As mentioned above the investigations are still pending before the European Commission, but Qualcomm has already in a public statement denied all allegations.[141] In addition, already in the course of US litigation, Qualcomm has argued that *"charging what the market will bear…is not an anticompetitive or unreasonable act"*.[142] In essence, Qualcomm's reported responses to the claims in question can be summarized as follows: With regard to the alleged refusal to license on FRAND terms, Qualcomm asserts that this claim is disproved due to the availability and wide take-up of licenses for its essential patents. Also, most of the complainants are licensees and are therefore not excluded from the market. Further, Qualcomm claims that the complainants are seeking to use Article 102 TFEU in order to reduce their royalties and to strengthen their own position within the 3G market. In addition, Qualcomm claims that the complainants' allegations concerning exclusionary rebates and excessive royalties are "*misleading*", since Qualcomm's pricing practices merely reflects legitimate price competition.

It should be noted that the object of the investigations in the *Qualcomm* case has been changed significantly during the course of the investigations since the European Commission launched its inquiry in 2007. In particular, it should be taken into account that Nokia on 23 July 2008 withdrew its complaint with reference to that it had fifteen years cross-licensing agreement with Qualcomm.[143] Unfortunately, albeit not surprising, the specific terms of this agreement have not been made public. Therefore, one can only speculate as what has made Nokia withdraw its complaint. One possibility is of course that Nokia has obtained some royalty reductions.

4.2 Possible Doctrinal Solutions based on the Meaning of FRAND Terms

In the following, I will not go into the specific and complex facts of the *Qualcomm* case, but assume that the FRAND commitments undertaken by Qualcomm

141 See Qualcomm's Press Release, October 1st 2007, available at: http://www.qualcomm.de/news/releases/2007/071001_ec_initiate_proceedings.html

142 *Broadcom Corporation v Qualcomm Incorporated*, Civil Action 05-3350, District Court of New Jersey, Memorandum in Support of Defendants Motion to Dismiss, 9 December 2005, I.A.3.

143 See Press Release, **"*Nokia and Qualcomm Enter into a New Agreement*",** 24 June 2008, available at: http://nokia.com/A4136002newsid=1238093.

during the standardization process are subject to the limitations set out in Article 102 TFEU. In particular, this assumption is based on the fact that it does not seem to be in dispute that Qualcomm possess a dominant position in the supply of licenses to its 228 patens and that these patents have become essential when included in WCDMA standard.[144] When using this assumption as a starting point, the next logical and expected step for the European Commission to take is to determine how it will define FRAND commitments from an EC competition law perspective.

In doing so, it is likely that the European Commission, at least as a starting point, will seek guidance from existing doctrine on the topic. As explained above, no authoritative legal sources exist as to the precise meaning of FRAND commitments. Economists and industry representatives around the world have produced a vast number of articles and presented numerous theories regarding the economic ratio behind the FRAND requirement.[145] However, this material has to be reviewed with due care, since it seems that assumptions and methodologies differ and many theories and arguments even contradict one another.[146] Also, most of this material has been sponsored by one of the parties involved and hence, arguably the conclusions drawn and the economical analyses presented in this material may have been influenced by the authors' connection with the parties and/or their own role in ongoing litigations.[147] This, however, does not mean that this material could not be helpful when considering how to construct an optimal licensing policy in an individual case.[148]

An other question is whether it is at all desirable to create a uniform definition of the meaning of FRAND for the purpose of creating an effective and efficient setting for the implementation of standards.[149] In particular, it would be unprece-

144 If all these 228 patents are standard-essential then there is presumably no substitutions meeting relevant demands of 3G handset manufactures.

145 For a summary of possible interpretations see *e.g*. David Salant, ***"Formulas for Fair, Reasonable and Non- discriminatory Royalty Determination"***, MPRA Working Paper 8569, 2007, available at: http://mpra.ub-uni-muenchen.de/8569/.

146 Comments made during my personal interview of Mr. Timo Ruikka, Nokia Corporation, Strategy Advisor of IPR Legal Department, on 28 March 2009.

147 This can bee seen in most of the papers mentioned in the above footnote. *E.g*. it is stated in the referred material that:"*the author forms part of a team that represent*" (*e.g*. Qualcomm or Nokia) and similar statements to same effect, *e.g*. "*The views expressed in this papers cannot be attributed to the firm or to its law firm*."

148 See *e.g*. Joseph Farrell, John Hayes, Carl Shapiro, Theresa Shapiro, ***"Standard Setting, Patents and Hold-Up,"*** **American Bar Association**, Antitrust Journal No.3, 2007.

149 See e.g Nokia IPR manager Ilkka Rahnasto, *Intellectual Property R*ights*, External Effects, and Antitrust Law,* (Oxford University Press 2003), p.148.

dented if the European Commission on its own were to introduce a very concrete FRAND definition to be adhered to by all companies concerned. From a realistic perspective, based on a more or less rational business negotiation process, it is evident that any one-size-fit–all doctrine would change the current practice of the entire industry. This aspect has been particularly analysed by *Mr. Ruikka* in an article titled: *"FRAND" Undertakings in Standardization - A Business Perspective.*[150] As argued above, such type of doctrinal approach would also lead to inflexibility and limitations in the choice of licensing models. However, another thing is whether it is possible to set up general legal criteria against which to assess FRAND commitments. In the following, it is proposed that maybe it is after all not impossible to define the impact of FRAND commitments, at least to some extent.

4.2.1 The Meaning of FRAND Commitments under Article 102 (a) and (c) TFEU - Possible Doctrinal Solutions Based on Established EC Case Law

As pointed out above, both SSOs and courts of law have generally been reluctant to develop a "*FRAND doctrine*". Under EC competition law, the need for a cautious approach when assessing the applicability of Article 102 (a) TFEU has so far been most widely recognized in cases relating to the refusal to license. Those, who following the *IMS* case, [151] expected that the European Commission or the Court of First Instance (re-named as the General Court) in the *Microsoft*[152] case would finally clarify what constitutes a fair and reasonable royalty rate, must have been deeply disappointed. Instead, both the European Commission and the General Court explicitly left it to the parties to reach a "*mutual agreement*" on the prices that would meet the general criteria outlined by them, in the same way as done already in the *IMS* case.[153] Nonetheless, when one tries to apply these criteria in practice, it soon becomes apparent that they leave many critical questions unanswered.

150 Timo Ruikka, ***"FRAND" Undertakings in Standardization- A Business Perspective,"*** N.Y. Fordham IP Conference, 28 March 2008.

151 Case C-418/01, *IMS Health*, [2004] ECR I-5039.

152 Case C-201/04, *Microsoft v Commission,* [2004] II-1491.

153 It should be noted that the interpretation of "*FRAND*" applied in the Microsoft and IMS judgment concerned remedies. Also, it should be taken into account that these cases concerned refusal to license in the first place.

The "*fairness*" and "*reasonableness*" criteria applied by the European Commission in its case law with regard to licensing terms are almost completely devoid of any concrete meaning.[154] If the European Commission where to apply the *United Brands* doctrine to determine whether Qualcomm's prices are "*fair and reasonable*", the Commission would have to demonstrate that the difference between the costs actually incurred and the price actually charged by Qualcomm is "*excessive*". In addition, the Commission would also have to establish that Qualcomm's prices are "*unfair*". This would in turn require that the Commission examine the cost structure of the company. As stated by *Swanson* and *Baumol,* such an exercise would require that the Commission first identify the efforts invested and the expenses incurred by Qualcomm at creating the patens in question, and second that the Commission add a reasonable margin of profit as well as costs related to failed R&D projects in order to determine the correct royalty price. Finally, the price-cost comparison analyze would also have to take into account the transaction costs incurred in IP licensing.[155]

Given the complexity inherent in establishing one appropriate one-size-fit-all benchmark to determine what constitutes a reasonable royalty, not even making use of a "*rule of thumbs*" widely accepted within the industry[156] would probably provide generally acceptable results. Also, it should be kept in mind that, as identified by *Jones* and *Sufrin,* the EC case law relating to excessive pricing was established several years ago and was for the most part aimed at providing policy justifications in support of the creation of the Internal Market or the protection of end consumers.[157] Even in these cases, when confronted with the assessment of whether prices were excessive, the European Commission and the ECJ have

154 These terms are also used and recognized by the European Commission it its Guidelines on the Application of Article 81 EC to technology transfer agreements (2004/C101/02), paras 167 and 226.

155 See *e.g.* Daniel Swanson and William Baumol, *" Reasonable and Non-discriminatory (RAND) Royalties, Standard Selection. And Control of Market Power,"* 73 Antitrust Journal 1, 2005, p.22, stating as follows: "*The licensing of IP, in addition to involving costs of negotiation, contracting, accounting, monitoring and auditing, also frequently involves costs of instruction, training and 24-hour assistance."*

156 As a Harward Business School case study observes: "*…even organizations that are aware of their intellectual assets tend to choose royalty rates based on a rule of thumb rather than rates based on quantitative metrics or analysis of profitability. A common rule calls for 5% of sales revenues or 25% of operating profit margin is to be paid to the patent holder,"* Intellectual Assets Valuation, Harvard Business School, Case Study N9-801-192, p.4.

157 Supra note, *United Brand*s from 1979, and *British Leyland v Commission* [1986] ECR 3263.

always found insuperable difficulties in establishing a valid benchmark and sufficient evidences to conclude that the prices charged were excessive.[158]

This leads me to conclude that it can be expected that the European Commission will be very cautious when assessing the level of royalties charged by dominant standard-essential patent holders and act in line with the caution already shown by it in the *Microsoft* case regarding the pricing strategies of dominant IPR holders.

The non-discrimination part of the FRAND requirements appears to give guidance that is more concrete from a practical perspective, although it arguably is also open to interpretation. The following important guidance, which might also have a role to play within the telecommunication sector, was offered in *Microsoft* case:

"The mere fact that the contested decision requires that the conditions to which any licenses are subject be reasonable and non-discriminatory does not mean that Microsoft must impose the same conditions on every undertaking seeking such licenses. It is not precluded that the conditions may be adapted to the specific situation of each of those undertakings and vary, for example, according to the extent of the information to which they seek access or the type of products in which they intended to implement the information."[159]

Consequently, the CFI seems to accept that dominant licensors under certain circumstances may tailor different licensing options aimed at different users. For example, royalty schemes may legitimate companies to take into consideration how many rights the licensee receives and the volume of products produced under the relevant license. At least in the *Microsoft* case, this type of system seemed to be satisfactory, since the licensees could choose between various transparent licensing options.[160] Accordingly, in the absence of any generally defined doctrinal limitations applicable to royalty rates, it seems that a flexible market based approach aimed to solve the competition problem could provide a feasible way forward.

158 Supra Jones&Sufrin p. 586.
159 Case T-201/04, *Microsoft v Commission,* [2007] II-3601,para 811.
160 Microsoft had tailored 40 different licensing schemes aimed at different users. See Microsoft's "*Statement Regarding Licensing Flexibility*" of 7 June 2005, available at: download.microsoft.com/.../f/9/.../EU_Licensing_Flexibility.pdf.

In practice, the principle of non-discrimination can be used flexibly to achieve two different objectives when applied to FRAND commitments. Most straight forwardly, it can be used to ensure that IPR owners treat similarly situated licensees equally, so as to prevent them from distorting downstream competition. This interpretation is in line with the *Swanson* and *Baumol* model[161] that takes into account the risk that vertically integrated licensors may have strong incentives to discriminate competing licensees. In addition, the flexible approach provides the licensor with the possibility of objectively justifying different treatment of licensees without reference to exclusivity.

In the *Qualcomm* case, it seems clear that the licensees in question compete with one another in the downstream market. Accordingly, if Qualcomm were to deny a discount to one of these licensees on the grounds that such licensee did not wish to offer exclusivity to Qualcomm, it would place this licensee at a competitive disadvantage in the downstream market and therefore its behaviour would most likely be deemed abusive under Article 102 TFEU because of its exclusionary effect. However, under the flexible approach, described in the *Microsoft* case, Qualcomm could justify any differences in treatment based on legitimate reasons. Qualcomm could *e.g.* argue that the differentiation stems from different costs of supplying different volumes, or the presence of a cross-license element. If this analysis is correct, then the European Commission would, however, still have to make a difficult assessment of facts, namely: What discounts were actually given, and has Qualcomm been able to objectively justify such discounts based on legitimate licensing practices?

4.2.2 Deceptive Conduct in the Standard-Setting Process - Is the AstraZeneca "*Doctrine*" Applicable to FRAND Commitments?

In light of current developments regarding the applicability of Article 102 TFEU to dominant patent holders, it is of particular interest to analyse whether deceptive behaviour by an undertaking, when taking part in the standardization process within standardization committees, can amount to abuse of dominant position as defined in the *AstraZeneca* case. This is particular relevant in the *Qualcomm* case, because the complainants' allegations appear to suggest that Qualcomm in the complainants' view did not fulfil its commitments to provide them with sufficient information while taking part in the 3G standardization process.

161 Daniel Swanson and William Baumol, *"Reasonable and Non-discriminatory (RAND) Royalties, Standard Selection* ***And Control of Market Power,"*** 73 Antitrust Journal 1, 2005.