Addressing Standards Creation: Divergence or Convergence Across the Atlantic?

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STANDARD SETTING OCCURS ACROSS jurisdictional boundaries. Absent convergence, companies engaged in multi-jurisdictional standard setting may face disparate and conflicting legal standards with regard to their conduct. U.S. antitrust agencies have been hesitant to intercede in the standard-setting process and have focused on the ex-post enforcement of unilateral conduct where standard-setting organization rules fail to prevent such conduct. In contrast, the European Commission (EC) both provides guidance for the development of standard-setting rules ex-ante and investigates unilateral conduct ex-post.

The EC recently released new guidelines (2011 Guidelines)[1] that address the antitrust issues associated with standard setting and provide a safe harbor for certain standard-setting processes. Do the 2011 Guidelines leave companies engaged in standard setting facing conflicting legal requirements? On the surface, the answer seems to be yes, but, as discussed below, in reality, this may not be the case.

The Importance and Antitrust Implications of Standard Setting

Standards are widely acknowledged as a necessary enabler of the modern economy and international trade.[2] Standards cover a broad variety of specifications including product sizes, material grades, and technical requirements in industries where compatibility and interoperability are essential. Typical examples of standards include electrical plug specifications, flash memory card sizes, and USB plug specifications. The benefits of standards have long been recognized: standards foster innovation, enhance competition, increase market penetration, and promote the dissemination of interoperable products.[3]

Standard setting—that is, the process by which a common specification for an operation or device is established across an industry or multiple industries—plays a pivotal role in technology, telecommunications, and other industries. Standard setting expands the "opportunities for product substitution, thereby increasing the number of sellers competing for buyer purchases."[4] In short, it produces "efficiencies that can lead to increased competition, cost reductions, increased innovation and output, and the provision of new services."[5]

From an antitrust perspective, standard setting can raise two categories of potential legal issues. First, in some cases organizations gather to collaborate on a common specification. Although, as the U.S. agencies have recognized, this collaborative process offers substantial benefits, including avoidance of the costs and delays of a standard war (i.e., a war between companies offering competing standards that can drag on for years),[6] a gathering of competitors in this context also has the potential for abuse. For example, parties can improperly share information or can use the process as a front for other nefarious purposes aimed at coordination in the marketplace.[7] The effect of such collusion can include standards that (1) fail to provide for interoperability or efficient compatibility, (2) fail to provide equal access for all parties seeking to conform to the standard, or (3) force some competitors to incur supracompetitive or prohibitive costs. The end result for consumers is higher prices and reduced innovation. Such conduct can violate Section 1 of the Sherman Act and Article 101 of the Treaty of the European Union (TFEU).[8]

Second, an antitrust issue can also arise when individual firms manipulate the standard-setting process to further their position in the marketplace. Standards often involve intellectual property. In many cases, a single competitor's proprietary specification or process is adopted as the industry standard, and that proprietary specification or process may be protected by intellectual property rights. A company can manipulate the standard-setting process by simultaneously pushing for adoption of its protected specification or process and concealing that the specification or processes are protected by intellectual property rights.[9] After its proprietary specification or process is adopted, a firm can then (1) demand supracompetitive royalties from all who adopt the standard and/or (2) use its intellectual property protections to keep certain competitors out of the marketplace.[10]

This gamesmanship is often referred to as "patent hold-up" and can violate Section 2 of the Sherman Act, Section 5 of the FTC Act, and Article 102 of the TFEU.[11] When it comes to such unilateral conduct, the antitrust laws in the two jurisdictions differ in some respects. Article 102 of the TFEU prohibits not only exclusionary conduct, but at least in theory also applies to so-called exploitative conduct—i.e., "impos[ing] unfair purchase or selling prices or other

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unfair trading conditions."[12] Such conduct may give rise to liability under Article 102 even if the dominant firm did not engage in deceptive conduct vis-à-vis the standard-setting organization.

By contrast, the mere imposition of excessive royalties would not likely subject a company to liability under Section 2 of the Sherman Act,[13] although such conduct might be actionable under Section 5 of the FTC Act. Furthermore, there is clear EU precedent according to which a refusal to license an essential intellectual property rights can constitute abuse of dominance; no similar, uniform precedent exists in the United States.[14] And whereas deceptive conduct by a non-dominant firm before the standard-setting organization might not be actionable under Article 102, even if it allows the patent holder only to obtain market power,[15] such conduct could be actionable under Section 2 of the Sherman Act and Section 5 of the FTC Act if it is exclusionary.[16] There is no parallel to Section 5 of the FTC Act in the EU.

The U.S. Non-Interventionist Approach

The U.S. antitrust agencies have historically offered limited guidance on standard setting, although this could likely change as a result of the Federal Trade Commission's very recent announcement that it will hold a public forum on antitrust issues in standard setting.[17] Although the agencies recognize the patent hold-up problem and prosecute companies engaging in such conduct, the agencies generally have operated under the theory that market forces will inhibit such conduct, and as such have not prescribed standard-setting rules or guidance. Instead, they have generally applied a rule of reason analysis on a case-by-case basis.[18]

One reason for this non-interventionist approach is likely that collaborative standard setting is rarely an isolated event; many of the same participants are involved in multiple standard-setting processes and reputation costs may be a sufficient deterrent to a patent hold-up.[19] Further, obtaining a first mover advantage by having one's proprietary specification or process adopted as the standard may be a sufficient incentive for a patent holder to offer its technology ex ante at competitive terms.[20] Protections in cross-licensing agreements and concerns over retaliation in other product lines or business dealings might also preclude a patent hold-up. Finally, the potential for exposure to private lawsuits, where the patent can be held unenforceable, may further deter patent hold-ups.[21]

The U.S. agencies—and the FTC in particular—have periodically prosecuted conduct in the standard-setting context under a monopolization or attempted monopolization theory. Nonetheless, such cases are rare.[22] The FTC has prosecuted conduct in the standard-setting context under a unilateral conduct theory in only four cases: *Dell*, *Unocal*, *Rambus*, and *N-Data*.[23] But these cases supply little guidance. *Dell* and *N-Data* were resolved by consent decrees. *Rambus* and *Unocal* were brought under Sherman Act Section 2 theories, while the FTC prosecuted *Dell* and *N-Data* as more general "unfair methods of competition" in violation of Section 5 of the FTC Act.

Apart from these cases, however, the U.S. antitrust agencies have been hesitant to set further metes and bounds. In 2007, following a series of hearings on the intersection of antitrust and intellectual property law (at which standard setting was a central topic) the agencies subsequently issued a joint report, *Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition* (IP Report), in which they offered three pieces of guidance with regard to standard setting: (1) nearly all cases involving competitor collaborations in the context of standard setting will be analyzed under the rule of reason; (2) bilateral discussions between the holder of intellectual property rights and the potential licensee outside the context of the standard-setting organization are "unlikely to require special antitrust scrutiny"; and (3) unilateral disclosure of an intellectual property holder's licensing terms, including the price at which the holder is willing to license its intellectual property, is generally not actionable under U.S. antitrust law.[24]

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The agencies' application of the rule of reason framework to the standard-setting process was unsurprising.[25] Nevertheless, the 2007 IP Report left wide open how the agencies will apply the rule of reason in this very complex area. Practitioners and enforcers alike frequently recognize that in order for standard setting to occur, competitors must necessarily collaborate and share information, but that anticompetitive conduct is nevertheless possible. Almost four years after the 2007 IP Report, how to reconcile this tension remains unclear.[26] Despite having made a handful of speeches on the topic, senior officials at the antitrust agencies have not yet offered any details on application of the rule of reason to standard-setting contexts.

Absent intervention from the agencies, standard-setting organizations (SSOs) have developed their own mechanisms for avoiding patent hold-ups. We discuss three approaches here. First, some SSOs require participants to disclose any intellectual property rights that those employing the standard might infringe.[27] The breadth, scope, and specificity of these disclosure requirements often differ among SSOs.[28] Disclosure requirements offer significant benefits; they level the information playing field and flush out members' relevant intellectual property early in the process, allowing all participants to make informed decisions about which standard to adopt.[29] But employing such procedures is not without a price. Disclosure can be a costly endeavor for participants with extensive intellectual property portfolios and add delay to a process that often demands a quick turnaround.[30] The extent to which a participant must search in order to comply with disclosure requirements is a topic of constant debate,[31] and exhaustive searches are expensive to undertake and time consuming. In some cases, the cost of compliance with disclosure mandates may have a chilling effect on participation.[32] Companies also may be hesitant to disclose internal research and development without assurance that the standard will be accepted, depriving the industry of what could be the more efficient or practical standard.

Disclosure requirements must be accompanied by appropriate forms of redress in order to offer protection from the patent hold-up. The VMEBus International Trade Association (VITA)—an SSO for real-time modular embedded computing systems—required participants that failed to disclose a "known essential patent" to "license the essential claims of the undisclosed patent . . . to all interested parties on a royalty-free basis . . . ."[33] Other SSOs have implemented different forms of relief. The doctrine of equitable estoppel or patent waiver—the failure of the patent holder to disclose the patent renders the patent unenforceable—can also play a significant role.[34]

Second, some SSOs mandate that participants commit ex ante to licensing any implicated intellectual property rights on a reasonable and non-discriminatory (RAND) basis.[35] Theoretically, RAND provisions prevent patent hold-up by prohibiting the patent holder from licensing the technology ex post at supracompetitive rates.[36] However, the inability to define what RAND means and the fact that the definition of a RAND is postponed until after the standard is chosen can limit the effectiveness of this approach.[37] When the parties cannot agree on the definition of RAND, turning to the courts is often an impractical solution. Court interpretations are costly and can take years to resolve. Arbitration can also be a risky endeavor as the results are often uncertain and unpredictable.

Further compounding the problem, some SSOs require licensing on RAND terms, but for fear of antitrust or other scrutiny, do not permit ex ante information exchanges on the specifics of the RAND terms.[38] This means that intellectual property rights holders can leave participants with one impression of the terms under which they would license their property, but after adoption of the standard demand different and more exacting licenses terms. As a result, in the absence of a better forum to dispute the meaning of RAND, the term's ambiguity may actually facilitate a patent hold-up.[39] As noted below, the EC's guidelines offer a number of suggested methods for establishing RAND terms.[40]

Third, SSOs will sometimes require disclosure of the specific terms under which the intellectual property rights holder would license its rights should its proprietary specification or process be adopted as the standard.[41] There are several benefits to this approach. Ex ante negotiation of licensing terms "may increase competition between technologies that are being considered for inclusion in the standard."[42] Additionally, ex ante negotiations can improve the knowledge base of participants and improve the quality of standard-setting decisions.[43] Competitive tradeoffs can occur between price and merit that would otherwise not occur in ex post negotiations.[44] And ex ante negotiations allow price to become a competitive factor in standard selection.[45]

The downside to ex ante negotiation is that it can slow or delay the standard-setting process.[46] There is also significant concern that these negotiations can lead to a buyers' cartel. The fear of antitrust implications may have a chilling effect on the adoption of ex ante negotiations by some standard-setting organizations.[47] The absence of agency guidance exacerbates the problem, leading some to force the ex ante negotiations to occur bilaterally instead of multilaterally.

The European Prescriptive Approach

The EC recently adopted new guidelines for the assessment of horizontal cooperation agreements.[48] In stark contrast to the U.S. approach thus far, the EC's 2011 Guidelines offer detailed guidance on the assessment of various types of agreements between horizontal competitors, including specific guidance about agreements in the standard-setting process. As with many EC guidelines, the 2011 Guidelines are not binding on businesses as a matter of law, although they do bind the EC in its assessment of horizontal agreements between companies under Article 101 of the TFEU. Thus, they provide helpful insight into how the EC (as well as the national competition authorities in members states), is likely to assess a horizontal agreement. The 2011 Guidelines therefore provide important guideposts for companies engaging with their competitors while simultaneously aspiring to avoid antitrust scrutiny by the EC.

Background on the 2011 Guidelines. The drafting process of the 2011 Guidelines was characterized by intense lobbying by a number of interest groups. A central issue in the debate was to what extent intellectual property right holders can, after a standard's adoption, demand royalties from implementers, in particular where such intellectual property rights were not disclosed at the time of the standard's adoption. Some intellectual property rights owners attempted to safeguard their interest in maximizing returns on technology included in standards and sought to avoid strict disclosure mandates.[49] By contrast, SSO participants sought to safeguard access to such standards on fair, reasonable, and non-discriminatory (FRAND) terms.[50] Many firms had mixed motives: they contribute technology to new standards while at the same time produce standard-compliant products dependent on other firms' technology.[51] Thus, on the one hand, these firms had an incentive to support a process that maximized the value of their intellectual property rights by securing high royalties. On the other hand, they did not want to pay high royalties in order to be standard-compliant.

To some extent, the debate between right holders and implementers was mirrored within the European Commission.[52] Some officials within the Directorate-General (DG) responsible for intellectual property policy questioned whether the guidelines as drafted—principally by DG Competition—created too much uncertainty for intellectual property right holders. The DG for Competition, on the other hand, expressed skepticism that patent hold-up issues could be resolved within intellectual property laws, without external constraints imposed by competition rules. Presumably, the 2011 Guidelines represent a compromise between these positions.

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Safe Harbor. The 2011 Guidelines contain a number of requirements for standard-setting agreements to fall within a safe harbor for procompetitive agreements, building in part on the EC's experience in dealing with patent hold-up and interoperability cases.[53] The safe harbor applies to standard-setting agreements that (1) are transparent and provide for unrestricted access to stakeholders, (2) impose no obligation to comply with the resulting standard, and (3) obligate participants to disclose essential intellectual property rights and license these rights on FRAND terms.[54] Because the Guidelines themselves are binding only on the EC and not on firms, compliance with the safe harbor primarily serves to protect a standard-setting agreement from EC review. Although the European General Court and Court of Justice could in principle reject the Guidelines, they are unlikely to do so. The EC, in dealing with complex economic appraisals enjoys a margin of discretion, which is likely to include economic issues arising in the context of the Guidelines' application (and its safe harbor) to standard-setting agreements.

The FRAND commitment is the centerpiece of the safe harbor: the SSO's intellectual property policy must require participants to provide an irrevocable commitment in writing to offer to license their essential intellectual property to all other parties on FRAND terms, which is understood to be largely similar to RAND terms.[55] The FRAND commitment is aimed at furthering the procompetitive goals of standard setting by facilitating access to the standard on terms that are not prohibitive or discriminatory, do not adversely impact competition, and are not priced supracompetitively.[56]

The 2011 Guidelines define FRAND as including either royalty-free licensing or royalty rates bearing a "reasonable relationship" to the value of the intellectual property right.[57] In this context, the 2011 Guidelines favor ex ante valuations—valuations of technology based on their market value prior to adoption as a standard. Where information on the subject intellectual property's royalty rate prior to its candidacy for inclusion in the standard is available, the 2011 Guidelines suggest this valuation can be made based directly on that information.[58] Alternatively, the 2011 Guidelines suggest establishment of an ex ante valuation by an independent expert based on the technology's innovativeness and its significance vis-à-vis the standard.[59]

To fall within the safe harbor, the 2011 Guidelines state that FRAND commitments cannot be divorced from the associated intellectual property. A patent holder could circumvent a FRAND commitment if the relevant patents are assigned to a third party following adoption of the standard without FRAND licensing obligation accompanying the patents.[60] The successor party could then enforce the acquired intellectual property rights against the standard's implementers or charge supracompetitive royalties without regard for the FRAND commitment. Moreover, the original owner of the intellectual property right that was itself bound by the FRAND commitment could share in the patent hold-up gains by setting a high purchase price for the intellectual property. For this reason, the 2011 Guidelines require, as part of the safe harbor, that parties to the standard-setting agreement ensure that any FRAND commitments be transferred to subsequent third-party acquirers of the intellectual property.[61]

Disclosure Requirements. An issue directly related to the FRAND commitment is intellectual property disclosure. The 2011 Guidelines require that, to fall within the safe harbor, SSOs mandate good faith disclosure of intellectual property rights. In particular, for standards for which the intellectual property will be licensed other than on a zero-royalty basis, SSOs must require that patent holders owning the relevant intellectual property disclose their essential intellectual property rights.[62] SSOs need not mandate disclosures where the patent holder has committed to royalty-free licensing.[63] The 2011 Guidelines prescribe that a "good faith" patent search effort suffices to identify and disclose essential intellectual property rights. A statement that the patent holder is likely to own intellectual property rights reading on the standard also suffices to meet the disclosure requirement,[64] presumably provided that the patent holder continues to undertake good-faith patent searches to identify such rights subsequent to that announcement.[65]

The 2011 Guidelines adopt the view that, where standards are licensed on royalty-free terms, intellectual property disclosures serve no purpose.[66] Nevertheless, even if a standard is licensed on royalty-free terms, parties that own intellectual rights in the standard may still use their rights to impose other restrictions on licensees, such as no-challenge clauses and sublicensing conditions, and the question of whether anyone owns intellectual property rights in the standard can thus prove relevant even in a royalty-free context.

The 2011 Guidelines also address ex ante disclosure of licensing terms. The 2011 Guidelines for the first time provide that standard-setting policies requiring ex ante unilateral disclosure of the participating firm's most restrictive licensing provisions are presumptively not anticompetitive.[67] Such unilateral declarations contribute to transparency by allowing stakeholders to anticipate the costs of implementing the standard. However, the 2011 Guidelines do not expressly permit stakeholders to *negotiate* their licensing terms. Furthermore, the effectiveness of unilateral disclosures as a means of increasing transparency will likely depend on the industry. In particular in cases where large numbers of patents are involved and where large time gaps exist between initiation of the standard setting and adoption of a final standard, rights holders may use unilateral disclosures merely as a high "opening bid" to charge high royalties for their technology.[68]

Application of the Rule of Reason. Standard-setting agreements that do not fall within the safe harbor are individually analyzed for compliance with the TFEU's competition rules—essentially under a rule of reason approach. However, companies choosing not to take shelter in the safe harbor are not left in a sea of ambiguity. The 2011 Guidelines provide a number of factors relevant to determining whether agreements that do not fall within the safe harbor violate EU competition law. Among the most important factors to consider are the market shares of the products using the standard. The 2011 Guidelines suggest that anticipating these market shares may not always be possible, but that the participating firms' relevant product market shares could in some instances be used as a proxy.[69] Some of the other relevant factors are the extent to which members of a SSO are free to develop alternative standards or products that do not comply with the agreed standard, the accessibility of the standard, and the degree of openness of the standard-setting process.[70]

Prohibited Agreements. The 2011 Guidelines make clear that certain agreements are prohibited by Article 101 of the TFEU. These include: (a) agreements "that use a standard as part of a broader restrictive agreement aimed at excluding actual or potential competitors" and (b) "agreements to reduce competition by using the disclosure of most restrictive licensing terms prior to the adoption of a standard as a cover to jointly fix prices either of downstream products or of substitute [intellectual property rights] or technology."[71]

Practical Convergence

On both sides of the Atlantic, there is widespread agreement that standard setting offers procompetitive benefits, but that the process also has the potential for anticompetitive outcomes when manipulated. Superficially, it seems, however, that the similarities in the enforcement approaches end there. The U.S. antitrust agencies largely avoid preemptive intervention while the EC takes a more prescriptive approach. It is at best questionable, however, whether these seemingly divergent approaches translate into practical difficulties for cross-border compliance in the standard-setting context: while the two jurisdictions approach the issue differently, under the current legal standards, the two roads largely lead to the same result. This is because, in reality, the incentive to follow the more restrictive of two sets of rules leads to practical convergence. Multi-jurisdictional standard-setting organizations will adapt their process to the antitrust law that is most stringent and/or defined, so long as that adaptation does not violate another antitrust law. That would appear quite possible here.

In the standard-setting context, the EC has set forth detailed safe harbor requirements for SSOs: transparency, access, an absence of mandatory compliance, participant disclosure of essential intellectual property rights, and licensing of essential intellectual property rights on fair, reasonable, and non-discriminatory (FRAND) terms. And while the EC recognizes "that there exist different models for standard setting and that competition within and between those methods is a positive aspect of a market economy" and "standard-setting organizations remain entirely free to put in place rules and procedures that do not violate competition rules whilst being different to those [of the safe harbor],"[72] the inclusion of a safe harbor is likely to drive most organizations to adopt the safe harbor rather than face the uncertainty of whether their process is permissible under the antitrust laws. The European safe harbor is likely to become a standard itself.

Compliance with the 2011 Guidelines' safe harbor tenets is not likely to violate U.S. antitrust law or pique the concerns of U.S. antitrust regulators. Indeed, transparency and access are bedrock principles of U.S. antitrust law. SSOs are already employing requirements that increase transparency and access. The other EC requirements are of equally little concern. First, the fact that the EC disfavors agreements that mandate compliance with the resulting standard is unlikely to concern U.S. antitrust regulators. Prohibiting mandatory compliance may be a perfunctory requirement in any event. Customers generally will buy products that comply with the standard, and non-compliant products face significant opportunity costs. Engineering around the standard can be timely and resource intensive, and in some industries is not feasible. In practice, standards become mandatory by definition because the cost of non-compliance is prohibitive.

Second, inclusion of disclosure requirements should also not be unduly burdensome to standard-setting participants in the United States. Many SSOs already require disclosure of intellectual property rights by participants, and U.S. antitrust agencies recognize the procompetitive benefits of such disclosure. It seems difficult to formulate a scenario in which disclosure rules offer the potential for anticompetitive effects.

Third, requiring licensing under FRAND terms (as noted, a term essentially equivalent to the U.S. RAND requirement) is viewed favorably by U.S. antitrust agencies. While the term FRAND continues to require further definition by the judiciary in both jurisdictions, the 2011 Guidelines help clarify some of the ambiguity surrounding FRAND. That clarity conforms to U.S. jurisprudence on the issues. It seems quite plausible that the clarification of FRAND as set forth in the 2011 Guidelines will become a baseline accepted in both jurisdictions.

More generally, even when companies do not comply with the safe harbor set forth in the 2011 Guidelines, it does not appear that they will be subject to divergent legal standards in the United States and EU. Unilateral disclosure of licensing terms ex ante is not likely to violate the antitrust laws of either jurisdiction, absent an information exchange concern. Standard-setting processes not in conformity with the 2011 Guidelines safe harbor are not presumed anticompetitive by the EC, nor are they treated as per se illegal by the U.S. antitrust agencies. Rather, in both cases, the antitrust authorities weigh the procompetitive benefits of the agreement against the anticompetitive effect, applying a rule of reason approach. Under the 2011 Guidelines market shares are a particularly determinative factor, and are practically so under U.S. law as well. Antitrust concerns in the standard-setting context historically involved either collaborative conduct by a significant concentration of the industry (the absence of which would prohibit adoption of standard) or anticompetitive conduct by a party with intellectual property rights that afford a dominant or monopoly position, which in the context of patents may be equivalent.

The EC's passage of the 2011 Guidelines does not mark a significant shift in the convergence pendulum. Indeed, although it was brought before the issuance of the EC's 2011 Guidelines, the Rambus case illustrates the practical convergence between the U.S. and EU approaches to standard setting. Rambus deceived the dynamic random access memory (DRAM) standard-setting process by concealing its ownership of intellectual property directly relating to the standard being adopted. At the time, standard compliant DRAM represented approximately 95 percent of the market and was used in virtually all PCs.

In the United States, the FTC filed an administrative complaint against Rambus in 2002. According to the complaint, by deceiving the DRAM SSO while simultaneously and successfully luring the SSO into adopting a standard that included Rambus's intellectual property rights, Rambus was able to charge supracompetitive royalty rates and to exclude certain competitors from the marketplace through patent infringement actions.[73] Ultimately, however, the U.S Court of Appeals for the District of Columbia set aside the Commission's order.[74] The court of appeals held that the FTC failed to prove causation. The FTC argued that in the absence of Rambus's deceptive conduct the standard-setting organization would have either adopted another standard or adopted Rambus's intellectual property as the standard but with an ex ante commitment by Rambus to license the intellectual property under RAND terms.[75] The court reasoned that in the latter instance, Rambus would still have had a monopoly, and the FTC had not argued, let alone proven, that any misconduct by Rambus resulted in a monopoly.

Several years after the FTC began its case against Rambus, the EC investigated the same conduct. The EC's case alleged that Rambus infringed Article 82 of the EC Treaty (now Article 102 of the TFEU) by abusing a dominant position in the market for DRAMs.[76] The same deceptive conduct alleged by the FTC—concealing relevant intellectual property during the DRAM standard-setting process—was at the core of the EC's allegations.[77] After a hearing on the merits, the EC preliminarily found that Rambus's conduct constituted an abuse of its dominant position. The EC further noted that "save for Rambus's alleged deceit, [the DRAM standard-setting participants] were likely to have designed a 'patent-free' standard around Rambus's patents."[78] In that respect, the EC solved the causation shortfall that the D.C. Circuit held existed in the FTC's case against Rambus. In response to the EC's investigation, Rambus made certain licensing commitments for its DRAM intellectual property. The EC subsequently accepted Rambus's commitments and closed the investigation without a formal finding of abuse of dominance.

Interestingly, Rambus's licensing commitments to the EC—which included royalty-free licensing of Rambus's intellectual property in effect during the standard-setting process and reduced royalties for enhanced intellectual property developed thereafter—were accepted on a worldwide basis. Thus, the commitments rectified in part the concerns raised by the FTC as well as those raised by the EC (the charging of monopoly rents) and effected a remedy closely aligned with what the FTC would have required had its order not been set aside.

Conclusion

On May 9, 2011, the FTC announced that it would hold a June 21, 2011 public workshop to examine the legal and policy issues surrounding the competition problem of "hold-up" when patented technologies are included in collaborative standards.[79] The FTC plans to address three ways to prevent patent-hold-up in the standard-setting context, including (1) patent disclosure rules of standard-setting organizations; (2) commitments given by patent holders that they will license users of the standard on reasonable and non-discriminatory (RAND) terms; and (3) disclosure of licensing terms by patent holders before the standard is adopted. Additionally, the FTC also will consider whether certain conduct by patent holders is deceptive or unfair.

While it is too soon to say whether the FTC's workshop will result in further formal convergence (i.e., in the form of rules, guidelines, or a written report that mirror the EC's guidance), as a practical matter, convergence may already be inevitable. This is because for many cross-border standard-setting organizations, the guidance offered by the EC's 2011 Guidelines is likely to become a standard in and of itself. ■

[1] European Comm'n, Guidelines on the Applicability of Article 101 of the Treaty on the Functioning of the European Union to Horizontal Co-operation Agreements, 2011 O.J. (C 11) 1, ¶ 257 [hereinafter 2011 Guidelines], *available at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2011:011:0001:0072:EN:PDF.

[2] U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition 33 (2007) [hereinafter 2007 IP Report], *available at* http://www.ftc.gov/reports/innovation/P040101PromotingInnovationandCompetitionrpt0704.pdf; Christine A. Varney, Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, Remarks at the Intersection of Competition Policy and Patent Policy Workshop: Implications for Promoting Innovation 20–21 (May 26, 2010) [hereinafter Promoting Innovation Workshop], *available at* http://www.uspto.gov/ip/global/patents/Transcript_Intersection_of_Competition_Policy_and_Patent_Policy05262010.pdf); Frances Marshall, Special Counsel for Intellectual Prop., Antitrust Div., U.S. Dep't of Justice, Remarks, Promoting Innovation Workshop, *supra* at 194.

[3] *See, e.g.*, Org. for Econ. Co-Operation and Develop. (OECD), Competitive Aspects of Collaborative Standard Setting 5 (June 14, 2010) [hereinafter OECD Report], *available at* http://www.justice.gov/atr/public/international/269554.pdf ("In many contexts, the collaborative standard setting process can produce substantial benefits."); 2011 Guidelines, *supra* note 1, ¶ 263; Christopher B. Hockett & Rosanna G. Lipscomb, *Best FRANDs Forever? Standard-Setting Antitrust Enforcement in the United States and the European Union*, Antitrust, Summer 2009, at 19.

[4] Ernest Gellhorn & W. Todd Miller, Joint Ventures and Standard-Setting: Problems in the Current Framework (Oct. 26, 1995), *available at* http://www.ftc.gov/opp/global/gellhorn.shtm.

[5] Deborah Platt Majoras, Chairman, Fed. Trade Comm'n, Recognizing the Procompetitive Potential of Royalty Discussions in Standard Setting, Remarks Before Standardization and the Law: Developing the Golden Mean for Global Trade at Stanford University 2 (Sept. 23, 2005), *available at* http://www.ftc.gov/speeches/majoras/050923stanford.pdf.

[6] *See* 2007 IP Report, *supra* note 2, at 34; OECD, *supra* note 3, at 6.

[7] Gellhorn & Miller, *supra* note 4; 2011 Guidelines, *supra* note 1, ¶ 265.

[8] 2011 Guidelines, *supra* note 1, ¶ 273 (citing Case COMP IV/35.691—Pre-Insulated Pipes, Comm'n Decision, 1999 O.J. (L 24) 1, ¶ 147.

[9] *See, e.g.*, Hockett & Lipscomb, *supra* note 3, at 19; M. Sean Royall, Amanda Tessar & Adam Di Vincenzo, *Deterring "Patent Ambush" in Standard Setting: Lessons from* Rambus *and* Qualcomm, Antitrust, Summer 2009, at 34.

[10] Hockett & Lipscomb, *supra* note 3, at 19; 2011 Guidelines, ¶ 268.

[11] Majoras, *supra* note 5, at 4 ("The antitrust laws are concerned with situations in which the patent holder obtains such market power as a result of anticompetitive conduct.").

[12] Hockett & Lipscomb, *supra* note 3, at 23; *see also* 2011 Guidelines, *supra* note 1, ¶ 269 & n.2.

[13] Hockett & Lipscomb, *supra* note 3, at 23.

[14] *See, e.g.*, Case C-418/01 IMS Health GmbH & Co. OHG v. NDC Health GmbH & Co. KG, 2004 E.C.R. I-5039 (Eur. Ct. Justice); Joined Cases C-241 & 242/91 P, P Radio Telefis Eireann (RTE) and Independent Television Publ'ns Ltd v. Comm'n, 1995 E.C.R. I-743 (Eur. Ct. Justice); Case T-201/04 Microsoft Corp. v. Comm'n, 2007 E.C.R. II-3601 (Ct. First Instance).

[15] Hockett & Lipscomb, *supra* note 3, at 23.

[16] *Id.*

[17] On May 9, 2011, the FTC announced plans for a June 21, 2011 public forum on antitrust issues in standard setting. The FTC will likely provide additional guidance on standard-setting issues following this forum. Press Release, Fed. Trade Comm'n, FTC to Host Public Forum on Competition Issues in Standard-Setting (May 9, 2011), *available at* http://www.ftc.gov/opa/2011/05/standardsetting.shtm.

[18] Hill B. Wellford, Counsel to the Asst. Att'y Gen., Antitrust Div., U.S. Dep't of Justice, Antitrust Issues in Standard Setting, Remarks Before the China Electronics Standardization Institute 2d Annual Seminar on IT Standardization and Intellectual Property 16 (Mar. 29, 2007), *available at* http://www.justice.gov/atr/public/speeches/222236.pdf ("[B]ecause heavy, preemptive government regulation is not a solution to evaluating [standard-setting organization] policies, what other solution exists? Market competition."). *See, e.g.*, 2007 IP Report, *supra* note 2, at 55 ("The Agencies take no position as to whether [standard-setting organizations] should engage in joint ex ante discussion of licensing terms . . ."); Varney, Remarks, Promoting Innvoation Workshop, *supra* note 2, at 19, 24; Edith Ramirez, Comm'r, Fed. Trade Comm'n, Remarks, Promoting Innovation Workshop, *supra* note 2, at 187.

[19] *See* 2007 IP Report, *supra* note 2, at 40; Amy Marasco, Gen. Manager, Standards Strategy, Microsoft Corp., Remarks, Promoting Innovation Workshop, *supra* note 2, at 202–03; Brian Kahin, Senior Fellow, Computer and Commc'ns Indus. Ass'n, Remarks, Promoting Innovation Workshop, *supra* note 2, at 204.

[20] *See* 2007 IP Report, *supra* note 2, at 41.

[21] *See, e.g.*, Qualcomm Inc. v. Broadcom Corp., 548 F.3d 1004, 1019 (Fed. Cir. 2008), *cert. denied*, 129 S. Ct. 2182 (2009) (Qualcomm's failure to disclose to the standard-setting organization was sufficient grounds to render its patent unenforceable).

[22] Marasco, *supra* note 18, at 202; Douglas Melamed, Senior Vice President and Gen. Counsel, Intel Corp., Remarks, Promoting Innovation Workshop, *supra* note 2, at 209.

[23] Dell Computer Corp., 121 F.T.C. 616 (1996); Complaint, Union Oil Co. of Cal., FTC Docket No. 9305 (Mar. 4, 2003); Rambus Inc. v. FTC, 522 F.3d 456 (D.C. Cir. 2008); Complaint, Negotiated Data Solutions LLC, FTC Docket No. 051 0094 (Jan. 23, 2008). *See, e.g.*, Robert A. Skitol & Kenneth M. Vorrasi, *Patent Holdup in Standards Development: Life After* Rambus v. FTC, Antitrust, Summer 2009, at 26.

[24] 2007 IP Report, *supra* note 2, at 54. *See also* Willard K. Tom, *The DOJ/FTC Report on Antitrust Enforcement and Intellectual Property Rights*, Antitrust, Summer 2007, at 38–39.

[25] *See, e.g.*, Fed. Trade Comm'n Advisory Opinion, Foundation for the Accreditation of Hematopoietic Cell Therapy (Apr. 18, 1997), *available at* http://www.ftc.gov/opa/1997/04/fahct.shtm ("private standard-setting and accreditation programs, in general, have the potential to promote competition by providing useful information to consumers. Accordingly, standard-setting programs usually are evaluated under the rule of reason."); Majoras, supra note 5, at 7 (noting that standard setting conduct "merit[s] the balancing undertaken in a rule of reason review.").

[26] Tom, *supra* note 24, at 39.

[27] *See* 2007 IP Report, *supra* note 2, at 36; Majoras, *supra* note 5, at 5.

[28] Robert A. Skitol, *Concerted Buying Power: Its Potential for Addressing the Patent Holdup Problem in Standard Setting*, 72 Antitrust L.J. 727, 731 (2005).

[29] *See, e.g.*, Majoras, *supra* note 5, at 5.

[30] *See* 2007 IP Report, *supra* note 2, at 42–43.

[31] Skitol, *supra* note 28, at 732.

[32] *See* 2007 IP Report, *supra* note 2, at 43.

[33] Tom, *supra* note 24, at 38 (quoting Letter from Thomas O. Barnett, Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, to Robert A. Skitol, Esq., 6 (Oct. 30, 2006), *available at* http://www.usdoj.gov/atr/public/busreview/219380.pdf.).

[34] *See generally* Press Release, Fed. Trade Comm'n, Dell Computer Corp. (June 17, 1996), *available at* http://www.ftc.gov/opa/1996/06/dell2.shtm ("[T]he remedy in this case is consistent with those cases, decided under the concept of equitable estoppel, in which courts precluded patent holders from enforcing patents when they failed properly to disclose the existence of those patents.").

[35] *See* 2007 IP Report, *supra* note 2, at 36.

[36] *See, e.g.*, Majoras, *supra* note 5, at 5.

[37] *See, e.g.*, 2007 IP Report, *supra* note 2, at 47; Skitol, *supra* note 28, at 734 ("[A]a patent owner's own perspective on RAND terms can be expected to be quite different at the ex ante stage—when it may be competing with alter-

nate technology offerings for the proposed standard—than ex post (after the standard has been adopted with the owner's technology and those alternatives are no longer viable."), Skitol & Vorrasi, *supra* note 23, at 30. ("Critics maintain that the assurances provide insufficient protection against abusive ex post license demands."); Tom, *supra* note 24, at 38; Majoras, *supra* note 5, at 5 ("Experience has shown, however, that some agreements on RAND rates can be vague and my not fully protect industry participants from the risk of hold up.").

[38] Skitol, *supra* note 28, at 733 ("[A] generalized commitment to RAND licensing without ex ante (before voting the final standard) disclosure of specific license terms is ineffectual.").

[39] *See* 2007 IP Report, *supra* note 2, at 47.

[40] The authors note the preference for the term "RAND" in the United States and the term "FRAND" in the EU. There does not appear to be an appreciable difference between the two terms.

[41] *See* 2007 IP Report, *supra* note 2, at 36.

[42] *Id.* at 37.

[43] Skitol, *supra* note 28, at 735; IP Report, *supra* note 2, at 52.

[44] 2007 IP Report, *supra* note 2, at 52–53; Majoras, *supra* note 5, at 3. ("before lock in—or 'ex ante'—technologies compete to be the standard, and no patent-holder can demand more than a competitive royalty rate.").

[45] Majoras, *supra* note 5, at 6.

[46] 2007 IP Report, *supra* note 2, at 50.

[47] Skitol, *supra* note 28, at 734; Majoras, *supra* note 5, at 6.

[48] The 2011 Guidelines replace the previous Horizontal Guidelines, issued a decade earlier. The 2011 Guidelines followed publication of draft guidelines in June 2010 and a subsequent consultation process, in which more than 100 comments were received.

[49] Gordon Christian & Simon Holmes, *Standard Setting: The European Commission's New Approach*, Competition L. Insight, Jan. 1, 2011, at 10.

[50] *Id.*

[51] *See* 2011 Guidelines, *supra* note 1, ¶ 267; Christian & Holmes, *supra* note 49, at 11.

[52] *Id.*

[53] *See, e.g.*, Case COMP/38.636—Comm'n v. Rambus, Comm'n Decision, (Dec. 9, 2009) (summary at 2010 O.J (C 30) 17), *available at* http://ec.europa.eu/competition/antitrust/cases/dec_docs/38636/38636_1203_.pdf; Case T-201/04, Microsoft Corp. v. Comm'n, 2007 E.C.R. II-3601 (Ct. First Instance) (confirming that refusing to license essential interoperability information can constitute an abuse of a dominant position); Case COMP/39.615—Nokia/Bosch+IPCom, Press Release, European Comm'n, Antitrust: Commission Welcomes IPCom's Public FRAND Declaration (Dec. 10, 2009) (MEMO/09/549); Case COMP/39.294—Microsoft (ECIS complaint) Antitrust: Commission Initiates Formal Investigations Against Microsoft in Two Cases of Suspected Abuse of Dominant Market Position (Jan. 14, 2008) (MEMO/08/19).

[54] 2011 Guidelines, *supra* note 1, ¶ 280. Like RAND, FRAND suffers from ambiguity. Anne Layne-Farrar, A. Jorge Padilla & Richard Schmalensee, *Pricing Patents for Licensing In Standard-Setting Organizations: Making Sense of FRAND Commitments*, 74 Antitrust L.J. 672 n.1 (2007).

[55] 2011 Guidelines, *supra* note 1, ¶¶ 283, 287 et seq.

[56] *Id.* ¶ 287.

[57] *Id.* ¶ 289 (citing Case 27/26, United Brands Co. and United Brands Continentaal BV v. Comm'n, 1978 E.C.R. 207, ¶ 250 (Eur. Ct. Justice) and Case C-385/07 P, Der GrünePunkt-Duales System Deutschland GmbH v. Comm'n, 2009 E.C.R. I-6155, ¶ 142 (Eur. Ct. Justice)).

[58] In the context of the ex ante valuation of intellectual property rights in a standard, the 2011 Guidelines say that the valuation should result in a fee that bears a "reasonable relationship to the economic value of" the intellectual property rights. This seems to rule out charging a monopoly price simply because one is able to. Further, one of the suggested methods for establishing FRAND terms is "compare[ing] the licensing fees charged by the company in question for the relevant patents in a competitive environment before the industry has been locked into the standard" (2011 Guidelines, *supra* note 1, ¶ 289)—again, "competitive environment" seems to rule out monopoly power.

[59] The 2011 Guidelines do not exclude other methods for establishing FRAND terms, although the 2011 Guidelines do dismiss cost-based methods as inaccurate due to the difficulty of establishing which costs are directly associated with the technology's development. 2011 Guidelines, *supra* note 1, ¶ 289. Absent such valuations, parties remain free to resort to civil and administrative courts to settle disputes related to the determination of FRAND terms and for such other relief as is available. *Id.* ¶ 291. Indeed, a rights holder that charges higher than FRAND royalties for the use of technology enshrined in a standard may well be found to abuse a dominant position under Article 102 of the TFEU. *See, e.g.*, Joined Cases C-110, 241 & 242/88, 241/88 and C-242/88, François Lucazeau and Others v. Société des Auteurs, Compositeurs et Editeurs de Musique (SACEM) and Others, 1989 E.C.R. 2811 (Eur. Ct. Justice).

[60] This is essentially what happened in the IPCom case before the European Commission. *See* Case COMP/39.615—Nokia/Bosch+IPCom. The issue there was whether a FRAND commitment given by the original IP owner (Bosch) was also binding upon subsequent purchasers of the IP rights (IPCom), and whether the subsequent purchaser could be found to abuse a dominant position in violation of Article 102 TFEU by refusing to license these IP rights on FRAND terms.

[61] 2011 Guidelines, *supra* note 1, ¶ 285.

[62] *Id.* ¶ 286.

[63] *Id.* ¶ 286 n.3.

[64] *Id.* ¶ 286.

[65] In practice, SSOs' disclosure policies generally fall into two broad categories: participation-based and disclosure-based systems. In the participation-based organization, partaking right holders agree in advance to license any intellectual property rights they might own and which read on the candidate standard on FRAND terms; in a disclosure-based organization, partaking right holders agree to license only previously disclosed intellectual property rights on FRAND terms. The disclosure requirement in the 2011 Guidelines is of direct relevance only to the disclosure-based systems.

[66] 2011 Guidelines, *supra* note 1, ¶ 286.

[67] Id. ¶ 290.

[68] The 2011 Guidelines also provide for rules pertaining to safeguarding access to the standard-setting process itself. Thus, participation in the standard-setting process must be unrestricted and the process itself must be transparent. *Id.* ¶¶ 281, 282. Unrestricted participation helps ensure that no standards are set which may be detrimental to certain groups of industry participants and that the standard-setting organization can select a standard from a wide range of alternatives. Furthermore, in order to limit possible anticompetitive effects arising from collective agreements to use one standard to the detriment of rival technologies, compliance with the standard may not be mandated. *Id.* ¶ 280. This leaves the parties free to support competing or subsequent, superior standards. Of course, non-compliance with the standard also reduces the benefits of standardization. *See, e.g.*, *id.* ¶ 296.

[69] *Id.* ¶ 296.

[70] *Id.* ¶ 292–299.

[71] *Id.* ¶¶ 273, 274.

[72] *Id.* ¶ 279.

[73] Complaint, Rambus Inc., FTC Docket No. 9302 (June 18, 2002), *available at* http://www.ftc.gov/os/adjpro/d9302/020618admincmp.pdf.

[74] *Rambus*, 522 F.3d at 469.

[75] *Id.* at 466–67.

[76] Christian & Holmes, *supra* note 49, at 10.

[77] Case COMP/38.636—Comm'n v. Rambus, *supra* note 53.

[78] *Id.* ¶ 43.

[79] FTC Press Release, *supra* note 17.