

## Part V. Patent Assertion Entities and Privateers: Moving Beyond the FRAND Commitment

As the analysis in the previous part has pointed out, the divergences notwithstanding, a consensus has emerged in the EU and the US, that injunctions against implementers willing to agree upon FRAND terms could, under certain circumstances, have significant anticompetitive effects. What is notable however is that in both the EU and the US, the analysis of cases involving anticompetitive requests for injunctions focuses more on the form of the behaviour of the SEP-owner and in particular on the voluntary FRAND commitment, than on the actual or potential effects of anticompetitive behaviour on the standards-setting process, the downstream markets for standard compliant products and, in the last analysis, to consumer welfare.

Yet over-reliance on the voluntary FRAND commitment might leave open a crucial loophole which Patent Assertion Entities (PAEs) and privateers are all too ready to take advantage of. Instead antitrust analysis should view FRAND licensing terms as a necessary precondition for the competitive performance of the cooperative standard setting process and, as such, an obligation imposed on all stakeholders involved by Competition Law itself.

### *A. Patent Assertion Entities and Privateering: Costs and Efficiencies*

#### i. The PAE and Privateer or Hybrid-PAE Business Model

PAEs could be defined as entities asserting patents against alleged infringers as a business model, i.e. mainly with a view to obtain licensing fees rather than to facilitate technology transfer and the recouping of their own investments in research and development.<sup>103</sup> PAEs' assertion ac-

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103 DOJ and FTC Workshop on PAE Activities (10 December 2012, transcript at 8). Available at [https://www.ftc.gov/sites/default/files/documents/public\\_events/Patent%20Assertion%20Entity%20Activities%20Workshop%20/pae\\_transcript.pdf](https://www.ftc.gov/sites/default/files/documents/public_events/Patent%20Assertion%20Entity%20Activities%20Workshop%20/pae_transcript.pdf).

tivities, taking advantage of shortcomings of the patent system, such as doubtful patent quality and the uncertainties and costs of patent litigation, have increased exponentially in the last decade in all major jurisdictions.<sup>104</sup>

In the US for instance, PAE assertions accounted for 62% of filed patent lawsuits in 2012, a four-fold increase since 2005.<sup>105</sup> The ITC in particular, has proved a preferred forum for PAEs following *eBay*; in 2011, one-fourth of requests for exclusion orders based on s. 337 Tariffs Act were filed by PAEs.<sup>106</sup> Unsurprisingly, the costs for practicing entities (PEs) of such a dramatic rise in patent assertions might be heavy. Excluding costs such as diversion of resources from productive activities, delays in the marketing of new products and subsequent loss of market share, the US operating companies have suffered, in 2011 alone, direct costs of \$29 billion from patent assertions by PAEs.<sup>107</sup>

In their effort to maximise licensing income PAEs employ a variety of business strategies against their targets. Some PAEs assemble vast patent portfolios, functioning as ‘mass aggregators’; others file a small number of lawsuits against many targets, thus minimising litigation costs; many PAEs exploit low-quality patents in ‘nuisance suits’ aiming at a fast and rewarding settlement.<sup>108</sup> At the core of PAEs business model is the en-

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104 Mintzer and Munck, *The Joint US Department of Justice and Federal Trade Commission Workshop on Patent Assertion Entities – “Follow the Money”*, *Antitrust Law Journal* 79(2) 424 (2014).

105 See *supra* n. 103, Comments of Google, BlackBerry, Earthlink and Redhat. Another study found that, in 2010, practicing entities in the US were sued by PAEs for patent infringement more than 2,600 times, over five times more often than in 2004; see Bessen, Meurer and Ford, *The Private and Social Costs of Patent Trolls* (Boston Univ. School of Law, Law and Economics Research Paper 11-45, 2011) at 1.

106 Chien and Lemley, *Patent Holdup, the ITC and the Public Interest*, *Cornell Law Review* 98(1) 18 (2012).

107 Washington Legal Foundation, *Trolling, Licensing & Litigating: A 21<sup>st</sup> Century Patent Paradigm?*, (Spring 2013, transcript at 4). Available at [http://www.wlf.org/publishing/publication\\_detail.asp?id=2363..](http://www.wlf.org/publishing/publication_detail.asp?id=2363..)

108 Morton and Shapiro, *Strategic Patent Acquisitions*, *Antitrust Law Journal* 79(2) 470 (2014).

forcement of their patents in court by means of injunctions and awards of damages.<sup>109</sup>

Injunctive relief, in particular, is an invaluable legal weapon for PAEs, in that it increases PAEs' bargaining power *vis-à-vis* their targets to a significant extent.<sup>110</sup> Confronted with the threat of imminent exclusion from the market, risk-averse business executives might be willing to pay much higher royalties than they would otherwise, regardless of the merits of the individual case against them.<sup>111</sup> Timing is also vital. A PAE would typically wait until a target has completed its investment for the production of an allegedly infringing product, and then sue for infringement. In such a case the PAE can hope to a lucrative settlement capturing the hold-up value of its patent.<sup>112</sup>

Crucially, in their assertion efforts, PAEs face only a fraction, if any, of the market constraints faced by practicing entities. In particular, not producing anything themselves, PAEs are immune to the most powerful threat most PEs face when considering the enforcement of their rights against their rivals, namely that of a countersuit against their own products. Moreover, reputational concerns that might constrain the conduct of many PEs are less relevant for PAEs.<sup>113</sup>

Litigation costs are also highly asymmetrical as far as PAEs are concerned;<sup>114</sup> while for PEs litigation represents a significant and costly diversion from their normal operations, for PAEs, in contrast, litigation costs are nothing more than a normal investment within the contours of their everyday activities. This lack of effective constraints to PAE behaviour has profound implications for innovation industries in general, but, it will be argued below, even more so for the performance of cooperative standardisation.

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109 Ewing, *Indirect Exploitation of Intellectual Property Rights by Corporations and Investors: IP Privateering and Modern Letters of Marque and Reprisal*, Hastings Science and Technology Law Journal 4(1) 32 (2012).

110 Taylor, *Legislative Responses to Patent Assertion Entities*, Texas Intellectual Property Law Journal 23 314 (2015).

111 Mintzer and Munck, *supra* n. 104, at 427; See also Morton and Shapiro, *supra* n. 108, at 473.

112 Mintzer and Munck, *supra* n. 104, at 431.

113 Taylor, *supra* n. 110, at 321; Mintzer and Munck, *supra* n. 104, at 426.

114 Taylor, *supra* n. 110, at 321.

A particularly problematic, from an antitrust perspective, form of PAE activity is privateering.<sup>115</sup> Privateering is a form of cooperation between a practicing entity with a PAE, involving transfer and assertion of the former's patents by the latter; in such an instance the PAE engaged in privateering aims at the direct benefits of patent assertion in the form of licensing revenues and awards for damages, while the sponsor's motives are the more strategic and consequential benefits of patent assertion against rivals without fear of retaliation or reputational damage.<sup>116</sup> Although hard to detect for reasons discussed below, privateering is considered a rapidly growing phenomenon.<sup>117</sup>

Privateers essentially function as agents of practicing entities aiming to achieve their corporate goals; the sponsor sets the objectives of the operation, assembles the necessary resources, might even supply a list of targets and leaves the rest to the privateer.<sup>118</sup> Sponsors' goals range from the most obvious of raising the costs of rivals, to more subtle strategic objectives, such as change in the rate of technology adoption by the industry, a change of business relationships as a driver for larger licensing arrangements or even a wider institutional change in the patent system through case law.<sup>119</sup>

For the sponsor to achieve its strategic objectives, privateering arrangements must remain well camouflaged.<sup>120</sup> Otherwise the PE would be subject to the same constraints that precluded the enforcement of its rights in the first place, such as countersuits by rivals, reputational costs, and antitrust scrutiny. The degree of secrecy of a privateering arrangement ranges from extremely high to moderately low; in some occasions the

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115 Privateers are also referred to as 'hybrid PAEs'; see Morton and Shapiro, *supra* n. 108, at 464.

116 Ewing, *supra* n. 109, at 5.

117 Popofsky and Laufert, *Antitrust Attacks on Patent Assertion Entities*, Antitrust Law Journal 79(2) 455 and accompanying note 48 (2014); For a comprehensive list of recent patent assignments deemed to involve privateering arrangements, see Florian Mueller, *Privateering: let's name and shame companies that feed patent trolls* (May 12, 2015). Available at <http://www.fosspatents.com/2015/05/privateering-lets-name-and-shame.html..>

118 Ewing, *supra* n. 109, at 24.

119 Ibid, at 103.

120 Ibid, at 29.

sponsor might even hint at its involvement in privateering as a signal for changing the behaviour of competitors.<sup>121</sup>

The need for secrecy determines the contractual terms of the assignment of patents. In most cases the targets would not be explicitly mentioned; rather the terms of the contract would create the pertinent incentives to induce the PAE to attack rivals, such as the PE retaining the right to direct the transfer elsewhere unless particular milestones are met.<sup>122</sup> The transfer of around 2,000 patents from Nokia and Microsoft to MOSAID provides a good illustration of the kind of contractual terms included in a privateering arrangement. MOSAID, a PAE, would assert and if necessary litigate the patents transferred by Nokia and Microsoft; the sponsors though would receive back two-thirds of the collected royalties and damages awards.<sup>123</sup> Crucially, if MOSAID failed to reach certain revenue milestones it would lose the right to further transfer the patents or even cede ownership altogether.<sup>124</sup> Such terms provide strong incentives for aggressive assertion and litigation.

## ii. Implications of PAE Activities for Social Welfare and Efficiency

Downstream PEs might suffer important costs in face of PAEs' and privateers' assertion activities; but, one might argue, these costs are not necessarily a waste from a social welfare perspective. Downstream producers pay more, but if these costs are translated to income for innovators, incentives to innovate would be enhanced and the net balance between social losses and benefits would be neutral, if not positive due to innovation spill-overs.

Indeed many view PAEs as efficient 'machines' of patent licensing and litigation that could provide individual inventors with a valuable option for exploitation of their rights which would otherwise be misappropriated by large firms with impunity.<sup>125</sup> Moreover by assembling bundles of com-

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121 Ibid, at 50.

122 Popofsky and Laufert, *supra* n. 117, at 455.

123 Harris, *Patent Assertion Entities & Privateers: Economic Harms to Innovation & Competition*, Antitrust Bulletin 59(2) 319 (2014).

124 Carrier, *Patent Assertion Entities: Six Actions the Antitrust Agencies Can Take*, CPI Antitrust Chronicle 1(2) 8 (2013).

125 See Workshop on PAEs, *supra* n. 103, at 1 and 3; see also Taylor, *supra* n. 110, at 315.

plementary patents, PAEs reduce transaction costs; costs of technology transfer, such as search, negotiation and licensing costs could be reduced by the efficient management of patents by PAEs.<sup>126</sup> Thus, PAEs could, the argument goes, facilitate the development of a vibrant market for technology, allowing companies to monetise patents that are not essential to their operation and buy or license in technology they need more.<sup>127</sup>

However such benefits are uncertain. To begin with, the argument that PAEs reward individual inventors, thus enhancing incentives to innovate, seems weak in view of empirical evidence. According to a recent study, a meagre 2% of the losses imposed on practicing entities by PAE litigation efforts flows back to ‘outside’ innovators.<sup>128</sup> Although one might argue that, at first sight, PAEs merely redistribute rents along the production chain,<sup>129</sup> it is also true that these rents are transferred from companies that produce innovative products to those that do not innovate or produce anything themselves.<sup>130</sup> Thus, valuable resources are diverted away from research and production towards rent-seeking activities.<sup>131</sup>

Moreover, PAEs, facing relatively few constraints in their aggressive patent assertions, transform patent litigation by reducing its direct and indirect costs.<sup>132</sup> There is a particular concern with the settlement of disputes and the rewards that confer to PAEs which, under the threat of injunction, might be in excess of a patent’s real value and contribution.<sup>133</sup> Such excessive costs could be viewed as a tax on innovating businesses and consumers.<sup>134</sup> In view of the above considerations, the conclusion that PAEs represent ‘a negative trend in patent law’ seems not unjustified.<sup>135</sup>

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126 Mintzer and Munck, *supra* n. 104, at 429.

127 See Workshop on PAEs, *supra* n. 103, Comment of Jason Albert, Assistant General Counsel of IP Policy and Strategy of Microsoft (Microsoft Comments), at 5; see also Bessen, Meurer and Ford, *supra* n. 105 at 3.

128 Bessen, Meurer and Ford, *supra* n. 105, at 20.

129 Wright and Ginsburg, *Patent Assertion Entities and Antitrust: A Competition Cure for a Litigation Disease?*, *Antitrust Law Journal* 7(2) 516 (2015).

130 See Washington Legal Foundation, *supra* n. 107, at 4.

131 *Ibid.*

132 Colleen Chien, *Turn The Tables On Patent Trolls*, *Forbes* (August 9, 2011). Available at [http://www.forbes.com/sites/ciocentral/2011/08/09/turn-the-tables-on-patent-trolls/..](http://www.forbes.com/sites/ciocentral/2011/08/09/turn-the-tables-on-patent-trolls/)

133 Harris, *supra* n. 123, at 310.

134 Mintzer and Munck, *supra* n. 104, at 430.

135 Merges, *The Trouble with Trolls: Innovation, Rent-Seeking, and Patent Law Reform*, *Berkeley Technology Law Journal* 24 1587 (2010).

B. PAEs and Privateers in the Context of Cooperative Standards-Setting

PAEs and their activities present significant challenges for innovation and the function of the patent system in general, however in the more particular context of cooperative standards-setting such problems might be even more pronounced. It has already been discussed above in part II that the formal cooperative standardisation largely depends on the predictability of the structure of returns and the reliability of the process as a whole; absent a rewarding and predictable structure of returns the delicate balancing of interests and incentives achieved in formal standardisation could break down.<sup>136</sup> It was also pointed out that specific market constraints, such as fear of retaliation and reputational harm, are an important safeguard against post-adoption opportunism.

PAEs fit problematically in this context. Forces that traditionally constrained the behaviour of all stakeholders to the standard setting process exert little, if any, influence on the behaviour of PAEs. Risk and cost asymmetries in patent litigation, for instance, run in favour of PAEs and privateers.<sup>137</sup>

Ownership of SEPs has traditionally been seen as the best safeguard for many standard implementers against infringement suits; following the ‘mutual destruction’ paradigm,<sup>138</sup> opportunistic SEP-holders that implement the standards themselves would think twice before attacking a competitor for fear of retaliation. However, PAEs do not produce standard-compliant products and are thus immune to countersuits. This PAE immunity to retaliatory countersuits is in practice a primary motivation for privateering arrangements as already discussed above.

Similarly, asymmetric litigation costs provide a further incentive for aggressive assertion of SEPs. Practicing companies devote significant resources to develop and produce innovative products; litigation with all its uncertainty puts their investment at risk.<sup>139</sup> PAEs on the other hand are much more efficient users of legal procedures.<sup>140</sup>

Fear of reputational damage has also exerted significant pressures to SEP-holders and the aggressive enforcement of their rights. The standardi-

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136 Supra p. 6-9.

137 Harris, *supra* n. 123, at 299.

138 Ewing, *supra* n. 109, at 6.

139 Harris, *supra* n. 123, at 299.

140 Ibid.

sation process is a repeat game; participants that assert their patents aggressively, demanding unreasonable royalty rates, might find it more difficult to have their future technology contributions included in standards.<sup>141</sup> PAEs in contrast do not conduct R&D themselves, nor are they members to SSOs, and thus do not contribute anything to the standards-setting process; fear of failing to achieve inclusion of their technologies in future standards is irrelevant to PAEs.<sup>142</sup>

On the contrary, it can be argued that reputation plays quite differently when it comes to PAEs. PAEs' revenue depends on the willingness of businesses they identify as targets for patent assertion to come to terms with their demands for royalties and damages. The would-be licensee would not succumb to a PAE's demands if the threat of litigation and injunction could not be viewed as credible enough; threatened by a PAE that has a reputation for aggressively seeking high royalties or obtaining injunctive relief, a practicing entity will take such threats much more seriously.<sup>143</sup>

A reputation for toughness could not only mean more rewarding settlement agreements, but also that these settlements will be struck earlier, at a lower cost for the PAE and with little fear of invalidation in infringement litigation.<sup>144</sup> For these reasons, a PAE might even prefer in the long run to spend money in litigation in order to establish a reputation for following through its threats.<sup>145</sup>

PAEs can influence the standards-setting process in another critical respect; by reducing the transparency of ownership of SEPs. It is common practice for many PAEs to create 'shell companies' to hold and assert parts of their patent portfolios, thus making it increasingly difficult to determine the actual ownership of a patent.<sup>146</sup> For instance, Acacia's subsidiaries control over 250 patent portfolios<sup>147</sup> and Intellectual Ventures has formed

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141 *Supra* p. 18.

142 Gots and Sher, *Particular Antitrust Concerns with Patent Acquisitions*, Competition Law International 8 25 (2012).

143 Morton and Shapiro, *supra* n. 108, at 478.

144 Harris, *supra* n. 123, at 299-300.

145 See among others, Milgrom and Roberts, *Predation, Reputation and Entry Deterrence*, Journal of Economic Theory 27 280 (1982).

146 Morton and Shapiro, *supra* n. 108, at 476.

147 Acacia Research Group LLC, *Patent Portfolios*. Available at <http://acaciatechnologies.com/patentportfolio.htm..>

at least 1,276 shell companies.<sup>148</sup> Empirical evidence suggests that in one-third of cases brought by PAEs in the U.S., the plaintiff was different from the owner of record as of the day the litigation was initiated.<sup>149</sup> Opaque ownership of SEPs could not only raise transaction costs for SEPs licensing, but it could also make it for licensees and antitrust authorities much more costly to monitor the licensor's compliance with FRAND obligations.<sup>150</sup>

The most important issue with PAE ownership of SEPs is the fate of the FRAND commitment made by the original patentee and the licensing obligations of the subsequent holder. In the case of a transfer of a FRAND committed SEP, the commitment itself does not 'travel' with the patent, i.e. the new owner, if not bound by the assignment contract, has no obligation under patent law or contract law to abide to such a commitment made by the previous owner.<sup>151</sup> Although obliging technology contributors to impose FRAND commitments to subsequent owners in case of transfer of their SEPs has been discussed within SSOs, so far most SSOs, with the notable exception of ETSI, have failed to include such a provision in their bylaws.<sup>152</sup>

It has been accurately pointed out that the uncertainty and lack of clarity in respect of the licensing obligations of SEPs holders that are not bound by a FRAND commitment, opens a 'potentially fatal loophole'.<sup>153</sup> Although the exact impact of uncertainty with regard to FRAND commitments will be discussed in detail below, it should be mentioned at this

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148 Ewing and Feldman, *The Giants Among Us*, Stanford Technology Law Review 1 (2012).

149 Colleen Chien, *Eliciting More Complete Patent Assignment Information* Comment (USPTO Docket No. PTOP-2011-0077, Jan. 23, 2012, at 3). Available at [http://www.uspto.gov/patents/law/comments/f\\_chien\\_120123.pdf](http://www.uspto.gov/patents/law/comments/f_chien_120123.pdf).

150 See Microsoft Comments, *supra* n. 127, at 3.

151 Morton and Shapiro, *supra* n. 108, at 475; Harris, *supra* n. 123, at 321; The CEO of Rockstar, a PAE consortium, made some interest remarks in one of his interviews regarding the FRAND commitments of the previous owners of the SEPs that the consortium had recently bought: '... *We are separate... these promises do not apply to us..*' see Robert McMillan, *How Apple and Microsoft Armed 4,000 Patent Warheads*, Wired Magazine (May 21, 2012). Available at [http://www.wired.com/2012/05/rockstar/..](http://www.wired.com/2012/05/rockstar/)

152 Morton and Shapiro, *supra* n. 108, at 475.

153 Carrier, *supra* n. 124, at 5.

point that evading FRAND obligations represents an excellent opportunity for profitable rent seeking by PAEs, privateers and their sponsors.<sup>154</sup>

The lack of sufficient market restraints, as well as the insufficient SSOs regulatory framework in respect of FRAND obligations, implies that PAEs have ample ground for profiteering at the expense of genuine innovators and contributors, standard implementers and the standardisation process itself. Adding to that, PAEs have the monetary and reputational incentives to aggressively assert and litigate SEPs.

Although injunctive relief against willing licensees has become increasingly difficult in many jurisdictions as the analysis in the previous part has tried to establish, this threat to competition and innovation is still present; the ITC in the US and German patent infringement courts in Europe are venues of patent litigation which PAEs justifiably view as more friendly. The uncertainty and costs inherent in litigation are as relevant as always. PAE exploitation of SEPs could be, at least, problematic. The issue is whether PAE activity in the standards-setting context is primarily a competition law problem or whether other legal frameworks could provide more suitable institutional alternatives.

### *C. PAEs and Opportunistic Assertion of SEPs: A Competition Law Problem?*

In part II, the cooperative standards-setting process is analysed as an efficient and inclusive form of self-regulated industry coordination.<sup>155</sup> At the core of coordinated standardisation is a predictable and rewarding structure of returns to investment in R&D and in manufacturing of standard-compliant products. FRAND licensing terms are the contractual meeting point of the diverging interests of technology contributors and standard implementers which allows for sufficient reward of innovating endeavours and at the same time the profitable implementation of standards by downstream manufacturers.

Moreover, FRAND licensing terms are discussed as a necessary condition for the competitive performance of both upstream and downstream markets for standard-contributing technologies and standard-compliant

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154 Morton and Shapiro, *supra* n. 108, at 475; Harris, *supra* n. 123, at 308.

155 Supra, p. 6-7.

products.<sup>156</sup> Terms below the FRAND range would under-compensate contributors, thus reducing their incentives to invest in R&D and contribute to the standard setting process their best technologies; a further risk would be firms to divert resources away from cooperative standardisation towards inefficient *de facto* standardisation races. Terms above the FRAND range would reduce incentives to invest in implementation of standards, thus leading to lower output and choice for consumers.

PAEs have the incentives to destabilise this balance of incentives and returns. Market forces that restrain genuine innovators and contributors in the assertion of their rights exert little influence on PAEs. Moreover, in most cases, the transfer of SEPs to PAEs does not necessarily transfer the FRAND commitment of the transferor. Many SSOs have proved so far hesitant to impose such an obligation in their bylaws. If opportunistic PAE activity is left unchecked it has the potential to produce concrete and identifiable *anticompetitive effects* in both the upstream and the downstream markets.

To begin with, above-FRAND terms imposed by PAEs could be expected to lead to royalty stacking and thus to higher prices and reduced incentives to innovate.<sup>157</sup> Demands for higher-than-FRAND royalties might reduce incentives to invest in the production of standard compliant products in two ways: first, in case downstream firms pass on the higher royalty rate to consumers, market demand for standard compliant products should be expected to fall, leading to lower profits and less investment in implementation of standards;<sup>158</sup> second, in case downstream firms internalise the higher royalty rate, their own margin of profit would be suppressed resulting again in reduced incentives to invest in standard compliant products.

In both scenarios, supra-FRAND royalties would lead to reduced competition in the downstream market. Higher licensing costs might force efficient downstream firms to exit the market and, adding to that, such costs might also deter future entry; firms thinking of entering the downstream market would think twice when faced not only with the possibility of higher input costs and lower profits, but also with the uncertainties and costs of opportunistic PAE litigation. In the end, due to restricted actual and potential competition in the downstream market, consumers will have

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156 Supra, p. 8.

157 Popofsky and Laufert, *supra* n. 117, at 456-457.

158 Harris, *supra* n. 123, at 289.

to pay higher prices for standard-compliant products; they will have less choice and less innovation.

Negative impact on the upstream market for standard-contributed technologies should be expected as well. Unreasonable and excessive royalty demands by a specific class of SEPs-holders, such as PAEs, would produce a negative externality for other contributors to the standards-setting process;<sup>159</sup> standard-implementers faced with excessive royalty demands from opportunistic SEPs-holders might attempt to keep the aggregate royalty costs low by suppressing the royalty rates of other contributors to the process.

Thus, the current structure of returns to R&D, which provides for predictable and sufficient rewards to investment in innovation, would be disrupted, resulting in fewer incentives to invest and contribute to the standards-setting process. Innovating firms might reduce investment in R&D or might divert their resources to independent development of *de facto* standards with all its inefficiencies identified in Part II of the present thesis.

Privateering arrangements could disrupt the standard setting process even more. Apart from the anticompetitive effects associated with PAEs' activities proper, hybrid-PAE activity would allow practicing entities to evade their FRAND commitments, to raise their rivals' costs and force them to exit the market.<sup>160</sup> The possibility for SEPs holders to abrogate their FRAND obligations with impunity, through transfer of their rights to privateers, would seriously impair the predictability of the structure of returns and the reliability of the formal standards-setting process. It would increase uncertainty for all the firms involved in coordinated standardisation.

However, the fact that PAEs and privateers could produce anticompetitive effects by speculating on the standards-setting process does not necessarily imply that antitrust enforcement is the most effective solution to opportunistic behaviour. Indeed many scholars have attributed inefficiencies resulting from PAE activity to the patent system,<sup>161</sup> or to civil procedure

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159 Harris, *supra* n. 123, at 291.

160 Popofsky and Laufert, *supra* n. 117, at 457.

161 Low patent quality, costs of patent litigation and asymmetries in the patent system are indeed problems of the patent system which PAEs are more than ready to exploit. See Taylor, *supra* n. 110, at 317.

and litigation;<sup>162</sup> others have proposed remedies based on contract law or on theories of promissory estoppel; increased transparency of ownership and encumbrances on patents might also mitigate problems of evasion of FRAND commitments.<sup>163</sup> SSOs could also play an important role in regulating SEPs transfers and the effect of FRAND commitments on subsequent owners.<sup>164</sup>

A more thorough review of the above mentioned proposals is outside the scope of this thesis. Undoubtedly, valuable insights could be drawn from such contributions with regard to the exact nature of PAE activity and its sources. Indeed many of such proposals, if put into practice, would alleviate problems stemming from PAE activities and opportunism with SEPs in general. However, that should not lead to the conclusion that antitrust enforcement is less relevant.

Antitrust could play a meaningful role.<sup>165</sup> The most important contribution of antitrust enforcement against abuses of SEPs is its  *deterrent effect*.<sup>166</sup> Although patent law reforms or contractual binding of subsequent SEPs-holders to FRAND licensing would provide to victims of hold-up useful defences in court, they do not sufficiently deter abusive assertion of SEPs in the first place. For instance, the contractual binding to FRAND could raise counterclaims of breach of contract or/and contractual performance; however, the opportunistic SEP-holder will, in case it loses on such grounds, be left no worse than with a licence on FRAND terms. In the end, a patent hold-up is indeed precluded, but contractual constraints can do little to  *prevent* opportunistic assertion of SEPs in the first place. The victims still suffer the costs of uncertain and resource-draining litigation; most importantly, the reliability of the standards-setting process might still be at risk.

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162 Wright and Ginsburg, for instance attribute PAE-related problems first and foremost to the US litigation system ('*all commentators agree that something is seriously amiss with our system of litigation*'). However, they also contend that particular PAE conduct should be subjected to antitrust scrutiny and intervention. See Wright and Ginsburg, *supra* n. 129, at 505 and 510.

163 Contreras, *Patent Pledges*, Arizona State Law Journal (Forthcoming 2015).

164 The European Commission in its Horizontal Guidelines strongly encourages SSOs to bind their members in respect of future SEPs transfers. See Horizontal Guidelines, *supra* n. 7, para. 285.

165 Popofsky and Laufert, *supra* n.117, at 446.

166 Ewing, *supra* n. 109, at 81 ('*the in terrorem effect of a DOJ investigation may provide sufficient deterrence to privateering*').

Antitrust enforcement on the other hand, in imposing tortfeasors positive monetary losses in the form of fines, alters the profit-cost calculus of opportunistic behaviour in the first place; opportunistic assertion of SEPs will come at a cost. Of course, a too-heavy-handed approach could have a chilling effect on legitimate patent assertions against implementers that are reluctant to pay FRAND royalties, thus leading to false positives. Antitrust enforcement should carefully examine the specificities of each case, such as the particular PAE conduct, the relationship between PAEs and practicing entities, the structure of downstream markets.<sup>167</sup> More importantly, an economically informed antitrust analysis focusing on the actual and potential anticompetitive effects of opportunistic SEPs assertion should prohibit behaviour that is truly harmful to consumers. Safeguarding the inclusive and efficient character of the standards-setting process *is* a competition law problem. Informed antitrust analysis could provide adequate responses to opportunistic PAE behaviour and privateering.

#### *D. Enforcing EU Competition Law against PAEs and Privateers: Moving Beyond the FRAND Commitment*

##### i. Legal Formalism in the Enforcement of EU Competition Law in the Context of Coordinated Standards-Setting

In both the US and the EU, antitrust enforcement against opportunistic assertion and litigation of SEPs against ‘willing licensees’ so far relied heavily on the voluntary nature of the FRAND commitment; anticompetitive harm is mainly understood as stemming from the evasion of FRAND commitments on which SSOs and standard implementers came to rely in the process of formal standards-setting and the ensuing SEP-holdup. It could be argued that this focus on the voluntary FRAND commitment is too narrow and formalistic; that it fails to articulate a convincing theory of anticompetitive harm resulting from opportunistic behaviour by SEP-holders.

As a result, a loophole has emerged in antitrust enforcement in the context of coordinated standardisation. The significant increase of transfers of SEPs to PAEs and privateers illustrated in the previous part is not an acci-

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<sup>167</sup> Mintzer and Munck, *supra* n. 104, at 437.

dent; antitrust analysis that has been centred on whether SEPs-holders live up to their FRAND promises, might have created the wrong impression to some stakeholders that transfers and opportunistic assertion of SEPs by entities that have not made such commitments themselves could well be permissible.

This loophole is even more important in the EU; alternative legal frameworks in major national jurisdictions in the EU provide far less safeguards against opportunistic assertion of SEPs than in the US, where the FRAND commitment is enforced by courts as a contractual obligation and injunctive relief in patent infringement cases is available only in cases the restrictive *eBay* requirements are met. For that reason, the analysis in this part will be focused on the application of EU competition rules; however, antitrust analysis of this issue in US literature is highly relevant and the proposed framework could be applied, with some moderate adaptation to account for institutional divergences, to US antitrust rules as well.

A characteristic example of enforcement which focuses almost entirely on the FRAND commitment as basis for finding breach of competition rules would be the Commission's decision in *Motorola*, already discussed in part IV.<sup>168</sup> It is settled case-law of EU courts, that the exercise of intellectual property rights *per se*, and in particular a refusal to license, could constitute a breach of EU competition law only in 'exceptional circumstances'.<sup>169</sup> The Commission in its analysis identified two exceptional circumstances: the standards-setting context and the FRAND commitment.<sup>170</sup> The weight attributed to these two factors is however unequal; not only the analysis of the standards-setting context is far shorter, but it

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168 Supra p. 32.

169 In a line of cases the ECJ identified these exceptional circumstances that would qualify for antitrust intervention in a three-factor test of abuse of dominance under Art. 102 TFEU. In particular, the holder of IPR must, by refusing to license, preclude the supply of new products for which there is potential consumer demand; his refusal is not justified by objective considerations; and the refusal is liable to eliminate all competition in the downstream market. See Cases C-241-242/91 P, *RTE and ITP V. Commission* [1995] ECR I-743; Case C-7/97, Oscar Bronner GmbH & Co KG V. Mediaprint [1998] ECR I-7791; Case C-418/01, *IMS Health GmbH & Co OHG V. NDC Health GmbH & Co KG* [2004] ECR I-5039.

170 See *Mototrola*, *supra* n. 91, para. 281-300.

too is essentially based on the FRAND commitment, on ‘the agreement of patent holders’ to offer FRAND terms.<sup>171</sup>

In general, it could be argued that the thrust of the decision is that Motorola abused its dominant position by failing to keep its FRAND commitment; the decision focuses much less on the exclusionary effects of opportunistic SEPs assertion, liable to result in supra-FRAND rates; and when such effects are identified these again seem to flow from Motorola’s ‘voluntary commitment’ and the subsequent ‘legitimate expectations’ of standard implementers and not from a competition law obligation not to anti-competitively foreclose markets by abusing a dominant position.<sup>172</sup>

It will be argued below, that competition law enforcement should be based on anticompetitive effects such as higher prices, lower output, reduced innovation and higher barriers to entry, all resulting from disrupting the structure of returns implied by the efficient operation of the standard setting process. The breach of a voluntary commitment should be taken into account as an element of anticompetitive *intent*, which helpful as it might be for proving abuse of dominance, should not be a necessary condition for such a finding.

The over-reliance to the voluntary nature of the FRAND commitment resonates in the recent ECJ ruling in *Huawei* as well.<sup>173</sup> The Court based its finding of abuse of dominance first and foremost on failure on the part of the SEP-holder to keep its FRAND commitment.<sup>174</sup> Although the exclusionary power of SEPs-holders is mentioned in the judgment, the Court refrained from providing a more detailed and elaborate analysis of the im-

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171 Ibid, para 289 (‘Once GPRS, based on the agreement of patent holders to grant access to their SEPs on FRAND terms and conditions, was widely implemented and the industry became locked in, a SEP holder may be able to behave in anti-competitive ways, for example by “holding-up” implementers of the standard after its adoption’).

172 Ibid, para 417 (‘In view of the standardisation process that led to the adoption of the GPRS standard and Motorola’s voluntary commitment to license the Cudak SEP on FRAND terms and conditions, implementers of the GPRS standard have a legitimate expectation that Motorola will grant them a licence over that SEP’).

173 See *Huawei V. ZTE*, *supra* n. 95.

174 Ibid, para 53 (‘In those circumstances, and having regard to the fact that an undertaking to grant licences on FRAND terms creates legitimate expectations on the part of third parties that the proprietor of the SEP will in fact grant licences on such terms, a refusal by the proprietor of the SEP to grant a licence on those terms may, in principle, constitute an abuse within the meaning of Article 102 TFEU’).

pact of opportunistic assertion of SEPs and supra-FRAND licensing on the standards-setting process; finding of anticompetitive harm was not based firmly on an effects-based analysis of the likely effects of such conduct on the competitive conditions of the relevant upstream and downstream markets, and in particular on prices, output and innovation.<sup>175</sup>

ii. An Effects-Based Approach to Opportunism with SEPs:  
Anticompetitive Foreclosure and Article 102 TFEU

This formalistic and narrow approach is understandable. The context of coordinated standardisation is patently different from the factual context of all previous IP-related refusal-to-license cases. Yet exceptional circumstances should still be convincingly established, sanctioning the Commission and EU Courts not only to interfere with the SEPs-holders' patent rights, but also to depart from the over-restrictive requirements set out in *Magill*, *Bronner* and *IMS*. Evasion of FRAND commitment provided a strong indication that the conduct of the dominant undertaking could not be qualified as competition 'on the merits', but also a basis for establishing exceptional circumstances that are at the same time different from those in previous refusal to license cases.

However, a different approach to abuse of dominance in the context of coordinated standards-setting might be necessary. An effects-based approach would better clarify what benefits for consumers competition law protects in the standards-setting process; innovative interoperable products at competitive prices as a result of the operation of open, innovative and competitive markets in both the upstream level for standard-contributed technologies and the downstream level for standard-compliant products. Such markets should only be expected to perform to their full pro-competitive potential only insofar as the coordinated standards-setting process remains inclusive and efficient, that is only if a predictable, balanced and rewarding structure of returns to the investment of all participants is guaranteed.

Such structure of returns is, in turn, impossible to maintain, unless all stakeholders agree to license their proprietary technology on terms that allow sufficient compensation of contributors and at the same time sufficient

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175 Ibid, para 52.

margin of profit for implementers; this balance of interests is crystallised in the range of contractual terms known as FRAND terms.

Licensing terms outside this range, imposed under threat of injunctions, can predictably in themselves produce exclusionary effects on both the upstream and the downstream markets, regardless of previous commitments on the part of the SEP-holder.<sup>176</sup> The FRAND commitment enhances the predictability and reliability of the standards-setting process; but it should not be the sole basis for finding of anticompetitive harm and abuse of dominant position. Identifiable and predictable exclusionary effects resulting in higher prices, lower output and choice, reduced incentives to innovate, should form the basis of theories of anticompetitive harm in the context of standard setting.

This move of focus of the application of Article 102 TFEU away from the FRAND commitment towards a more effects-based approach would be a sound choice from both a public policy and a doctrinal perspective. To begin with, viewing FRAND licensing terms as an obligation stemming directly from competition law, regardless of a SEP-holder's previous contractual or other commitments, would infuse the standards-setting process with enhanced predictability by deterring opportunistic assertion and litigation of SEPs. Such an approach could tackle more effectively brinksmanship with transfers of SEPs, privateering arrangements and whatever other form of opportunism might emerge in the future.

An effects-based approach would further result in more accurate antitrust enforcement against conduct that could truly harm competition and consumers, avoiding false positives and false negatives. Such approach would also maintain strong incentives to innovate by guaranteeing sufficient compensation of R&D on the basis of FRAND licensing terms. It would reduce negative externalities to genuine and responsible contributors arising from excessive royalty demands by opportunistic SEPs-holders.

Moreover, an effects-based approach would be consistent with Commission's post-modernisation approach on the application of Article 102 TFEU.<sup>177</sup> In its Guidelines on the application of Article 102, the Commis-

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<sup>176</sup> Supra, p. 48-49.

<sup>177</sup> European Commission, *Guidance Paper on the Commission's enforcement priorities in applying Article 102 of the EC Treaty to abusive exclusionary conduct by dominant undertakings* [2009] OJ C45/2.

sion introduced the concept of ‘anticompetitive foreclosure’ as a benchmark for assessing behaviour that could constitute abuse of dominance.<sup>178</sup>

Anticompetitive foreclosure comprises two elements: foreclosure of competitors and harm to consumer welfare.<sup>179</sup> Licensing terms outside the FRAND range could produce both exclusion and harm to consumer welfare, as the analysis above suggests;<sup>180</sup> anticompetitive foreclosure results not from the evasion of FRAND commitments itself, but from imposing, through aggressive SEPs assertion, licensing terms that would make implementation of the standard unprofitable even for efficient downstream firms. Harm to consumer welfare would take the form of higher prices, less choice and less innovation in standard compliant products.

Additionally, antitrust enforcement that moves beyond the FRAND commitment would fit well with ECJ long-standing case law on exclusionary abuses in general, and in particular on interference with patent holders’ rights only in ‘exceptional circumstances’. Since *Hoffmann-La Roche*, the ECJ has repeatedly defined exclusionary abuse of dominant position as an ‘objective concept’;<sup>181</sup> anticompetitive intent or object of the conduct in question need not be proved in the course of finding an abuse of dominance under Article 102 TFEU.<sup>182</sup> Evasion of a FRAND commitment would indeed imply anticompetitive intent; however it should not be a necessary condition for finding an abuse of dominance.

Evasion of FRAND commitments should also not be a condition for finding ‘exceptional circumstances’ that qualify for antitrust interference with patent rights; the context of coordinated standardisation is an exceptional circumstance. It is not common for competitors to discuss at arm’s

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178 Ibid, para 19 (*‘The aim of the Commission’s enforcement activity in relation to exclusionary conduct is to ensure that dominant undertakings do not impair effective competition by foreclosing their competitors in an anti-competitive way, thus having an adverse impact on consumer welfare, whether in the form of higher price levels than would have otherwise prevailed or in some other form such as limiting quality or reducing consumer choice’*).

179 Ibid.

180 Supra, p. 47-49.

181 See Case C-85-76, *Hoffmann-La Roche & Co AG V. Commission* [1979] ECR 461; Case C-322/81, *Nederlandsche Banden Industrie Michelin V. Commission* (Michelin I) [1983] ECR 3461; and Case C549/10 P, *Tomra Systems V. Commission* (Tomra) [2012].

182 Jones and Sufrin, *EU competition law: text, cases, and materials*, 368 (Oxford University Press, 2014).

length and decide the technical specifications of their products; nor is it common for patents to be effectively insulated from competition from substitute technologies, which is true for patents that read on standards' specifications. These instances would also be sufficient to distinguish SEPs cases from the *IMS* line of case law.

Finally and perhaps even more crucially, a FRAND obligation based on competition law would also imply that the *Huawei* framework for injunctive relief should reach SEP-holders, such as PAEs, that have not made FRAND commitments themselves. This would be a welcome development; a level-playing field for all SEPs holders would increase legal certainty and reduce incentives to engage in opportunistic conduct with regard to enforcement of SEPs. Enhanced reliability of the standards-setting context would induce more investment in the development of innovative standards and standard-compliant products; it would enhance competition and encourage future entry in both the upstream and the downstream markets.

### iii. Privateering Arrangements and Article 101 TFEU

Although the above framework for assessment of opportunistic assertion of SEPs under Article 102 TFEU would provide an effective basis of enforcement in most cases involving PAE activity, a particular class of behaviour, namely privateering arrangements, call for cumulative application of Article 101 TFEU as well. The particular antitrust concern with privateering arrangements is that SEPs transfers to PAEs might allow practicing entities to target their rivals, raise their costs, harass their business operations and eventually drive them out of the downstream market.<sup>183</sup> This type of collusive behaviour between PEs and PAEs imply that antitrust liability should be imposed on both the privateer and its sponsor.<sup>184</sup>

Article 101 TFEU prohibits agreements or collusion between independent undertakings or associations of undertakings that could restrict competition by object or effect. Article 101 entails a two-step test; first, whether the agreement or collusive behaviour in question has the object or effect to restrict competition under Article 101(1) and second, whether

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183 Popofsky and Laufert, *supra* n. 117, at 455; *supra* n. 123, Harris, at 323-324.

184 Carrier, *supra* n. 124, at 8.

these restrictions of competition could be justified for producing efficiencies under Article 101(3).

The distinction between restrictions by object and effect is crucial. Agreements or collusions that have as their object the restriction of competition are in breach of Article 101(1) without need to establish anticompetitive effects. Moreover, although restrictions of competition by object could still in principle be justified under Article 101(3), the burden to prove that the conditions laid down in the exemption proviso are met is significantly higher. Indeed, it is hard to conceive circumstances under which so-called ‘hard-core restraints’ could produce sufficient countervailing efficiencies, pass on these efficiencies to consumers and be necessary and proportionate to achieving those efficiencies.

Privateering arrangements, having the form of explicit contractual arrangement or tacit coordination between the sponsor and the privateer, should be assessed on a case-by-case basis having regard, in particular, to the exact nature of the relation between the sponsor and the privateer; the context underlying the contractual or collusive arrangement; the contractual or other restraints imposed on the privateer; and the change of incentives to the privateer in its assertion of SEPs.

‘Naked’ privateering arrangements imposing obligations to target specific rivals, providing claim charts and other resources, setting minimum litigation and licensing revenue targets that, in the specific context of the arrangement would result in aggressive assertion of SEPs, with a view to impose supra-FRAND licensing terms, probably is motivated by the objective to raise rivals’ costs and ultimately exclude competitors of the sponsor. Such arrangements, essentially amounting to vertical price fixing with a view to exclude downstream competitors, should be treated as restrictive by object. Of particular relevance is the exact nature of the incentives to aggressively assert SEPs; contractual provisions imposing to the privateer severe penalties, such as reserving for the sponsor the right to reverse the transfer in case the licensing or litigation targets are not met, provide a strong indication that the incentives to target rivals and raise their costs are irresistible.

However, as the analysis of privateering arrangements above suggests,<sup>185</sup> privateering would rarely take such an explicit and pure form; rather, most privateering arrangements would provide for a more sophisti-

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185 Supra, p. 40-41.

cated structure of incentives and rewards. Nonetheless, SEP transfers to PAEs might still produce anticompetitive effects. Of particular concern should be SEP transfers to PAEs with a history of aggressive assertion of SEPs and of imposing their targets particularly high royalties; PAEs with established networks of shell firms reducing the transparency of SEP ownership could also be problematic in increasing transaction costs and impeding the effective monitoring of compliance with FRAND obligations. Moreover, transactions resulting in disaggregation of SEP portfolios, absent ‘non-stacking’ commitments, might also result in higher aggregate royalties for standard implementers and consequently in higher prices for consumers.<sup>186</sup>

A crucial aspect of the assessment of SEP transfers to PAEs under Article 101(1) would be the extent of the FRAND commitment from the transferor to the transferee. Antitrust evaluation of such transactions should provide strong incentives to SEP holders to bind subsequent owners to offer FRAND licensing terms in the future. Contractual provisions extending the FRAND commitment should, in principle, be sufficient for the transferor to escape antitrust liability under Article 101(1), since the agreement, under such circumstances, would not normally produce anticompetitive effects. However, a careful examination of the context of the agreement should ensure that the FRAND commitment is genuine and that contractual or other restraints do not mute the FRAND commitment by the transferee.

In cases of SEP transfers capable of producing anticompetitive effects, a very careful review, under Article 101(3), of efficiency arguments of the contracting parties is warranted. In particular, arguments that SEP monetisation or assertion outsourcing would increase incentives to innovate or reduce transaction costs through more efficient SEP management, should be scrutinised on the basis of concrete evidence. Moreover, the contractual restraints should be proved to be indispensable to achieve the claimed efficiencies; the parties should also establish tangible consumer benefits from the transaction and in particular that consumers receive a ‘fair share’ of such efficiencies in the form of more innovative standards and standard compliant products at competitive prices.

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186 Popofsky and Laufert, *supra* n. 117, at 456.