsuit conceals an attempt to interfere directly with the business relationships of a competitor”.⁵⁹ Hence, only if the challenged litigation is objectively meritless may a court examine the litigant’s subjective

⁵⁷ *USS-POSCO Indus. v. Contra Costa Cty. Bldg. & Constr. Trades Council (POSCO)*, 31 F.3d 800, 811 (9th Cir. 1994).

⁵⁸ In defence of such a position, see *Grip-Pak*, 694 F.2d at 472 (Posner, J.) (“if the expected value of a judgment is \$10,000 (say, a 10% chance of recovering \$100,000) the case is not ‘groundless’; yet if it costs \$30,000 to litigate, no rational plaintiff will do so unless he anticipates some other source of benefit. If the other benefit is the costs litigation will impose on a rival, allowing an elevation of the market price, it may be treated as a sham”), *cert. denied*, 461 U.S. 958 (1983).

⁵⁹ *Prof'l Real Estate Invest.*, 508 US at 60-61.

motivation (his bad faith).⁶⁰ Thus, motive alone cannot make viable a Section 2 Sherman Act case for infringement or misappropriation of intellectual property simply because the IPR turns out to be invalid.⁶¹ Similarly, because of the additional subjective requirement, objective baselessness alone, although necessary, is not by itself a sufficient element of a competition law claim.⁶² It is not sufficient that the underlying claim is objectively baseless; the claimant (in the IP infringement case) must know or believe that it is.

This test has been interpreted restrictively by some of the circuit Courts of Appeal. The Eight Circuit, for instance, interpreted the *PREI* as providing an exception to the *Noerr Pennington* doctrine “only where a defendant’s resort to the courts is accompanied or characterized by illegal and reprehensible practices such as perjury, fraud, conspiracy with or bribery of government decision makers, or misrepresentation, or is so clearly baseless as to amount to an abuse of process, that the *Noerr–Pennington* cloak of immunity provides no protection”.⁶³ To determine whether a lawsuit is objectively baseless, the Federal Circuit has looked to whether the party seeking to enforce IP had “probable cause—e.g., where the law is unsettled, the action is arguably warranted by existing law, or there is an objectively good faith argument for extending existing law.”⁶⁴ According to the Federal Circuit, “(a) winning lawsuit is by definition a reasonable effort at petitioning for redress and therefore not a sham”.⁶⁵ This does not, however, mean that one needs to win the case so as to avoid the application of the sham litigation exception.⁶⁶ Some other case law qualifies as sham litigation situations where the patent owner attempts, in bad faith, to enforce a patent, knowing the patent is invalid even if the patent was lawfully obtained.⁶⁷

The different circuit courts of appeal have also examined the interplay between the *PREI* standard that may qualify as sham a single lawsuit and the *California Motor* standard that concerns a multiple-lawsuit situation concerning a “whole series of legal proceedings”. While the Federal Circuit applied the *PRE* test to a pattern of legal proceedings, thus effectively holding that the *PRE* test superseded *California Motor*,⁶⁸ the Ninth circuit, also followed by the Second circuit, clearly distinguished between the two cases and held they applied to different situations: here “[*PREI*] provides a strict two-step analysis to assess whether a single action constitutes sham petitioning

⁶⁰ See *Nobelpharma AB*, 141 F.3d at 1072 (“[A] sham suit must be both subjectively brought in bad faith and based on a theory of either infringement or validity that is objectively baseless.”).

⁶¹ *Id.* at 66.

⁶² *Id.* at 61–62.

⁶³ *Razorback Ready Mix Concrete Co., Inc. v. Weaver*, 761 F.2d 484, 487 (8th Cir. 1985).

⁶⁴ *ERBE Elektromedizin GmbH v. Canady Technology LLC*, 629 F.3d 1278, 1292 (Fed. Cir. 2010).

⁶⁵ *U.S. Philips Corp. v. Sears Roebuck & Co.*, 55 F.3d 592, 597 (Fed. Cir. 1995). See also *Dominant Semiconductors Sdn. Bhd. v. OSRAM GmbH*, 524 F.3d 1254, 1261–62 (Fed. Cir. 2008) (“when an underlying infringement suit was not unsuccessful, there is no basis to determine that the plaintiff in that suit lacked probable cause”).

⁶⁶ *Honeywell Int’l Inc. v. Universal Avionics Sys. Corp.*, 488 F.3d 982, 1000 (Fed. Cir. 2007).

⁶⁷ *Handgards v. Ethicon*, 601 F.2d 986 (9th Cir.1979); *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1368–1369 (Fed. Cir. 1998).

⁶⁸ *ERBE Elektromedizin GmbH*, 629 F.3d at 1291.

[...] *California Motor* [...] deals with the case where the defendant is accused of bringing a whole series of legal proceedings”.⁶⁹ Accordingly, *California Motor* should be applied “[w]hen dealing with a series of lawsuits”, in these circumstances the question being whether the successive filings were “brought pursuant to a policy of starting legal proceedings without regard to the merits and for the purpose of injuring a market rival”.⁷⁰ This is certainly not the case if a significant part of the filed actions by the plaintiff (but this also applies to counterclaims by the defendant), had proven successful, which proves that there was some regard to the merits of the case.⁷¹ In several cases both the Federal circuit and the Ninth Circuit held that two or three lawsuits do not constitute a “series” or “pattern” of litigation to implicate a test for a whole series of legal proceedings.⁷²

With regard to EU law, the seminal case is *Promedia, ITT v Commission*⁷³. Promedia had an agreement with Belgacom, the former Belgian telecommunications and post monopoly to publish a business listing directory. When the agreement came for renewal, Belgacom broke off negotiations with Promedia, seeking another partner for the publication of telephone directories. Promedia however announced that it would continue to publish its business directory, which led Belgacom to inform its clients that undertaken without its authorisation and fell outside the scope of any contractual relationship, and that Belgacom will be publishing its own business listings directory. As Belgacom also refused to provide Promedia with subscriber data, Promedia sought a declaration from the Belgian courts that Belgacom’s refusal to grant access on fair, reasonable and non-discriminatory terms was an infringement of competition law. Belgacom brought two counterclaims alleging that Promedia’s application to access data was contrary to the Belgian legislation concerning commercial practices and economic competition and to what is now Article 102 TFEU. A Belgian court granted Promedia’s application and commissioned an expert report to determine the FRAND royalty. Belgacom’s second counterclaim was also dismissed. A third set of legal proceedings between Belgacom and Promedia started a year later, after the two companies had entered a joint venture agreement to publish telephone directories in a number of European countries that included an exclusivity clause. Belgacom seized the Belgian courts seeking an order that Promedia transfer to it various items of data, commercial know-how and intellectual property rights, by virtue of this exclusivity clause. Promedia counterclaimed that the institution of

⁶⁹ *USS-POSCO*, 31 F.3d at 810.

⁷⁰ *Id.* at 811.

⁷¹ *Id.*

⁷² *Amarel v. Connell*, 102 F.3d 1494, 1519-20 (9th Cir. 1996) (two cases are not sufficient); *ERBE Elektromedizin GmbH*, 629 F.3d at 1291-1292; *Hanover 3201 Realty, LLC v. Village Supermarkets, Inc.*, 806 F.3d 162, 181 (3d Cir. 2015) (four actions are sufficient).

⁷³ Case T-111/96 *ITT Promedia NV* (1998) ECR II-2937.

⁷³ *Handgards v. Ethicon*, 601 F.2d 986 (9th Cir. 1979); *C.R. Bard*, 157 F.3d at 1368-1369.

⁷³ *ERBE Elektromedizin GmbH*, 629 F.3d at 1291.

⁷³ *USS-POSCO*, 31 F.3d at 810.

⁷³ *Id.* at 811.

⁷³ *ITT Promedia v Commission* [1998] ECR II-2937 ¶ 30.

proceedings was frivolous and vexatious. The Belgian court found that the exclusivity clause infringed Article 101 TFEU declared the entire agreement void, but also rejected Promedia's counterclaim as unfounded. In the meantime, Promedia submitted a complaint to the Commission asserting that Belgacom had abused a dominant position through a variety of conduct, including the initiation of vexatious litigation against it before the Belgian courts.

The Commission rejected Promedia's complaint.⁷⁴ It held that, in principle, initiating litigation, which is the expression of the fundamental right of access to a judge, cannot be characterised as an abuse [unless] an undertaking in a dominant position brings an action (i) which cannot reasonably be considered as an attempt to establish its rights and can therefore only serve to harass the opposite party, and (ii) which is conceived in the framework of a plan whose goal is to eliminate competition. In appealing to the General Court, Promedia did not challenge this view, only its application.

The General Court confirmed the Commission's cumulative tests and dismissed Promedia's application.⁷⁵ According to the General Court, bringing legal proceedings may constitute an abuse only in 'exceptional circumstances', namely (i) where the action cannot reasonably be considered as an attempt to establish the rights of the undertaking concerned and would therefore serve only to "harass" the opposite party and (ii) the action is part of a plan whose aim is to eliminate competition.⁷⁶ According to the Court, when applying the first criterion, "it is the situation existing when the action in question is brought which must be taken into account in order to determine whether that criterion is satisfied".⁷⁷ Furthermore, "when applying that criterion, it is not a question of determining whether the rights which the undertaking concerned was asserting when it brought its action actually existed or whether that action was well founded, but rather of determining whether such an action was intended to assert what that undertaking could, at that moment, reasonably consider to be its rights".⁷⁸ This is "satisfied solely when the action did not have that aim, that being the sole case in which it may be assumed that such action could only serve to harass the opposing party".⁷⁹ Once the first part of the test is satisfied, it becomes important to consider whether the action was conceived in the framework of a plan whose goal was to eliminate competition. This test seems to be more geared towards the intent of the claimant than the US antitrust two parts test, yet focusing on an objective definition of that intent by inferring it from the absence of any other plausible explanation for the claim than a harassment strategy by the other party.

⁷⁴ Case IV/35.268, *ITT Promedia N.V. /Belgacom*, Comm'n Decision (May 21, 1996), available at http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_35268.

⁷⁵ Case T-111/96 *ITT Promedia NV* [1998] ECR II-2937.

⁷⁶ *Id.*, ¶¶55 and 57.

⁷⁷ *Id.*, ¶ 72.

⁷⁸ *Id.*, ¶ 73.

⁷⁹ *Id.*

In *AstraZeneca*, the Commission and then the General Court refused to apply the *ITT Promedia* case law and to characterise the conduct in question as vexatious litigation, although there was a pattern of litigation related to the SPC protection from which AstraZeneca benefited from in its effort to protect its SPC by making misleading representations. The Commission considered that AstraZeneca's (AZ) "conduct of defence" to the court proceedings brought against it by the generics "cannot constitute an abuse" and could not by itself be conceived as forming part of a plan to eliminate competition.⁸⁰ As the Commission made it clear,

"the conduct of a defence cannot be equated, as a matter of course, to the institution of legal proceedings. Initiating legal proceedings may, in certain circumstances, be abusive in so far as the aim is to harass the opposing party, as it imposes upon that party costs and delays. An abuse can only be established in wholly exceptional circumstances considering that such a finding would severely limit the right of access to courts. In this case, the costs and delays associated with legal proceedings are not the result of AZ's defence, but of AZ's initial misleading representations leading to the granting of SPCs. [...] AZ's conduct of its defence before the national courts concerned was simply the continuation of the pattern of misleading representation initiated by AZ well before the competitors instituted proceedings, and not the cause of the costs and delays suffered by them".⁸¹

The Commission nevertheless noted the anticompetitive intent of AZ, which was perfectly aware at the time that it was asserting rights that it could not, at the time, reasonably have considered to be its own, as it knew of the specific circumstance invalidating those rights.⁸² Notwithstanding the theoretical possibility that both of the *ITT Promedia* conditions were satisfied in this case, the Commission chose to put forward a separate type of abuse relying on the initially misleading representations by AZ leading to the granting of the SPCs. The General Court confirmed the Commission's approach.⁸³

The vexatious litigation abuse of a dominant position category has recently been confirmed by the General Court in *Protégé International Ltd v Commission*, the GC noting that the two conditions of the *ITT Promedia* case law should be interpreted restrictively in order not to jeopardize the application of the general principle of EU law on access to justice and that the conditions are cumulative.⁸⁴

Protégé International (PI) Ltd, an English law company providing marketing services, in particular to a number of UK-based companies owning and holding a licensing agreement for the Irish whiskey brands Wild Geese, Wild Geese Rare Irish Whiskey and Wild Geese Irish Soldiers

⁸⁰ *Astra Zeneca* 2006 O.J. (L 332/24), ¶ 737.

⁸¹ *Id.*, ¶ 738.

⁸² *Id.*, ¶ 739.

⁸³ Case T-321/05 *Astra Zeneca v. Commission* [2010] ECR II-2805 ¶ 337 (the Court noted that "in so far as the competitors had to bear the costs and suffer the delays associated with legal proceedings, that was a consequence of the SPCs granted as a result of AZ's misleading representations, which obliged them to engage in extensive litigation").

⁸⁴ Case T-119/09 *Protégé Int'l*, ECLI:EU:T:2012:421 (available only in French), ¶¶ 49 and 63.

and Heroes had applied for the registration of some of the trademarks to various national IP authorities. Pernod Ricard, a company based in France, which is the owner through its US subsidiary Austin Nichols, of the Wild Turkey brand of American whiskey, and also a producer of Irish whiskey through its subsidiary Irish Distillers, brought opposition proceedings in a number of IP authorities in various EU member States to the registration of these trademarks, alleging a risk of confusion with its brand Wild Turkey. Protégé International submitted a complaint to the European Commission alleging that Pernod Ricard (Austin Nichols) had abused its dominant position in the Irish whiskey market. It argued, among others, that those opposition proceedings were only intended to delay the entry on the market of Protégé International's products sold under those marks.

The Commission dismissed the complaint, considering that there was no sufficient Community interest to pursue the investigation and that national courts and/or competition authorities were better placed to deal with the allegedly anticompetitive practices of Austin Nichols.⁸⁵ The Commission considered that it would have been unlikely for PI to establish the existence of a competition law infringement, in particular because of the difficulty of demonstrating that the opposition proceedings brought by Austin Nichols were objectively unreasonable and that their only purpose was to harass PI. Indeed, it would not have been possible to verify the existence of an infringement, as several proceedings were still pending before the competent national authorities. Furthermore, the alleged infringement had had only a limited impact on the functioning of the common market since Austin Nichols had only initiated opposition proceedings against a limited number of trademarks. In conclusion, the complexity of the investigation which was to be carried out in order to establish the existence of the infringement required additional means that the Commission was not able to secure. PI appealed to the General Court.

The General Court acknowledged that in view of the importance of access to the courts, this being a fundamental right and a general principle of EU law, it is only in “quite exceptional circumstances” that opening litigation proceedings is likely to constitute an abuse of a dominant position⁸⁶. The Court made clear that the two cumulative conditions of *ITT Promedia* had be interpreted and applied restrictively so as not to defeat the application of the general principle of access to the court.⁸⁷ The GC expressed doubts as to the “obvious” absence of a risk of confusion between the trademarks of PI and those of Austin Nichols, in view, for instance, of the fact that the various trademarks included the word “Wild” and that no consumer could seriously confuse a trademark designating Irish whiskey with one designating an American whiskey.⁸⁸ The Court disagreed noting that the ability to distinguish between different brands of whiskey according to

⁸⁵ Commission Decision C (2009) 505, Case COMP / 39414 - *Protégé Int'l Ltd. / Pernod Ricard*.

⁸⁶ Case T-119/09 *Protégé Int'l*, ECLI:EU:T:2012:421 (available only in French), ¶ 48 (citing *ITT Promedia*, Case T-111/96).

⁸⁷ *Id.*, ¶ 49.

⁸⁸ *Id.*, ¶ 54.

their origin may vary from country to country. The GC also rejected the argument of PI which claimed that the fact that most of the national authorities hearing the opposition proceedings have concluded that there is no likelihood of confusion in the present case confirmed the existence, or at the very least, the likelihood of abuse. It noted that, in view of the first condition laid down in *ITT Promedia*, one should not determine whether the action of the undertaking was well founded at the time it brought its action, but whether through such an action the undertaking was intending to assert its rights.⁸⁹ Even if some national authorities seized by the opposition procedure had concluded that there was no likelihood of confusion, the GC found that the Commission was right to regard the opposition procedure as not being objectively unreasonable or baseless from a legal point of view. Indeed, at the time of the adoption of the Commission's decision certain national authorities had not arrived to a decision in this case.⁹⁰ The GC further noted that the alleged lack of likelihood of confusion between the trademarks was not conclusive per se for the purpose of determining whether the first condition laid down in *ITT Promedia* was satisfied in this case, as the undertaking alleging the "sham" litigation type of abuse is also required to show that the only purpose of the action was to harass her, evidence that PI had not adduced in this case.⁹¹ This was even if Austin Nichols had not initiated opposition proceedings against other brands of whiskey, which were similar to the mark Wild Turkey, as the owner of the trademark is, according to the GC, in a position to judge whether it is appropriate to take legal action in the light of its own commercial interests and, consequently, to determine which trademarks it considers to be important to protect through opposition proceedings.⁹² Having found that the first step of the *ITT Promedia* conditions was satisfied, the GC felt it unnecessary to examine the second one, as the two are cumulative, but in any event the GC repeated that appellant had failed to bring evidence that the contentious proceedings were brought with the aim of eliminating competition.⁹³ The appellant argued that the large number of opposition proceedings brought against its trademarks was sufficient to establish such a strategy and that they had the effect of delaying the entry of its products, weakening it financially.⁹⁴ The GC disagreed noting that objective factors justified Austin Nichols to protect its trademarks and that the number of proceedings was not by itself decisive to conclude that there was an anticompetitive strategy.⁹⁵ Introducing many opposition procedures may be also a consequence of the lack of harmonization of European trademark law, with the result that the opposition applicant should lodge actions in front of the national IP

⁸⁹ *Id.*, ¶ 56.

⁹⁰ *Id.*, ¶ 58.

⁹¹ *Id.*, ¶ 59.

⁹² *Id.*, ¶ 60.

⁹³ *Id.*, ¶ 64.

⁹⁴ *Id.*, ¶ 65.

⁹⁵ *Id.*, ¶ 66.

authorities of all EU Member States in which it has registered its trademark.⁹⁶ Hence, the second condition laid out in *ITT Promedia* as also not satisfied.

The two limbs of the *ITT Promedia* test are therefore to be interpreted and applied restrictively in a manner that does not frustrate the general rule of access to courts.

According to the first criterion the *only* purpose of the action should be to harass the opposing party. Any alternative explanation therefore trumps the finding of an abuse. The parties may rely for establishing this condition on direct documentary evidence or, if the more advanced US case law on sham litigation may be a source of inspiration, on an inference resulting, for instance, from the fact that the action is objectively unreasonable or manifestly unfounded, is devoid of any basis in law (eg the patentee concealed previous invalidation by a patent office during the suit), or that it goes beyond the asserted rights etc. Similarly, the second criterion is satisfied solely when it forms part of a plan whose aim is to eliminate competition, that being the sole case in which it may be assumed that such action could *only* serve to harass the opposing party. As for evidence that the act of bringing legal proceedings forms part of a larger plan whose goal is to eliminate competition, the claimant may rely on the existence of a pattern of exclusionary measures (e.g. the defendant started proceedings in other jurisdictions). It is unclear if vexatious litigation may also be used for the purposes of exploitation, for instance forcing the potential licensee to concede higher royalties or otherwise onerous terms.

The application of these criteria in practice presents a number of difficulties, in particular with regard to the complex patent environment in certain industries such as pharma. In the context of this industry, litigation almost always raises disputes on seemingly genuine or reasonable issues about infringement, sometimes involving secondary patents filed by the originator some years after the grant of a primary or base patent raising material issues as to the scope of the patent and the ability of the generic firms to invent around the claimed patent.⁹⁷ Patent litigation in this area is also initiated in an important proportion by generics firms seeking declarations of non-infringement or declarations of invalidity, thus breaking with the mould envisaged by the test.⁹⁸ It has also been noted that a dominant undertaking initiating the IP litigation would be required to show, as a defence to the antitrust counterclaim, that it believed at the time of initiating this litigation that it had good prospects of success, by disclosing privileged information the undertaking received from its counsel on the success of the litigation or internal documents on the perceived value of patent or IPR.⁹⁹ In other situations, sham litigation claims form part of a broader claim that a settlement between a generic and a branded manufacturer constitutes a reverse

⁹⁶ *Id.*, ¶ 67.

⁹⁷ Simon Priddis and Simon Constantine, *The Pharmaceutical Sector, Intellectual Property Rights, and Competition Law in Europe*, in *INTELLECTUAL PROPERTY AND COMPETITION LAW* 267, 267 (Steven Anderman & Ariel Ezrachi, eds., 2011).

⁹⁸ *Id.*

⁹⁹ *Id.* at 268.

payment (pay for delay), the patent litigation in this case providing cover for the settlement.¹⁰⁰ This raises interesting questions on the function of the sham or vexatious litigation category of abuse of dominance and its interrelation with other categories of abusive conduct under Article 102 TFEU.

3.2. THE FUNCTION OF THE “SHAM” OR “VEXATIOUS” LITIGATION ANTITRUST CATEGORY

The application of competition law to “sham” or “vexatious” litigation may be conceived as a necessary correction to the failure of civil procedural law, IP law, or other areas of law, to deal with frivolous litigation. It is therefore not the only means to achieve a reduction in the abuse of the litigation process by the litigants for anticompetitive aims. For instance, in the context of IP litigation, where “sham” or “vexatious” antitrust countersuits are often put forward by the defendants, model rules of professional conduct may oblige patent counsel to carefully examine the merits of the case, interpret the asserted patent claims and to avoid filing an action, unless there is a basis in law and in fact for doing so.¹⁰¹ One may also envision civil procedure rules establishing a duty of due diligence, prior to initiating or maintaining an action, so as to ensure that it is not filed for improper purposes, such as with the sole purpose to harass competitors and increase the cost of litigation.¹⁰² The choice of competition law as a tool to reduce the likelihood of “sham” or “vexatious” litigation, invites us to focus more on a mechanism-based approach that will aim to understand the conditions that lead to the occurrence of frivolous litigation so as to limit the possibilities that these may be used to produce anticompetitive effects.

To the extent that “sham” or “vexatious” litigation intervenes in the context of IP-related disputes, the constitution of a specific competition law category and the corresponding test should also be seen in the context of the various standards and legal tests prevailing as to the interaction between competition law and IP rights, in particular as the IP right is also a right conferred for specific purposes, promoting innovation, and one may consider that competition law intervenes when this “public franchise, granted by the government, acting on behalf of the public” to innovation-related rents is abused in order to limit innovation and/or competition, that is a diversion of the regulatory tool of IP rights from its initial purpose.¹⁰³

In EU competition law, there are many different legal standards applying to various forms of abusive conduct involving IP rights.

¹⁰⁰ See, e.g., *Federal Trade Commission v. Abbvie Inc., et al.*, 107 F. Supp. 3d 428 (2015).

¹⁰¹ For an excellent discussion, see Zain, *supra* note 13 at 729.

¹⁰² *Id.*

¹⁰³ See *Picard v. United Aircraft Corp.*, 128 F.2d 632, 645 (2d Cir. 1942) (Frank, J., concurring) (discussing the terminology). For a discussion of the analogy between IP, exclusive rights and regulation, see Ioannis Lianos, *Competition Law and Intellectual Property Rights: Is the Property Rights' Approach Right?* in CAMBRIDGE YEARBOOK OF EUROPEAN LEGAL STUDIES 153-86 (John Bell & Claire Kilpatrick eds., 2006), a more extensive version may be downloaded at <https://www.ucl.ac.uk/cles/research-paper-series/research-papers/cles-1-2008>.

First we have standards focusing on the scope of the IP rights. For instance, the inherency doctrine, or scope of the patent doctrine, protects the practices inherent to the exercise of the IP right from the application of competition law. This may have been the initial approach in EU law in view of the division of competence between the EU and its Member States with regard to IP law and competition law: Competition law is mainly an EU competence, if inter-state trade is affected, while the creation of systems of intellectual property remains the competence of the Member States. The European Courts have proceeded to a formalistic approach by defining the scope of the IP rights as linked to the ‘subject matter’ and the ‘essential function’ of the specific IP rights. The concept of the ‘specific subject-matter’ made it possible to determine what might be covered by the legal status of any industrial or intellectual property right without damaging the EU principles of competition or that of free movement. However, this approach was abandoned, both in the US and in Europe. In the US, this is quite clear with the recent *Actavis* case of the Supreme Court. In Europe, this is also clear since the *Renault/Volvo* cases law and most recently has been re-affirmed by the General Court in *Lundbeck*.¹⁰⁴

Second, balancing tests weigh the restriction of allocative efficiency or other anticompetitive effects of the conduct involving IP rights from one side and the possible benefits of these IP rights in inducing innovation and dynamic efficiency on the other side. Innovation is considered positively as it enhances competition in the market and provides a variety of choice to consumers. Contrary to the formalistic analysis conducted under the scope or intent tests, balancing tests involve some consideration of the economic effects of the IP rights in the specific market configuration. Various balancing tests have been suggested in the law and economics literature, some intervening in the IP side of the equation, while others in the competition law side.

The EU Guidelines on Transfer of Technology Agreements (interpreting the TTBER) seem to be inspired by the principle of an economic balancing test.¹⁰⁵ Their starting standpoint is that there is no inherent conflict between intellectual property rights and EU competition rules. According to the Commission,

‘[...] both bodies of law share the same basic objective of promoting consumer welfare and an efficient allocation of resources. Innovation constitutes an essential and dynamic component of an open and competitive market economy. Intellectual property rights promote dynamic competition by encouraging undertakings to invest in developing new or improved products and processes. So does competition by putting pressure on undertakings to innovate. Therefore, both intellectual property rights and competition are necessary to promote innovation and ensure a competitive exploitation thereof’.¹⁰⁶

¹⁰⁴ Case T-472/13, *H. Lundbeck A/S & Lundbeck Ltd. v European Commission*, ECLI:EU:T:2016:449, ¶¶ 490-499.

¹⁰⁵ European Commission, *Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements*, [2014] OJ C 89/3.

¹⁰⁶ *Id.*, para 7.

The Guidelines refer to the concept of ‘dynamic competition’,¹⁰⁷ but it is important here to note that although there is no presumption that intellectual property rights and licence agreements as such give rise to competition concerns, any eventual anticompetitive concerns will be assessed with an eye on the possible pro-competitive efficiencies, which ‘must be considered under Article 101(3) and balanced against the negative effects on competition’.¹⁰⁸ The EU Guidelines also create a safe harbour for licensing arrangements that do not impose any hardcore restriction, such as a cartel, a resale price maintenance clause, restrictions on the exploitation and development of the licensee's own technology.¹⁰⁹

In the context of Article 102 TFEU, the European Commission seems to have been inspired by the balancing approach in its *Microsoft* decision.¹¹⁰ The specific characteristics of intellectual property rights were not *prima facie* taken into account. The Commission observed that ‘there is no persuasiveness to an approach that would advocate the existence of an exhaustive checklist of exceptional circumstances and would have the Commission disregard *a limine* other circumstances of exceptional character that may deserve to be taken into account when assessing a refusal to supply’.¹¹¹ Microsoft has put forward the same justification as in the US litigation: the need to protect its own incentives to innovate by preserving its intellectual property rights.¹¹² The Commission rejected that claim by affirming that intellectual property rights ‘cannot as such constitute a self-evident objective justification for Microsoft’s refusal to supply’.¹¹³ The Commission considered that innovation is an objective for both intellectual property and competition law¹¹⁴ and adopted a balancing test focused on innovation incentives concluding that ‘[...] a detailed examination of the scope of the disclosure at stake leads to the conclusion that, on balance, the possible negative impact of an order to supply on Microsoft’s incentives to innovate is outweighed by its positive impact on the level of innovation of the whole industry (including Microsoft). As such the need to protect Microsoft’s incentives to innovate cannot constitute an objective justification that would offset the exceptional circumstances identified’.¹¹⁵

The competition law intervention under “exceptional circumstances” standard currently on vogue with the jurisprudence of the European Courts provides the necessary flexibility to

¹⁰⁷ *Id.*, ¶¶ 7- 8.

¹⁰⁸ *Id.*, para 9.

¹⁰⁹ 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 [2004] OJ L23, art 4.

¹¹⁰ *Microsoft/W2000* (Case COMP/C-3/37.792) Commission Decision [2004], available at http://ec.europa.eu/competition/antitrust/cases/dec_docs/37792/37792_4177_1.pdf.

¹¹¹ *Id.*, para 555.

¹¹² *Id.*, para 709.

¹¹³ *Id.*, para 710.

¹¹⁴ *Id.*, para 712.

¹¹⁵ *Id.*, para 783.

accommodate the vision that IP and competition law are complementary, but also occasionally enabling the intrusion of competition law as a correcting mechanism to excesses/abuses of the IP. This test/series of tests have been put forward by the CJEU in *Renault/Volvo* and *Magill* where the Court of Justice referred to the ‘exceptional circumstances’ that conduct involving IP rights might fall under article 102 TFEU. The concept of ‘exceptional circumstances’ has been interpreted broadly by the jurisprudence of the European Courts, as well as national courts, thus suggesting that the EU courts have abandoned their previous formalistic approach focusing on the definition of the scope of the IP right and its core for a more open-ended approach that would involve some form of case by case analysis.

Of course we have different formulation of such tests. Some of these tests focus on the subjective intent of the monopolist¹¹⁶ This is clear for the cases involving misrepresentations to the patent office¹¹⁷ and may also be seen in some case law in the US regarding refusals to license by a dominant undertaking, advancing the view that a monopolist should not ‘rely upon a pretextual business justification to mask anticompetitive conduct’.¹¹⁸ This might involve some analysis of the subjective intent of the undertaking, by looking to documents, emails or statements. However, it is unclear at what level of management the decision-maker should look to find evidence of intent and it is quite common for executives to use language that suggests intent to exclude a competitor.

An alternative would be to examine objective intent as this is indicated by the behaviour of the undertaking. In its Preliminary Report of the Sector Inquiry on the Pharmaceutical Sector, the Commission noted that ‘intention can [...] be taken into account in competition law assessments’,¹¹⁹ although it is clear that the intent of the applicants does not form part of the assessment of patent claims.¹²⁰ The *Astra Zeneca* decision of the European Commission, confirmed by the General Court, acknowledged the importance of evidence of anticompetitive intent in demonstrating that a conduct is liable to have anticompetitive effects.¹²¹ The General Court found that while abuse is an objective concept, ‘[...] intention can still be taken into account to support the conclusion that the undertaking concerned abused a dominant position, even if the

¹¹⁶ Michael A. Carrier, *Unravelling the Patent-Antitrust Paradox*, 150 U. PA L. REV. 761, 793 (2002).

¹¹⁷ To a certain extent, *see Walker Process*, 382 US 172.

¹¹⁸ *Image Tech. Serv., Inc. v. Eastman Kodak Co.*, 125 F.3d 1195, 1219 (9th Cir. 1997).

¹¹⁹ European Commission, *Pharmaceutical Sector Inquiry*, Final Report, notes 375 & 376.

¹²⁰ For example, in the context of the DG Comp’s Pharmaceutical sector inquiry, the European Patent Office argued against a scrutiny of the intent of applicants in applying for patent rights for purposes of competition law. *See* Communication from the Commission, Executive Summary of the Pharmaceutical Sector Inquiry Report 7, *available at* ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/communication_en.pdf.

¹²¹ *Astra Zeneca*, 2006 O.J. (L 332/24), Annex A, ¶ 13.

abusive conduct actually took place'.¹²² In any case, evidence of intent plays a limited role in Article 102 analysis.¹²³

We have already examined the standards for “sham” or “vexatious” litigation in the previous Section, where the second part of the *ITT Promedia* test refers to the existence of a “plan to eliminate competition” or a “plan to eliminate a competitor”.¹²⁴ It is reminded that in *ITT Promedia*, as well as in *Protégé International* the GC referred to “wholly exceptional circumstances”, instead of the usual reference to “exceptional circumstances”, indicating that the finding of an abuse will be more difficult and the conditions more strictly interpreted regarding “vexatious” litigation than for other types of abuse of the IP process (e.g. unilateral refusals to deal), possibly because of the need to protect the fundamental right to access a court.

One may also explore the case law of the CJEU regarding SEP injunctions, which may also raise similar issues, if one considers that the alleged abusive practice is the use of the access to the court for infringement of the IP right in order to secure an injunction that would block the implementer of the IP protected technology that is allegedly infringing the patent from entering the market¹²⁵. In *Huawei v. ZTE*, the CJEU, as its advocate general, examined the relevant issue, not only from the perspective of competition law, but also of IP law.¹²⁶ In contrast to the previous case law of the CJEU regarding refusals to license, where an abuse may only be found in exceptional circumstances, the CJEU, following the Opinion of the AG, distinguished this case, noting (i) that the essential nature of the SEP makes it indispensable to all manufacturers of standard-compliant products and (ii) that the SEP-holder took a commitment to the SSO, in this case ETSI, to grant licenses on FRAND terms, thus creating legitimate expectations for implementers. These very broad conditions have been and will be interpreted by the jurisprudence of the national courts.¹²⁷

¹²² Case T-321/05 *Astra Zeneca v. Commission* [2010] ECR II-2805 ¶ 334, although on appeal the Court of Justice did not explicitly confirm this position, see Case C-457/10P *AstraZeneca AB v. Commission* (6 Dec. 2012), ECLI:EU:C:2012:770.

¹²³ See, e.g., Case C-549/10 *Tomra Systems ASA v. Commission* (Apr. 12, 2012), ECLI:EU:C:2012:221, ¶ 19 (noting that “it is clearly legitimate for the Commission to refer to subjective factors, namely the motives underlying the business strategy in question”), ¶¶ 21 and 22 (observing that “the Commission is under no obligation to establish the existence of such intent on the part of the dominant undertaking in order to render Article [102 TFEU] applicable,” and that “[t]he existence of an intention to compete on the merits, even if it were established, could not prove the absence of abuse”).

¹²⁴ Case T-111/96 *ITT Promedia NV v. Commission* (1998) ECR II-2937, ¶¶ 42, 56 & 89.

¹²⁵ For an excellent analysis, see Nicolas Petit, *Injunctions for FRAND-Pledged SEPs: The Quest for an Appropriate Test of Abuse under Article 102 TFEU*, 31 (Working Paper, Dec. 23, 2013), available at ssrn.com/abstract=2371192.

¹²⁶ Case C-170/13 *Huawei Technologies Co. Ltd. v ZTE Corp. & ZTE Deutschland GmbH* [2015] ECLI:EU:C:2015:477.

¹²⁷ Take, for instance, the recent case of the UK Patent Court in: *Unwired Planet International Ltd. v. Huawei Technologies Co. Ltd.* [2017] EWHC 711 (Pat), ¶ 744, where Briss J. interpreted the CJEU’s judgment in *Huawei v. ZTE* as following:

Some argue that in *Huawei v. ZTE* the CJEU could have also characterized the facts of the case as involving abusive/vexatious litigation, rather than qualifying them as an independent form of abuse.¹²⁸ If that were the case, according to the case law of the EU courts (*ITT Promedia, Protégé International*), an abuse may only occur in ‘wholly exceptional circumstances’, if the two cumulative conditions are met. According to the case law of the EU courts, the two conditions ‘must be construed and applied strictly’, legal proceedings constituting an abuse ‘only if they cannot reasonably be considered to be an attempt to assert the rights of the undertaking concerned and can therefore only serve to harass the opposing party’. Any alternative explanation trumps the finding of an abuse. These are certainly more difficult conditions to be satisfied by the plaintiff than those required in the context of new category of abuse established by the CJEU in *Huawei v. ZTE*, although in both cases the CJEU (and its Advocate General) emphasized the need to protect the right to access to the court. What explains the different balancing of this right and other considerations by the CJEU in these two contexts? Are process considerations important? For instance, one may argue that in the situation of *Huawei v. ZTE* and SEP related cases, there is a FRAND commitment/declaration, which may amount to an enforceable contract, therefore leading the Court to deal with the question of appropriate royalty, without requiring any prior regulatory intervention. This does not however exclude the possibility that the conduct of SEP holders in FRAND negotiations may still amount to an abuse of a dominant position, for instance when the IP holder refuses to grant a license on FRAND terms leading to a hold-up situation. Such commitment of a contractual nature by the dominant undertaking does not exist in the context of

“(i) In the judgment the CJEU has set out a scheme which both the patentee and implementer can be expected to follow in the context of a dispute about a patent declared essential to a standard and subject to a FRAND undertaking.

(ii) In stating that the implementer and patentee must express a willingness to conclude a licence on FRAND terms, the CJEU is referring to a willingness in general terms. The fact that concrete proposals are also required does not mean it is relevant to ask if those proposals are actually FRAND or not.

(iii) If the patentee complies with the scheme prior to starting a claim for infringement of that patent which includes a claim for an injunction, then bringing such a claim will not be abusive under Art 102. That is the *ratio* of the CJEU’s decision.

(iv) In the circumstances contemplated by the CJEU, bringing a claim for infringement of a SEP which includes a claim for an injunction without prior notice of any kind will necessarily be an abuse of dominant position. Insofar as the decision identifies what is abusive rather than what is not, the decision does not go further than that.

(v) Bringing a claim for infringement which includes a claim for an injunction even with sufficient notice is capable of being an abuse of dominant position. However the judgment does not hold that if the circumstances diverge from the scheme set out in any way then a patentee will necessarily abuse their dominant position by starting such a claim. In those circumstances the patentee’s conduct may or may not be abusive. The scheme sets out standard of behaviour against which both parties’ behaviour can be measured to decide in all the circumstances if an abuse has taken place.

(vi) Nor does it follow that if the patentee complies with the scheme such that bringing the action is not *per se* abusive, the patentee can behave with impunity after issue. Again, the scheme sets out standards of behaviour against which both parties’ behaviour can be measured to decide if an abuse has taken place.

(vii) If the patentee does abuse its dominant position in bringing the claim or in its conduct after issue, that affords a defence to the claim for an injunction. In other words the proper remedy is likely to be refusal of an injunction even though a patent has been found to be valid and infringed and the implementer has no licence.”

¹²⁸ See the analysis of Petit, *supra* note 125 at 31.

“sham” or “vexatious” litigation, thus leading to a relatively stricter test (for the antitrust plaintiff) in this case.

An alternative approach would be to consider that Huawei’s conduct consisted in some form of ‘intentional deceptive conduct’ towards the SSO and/or patent implementers, equivalent to the type of misleading conduct the CJEU found to constitute an abuse in *AstraZeneca v Commission* (against the patent office in this case), or the Commission’s decision in *Rambus* (regarding the failure of Rambus to disclose patents and patent applications to the relevant SSO, JEDEC, thus undermining confidence in the standard-setting process).¹²⁹

What about the consistency between the tests in *ITT Promedia* for “vexatious” litigation and the jurisprudence if the GC on pay for delay or reverse payment settlements?¹³⁰

This raises important questions about the design of categories and the characterization of the facts at our disposal to fit these established legal categories. The possible alternative use of antitrust categories for the same fact patterns in the context of Article 102 TFEU has already been noted by the literature.¹³¹ There is some tendency in the jurisprudence of the CJEU to prefer this form of categorical thinking and to oppose an overall rule of reason approach, as this was put forward by the economists’ working group (EAGCP) charged by the Commission to present options for the reform of Article 102 that led the Commission to adopt its Enforcement priorities for Article 102 TFEU in 2009. However, there are voices at the Court of Justice that cast doubt about the benefits of a categorical jurisprudence and require “consistency” on the basis of the “effects” to competition (or for some to “economic efficiency”) of the *type* of the conduct that the specific fact pattern may be qualified (or characterised). For instance, Advocate General Wahl in his recently published Opinion in the *Intel* case stated that

*‘(i)t goes without saying that it is of the utmost importance that legal tests applied to one category of conduct are coherent with those applied to comparable practices. Sound and coherent legal categorisation benefits not only undertakings in terms of increased legal certainty, but also assists competition authorities in the enforcement of competition law. Arbitrary categorisation does not’.*¹³²

Advocate general Wahl did not explain what is a non-“arbitrary categorisation”, what is the objective sought by categorisation and what criteria will be deemed important in making the effort of categorisation non-arbitrary. Would these be the same economic effects-based approach criteria put forward by the EAGCP working group? One may consider that categorization” constitutes an alternative to balancing to the extent that the disputes in this context would focus on the classification of facts within existing legal categories and the definition or redefinition of the

¹²⁹ *Id.*

¹³⁰ Case T-472/13, *H. Lundbeck A/S and Lundbeck Ltd v European Commission* (Sept. 8, 2016), ECLI:EU:T:2016:449.

¹³¹ Ioannis Lianos, *Categorical thinking in competition law and the “effects-based” approach in Article 82 EC*, in *ARTICLE 82 EC – REFLECTIONS ON ITS CURRENT EVOLUTION* 19 (Ariel Ezrachi ed., 2009).

¹³² Opinion of AG N. Wahl, in Case C-413/14, *Intel Corp. v. Commission* (October 20, 2016), ECLI:EU:C:2016:788, ¶ 103.

boundaries of existing legal categories or the creation of new ones. However, the design of competition law categories, such as the abuse of “sham” or “vexatious” litigation should rely on a careful *a priori* analysis of the various interests in jeopardy, in this case the need to protect the fundamental right to access to justice, the degree of discretion an independent and disinterested decision-maker will have when ceased by the action, the risks that frivolous litigation in particular in an IP-related context, may bring to competition and innovation. The following Section aims to provide an economic understanding of the “sham” litigation antitrust category and explain how, if at all, this may justify a different test than other closely related forms of abusive conduct.

4. DEFINING “SHAM” LITIGATION: A TYPOLOGY

The fact that some forms of litigation can be used to the detriment of the competitive process and hence, ultimately, to the detriment of consumers has long been recognised. We proceed here to a preliminary definition of “sham” litigation, before attempting to establish a typology and discussing the usefulness of such typology.

4.1. A DEFINITION

Litigation is a process designed to resolve disputes. As such, the principle of “access to Courts” implies that parties should not be denied the right to litigate in order to get a judicial decision on a specific case. However, it seems reasonable to interpret this right to go to Court as the right to get a Court decision. In this view then, the right to go to Court should only involve the right to obtain the expected pay-offs that would result from a Court’s ruling. More concretely, this approach implies that going to Court is only justified if the plaintiff expects a higher pay-off (net of litigation costs) from the Court decision than what she would get by not going to Court. Sham litigation would then be defined as litigation that is started even though the plaintiff cannot expect a net benefit from the expected decision.

Clearly sham litigation can then only arise if the plaintiff also obtains a benefit other than the pay-off directly resulting from the Court’s decision. We call such additional benefits “sham benefits”. Sham litigation is then simply litigation that the plaintiff would not have started in the absence of any sham benefits.

At this stage, we will remain rather vague as to the nature of such benefits but one can broadly think of them as benefits that accrue to the plaintiff from the very fact of litigating, irrespective of the likely litigation outcome. So for example, any benefits due to the fact that litigation itself might weaken an actual or potential competitor of the plaintiff would be a sham benefit according to our definition. Alternatively, situations where the litigation process itself – including maybe the settlements that it facilitates – would help achieve a more collusive outcome between plaintiff and defendant, would also fit within our framework, with these additional collusive profits defined as the “sham benefits” accruing to the plaintiff. More precise examples will be developed later in this paper.

While, so far, our definition encompasses situations where the defendant would prefer not to litigate at all and situations where she actually benefits from litigating, we will focus on a narrower view of sham litigation by also requiring that, absent sham costs or benefits, the defendant would prefer not to litigate.

4.2. A TYPOLOGY

As discussed in our introduction, there is a wide variety of circumstances where “sham” litigation has been alleged. In order to distinguish between different situations and understand whether or not different types of “sham” litigation call for different approaches, it is useful to introduce two key criteria.

The first criterion refers to which parties receive sham benefits and which parties might incur sham “costs”. Clearly, in order to observe what we have defined as sham litigation, the plaintiff –who initiates the litigation – must be receiving sham benefits. This leaves us with three possible cases: the defendant does not get any sham benefit and does not incur any sham costs, both parties enjoy sham benefits and the defendant is hit by sham costs.

The second criterion is whether or not the defendant –who according to our definition would otherwise prefer not to litigate also receives sufficient sham benefits to actually be made better off by litigation. These two criteria give us four types of situations where sham litigation can arise. These are shown in Figure 1.

	Absent Sham Pay-offs, Defendant Prefers not to Litigate	
	With Sham Pay-offs Defendant Prefers not to Litigate	With Sham Pay-offs Defendant Prefers to Litigate
Sham Benefits/Costs to Plaintiff Only	Parasitic Sham	NA
Sham Benefits to Both Parties	NA	Collusive Sham
Sham Benefits to Plaintiff Sham Costs to Defendant	(Potentially) Predatory Sham	NA

Figure 1

If litigation does not impose sham costs on the defendant but still decreases her total profits, then we refer to *parasitic* sham litigation as, in her attempt to garner her sham benefits, the plaintiff inflicts collateral damage on the defendant.

If, additionally the litigation process imposes sham costs on the defendant, the litigation becomes potentially *predatory* in the sense that some of the sham benefits enjoyed by the plaintiffs might come precisely from the fact that it imposes sham costs the defendant. Such a link especially likely when the defendant is a potential or actual rival of the plaintiff, as is often true in Competition law or IP Law cases.

Finally we have situations where the defendant also enjoys benefits from the very fact of litigating. If the defendant's sham benefits are large enough to offset her assumed reluctance to litigate, then both parties benefit from engaging in the litigation process (*collusive* sham). Such a case might arise, for example, if both parties obtain reputational benefits from being seen as litigation-prone or if the litigation *process* makes it possible for two (potential) rivals to achieve a less competitive market outcome.

4.3. USEFULNESS OF THE TYPOLOGY

Our proposed typology would not be very useful if it relied on our ability to obtain detailed information about the pay-offs of the two parties with and without litigation. In fact, assigning a given case to one of our four categories with some confidence requires relatively little information. On the "sham" side, we only need to know whether each of the parties is likely to incur significant sham costs or obtain significant sham benefits. Since the very idea of sham litigation is grounded in these costs and benefits, one would think that we should not worry too much about situations where the presence of these costs and/or benefits is not rather blatantly obvious.

Assessing the defendant's desire to engage in litigation is trickier since the difference between "parasitic" and "collusive" sham depends on the actual size of the sham benefits enjoyed by the entrant. Moreover, it is not a simple matter of having an idea of whether these benefits are "large" or "small". According to our definition of sham litigation, both the plaintiff and the defendant would prefer *not* to litigate in the absence of sham benefits. Hence whether given level of sham benefits for the defendant is enough to move us to the "collusive" category also depends on how unattractive litigation without sham benefits would have been. This is something that will vary greatly across cases and cannot be assessed easily. Fortunately, from a policy point of view, we can rely on the *revealed preferences* of the entrant. If the defendant really benefits from litigation, then she would not complain about its alleged sham character. This tell-tale sign should enable us to identify "collusive" sham litigation which, as we will discuss further below can only be controlled by direct intervention of the Court or policy makers. By contrast, policies against other type of sham litigation can largely rely on the incentives of the defendant herself.

4.4. EXAMPLES

4.4.1. Sham Pay-Offs

Let us begin by defining sham pay-offs more formally. Imagine that if the Court rules immediately. Think of this as just throwing dice, with the result determining the outcome of the case. Assume however that the litigation costs that would have been incurred if the process had unfolded normally over time must still be paid. The litigant's benefit (positive or not) from litigation is then equal to

$$EB \text{ Immediate} = [\text{Expected Pay-off of Litigant after the Court's Random Decision}] \text{ minus } [\text{Normal Litigation Costs}] \text{ minus } [\text{Pay-off without Litigation}]$$

By contrast, if the litigation process actually runs its course to an ultimate judicial decision and we allow enough time to all effects of litigation to occur, then the litigant's benefit from actual litigation is:

$$EB \text{ Actual} = [\text{Expected Pay-off of Litigant after the Litigation Process Concludes}] \text{ minus } [\text{Pay-off without Litigation}]$$

Notice that the first term is the net expected pay-off of the litigant, so that litigation costs have been taken out. Following our definition then, sham benefits (or costs if negative) are defined as the difference between *EB Actual* and *EB Immediate*, i.e.:

$$\text{Sham Benefits of Litigant A} = EB \text{ Actual} - EB \text{ Immediate}$$

So that:

$$\text{Sham Benefits} = [\text{Expected Pay-off of Litigant after the Litigation Process Concludes}] \text{ minus } [\text{Expected Pay-off of Litigant after the Court's Random Decision}]$$

Let us clarify this with some numbers. Assume that the plaintiff would receive a pay-off of 100 in the absence of litigation and that there is a 50% chance that she would prevail in front of the Court. Assume further that she gets a pay-off of 140 if she prevails, and a pay-off of 40 if she loses. This amounts to an expected pay-off equal to 90. Finally, assume that, if we were to compute the plaintiff's profits after the whole litigation process had fully unfolded – providing enough time for all effects to run their course – the plaintiff's profits would be equal to 120. According to our definition then, the plaintiff would receive sham benefits equal to 120 minus 90, i.e. to 30. In this specific example then, we would have sham litigation: as the pay-off without litigation, 100 is greater than 90, the plaintiff would not have chosen to litigate if she did not expect to obtain sham benefits from the very fact of engaging in the litigation process.

Notice as well, that normal litigation costs play no role in our definition of sham benefits since they are incurred both if the actual litigation process takes place and if we go through the “immediate” litigation thought experiment that we have defined.

Having defined sham benefits more rigorously, we can now briefly discuss various sources for this type of pay-off. We see three main families. The first family is rooted in the presence of incomplete information. Let us consider two examples. The first example comes from reputational concerns. As well established in the economics literature¹³³, building a reputation for reacting toughly to entry threat can be profitable for an established firm if there is some uncertainty about its “type”, i.e. if there is some uncertainty as to whether the firm is rationally open to profit-maximising deals or prefers to be aggressive for the sake of it. In such a context, a plaintiff suing a potential rival in order to block her entry or at least to limit the scope of this entry gets to types of benefits: the benefits linked to the probability that the plaintiff will prevail in Court and get a ruling that prevents or limit entry and the *additional* benefit of being seen as a firm that will systematically litigate potential competitive threats. This reputation will then lead other future potential rival to think twice before trying their luck. The benefits to the plaintiff of decreasing the probability of such future threat to her position are sham benefits according to our definition.¹³⁴

The second example relates to what economists call *signalling*, behaving in a way that leads other parties to develop a view of the actual economic environment which is favourable to the firm. Signalling arguments are widespread – if not always convincing – in economics. For example, when consumers are uncertain about the quality of a firm’s product, that firm can try to signal a high quality by setting its price lower than it would if it did not have such a high quality product.¹³⁵ Signalling mechanisms that help deter entry or weaken rivals are of course of special interest for Competition Law. Economists have shown that a dominant firm might be able to deter entry by setting a low price. The basic logic is that the firm would only find it optimal to charge such a price if it has very low cost and that, if its costs are really so low, entry would not be profitable. Such signalling mechanisms might also be linked to litigation. Here is a potential story. The rival or potential entrant needs the support of banks or joint venture capital. These Banks and joint venture capitalists have an incomplete knowledge of the industry. In particular, they are not able to assess precisely the chances that a lawsuit introduced by the dominant firm would be successful, thereby making their investment unprofitable. Knowing that, the dominant firm can sue more readily than would be reasonable to sow the seeds of doubt in the mind of the financial sources of her rival. This can lead to a weakening of their rival’s financial strength and even to the abandonment of entry or of the investment project. The additional benefit that the dominant firm

¹³³ See, e.g., Paul Milgrom & John Robert, *Predation, Reputation and Entry Deterrence*, 27(2) J. OF ECON. THEORY 280 (1982).

¹³⁴ Interestingly, in this special case, those sham benefits can only be obtained if the litigation itself is sham. If the litigation was justified even in the absence of reputational benefit, then the fact of litigating would not help the firm build her reputation as a tough litigator.

¹³⁵ High quality can also be signalled through high prices. See Kyle Bagwell & Michael H. Riordan, *High and Declining Prices Signal Product Quality*, 81(1) AM. ECON. REV. 224 (1991).

gets from this weakening is a sham benefit. Correspondingly, the harm to the rival due to this weakening would be a sham cost for that rival.

A second family of sham pay-offs comes from the delays that actual litigation typically entails. If we think of the pharmaceutical sector for example, delaying generic entry for only a few months can be worth considerable additional profits for the incumbent. These are benefits that do beyond what the incumbent could expect to get if she were given an immediate judicial decision. As such we would consider that such delays produce sham benefits as well as sham costs for the other party.

One could of course argue that delays are just another dimension of the “normal litigation costs”. There is a significant difference, however. Normal litigation costs are incurred by both parties and hence do not introduce any asymmetry in the litigation process, while delays often do.¹³⁶ Moreover, while we would not count litigation costs themselves as “sham” costs, the existence of such costs can produce additional sham benefits as costs, as we explain in the section on financial constraints below.

The third family of sham benefits/costs comes from the possibility that and the information that both parties might obtain during the process and the (limited) communication in which they unavoidably engage might facilitate the coordination of the companies’ actions now and in the future. A related point is the possibility that litigation might be used as a means of “punishment” to enforce a broader tacit collusion scheme. In both cases the two parties would each obtain overall benefits from litigation than what their immediate pay-off from a Court decision would suggest. This differences represent sham benefits.

4.4.2. Types of Sham Litigation

The “reputation building” mechanism described above is an example of a situation where *parasitic* sham litigation might emerge. If the reputation-building exercise is valuable enough, the plaintiff might start a litigation that she would not have considered otherwise. This clearly inflicts additional cost on the rival. These costs are not the purpose of the sham litigation, they are just collateral damage.

By contrast, our story about a financially constrained entrant/rival falls within the *predatory* sham litigation category. Again, the prospects of hindering or even deterring the rival might be large enough to motivate litigation that would otherwise not have been started. This time, however, the damages inflicted on the other party are the very source of the additional benefits enjoyed by the plaintiff.

Finally the use of the litigation process to facilitate collusion between the parties is obviously a case of *collusive sham* litigation. It is however useful to distinguish between sub-types of “collusive sham”. The first type arise when the sham benefits of both parties come “from others”, e.g. when each party enjoys reputational benefits from litigating and the value of this

¹³⁶ See the section on patent litigation for further details.

benefits comes from how it would affect the behaviour of other parties such as other rivals or financial sources. The second category includes situations where the sham benefits of both parties come from reducing the intensity of competition between each other in the markets where they overlap. These benefits might arise after the litigation has run its course or it might come from the type of settlements between the parties that litigation enables.

4.5. AN EXTENDED DEFINITION: THE ROLE OF SETTLEMENTS

So, for us, there is sham litigation in the narrow sense when, absent sham benefits, the plaintiff would not have started the litigation. Moreover, sham benefits are those that do not come directly from a final judicial decision and are unrelated to standard litigation costs. A broader definition might be desirable however. It is well known that litigation is often resolved through some form of settlement between the parties. This raises the question of whether sham benefits should be defined by opposition to the pay-offs obtained if there is a final judicial decision or, more generally, with respect to the outcome of litigation, irrespective of whether this outcome is a judicial decision or a settlement.

If settlement occurs relatively early in the process then the litigant would fail to capture a large part of what we have defined as sham benefits. This argues for excluding settled litigation from our definition of “sham”. If we follow this route however, then the notion of sham litigation itself needs to be extended to include not only litigation that would not have started but for the existence of sham pay-offs but also litigation which would have been undertaken anyway but where sham pay-offs change the outcome from settlement to litigation to the bitter end. Therefore, in this view, avoiding sham litigation would involve two complementary dimensions: avoiding litigation that would not have taken place but for the existence of sham benefits and ensuring that sham benefits do not lead lawsuits that would otherwise be settled to follow their full course to a judicial decision.

The main factor that pleads in favour of sticking to a narrower view of sham litigation is that, settlements do not necessarily occur early in the litigation process, so that most sham benefits/costs might have been realised by the time a settlement is reached. This assumption might be correct for mechanisms for the reputational concerns of the plaintiff might mostly depend on her willingness to start the litigation process, not on whether this leads to a final judicial decision or to a settled outcome¹³⁷. Because either approach might prove reasonable in a particular context, we will examine both, referring to our original definition as the “narrow” view of sham and to the extended definition as the “broad” view of sham.

In order to consider this “broader” view of sham litigation we need to allow the parties to settle the litigation if they feel so inclined. This has an important implication for the types of situations where sham litigation can actually arise. In particular, *sham litigation in the narrow*

¹³⁷ Even for the case of reputational concerns, however, the plaintiff needs to incur sufficient costs through the litigation process to make her reputation credible. So simply “starting the litigation” is likely to be insufficient.

sense can only arise if, absent sham benefits, litigation decreases the joint profits of the parties compared to the pre-litigation situation. This rather strong conclusion is remarkably easy to establish. It is also useful.

In order to have sham litigation according to our narrow definition we need the defendant to be worse off (without sham benefits of her own) with continued litigation than with no litigation. If we then assume that, *in the absence of sham benefits*, the joint profits of plaintiffs and defendant are higher with litigation than without it, it follows directly that the plaintiff's profits should be higher with litigation than without it even if we do not take sham benefits into account. But then, litigation would occur even without sham benefits...so that sham litigation in the narrow sense cannot emerge. As we will see in the section on Patent litigation, this result is helpful because it makes it possible to distinguish between different types of potentially abusive litigation and, by doing so, help us to understand why different type of anticompetitive litigation behaviour might call for different kinds of remedies.

By contrast, sham litigation in the broader sense can still arise even if sham-less joint profits are lower with litigation than without it. This is because the presence of sham benefits from continued litigation can scupper settlements which would otherwise have been reached.

5. POLICY TOWARDS SHAM LITIGATION

5.1. WELFARE EFFECTS

From an economic point of view, whether or not what we defined as “sham” litigation should be avoided depends both on the relative private and socially optimal incentives to litigate and on the relationship between the source of “sham benefits” and welfare.

Private incentives to litigate can be socially excessive or socially insufficient. To see this, consider a situation where a rival challenges the conduct of a dominant firm on the grounds that it unduly hurts competition and consumer welfare. Assume further that we operate under a consumer welfare standard, so that the profits of the two parties do not enter into our welfare calculations and that we abstract from feedback effects on incentives to invest and innovate. A win for the dominant firm means a less competitive outcome and a win for the rival firm means a more competitive outcome. The rival's incentives to litigate are based on a comparison between the litigation costs to be paid and the part of the benefits from greater competition that the rival can appropriate. By contrast, the social incentives to litigate would depend on the balance between the additional benefits from increased competition that accrue to consumers and the costs incurred by the Court system, since these cost are ultimately supported by consumers in their role as taxpayers. If the share of cost to benefit is greater for the rival than for consumers, then the rival's incentives to litigate are socially inefficient. If the cost to benefit ratio is higher for the rival than for consumers, then private incentives to litigate are socially excessive. There is therefore a fundamental ambiguity.

This ambiguity applies to litigation even in the absence of sham benefits. These benefits further complicate matters. Whether sham benefits (costs) for the plaintiff (here, the rival firm) help align private and social incentives to litigate or pull them farther apart depends on not only on whether they “pull in the right direction” (e.g. sham benefits for the rival help if private incentives to litigate are otherwise insufficient) but it also depends on whether those sham pay-offs are associated with further consumer benefits or further consumer costs.

Because of these fundamental ambiguities, we will remain completely agnostic as to whether “sham” litigation is worth deterring or at least limiting. Accordingly, our emphasis will be on *how sham litigation might be efficiently controlled if it seems desirable to do so*.

5.2. A FRAMEWORK AND TWO POLICY APPROACHES

As we explained in the introduction there are two broad approaches to controlling the litigation behaviour of parties. The first approach consists in *detecting* undesirable behaviour and punishing it. In the case of sham litigation, this involves identifying a number of factors that indicate that the litigation likely falls within that class and then using legal status (e.g. antitrust laws) to impose a fine. The weakness of this approach is that the factors that indicate that a given litigation might be “sham” are necessarily imperfect indicators. Because of that, the associate punishment cannot be too high, lest the policy ends up imposing serious harm on innocent parties¹³⁸.

The second approach consists in designing self-enforcing *incentive mechanisms*, i.e. rules that are designed to ensure that rational agents would not find it profitable to engage in sham litigation without requiring that a third party decide whether the litigation under investigation was or not likely to be sham. There are many examples of such mechanisms among common litigation rules. For example the “English” rule whereby the losing party pays the cost of the winning party ensures that litigants only go to Court if they believe that they have a reasonable chance to prevail.

Much of the argument in the rest of the paper relies on a formal economic analysis. While this analysis will eventually appear in a companion paper aimed at a different audience, the main elements of the framework on which we rely are described in the appendix.

We begin with a stylised model of litigation. There are two parties: the plaintiff, who initiates the litigation and the defendant. The plaintiff and the defendant disagree about a specific issue. This issue can be resolved in a binary fashion: in favour of the defendant or in favour of the plaintiff. Once litigation has begun, it can either be settled between the parties or it can proceed to a judicial decision. Sham benefits and costs are only realised if the initial lawsuit is not settled. The additional litigation involves additional costs for both parties. We will call these “litigation costs” and assume – for simplicity - that those costs are only incurred if the lawsuit is not settled.

¹³⁸ There is an abundant economic literature on the optimal level of fines and how it depends on the accuracy of the detection of unlawful behaviour. See, e.g., Mitchell Polinsky & Steven Shavell, 38 *The Economic Theory of Public Enforcement of Law*, J. OF ECON. LIT. 45 (2000).

On the other hand, filing the suit itself involves a fixed cost for the plaintiff¹³⁹. In order to keep the analysis simple, we also assume that the plaintiff and the defendant agree about the probability that the plaintiff would prevail and about the pay-offs of each of the two parties for each of the two possible outcomes of the judicial decision. Finally, in order to have a meaningful analysis of the role of settlements, we need to make at least some minimal assumptions about the type of settlement that can be achieved.

The prospects for settlement of course depend on the type of agreements that are feasible. Under the conditions outlined above, it is well known that, absent sham benefits or sham costs, all litigations would be settled as long as the joint pay-off of the parties under settlement are larger than the joint pay-off from the a judicial decision minus litigation costs: under efficient bargaining, the parties agree on the outcome that “maximised the size of the pie”. Since the parties agree on their respective likelihood of winning they might as well reach a settlement which saves them some of the expected litigation costs. If we are in a system where each party pays its own cost, this means that each party is willing to accept a settlement which gives her at least the expected pay-off from a final judicial decision minus their own litigation costs. If we are in a “loser pays” system, then each party is willing to accept a settlement given her at least as much as the expected decision minus total litigation costs multiplied by the probability that the judicial decision is adverse. Where an actual settlement lies within those limits would depend on the parties’ bargaining ability and is of no direct relevance to our argument.

Let us now introduce sham benefits and/or costs. This has two possible effects on settlements. Firstly, settlement might no longer be possible. The critical limit on the size of sham benefits and/or costs for this to happen is easily inferred: settlement becomes impossible as soon as the sum of the parties expected litigation profits minus litigation costs plus sham benefits and minus sham costs is larger than the joint profits of the parties in the most efficient settlement possible. A numerical example might help. Assume that each party has a 50% chance of prevailing in a Court decisions. If the plaintiff wins, she gets 100 and the defendant gets 0. If the defendant wins, each party gets 40. Litigation costs are 10 apiece and the loser pays the winner’s costs. This gives us an overall expected pay-off from continued litigation of $(0.5) \times 100 + (0.5) \times (40 - 20) = 60$ for the plaintiff and of $(0.5) \times 40 + (0.5) \times (40 - 20) = 30$ for the defendant implying a joint expected surplus of $30 + 60 = 90$. This means that the suit is settled if there is a possible settlement that provides joint payoffs in excess of 90. Suppose that the best possible settlement would provide a total surplus of 120, so that, absent sham pay-offs, the suit would indeed be settled. In order for sham pay-offs to make settlement impossible, the *sum of all sham benefits and costs accruing to the two parties must exceed the difference between the joint settlement pay-off and the joint-litigation pay-offs*. So, for example, sham benefits of 25 for the plaintiffs and 10 for the defendant or sham benefits of 45 for the plaintiff and sham costs of 10 for the defendant would lead the

¹³⁹ This is the other side of our simplifying assumption that litigation costs are only incurred after the parties have a chance to settle. Given that assumption we need the plaintiff to incur a cost of starting the litigation, lest the plaintiff would always find it beneficial to do so.

parties to continue litigation. By contrast, even a very large sham benefit for the plaintiff – say 60 – would still lead to settlement if the sham cost of the defendant is significant enough, i.e. if that cost is at least equal to 30. We therefore conclude that *Sham Pay-Offs are more likely to lead to more Continued Litigation as opposed to settlements if the sum of the sham pay-offs of the parties is large. Furthermore, the larger the expected litigation costs, the larger the sum of sham pay-offs needs to be to ensure that litigation continues to a final judicial decision.*

Secondly, even if a law suit would still be settled in the presence of sham pay-offs, the presence of such pay-offs would still modify the terms of such settlements. To understand this point, a very short primer on the economic theory of bargaining is useful. The underlying logic is actually quite simple. The plaintiff and the defendant negotiate a possible settlement. As already stated, this agreement should be efficient in the sense that it maximises the size of the *joint surplus* of the two parties this joint surplus is the difference between the joint pay-off of the parties if they reach an efficient settlement and their joint pay-off if negotiations break down and litigation proceeds to a final judicial decision. How this surplus is divided between the two parties depends on how good the parties are at bargaining. If we assume that both parties are equally expert at negotiations then they will split this bargaining surplus evenly. Hence each party would get pay-offs equal to what she would get if the litigation continued plus half of the joint surplus defined above. We can now analyse the role of sham pay-offs. Let us start with the special case of sham benefits for the plaintiff. These benefits are only incurred if the parties do not settle. Hence the benefits decrease the joint bargaining surplus that can be obtained from settling but it also increases the pay-off of the plaintiff if negotiations breakdown. Hence, following the rule explained above, the plaintiff loses half of the sham benefits because her own half of the bargaining surplus has decreased by the size of the sham benefits. On the other hand, the plaintiff's pay-off without litigation has increased by the full value of the sham benefits, leaving the plaintiff better off by an amount equal to half of the sham benefits. By contrast, the defendant is only affected by the decrease in joint bargaining surplus and hence gets a settlement pay-off which is lower by exactly half of the plaintiff's sham benefits. Clearly the analysis of sham benefits for the defendant is just a mirror image of this: the defendant is better off to the tune of half of these sham benefits and the plaintiff is worse off by the same amount. Finally, sham costs for the defendant increase the joint bargaining surplus, as the defendant is eager to avoid incurring these costs, but make the defendant worse off if litigation continues. This means that, overall, the settlement pay-off of the plaintiff increases by half of these sham costs while the settlement pay-off of the defendant decrease by the same magnitude.

The importance of this second effect of sham pay-offs on settlement is that it enables us to determine how the prospects for settlement would affect the plaintiff's incentives to start litigating. Absent settlement, the effect of sham pay-off on the plaintiff's incentives to file suit are straightforward: the higher the sham benefit of the plaintiff, the more likely the plaintiff is to initiate litigation. Note that the sham benefits or costs of the defendant play no role in the plaintiff's decision to file suit. However, once we allow for settlements, the relationship between sham pay-offs and incentives to litigate becomes more subtle. Since the plaintiff's incentives to begin

litigation increases with her own expected profits we know that *if the sum of sham pay-off is small enough that the suit would still be settled, then the plaintiff is more likely to begin litigation if her sham benefits are high and/or if the defendant bears sham costs. Sham benefits for the defendant decreases the plaintiff's incentives to file suit. If the sum of sham pay-offs is high enough to make settlement impossible then the incentives to litigate of the plaintiff's only depend on her own sham benefits.*

Under our “narrow” definition, sham litigation arises when the presence of sham pay-offs leads the plaintiff to file suit when she would not have absent in the absence of such pay-offs. So, overall, *greater sham benefits for the plaintiff increases the likelihood of sham litigation in our narrow sense, while the sham pay-offs of the defendant only matter if total sham pay-offs are not too high.* Our broader definition of sham litigation also includes situations where sham pay-offs lead from settlement to continued litigation. Hence we can conclude that *under our broader definition, additional sham litigation arises when the sum of all sham pay-offs is large compared to litigation costs.*

We can now relate these conclusions to the typology discussed in section 2. In all three cases, the probability of sham litigation in the narrow sense increases with the sham benefits of the plaintiff. This is illustrated in the following graph.

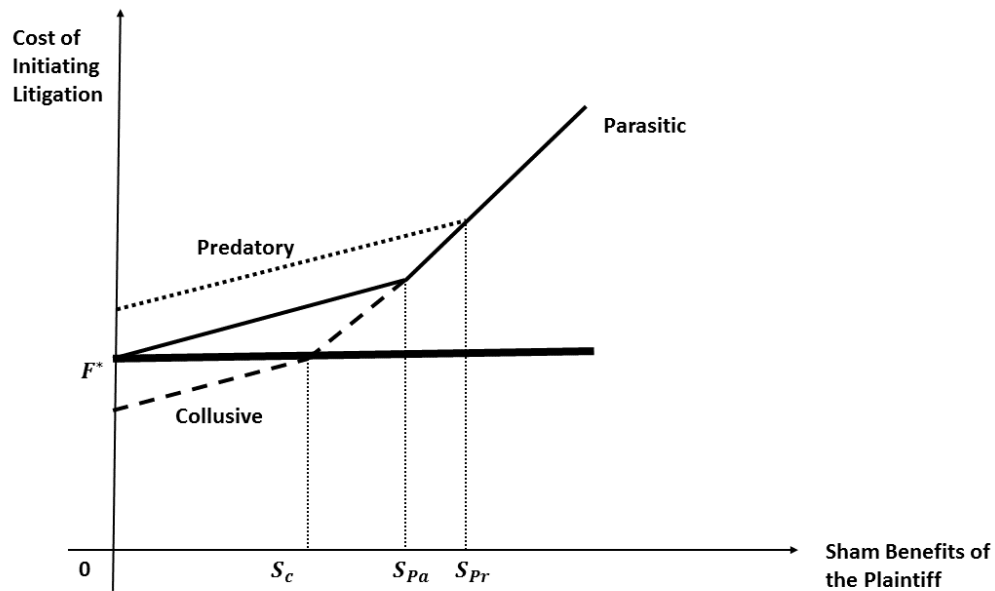


Figure 2

In this graph, we take both the expected sham-less pay-offs of litigating/settling and the pay-offs without any litigation as given. We then see how the maximum cost of starting litigation, F , that the plaintiff would be willing to bear changes as a function of various types of sham pay-offs. The figure above looks at the sham benefits of the plaintiffs. The red line refers to parasitic

sham case. F^* is the maximum cost that the plaintiff would want to incur to start litigation if she does not receive any sham benefit. Any willingness to bear a cost higher than F^* amounts to sham litigation in our narrow sense. For low values of the sham benefit, we know that the suit will be settled. We also know that, when that happens, the plaintiff captures half of her sham benefits. Hence the solid line increases (with a slope equal to 0.5). Once the sham benefit has reached the critical amount S_{Pa} , sham benefits are large enough to make settlement impossible, so litigation continues to the bitter end. This means that now the plaintiff collects the entirety of her sham benefits. Hence the red line keeps increasing, but at a faster rate. The area between the solid line and the thick horizontal line drawn at the level of F^* show the combinations of F and the sham benefit of the plaintiff for which sham litigation in our narrow sense occurs.

The other two curves behave in a similar manner, so we only need to explain their respective positions. We start with the collusive case. In this case, the defendant also gets sizeable sham benefits. We know that, when the case is settled, this decreases the pay-off of the plaintiff by an amount equal to half of these benefits. Hence the plaintiff is less ready to start litigation: the dashed line starts below the solid line. As the sham benefit of the plaintiff increases, we reach the point where the sum of sham benefits reaches the (same) critical level beyond which settlements break down. This point occurs at S_c , i.e. where the sum of the sham benefits are equal to S_{Pa} .¹⁴⁰ The region where sham litigation arises is the area between the green line and the horizontal line. We can therefore draw the following conclusion: *not only is collusive sham less likely to occur than parasitic sham but it can only occur at all if the sham benefits of the plaintiff are sufficiently large. Indeed, one can show that collusive sham litigation can only arise if the sham benefits of the plaintiff are higher than those of the defendant.*

Finally, the dotted line describes the predatory sham case, where at least some of the sham benefits of the plaintiff correspond to sham costs for the entrant. As we have seen, any positive sham cost for the entrant means that the plaintiff can get a better deal in a settlement. This shifts the dotted line above the solid line, up to the point where the sham benefits of the plaintiffs are so large that the litigation can no longer be settled. Hence we conclude that: *predatory sham litigation occurs more readily than the other two types. Moreover, there can be sham litigation even if the plaintiff does not enjoy any sham benefit.*

This type of graph can also be used to clarify the difference between our narrow and broad definitions of sham litigation. In the figure below, the blue area represents values of the initial litigation cost for which the plaintiff would not litigate absent sham benefits but does litigate when the sham benefits are large enough. So, this area corresponds to sham litigation in our narrow sense. In the orange area, litigation would have occurred anyway but the presence of sham benefits means that, instead of settling, the parties litigate to the bitter end. This represents sham litigation according to our broader definition.

¹⁴⁰ The level of defendant's sham benefits assumed when drawing the graph is the distance between S_{Pa} and S_c .

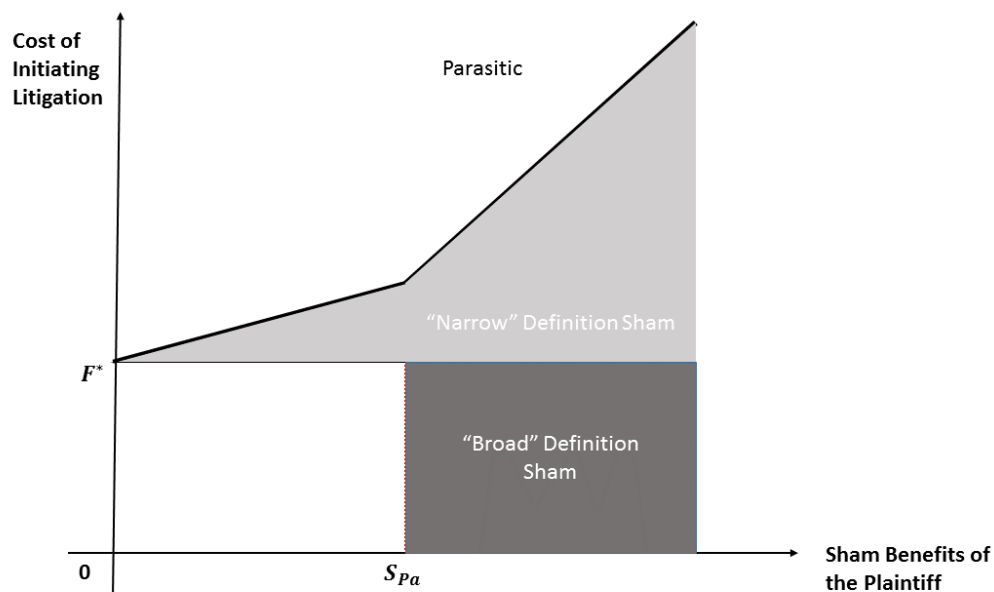


Figure 3

The following graphs present a similar analysis for the sham pay-offs of the entrant. Negative values of sham benefits are of course sham costs. The right-hand side of the graph deals with sham benefits for the defendant. This can correspond to either collusive sham or parasitic sham. The left-hand side of the picture considers sham costs for the defendant and hence corresponds to what we have called predatory sham.

Let us first look at the right-hand side. This picture is drawn under the assumption that the plaintiff does not enjoy any sham pay-offs.¹⁴¹ Hence, again, F^* is the maximum initial litigation cost that the plaintiff would be willing to bear in the absence of sham pay-offs. Now we introduce sham benefits for the defendant. As we have seen, as long as the lawsuit would be settled, this reduces the overall pay-off of the plaintiff and hence reduces the plaintiff's willingness to begin litigation. This is shown by the decreasing part of the red line. The green area then represents values of F for which litigation would have occurred in the absence of sham pay-off but does not because of these pay-offs: *sham benefits for the entrant can lead to a decrease in the plaintiff's incentives to litigate*. Call this "sham non-litigation" if you will. Once the critical threshold S^* is reached, the lawsuit would no longer be settled. This means that, while the plaintiff's might still initiate litigation (albeit less often as without sham pay-offs), *sham litigation in our broader sense still arises*.

¹⁴¹ Introducing sham benefits for the plaintiff would simply shift all curves upwards and would move the critical value S^* to the left. This would increase the blue and orange area and shrink – or even eliminate the green area.

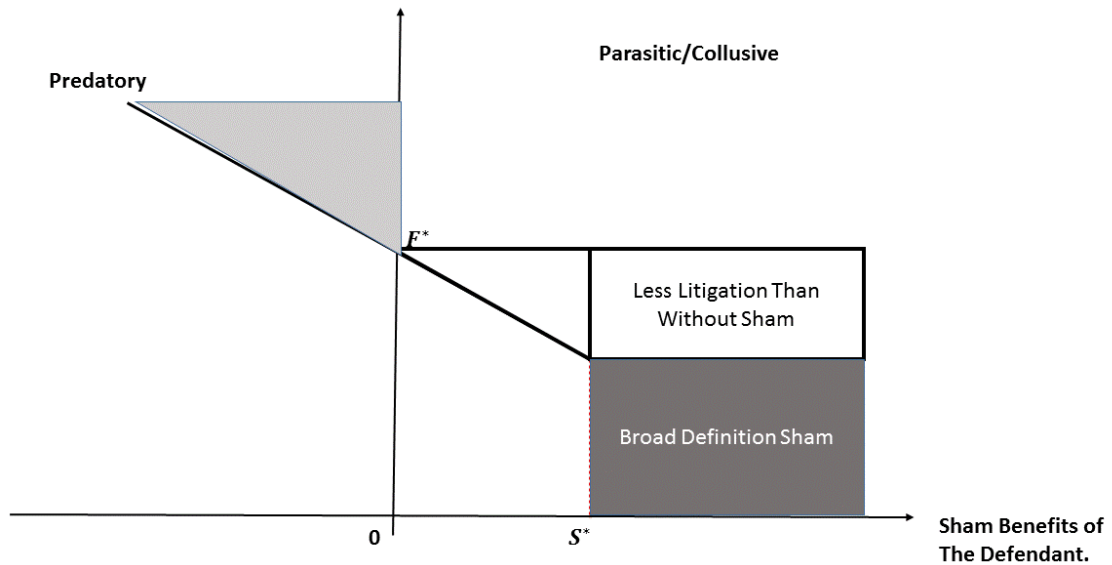


Figure 4

We now look at the left-hand side of the picture (figure 4), i.e. at potential predatory sham. As we have seen sham costs for the defendant always works in favour of settling the suit and increases the pay-off of the plaintiff. This is why the red line keeps increasing as the size of the defendant’s sham cost gets bigger. This results in the blue area, which are value of the initial litigation cost where sham litigation in our narrow sense arises.

An important conclusion of this analysis is that, *because lawsuits can be settled, the occurrence of sham litigation of both “narrow and broad” types is not solely determined by the sham benefits of the plaintiffs: the sham benefits or costs of the defendant also matter. The larger these benefit, the more likely it is that sham litigation of the broad type emerges. The large the sham costs of the entrant, the more likely that sham litigation of the narrow type arises.*

Having obtained the broad conditions under which sham pay-off would likely lead to sham litigation we turn to possible policy approaches.

6. POLICY: DETECT AND PUNISH

A “detect and punish” approach entails four elements: detection, determination, punishment and deterrence.

6.1. DETECTION

Detect and punish policies are implemented after litigation has run its course. At the time of implementation, then, one knows whether the suit was settled or whether it went all the way to a final judicial decision. Enforcement can therefore be differentiated according to the observed outcome. These two outcomes combine with our three types of sham litigation to give up six possible cases in the table below.

Let us first focus on cases where the observed litigation is not settled. When we see a litigation which went to a final judicial decision, we know two things: firstly, the litigation was started by the plaintiff and, secondly, it was not settled. The lack of settlement has strong implications. Remember that in our framework, where the two parties have the same information about their likelihood of victory and the corresponding pay-offs, every litigation would be settled if it were not for sham benefits or costs. Since any litigation that would arise without sham benefit would be settled then we can conclude that any litigation that is not settled is sham litigation. Of course, such a conclusion is too extreme. In reality, the parties do not have the same views as to who is likely to prevail and/or what the consequences of winning or losing are. With such differences in beliefs, litigation can rationally proceed to a final judicial decision even without any sham benefits or cost. Still the basic insight remains valid: *a litigation is more likely to be “sham” if it is not settled by the parties.* Moreover, since one of the main advantages of settlements over continued litigation is the avoidance of litigation costs, *the presumption is reinforced if litigation costs are high.* Importantly, the relevant litigation costs for this part of the assessment are the *total* litigation costs of the two parties. Because these are the costs that reduce the expected joint surplus from continued litigation and make settling attractive, it is their joint impact that sham pay-offs have to overcome for the parties to nevertheless prefer to litigate.

We also know that the litigation was initiated by the plaintiff. We cannot infer anything useful from this mere fact since it might just be that the plaintiff had much to gain from litigation even in the absence of sham pay-offs. For the initiation of litigation to imply that sham pay-offs were significant and hence that litigation might not have been observed in their absence we need to know that, compared to the pre-litigation pay-offs, plaintiff’s expected gains from a judicial decision were a priori modest or even negative. This condition is more likely to be satisfied if the ex-ante probability of victory of the plaintiff was small and if her projected litigation costs were large.

Getting a reasonable idea of what the ex-ante probability of success was is a challenging task. However, some straightforward statistical induction can help: the probability that the plaintiff would win must have been higher if we observe that the plaintiff did indeed prevail¹⁴². From a detection perspective then, it would make sense to only consider litigation lost by the plaintiff. As for litigation costs, notice that what matters here are the litigation costs of the plaintiff, not the total litigation costs that were relevant for drawing inferences from the lack of settlement. Overall then, *litigation is more likely to be sham if (i) it was not settled (ii) the plaintiff lost (iii) the litigation*

¹⁴² In more technical terms, the ex-ante probability of winning conditional on an observed win is larger than the *ex ante* probability of winning conditional on an observed defeat.

costs of the plaintiffs were large compared to the pure benefit of litigation and (iv) the total litigation costs of the two parties were large.

Let us now assume that the observed litigation was settled. This directly implies that the sum of the sham *benefits* of the two parties cannot be too high, otherwise they would have preferred to proceed with litigation. In such a case, sham pay-offs are not realised. As we have seen, however, the existence of these pay-offs still affects the parties' pay-offs in the settlement that they reach and therefore still has an impact on the plaintiff's incentives to start litigating. We need to distinguish between our three types of sham litigation.

With *parasitic sham*, sham benefits only accrue to the plaintiff. As we have seen before, the plaintiff captures only a fraction of these benefits in her improved settlement pay-off: half of them if parties are evenly matched in terms of bargaining ability, more or less if the plaintiff is a better or worse bargainer than the defendant. So, if total sham benefits must already be small enough to ensure that the suit was settled and only half of these benefits are reflected in the plaintiff's pay-off, then the likelihood that such additional pay-offs were actually determinant in the plaintiff's decision to sue would seem to be reasonably small. Pragmatically then, one might argue that, given the ever present risk of enforcement mistakes, such situations might not be worth dealing with. The case of settled *collusive sham* is even more problematic. Because the defendant also gets sham benefits, the sum of those benefits can only be small enough to ensure settlement if the sham benefits of the plaintiffs are even smaller than in the parasitic case.

With *predatory sham*, by contrast, the fact that the litigation was settled does not imply that the likelihood of excessive litigation due to sham benefits is necessarily small. This is because the presence of sham costs for the defendant makes settlement much more likely. As we have seen, the higher the sham cost, the more eager the defendant is to settle and hence, the better the settlement deal received by the plaintiff is. In turn this substantially better deal can be the cause of sham litigation. Put somewhat differently, we can no longer say that settlement is a sign that sham pay-offs cannot increase the plaintiff's initial incentive to litigate substantially. To see this, assume that the sham benefits of the plaintiff are equal to 10 and the corresponding sham costs for the defendant are equal to 8. Compared to a situation with no sham benefits, this reduces the total surplus from settling by the difference between the sham benefits and costs, i.e. by 2. If the suit is still settled, then, with equal bargaining ability, we now that the pay-off of the plaintiff is increased by half the sum of costs and benefits, i.e. by 9. It is this increase which could be the source of sham litigation, i.e. of excessive incentives to initiate litigation. Now assume that both sham benefits and costs increase by 20 to 30 and 28 respectively. This still only decreases the total surplus from settlement by 2 so that the chances that the suit is no longer settled is no higher than with the previous numbers. On the other hand, the pay-offs of the plaintiffs now increase by half of 30 plus 28, i.e. by 29, providing the plaintiff with a much stronger incentives for sham litigation. There is therefore no necessary link between the likelihood of settlement and the likely magnitude of the incentives for sham litigation. For this reason, it would be imprudent to give up investigating potential predatory sham on the grounds that the suit was actually settled.

We therefore conclude that, *from a pragmatic point of view it would make sense not to investigate settled litigation when one suspects parasitic or collusive sham. On the other hand, there are no reason not to investigate settled litigation if one suspects predatory sham.*

6.2. DETERMINATION

Detecting likely sham litigation is not enough. We also need some burden and standard of proof to go from mere suspicion to a finding of abuse. While we do not address this issue in any depth, it seems to us that some form of split burden of proof might be appropriate. Let us first consider unsettled litigation. Given that the facts used for detection already point to a high likelihood of sham litigation, it would make sense to put on the plaintiff's shoulder the burden of demonstrating that her litigation behaviour was justified on the sole basis of non-sham benefits and costs. On the other hand, the burden of providing more direct evidence about the nature and magnitude of relevant sham pay-offs should belong the Authority. This is essentially equivalent to requiring that the authority presents a clear and well documented "theory of harm", while letting the company accused of sham abuse defend itself with what could be seen as a form of efficiency defence.

As discussed above, we would only recommend investigating settled litigation if one suspects predatory sham. It would therefore be incumbent on the Authority to develop a theory of harm which is consistent with the narrative of such a case. Once this is done however, we would favour again shifting the burden of proof to the plaintiff. After all, litigation is a major decision which, presumably, is not taken without some form of cost-benefit analysis. Presenting exonerating evidence should not therefore be especially onerous for the plaintiff.

6.3. PUNISHMENT AND DETERRENCE

The main purpose of fines imposed by an Antitrust Authority is not compensation, it is deterrence. We do not have much to add on this count. If we were sure to catch all cases of sham litigation and only those cases, then the deterring level of fines would be easily determined, at least conceptually. In order to deter *unsettled* sham litigation, the fine should be equal to at least the magnitude of the sham benefit of the plaintiff minus her expected loss from litigating if there were no such benefits. Since information about these two elements should emerge from the determination phase, it should be possible to establish the order of magnitude of such deterring penalties. How much one would want to err on the high side would then depend on the confidence placed in the process. If many false positive are feared, the penalty should be close to the minimum deterring level. If many false negatives seem more likely, then the penalty should be a significant multiple of the critical level defined above.

7. AN EXAMPLE OF INCENTIVE-COMPATIBLE MECHANISM

An incentive compatible mechanism is one that would discourage sham litigation without the need for explicit intervention from Competition Authorities. Compared with the “detect and punish” approach, such mechanisms have the advantage that they rely on the information held by the parties, which is likely to be more accurate than the information that a Competition Authority or Court could marshal. Such incentives-compatible mechanisms are already used in litigation. For example, a widespread practice is to assign all private litigation costs to the loser. One purpose of this rule is precisely to discourage parties from initiating litigation if they do not believe that they have a reasonable probability of prevailing. Such a policy does not require the Courts to have any knowledge of the ex-ante probability of success of the parties: it relies on the parties’ own private assessment of their chances. More broadly, allowing litigation to be settled is itself a form of “incentive-compatible” scheme: it relies on the parties’ view as to their respective expected pay-offs from continued litigation to avoid unnecessary costs both for the parties and for the Court system.

Given that mechanisms aimed to prevent excessive litigation are already built into most judicial systems, the relevant question for us is whether there are *additional* rules which are simple enough to implement and would further discourage what we have defined as Sham Litigation.

7.1. PURPOSE AND EFFECTIVENESS OF EXISTING RULES

The “loser pays costs” rule decreases the plaintiff’s incentives to initiate litigation when she knows that her chances of prevailing are small and increases them if these chances are high. On the other hand, as long as the parties agree on their respective probabilities of success, the rule has no effect on the parties’ incentives to settle: settlement occurs as long as total settlement pay-offs are at least as high as the parties’ joint expected pay-offs from a judicial decision minus their joint litigation costs. So, overall, the very direction of the effect of this rule, i.e. whether it reduces or increases litigation, is ambiguous. Just as importantly for our purpose is the fact that this rule is not particularly effective in targeting what we have defined as Sham Litigation. According to that definition, sham litigation is linked to sham benefits. It can therefore in principle arise equally well when the plaintiff has a relatively high chance of winning than when she has a relatively low chance. Overall, then the “loser pays costs” rules cannot be seen as a means of controlling sham litigation.

The parties’ ability to settle litigation provides little protection against sham litigation. The reason for this is simple. Once litigation is under way, the possibility of settlement can only have an impact if the parties prefer settlement to continued litigation. If ignored, the possibility of settlement is irrelevant. Settlement is chosen if the joint settlement pay-offs of the parties are higher than joint pay-offs from a judicial decision minus litigation costs. Assume indeed that, absent sham pay-offs, joint settlement payments are *strictly* higher, i.e. that there is a material gap between total settlement pay-offs and the expected pay-offs from pursuing litigation. Now let us introduce sham benefits for the plaintiff. As long as these benefits are smaller than the “gap” just described, the

parties still settle. However, this does *not* imply that the sham benefits cannot give rise to sham litigation: because the option to litigate is now better for the plaintiff, she must get a better settlement deal than before in order to settle. But this means that introducing the sham benefits increases the plaintiff's incentives to file suit in the first place, i.e. it increases the likelihood of sham litigation in our narrow sense.

Given that the two main “incentive mechanisms” which are commonly part of the judicial process are of little help to control sham litigation, we now propose a simple mechanism which might do better. While we would hope that the mechanism described below is of interest by itself, it should be seen as just one example of how the “incentive mechanism” approach works and of what its pros and cons might be.

7.2. USING UNILATERAL SETTLEMENT OFFERS

Consider the following scheme. The plaintiff sues the defendant. Before the process goes much further, the defendant gets to make a cash offer O_d in exchange for dropping the lawsuit, i.e. for going back to the situation before the suit was filed. If the plaintiff accepts the offer, the litigation is over. If she does not, the process continues either to some other form of settlement or to a final judicial decision. If the plaintiff loses a final decision, then she has to pay the cash offer O_d which she had refused to the plaintiff.

It is important to understand from the start that this system does not amount to simply allowing the parties to reach a settlement. Our system differs from traditional settlement offers in three important respects. Firstly, the settlement involves getting back to the pre-suit situation. More complex settlements leading to a state of the world that differs from the initial situation are ruled out. Secondly, only the defendant gets to make a settlement offer. Finally, the offer made in exchange for a settlement also affects the plaintiff's pay-offs from pursuing litigation.

Our proposed scheme falls clearly within the class of “incentive mechanisms”: it relies on the behaviour and knowledge of the parties, not on any “detection” and intervention by the Courts and/or Competition Authorities. While the “job” of our proposed scheme is to discourage sham litigation (in the narrow or broad sense) as we have defined it, we must also examine whether the implementation of the scheme would create any “collateral damage” in the sense that it would have some undesirable effect on the parties' behaviour if there were no sham pay-offs whatsoever. Let us therefore start with such a sham-free situation.

7.2.1. No Sham Pay-offs

Remember that in our framework, where the parties agree on the probabilities of winning and on the associated pay-offs, all litigation would be settled if there are no sham pay-offs. Therefore, we

only need to consider a situation where, in the absence of our scheme, litigation would have been settled. Would our mechanism change the behaviour of the parties?

The first point to understand is that, even with our mechanism, the litigation will still be settled. The payment that the plaintiff would have to make if she lost a judicial decision is just a transfer between the two parties that leaves the joint profits of these two parties unchanged. The parties will therefore still prefer to settle so save on litigation fees.

The second point to understand is the offer made by the defendant as part of our unilateral offer mechanism will never be accepted. If the offer is accepted then we are back to the pre-litigation situation. The joint profits of the two parties in that situation cannot be higher than in a “normal” settlement since, in this settlement, the parties could always decide to go back to the pre-litigation world. Since the joint profits from “normal” settlement must be at least as high (and generally higher) as the joint profits from accepting the unilateral offer, the unilateral offer of the defendant will be ignored.

So we can conclude that, in the absence of sham pay-offs, our proposed mechanism does not affect the manner in which litigation unfolds. However, it does affect the pay-offs of the two parties. This is because the *terms* of the final settlement reached by the parties *are* affected by our mechanism. Having rejected the defendant’s offer under our scheme, the plaintiff now has lower pay-offs from continuing the litigation since she is exposed to a penalty equal to this offer if she loses. As litigation is less attractive, the plaintiff’s bargaining solution when discussing a settlement is now weaker so that she gets a worse deal than without our proposed scheme. Indeed one can show that, with equal bargaining ability, the payoff of the plaintiffs in the settlement decrease by an amount equal to half of the unilateral offer made by the defendant, while the defendant’s settlement pay-offs increase by the same amount.

This means that *the plaintiff’s incentives to begin the litigation in the first place are decreased even in the absence of any sham benefit*. In other words, the “collateral damage” from implementing our incentive mechanism would come from *excessive deterrence*: some non-sham litigation would be abandoned. This argues for a *two-step approach, where our unilateral mechanism can only be activated by the Court if there is sufficient evidence that sham benefits might be significant*.

7.2.2. With Sham Pay-offs

Let us begin with *parasitic sham*, where the plaintiff enjoys sham benefits but the defendant does not have any sham pay-off.

Consider first sham litigation in our narrow sense, i.e. litigation that is started only because of the sham benefits. The inner logic of the unilateral offer mechanism is simple. By only allowing the defendant to make a unilateral offer and making the offer payable by the plaintiff in case of Court defeat, we achieve two things. Firstly, we make it possible for the defendant to appropriate some of the sham benefits of the plaintiff: if sham benefits are high, the defendant knows that the

maximum offer O_d that the plaintiff would refuse is high, allowing the plaintiff to increase her “normal” settlement pay-off significantly at the plaintiff’s expenses. This decreases the plaintiff’s incentives to file suit, reducing the likelihood of parasitic sham.

Secondly, because the plaintiff only has to pay the rejected offer if she loses, her incentives to sue are reduced more strongly when her ex ante chances of winning the suit are small, which is the type of situations where the observed litigation is especially likely to be driven by sham benefits.

In terms of our broader definition of sham litigation, the mechanism is also helpful. It is true that the settlement pay-offs of the plaintiffs are reduced – this is why narrow sham is decreased – but it is only decreased by a fraction of the expected payment that the plaintiff might have to make to the defendant if she loses in Court. In other words, the introduction of the scheme also makes settlement relatively more attractive than continued litigation, reducing the likelihood of our broader type of sham where litigation is continued instead of settled because of sham pay-offs.

The difference between parasitic and *predatory sham* is that the latter also involves sham costs for the defendant. Indeed, the sham benefits of the plaintiff typically come from her ability to impose sham cost on the defendant. Our unilateral offer mechanism can handle the sham benefit in exactly the same manner as for parasitic sham. The addition of sham costs means that the defendant is more eager to avoid continued litigation. This adds to the power of our scheme.

Because of sham costs, the defendant gets lower pay-offs in the “normal” settlement that the parties might reach and also gets lower pay-offs if litigation proceeds to a judicial decision. This means that the defendant is now willing to make a higher unilateral offer to get back to the pre-litigation situation. In turn, this higher offer means a more powerful break on the plaintiff’s incentives to continue litigation (broad notion of sham) and on her incentive to initiate litigation (narrow sham).

As the reader might already suspect, the unilateral offer mechanism fares less well with *collusive sham*. The reason for this is simple. Our proposed scheme relies on the defendant’s incentive to act as an “anti-sham” enforcer with respect to the plaintiff. This works well because the incentives of the two parties are not well aligned. With collusive sham, however, the parties’ incentives are much better aligned since they both enjoy sham benefits from continued litigation. However, this does not mean that the proposal is completely ineffective. Consider a situation where the sham benefits of the plaintiff are somewhat higher than those of the defendant. If these benefits are not too high, the litigation would be settled anyway. This still give the defendant incentives to make a sizeable unilateral offer to the plaintiff: rejecting this offer will weaken the bargaining position of the plaintiff when settling, giving higher settlement pay-offs to the plaintiff. Anticipating these lower pay-offs, the plaintiff would still be less likely to initiate the litigation. Now assume that the joint sham benefits of the parties are high enough to ensure that litigation would normally proceed to a judicial decision. By making a substantial offer, the defendant also increases her expected pay-off and decreases those of the plaintiff, reducing the likelihood of litigation in the first place.

So we conclude that *the unilateral offer mechanism reduces sham litigation of all three types. However it is relatively more effective for predatory sham than for parasitic sham and for*

parasitic sham than for collusive sham. The cost of such a scheme is that it can lead to excess deterrence, i.e. to insufficient incentives to sue in the absence of sham pay-offs. For this reason we suggest a two-step process where the unilateral offer mechanism is only activated by the Court if there is sufficient evidence of sham pay-offs. Also, since the scheme is less effective for collusive sham, policy directed towards this type of conduct could more usefully combined incentive mechanisms with more traditional “detect and punish” approaches.

8. APPLICATIONS

The main purpose of this section is to show how our typology and our analytical framework can be used to shed light on various types of litigation behaviours that have been referred to as “sham”. We hope to convince the reader that our approach is useful in three ways. Firstly, by expressing various specific situations in terms of our sham pay-offs, we show that apparently diverse types of behaviour do indeed have some important commonality. Secondly, once a particular conduct can be expressed in our framework, we can rely on our distinction between parasitic, predatory and collusive sham to immediately get a better idea of what the appropriate policy treatment might be. Finally, we will also show that some types of behaviour, which have also been referred to as “sham”

do not fit in our framework. We will also explain why. This is useful as it points out some fundamental heterogeneity between some sorts of potentially abusive litigation behaviour emphasising that different policy approaches are likely to be needed.

8.1. PATENT LITIGATION

As discuss at the beginning of this paper, IP litigation has been the source of many conducts that at least some observers equate to “sham” litigation. Such practices range from defending an overly weak patent, to providing erroneous information to using the litigation process to reach “collusive” agreements. Not all such examples fall within our definition of sham litigation. Before we discuss which of these practices might be seen as examples of sham litigation in our sense, we need to set up a simple analytical framework.

8.1.1. Analytical Framework

Consider a typical patent infringement situation. The plaintiff holds a patent which the parties agree to be valid and infringed with probability α . The plaintiff sues the defendant for infringing her patent. Each party incurs the same litigation costs L unless the litigation is settled. The structure of the pre and post-litigation pay-offs is as follows. We focus on the pay-off over what is left of the patent-protection period. In the absence of litigation, both parties practice the patent, giving duopoly profits to each of them. For simplicity, we assume that each party enjoys the same profit equal to

$$\pi^{duo}$$

If the parties litigate and the patent is upheld and found to be infringed, then the patent-holder gets monopoly profits and the other firm gets nothing. As is standard in most relevant economic settings, we assume that monopoly profits are higher than the sum of duopoly profits, i.e. that the introduction of competition makes the “market” as a whole less profitable:

$$\pi^{mono} > 2\pi^{duo}$$

We can define a single set of pay-offs when the patent-holder “loses” the litigation. In that case both parties get

$$\pi^{comp} \leq \pi^{duo}$$

The precise form of these pay-off depends on the precise object of the litigation. For example losing on infringement only would mean that the defendant is the only rival able to enter the market at the time. In that case the pay-offs when the patent-holder loses are the duopoly pay-offs defined above. On the other hand, a loss on validity grounds would lead to more extensive entry and hence to profits that are lower than duopoly profits. Finally, we take the pre-litigation situation to involve “at risk” entry, i.e., in the absence of litigation, the alleged infringer would enter the market, leading again to duopoly profits. Under these conditions, it is straightforward to show that, absent sham benefits the litigation would be settled. To keep the analysis below simple, however, we will abstract from settlements and assume that litigation always goes to a final judicial decision.

8.1.2. Nature of Sham Benefits and Costs

We need to identify the types of sham benefits and costs which might reasonably be associated with patent litigation. Some of the costs and benefits discussed in the main part of the paper fit well in a patent litigation context. For example, patent holders might find it beneficial to develop a reputation as a “take no-prisoner” litigator. This would put us in a situation where *parasitic sham* might arise. It is also entirely possible that the plaintiff would benefit from imposing the cost of litigation on a financially constrained entrant, making *predatory sham* plausible.

Delay

Similarly, under some circumstances, a patent-holder might litigate in order to gain time. Whether or not such a strategy is feasible depends on the institutional setting and on the behaviour of the alleged infringer. Suppose first that the other party enters at risk. Assume further that the patent-holder is sure to get adequate compensation for the profits lost to the entrant if she prevails. In this case the patent-holder has no incentive to delay a resolution of the dispute if it only concerns infringement since the patent-holder gets the same expected pay-off anyway: the probability of winning times the monopoly profit + the probability of losing time the duopoly profits.

However, if the litigation involves the validity of the patent, an incentive to delay reappears. This is because, in case of eventual loss, the patent holder is better off with a long period of duopoly profits before having to face lower competitive profits after the decision. In that case we can define the sham benefits of the patent-holder as

$$\text{Sham Benefit of the Plaintiff} = T[\pi^{duo} - \pi^{comp}]$$

Interestingly, the defendant might enjoy benefits or bear cost from delay. If the final decision is adverse for the defendant and the patent-owner is fully compensated then the defendant must pay $(\pi^{mono} - \pi^{duo})$ to the entrant over the “entry at risk” period while it gets nothing after the decision. On the other hand, in case of victory for the defendant, she gets only π^{comp} after the decision, as other firms can flood in, which is smaller than the duopoly profits that she enjoys during the period T of entry at risk. We can therefore write the “sham” benefits of the defendant as

$$\text{Sham Benefit of the Defendant} = T[(1 - \alpha)(\pi^{duo} - \pi^{comp}) - \alpha(\pi^{duo} - \pi^{comp})]$$

If the probability of a patent-holder’s victory is low then this expression is positive so that both parties have positive sham pay-off and we find ourselves in a potential collusive sham situation. On the other hand, if the probability that the patent-holder prevails is small then this expression is negative: the defendant incurs sham costs and we are in a potential predatory sham situation.

The situation is different if there is no entry at risk since, typically, the defendant is not compensated for the profits that she could have made during the litigation process. In this case the patent-holder has clear incentives to extend this period during which she enjoys monopoly profits, while the defendant is unambiguously hurt by such delay. This places us in a potential predatory sham situation.

Pay for Delay

As benefits from delaying the litigation profits can be expressed in terms of sham benefits or costs as we have defined them, one might believe that our framework can also accommodate cases where parties allegedly reach a so called “Pay to Delay” settlement. This is not the case.

So called “pay for delay” or “reverse transfer” agreements are settlements where the patent-holder makes a transfer to the defendant in exchange for delaying her market entry until a given date or even until the contested patent expires. Prosecution of such agreements relies on two main (disputed) arguments. The first argument is that this type of agreement looks very much like an explicit market sharing. If market sharing agreements are usually frowned upon then why make an exception for patent settlements? The second argument is the “probabilistic” view of patents. In this view, a patent right only entitles the right-holder to defend her patent in Court, with the resulting uncertainty. Hence – and this is the controversial step – a patent-holder should not be allowed to settle litigation with an agreement that leaves consumers worse off than if the litigation had continued to the end.

There are two elements that sets such potential “litigation abuse” apart from what we have called sham litigation. The first one is that the “sham” benefits are alleged to come from the

settlement itself, not from additional benefits *from continued litigation*. Of course, as we have seen these benefits from continued litigation do themselves affect the outcome of settlement but the settlement process itself is not the source of those benefits. The second is that, if one agrees with it, the argument presented above implies that there should be restrictions on the type of settlement that the parties can reach. For example, in a seminal contribution, Carl Shapiro¹⁴³ argues that forbidding agreements that include payments from the patent-holder to the defendant would go a long way toward curbing the alleged abuse. This approach does not fit at all with our own framework where the parties' ability to reach the best possible settlement in terms of their joint pay-off is a crucial element of the analysis. This is of course irrelevant to the issue of whether "pay for delay" should be banned. It simply underlines that such agreements are, economically, a very different phenomenon from the large number of other litigation behaviours which can properly be seen as "sham" litigation in the precise meaning used in this paper.

In fact, distinguishing between situations that can be expressed within our framework – and hence can be handled within a common conceptual approach – and situations that cannot be apprehended in that manner is, we believe, one of the more useful feature of our analysis as it makes it possible to identify fundamental differences between types of litigation behaviours which might erroneously be viewed as calling for a similar, unified approach.

Lying

In a number of cases¹⁴⁴ firms have been disciplined for allegedly providing false information to the Court or to the relevant regulator. In our framework, such behaviour implies that, because of the misinformation the probability that the plaintiff/patent-holder would prevail is higher than it should. If we define the probability that the plaintiff would win when telling the truth by α and her probably of winning when lying be $\alpha_o > \alpha$, then the sham benefit of the plaintiff is the increase in winning probability minus the difference between her pay-off from winning and her pay-off from losing, i.e.

$$\text{Sham Benefit of the Plaintiff} = (\alpha_o - \alpha)(\pi^{mono} - \pi^{comp})$$

There is of course a corresponding cost to the defendant equal to

$$\text{Sham Cost of the Defendant} = (\alpha_o - \alpha)\pi^{duo}$$

So we have a sham benefit for the plaintiff and a related sham cost for the defendant. We are therefore in a potential situation of predatory sham.

¹⁴³ Carl Shapiro, *Antitrust Limits to Patent Settlements*, 34(2) RAND J. OF ECONOMICS 391 (2003).

¹⁴⁴ In the EU, *see, e.g.*, Case T-321/05 *Astra Zeneca* [2010] ECR II-2805, and in the US the quite significant case law following up *Walker Process*, 382 US 172.

8.2. FINANCIAL CONSTRAINTS

The main gist of the effect of financial constraints can be apprehended by simply assuming that there is a probability b (for “bankrupt”) that continued litigation would by itself, lead the defendant to fold. If the defendant folds, then the patent-holder keeps enjoying monopoly profits for sure. So, assuming no entry at risk by the defendant, this strategic use of litigation yields additional benefits equal to the probability that the defendant falls times the difference between these monopoly profit and what the expected profits of the plaintiff in a judicial decision:

$$\text{Sham benefit of the Plaintiff} = b[\pi^{mono} - (\alpha\pi^{mono} + (1 - \alpha)\pi^{comp})] > 0$$

The possibility of bankruptcy also affects the defendant, decreasing her expected pay-offs by the probability of bankruptcy minus her expected payoffs from litigation. This implies a negative sham benefit for the entrant equal to

$$\text{Sham benefit of the Defendant} = -b[(1 - \alpha)\pi^{comp}]$$

We are therefore again in a situation of potential predatory “sham”.

9. CONCLUSION

The concept of “sham” or “vexatious” litigation has stayed relatively opaque in competition law scholarship, although cases invoking the doctrine have multiplied, if not as much in Europe, at least in the US and other parts of the world.¹⁴⁵ This raises interesting questions as to the design of the “sham” or “vexatious” litigation antitrust category, in view of the close links this has, both with regard to its origins and with regard to the overall theoretical framework of the interaction of competition law with the use of governmental processes by undertakings for various purposes. The aim of this paper was, first, to discuss the emergence of the antitrust category of “sham” or “vexatious litigation” and to explore its boundaries with regard to other categories of abuse, in particular in the IP context. The overall impression of this analysis was that even if one may argue for more conceptual coherence in the design of antitrust categories, which has the potential open Pandora’s box as to the way these various categories have been designed at the first place and the need for categorical thinking as opposed to case-by-case balancing, it is clear that some order is needed, at least in the conceptualisation of the economic underpinnings of the various antitrust categories, and specifically that of “sham” or “vexatious” litigation.

We start from a precise definition of sham litigation as induced by sham benefit, “sham” litigation being simply defined as litigation that the plaintiff would not have started in the absence of any sham benefits. As we allow for settlement, this enables us to develop a narrow and a broader definition of “sham”/“vexatious” litigation, the latter also requiring that, absent sham costs or benefits, the defendant would prefer not to litigate.

¹⁴⁵ See WIPO REPORT, CDIP/9/INF/6 REV.

We then distinguish between different types of “sham” litigation on the basis of two criteria: the first criterion refers to which parties receive sham benefits and which parties might incur sham “costs; the second is whether or not the defendant also receives sufficient sham benefits to actually be made better off by litigation. This effort of classification enables us to distinguish between the following sub-types of “sham” litigation:

- (i) *parasitic* sham litigation, which does not impose sham costs on the defendant but still decreases her total profits;
- (ii) potentially *predatory* sham litigation if, additionally the litigation process imposes sham costs on the defendant, this potentially being a sham benefit enjoyed by the plaintiffs. This is particularly likely when the defendant is a potential or actual rival of the plaintiff, as is often true in competition law or IP law disputes.
- (iii) *collusive* sham litigation when we have situations where the defendant also enjoys benefits from the very fact of litigating. In this case if the defendant’s sham benefits are large enough to offset her assumed reluctance to litigate, then both parties benefit from engaging in the litigation process.

Determining if a case forms part of one of our three sub-categories with some confidence requires relatively little information. We examine a number of illustrative examples for each type of “sham”, before exploring the implications of a narrower definition of “sham”, should we factor in the possibility of settlements.

Having defined a typology, we then turn to the analysis of welfare effects. This leads us to remain completely agnostic as to whether “sham” litigation is worth deterring or at least limiting, our emphasis being on how sham litigation might be efficiently controlled if it seems desirable to do so. We identify two approaches.

The first approach consists in *detecting* undesirable behaviour and *punishing* it. This involves identifying a number of factors that indicate that the litigation likely falls within that class and then using legal status (e.g. antitrust laws) to impose a fine. We analyse the factors to take into account for the detect and punish approach, finding that litigation is more likely to be sham if (i) it was not settled (ii) the plaintiff lost (iii) the litigation costs of the plaintiffs were large compared to the pure benefit of litigation and (iv) the total litigation costs of the two parties were large, thus hinting to four elements to look for. Furthermore, there are no reasons to investigate settled litigation except for collusive sham. Our analysis includes some discussion over the issue of the burden of proof.

The second approach consists in designing self-enforcing *incentive mechanisms*. Compared with the “detect and punish” approach, such mechanisms have the advantage that they rely on the information held by the parties, which is likely to be more accurate than the information that a Competition Authority or a Court could marshal. The question is whether there are additional rules, than the two main “incentive mechanisms”, which are commonly part of the judicial process, that is, the “loser pays costs” rule and the parties’ ability to settle litigation, that are simple enough to implement and would further discourage sham litigation. We propose instead a simple mechanism using unilateral settlement offers that we think will fare better. After exploring the

incentive mechanism approach, we conclude that it works best for predatory and parasitic shams. However, it is less efficient for a collusive sham, hence one should rely more on a “detect and punish” approach in this case.

Our approach is useful in three ways. Firstly, by expressing various specific situations in terms of our sham pay-offs, we show that apparently diverse types of behaviour do indeed have some important commonality. Secondly, once a particular conduct is expressed in our framework, we can rely on our distinction between parasitic, predatory and collusive sham to immediately get a better idea of what the appropriate policy treatment might be. Finally, we will show that some types of behaviour, which have also been referred to as “sham” do not fit in our framework. The paper discusses a number of applications of our approach, in particular in the context of IP litigation, distinguishing between situations that can be expressed within our framework – and hence can be handled within a common conceptual approach – and situations that cannot be apprehended in that manner, which is, we believe, one of the more useful features of our analysis. This makes it also possible to identify fundamental differences between types of litigation behaviours which might erroneously be viewed as calling for a similar, unified approach.