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**On the “Non-Discrimination” Aspect of F/RAND Licensing:  
A Response to the Indian Competition Commission’s Recent Orders**

**Edward F. Sherry, David J. Teece, and Peter Grindley<sup>1</sup>**

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<sup>1</sup> We thank Keith Mallinson for bringing the Indian Orders to our attention.

## I. Background

Two Indian firms, Micromax Informatics Ltd (“Micromax”) and Intex Technologies (India) Ltd. (“Intex”), filed complaints with the Competition Commission of India (“Commission”), against Telefonsktiebolaget LM Ericsson (“Ericsson”), a Swedish company.<sup>2</sup> The complaints alleged that Ericsson had violated Section 4 of India’s Competition Act by (allegedly) failing to comply with its commitments to license its standards-essential patents (“SEPs”) relating to the 2G, 3G and EDGE GSM cellular telecommunications standards adopted by ETSI, a European-based standards-setting organization (“SSO”), on “reasonable and non-discriminatory” (“RAND”) terms. The Commission has issued two Orders, one in November 2013,<sup>3</sup> the other in January 2014,<sup>4</sup> directing the Director General to conduct investigations of Ericsson’s licensing practices.

Licensing of SEPs on RAND terms has become a topic of considerable interest and discussion in recent years. Because Ericsson’s challenged licensing practices are not significantly different from those of many other holders of SEPs, and presumably the Commission would reach similar conclusions in similar cases, the Orders are of more general interest.

Four aspects of Ericsson’s licensing practices were identified by the Commission as being of particular concern:

- (a) the fact that Ericsson would not provide the prospective licensees with information about its infringement contentions unless the prospective licensee entered into a Non-Disclosure Agreement (“NDA”), or
- (b) the fact that Ericsson, citing confidentiality provisions in NDAs previously entered into with other licensees, would not provide prospective licensees with information about the terms offered to or agreed with other potential or actual licensees;<sup>5</sup>

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<sup>2</sup> After unsuccessful efforts to license its patents to Micromax, Ericsson had sued Micromax for patent infringement in India before Micromax filed its complaint with the Commission. See <http://www.reuters.com/article/2013/11/28/us-ericsson-india-idUSBRE9AR0FU20131128>.

<sup>3</sup> Case no. 50/2013, available at <http://infojustice.org/wp-content/uploads/2013/12/CCI-Case-no-50-2013.pdf> (hereafter “Micromax Order”).

<sup>4</sup> Case No. 76/2013, available at <http://www.cci.gov.in/May2011/OrderOfCommission/261/762013.pdf> (hereafter “Intex Order”).

<sup>5</sup> Intex Order, Para. 7; Micromax Order, Para. 7 (Ericsson allegedly “failed to provide agreements of similarly placed parties to Informant [Micromax]” despite being “directed to show agreements of similarly placed parties to Informant’s representatives”). (We understand that Ericsson disputes this allegation.)

The Commission argued that “*Refusal of OP [Ericsson] to share commercial terms of FRAND licences with licensees similarly placed to the Informant, fortified the accusations of the Informant, regarding discriminatory commercial terms imposed by the OP.*” (Micromax Order, Para. 17; emphasis added) But the Commission’s argument that Ericsson’s proposed licensing terms were “*prima facie discriminatory*” was based on the fact that Ericsson proposed to charge percentage-based royalties, which would lead the per-phone royalty to be higher for high-priced phones than for low-priced phones. That was apparent on the face of Ericsson’s licensing proposal, and has nothing to do with whether Ericsson (allegedly) “refused ... to share commercial terms of FRAND licenses with [Ericsson’s] licensees similarly placed to the Informant ...” As noted below, the two senses of “discrimination” – discrimination across *products* vs. discrimination across *licensees* – are fundamentally different.

- (c) the fact that Ericsson specified that the NDA “provides for jurisdiction in Singapore” rather than India<sup>6</sup> and that “the jurisdiction and governing law for the [proposed patent license] would only be Sweden.”<sup>7</sup> The Commission concluded that “Imposing a jurisdiction clause debarring Informant from getting disputes adjudicated in the country [India] where both parties were in business and vesting jurisdiction in a foreign land *prima facie* was also an abuse of dominance”;<sup>8</sup> and
- (d) the fact that Ericsson asked for percentage-based running royalties (of 1.25%) based on the selling price of the end-product sold by the licensee (e.g., the various GSM-compliant cellphones).<sup>9</sup> The Commission said that “For the use of GSM chip in a phone costing Rs.[rupees] 100, royalty would be Rs. 1.25 but if this GSM chip is used in a phone of RS. 1000, royalty would be Rs. 12.5.”<sup>10</sup> The Commission concluded that “Thus increase in the royalty for patent holder is without any contribution to the product of the licensee. Higher cost of a smartphone is due to various other softwares/technical facilities and applications provided by the manufacturer/licensee for which he had to pay royalties/charges to other patent holders/patent developers. Charging of two different license fees per unit phone for use of the same technology *prima facie* is discriminatory and also reflects excessive pricing vis-à-vis high cost phones.”<sup>11</sup> “[I]mposing excessive and unfair royalty rates *prima facie* was abuse of dominance and violation of section 4 of the Act.”<sup>12</sup>

The Commission went on to say that “Nothing stated in this order shall tantamount [sic] to a final expression of opinion on merit of the case and the DG shall conduct the investigation without being swayed in any manner whatsoever by the observations made herein.”<sup>13</sup>

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<sup>6</sup> Intex Order, Para. 9.

<sup>7</sup> Intex Order, Para. 6.

<sup>8</sup> Intex Order, Para. 17 (italics in original).

<sup>9</sup> Intex Order, Para. 17. In the Micromax case, Ericsson was seeking royalties on GSM devices of 1.25% of the sale price of the products sold by Micromax, of 1.75% for GPRS devices, of 2% for EDGE and WCDMA/HSPA products, and of US\$2.50 per dongle. (Micromax Order, Para. 4.) We assume that these are the same as the terms offered to Intex, as the Commission used the same calculations in the Micromax Order that it put forward in the Intex Order. (Compare Intex Order, Para. 17, with Micromax Order, Para. 17.) Alternatively, Intex may not have made some of the products that Micromax did, and thus the issue of the royalty rate for such products may not have arisen for Intex as it did for Micromax.

<sup>10</sup> Intex Order, Para. 17; Micromax Order, Para. 17. The Commission’s calculations appear to be merely illustrative. Intex said that it sells “approximately 35 models” of cellphones “in the price of Rs. 950- Rs. 3000 and smartphones in price range of Rs. 4000 – Rs. 25000.” Intex Order, Para. 3. It does not sell a product for “Rs. 100” as the first of the Commission’s two illustrative examples contemplates. (We are not familiar with comparable pricing data for Micromax, but would expect that market competition would cause the two firms to charge comparable prices for comparable products.)

<sup>11</sup> Intex Order, Para. 17; Micromax Order, Para. 17 (italics in original).

<sup>12</sup> Intex Order, Para. 17 (italics in original). We disagree with the Commission’s suggestion that Ericsson “imposed” the rates that it sought, as evidenced by the fact that Micromax did not take a license, and Ericsson was forced to sue Micromax for patent infringement in order to try to be compensated.

<sup>13</sup> Intex Order, Para. 21; Micromax Order, Para. 21.

The Commission's opinions on the NDA, Ericsson's (alleged) "refusal" to provide details of its other licenses because those licenses were subject to non-disclosure agreements,<sup>14</sup> and the provision that the NDA would be subject to Singaporean law and the license would be subject to Swedish law and jurisdiction and thus (ostensibly) would "cripple[] the Informant [Intex] to address or seek redress of its grievances in a local court of law"<sup>15</sup> and "*prima facie* was also an abuse of dominance"<sup>16</sup> raise issues that are beyond the scope of this article, other than to note two things: first, licensing terms are typically treated as confidential business information and the use of NDAs governing access to and use of confidential information are common in many commercial contexts,<sup>17</sup> and second, having choice-of-law provisions in contracts between firms domiciled in different countries is a common practice, and in our view there is nothing unreasonable or "abusive" about Ericsson (which the Commission acknowledges is based in Sweden<sup>18</sup>) proposing a choice-of-law provision specifying Swedish jurisdiction and Swedish law for its license, or for Ericsson to propose that the NDA be governed by Singaporean law (a neutral forum).<sup>19</sup>

Instead, our attention is largely focused on the Commission's conclusion that "charging of two different license fees per unit phone for use of the same technology *prima facie* is discriminatory."<sup>20</sup> Since the "two different license fees per unit phone" arise from applying the *same* percentage-based royalty rate to phones selling for different prices, the Commission's conclusion is apparently based on the proposition that charging percentage-based royalties on the selling price of licensed products is itself "*prima facie* discriminatory," given the reality that different products sell for different prices. In effect, if the Commission's interpretation were accepted, it would be tantamount to the proposition that

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<sup>14</sup> We note that the ETSI Guide on IPRs provides (in relevant part) that "It is recognized that Non Disclosure Agreements (NDAs) may be used to protect the commercial interests of both potential licensor and potential licensee during an Essential IPR licensing negotiation, and this general practice is not challenged." ETSI Guide on IPRs, September 2013, Section 4.4, available at <http://www.etsi.org/images/files/IPR/etsi-guide-on-ipr.pdf>.

<sup>15</sup> Intex Order, Para. 9.

<sup>16</sup> Intex Order, Para. 17.

<sup>17</sup> The Commission's assertion that "transparency is hallmark of fairness" (Intex Order, Para. 17) ignores the confidential nature of licensing terms and the role of NDAs in protecting confidential information, as recognized by Section 4.4 of the ETSI Guide to IPRs. We doubt that the Commission is seriously suggesting that, once Ericsson had agreed with its licensees (in its NDAs) not to disclose the terms of their confidential licenses unless compelled by court order (or some similar official compulsion) to disclose them, it should nevertheless have voluntarily disclosed those terms to other potential licensees merely because of "transparency/fairness" concerns, in breach of its contractual commitments to keep the license terms confidential absent official compulsion.

<sup>18</sup> The fact that Ericsson has a wholly-owned Indian subsidiary (Intex Order, Para. 4) which does business in India does not change the fact that Ericsson's licensing operations are not based in India.

<sup>19</sup> Ericsson had a wholly-owned Indian subsidiary (Intex Order, Para. 4), but it is not clear whether the Indian subsidiary owned Ericsson's Indian patents, or whether the patent license would have to be between Ericsson itself and the prospective Indian licensee. In any case, a license limited to Ericsson's Indian patents would not give the licensee the freedom to export products to other countries in which Ericsson had patents. In order to ensure the licensee "freedom to operate," it is common practice for patent licenses to include the licensor's relevant worldwide patent portfolio. The Commission does not address this issue. Nor do we agree that, by *proposing* a choice-of-law provision or an NDA specifying some particular jurisdiction, Ericsson would be "imposing" such a condition. Choice-of-law provisions in licenses (and other contracts) can be (and often are) negotiated, and it is not uncommon for such provisions to specify one party's home country or some neutral forum (such as Singapore).

<sup>20</sup> Intex Order, Para. 17; Micromax Order, Para. 17 (italics in original).

percentage-based royalties are “*prima facie* discriminatory” and thus not RAND (and also an abuse of a dominant position). Since licenses calling for percentage-based running royalties calculated on the selling prices of the licensed products the licensee sells are common in this and many industries, the Commission’s argument, if accepted, would amount to the proposition that, by adopting RAND policies, SSOs like ETSI intended to prohibit the use of such a common licensing practice (namely, one specifying percentage-based running royalties) in connection with licensing standards-essential patents subject to RAND commitments.

#### I. “Discrimination” Among Licensees

The Commission does not appear to be saying that Ericsson is “discriminating” among/across different licensees in the sense of charging two different licensees two different royalty rate levels and/or structures: *e.g.*, by charging Intex a 1.25% royalty but charging one of Intex’s competitors a 0.5% royalty.<sup>21</sup> The Ericsson licensing proposal is “non-discriminatory” among/across licensees in the sense that different licensees that sell products for the same prices pay the same per-unit royalties. It can be seen as “discriminatory” only in the Commission’s sense that different licensees who sell products for *different* prices pay different per-unit royalties.

It is worth noting that the patent holder does not control the products that the licensee sells or the prices that the licensee charges for those products. That is a choice the licensee makes.

It is also worth noting that any given licensee may sell a variety of products selling for a range of prices. It is simply not the case that a percentage-based running royalty “discriminates” among/across licensees, in the sense that some firms pay higher per-unit royalties than do other firms selling for the same price. If different licensees’ licenses call for them to pay the same percentage-based royalty rates, a firm selling a high-priced product pays the same per-unit royalty as another firm selling for the same price.

Commentators have suggested that the “non-discrimination” aspect of RAND was intended to prevent discrimination among/across licensees on the basis of (a) the location or domicile of the licensee, or the country of origin of the licensed goods (as differential treatment on such grounds might

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<sup>21</sup> The rates that Ericsson was seeking from Micromax for GSM are the same as the ones it was seeking from Intex. *Id.* Some of the Commission’s concerns about Ericsson’s (claimed) “refusal” to provide the terms of its other licenses seem to be based on a concern that, without unfettered access to the terms charged to (or sought from) others, potential licensees would not know whether they were being “discriminated” against, not in the Commission’s sense that percentage-based royalties are “*prima facie* discriminatory,” but in the sense of inter-licensee discrimination (charging some licensees different rates than those charged to others). To address this issue, some SSOs (but, interestingly and importantly, *not* ETSI) have RAND policies that require that RAND rates be “demonstrably free” of any “unfair discrimination.” Those SSOs do not explain what they mean by “demonstrably free” or what information would have to be disclosed to provide such a “demonstration” (and in what contexts; *e.g.*, is it sufficient to disclose royalty rates in other licenses only subject to an NDA?). We note that the addition of the term “unfair” adds another dimension to the issue. Is it “unfair discrimination” to charge the same percentage-based royalty rate to different licensees, even though that inherently implies that when licensees sell higher-priced products they will pay more on a per unit basis than when licensees sell lower-priced products?

raise concerns about protectionism<sup>22</sup>), (b) whether or not the licensee was a member of the SSO (*e.g.*, are non-members being charged higher royalties than members?), (c) the size or scope of the licensee (*e.g.*, do big firms get better terms than small firms?), or (d) whether or not the licensee competed with the patent holder (*e.g.*, do rivals pay higher rates than non-rivals?). The history of the ETSI IPR policy reveals that ETSI was concerned with (a) and (b) above when adopting its IPR Policy.<sup>23</sup> When all licensees pay the same percentage-based royalty rates, none of these concerns is implicated.

It is often the case that different firms offer different “mixes” of products, with some firms concentrating on high-end products that sell for high prices and other firms concentrating on low-end products that sell for low prices. But to say that this implies that licenses specifying percentage-based royalties “discriminate” among/across *firms* strikes us as economically meaningless.

## II. Two Alternative Bases for Argument: RAND Commitments (Contractual) and Competition Policy

There are two possible bases for the Commission’s arguments. The first basis is contractual: Ericsson made RAND commitments to ETSI pursuant to ETSI’s IPR Policy, and third-party beneficiaries of those agreements (firms that want to make standards-compliant products that incorporate Ericsson’s patented technology, such as the two Indian firms that filed complaints) may want to enforce those commitments. That is a contractual argument, and presumably is governed by the contractual provisions, in particular (a) the terms of ETSI’s IPR policy (discussed in the next section) and (b) the terms of Ericsson’s RAND commitments. ETSI’s IPR policy is not appreciably different from the IP policies of other SSOs, and one could illustrate the issues involved with examples from the history of other SSO’s IP policies.<sup>24</sup> But Ericsson’s RAND submissions were made pursuant to the ETSI IPR policy.

From an economic and public policy perspective, a RAND commitment has four key features:

- (a) The patent holder must make licenses available. It cannot refuse to license and keep its patented technology for its own exclusive use, as it would otherwise be able to do.
- (b) The patent holder must make an “unlimited” number of licenses available. It cannot “pick and choose” among interested parties, licensing some (*e.g.*, its allies) and refusing to license others (*e.g.*, its rivals). It cannot auction off a limited number of licenses to the “highest bidders.”
- (c) The patent holder must make licenses available on “reasonable terms and conditions,” including not only financial (royalty) terms but other terms.
- (d) The patent holder must make licenses available on a “non-discriminatory” basis.

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<sup>22</sup> There were concerns expressed that ETSI, a European-based SSO with voting rules that were weighted in favor of firms with a European presence, might discriminate against non-European firms in violation of international obligations.

<sup>23</sup> See Brooks and Geradin, “Interpreting and Enforcing the Voluntary RAND Commitment,” pp. 31-32, available at [http://www.cravath.com/files/Uploads/Documents/Publications/Interpreting%20and%20Enforcing%20Vol%20Franchise%20Commitment\\_Brooks%207.20.10.pdf](http://www.cravath.com/files/Uploads/Documents/Publications/Interpreting%20and%20Enforcing%20Vol%20Franchise%20Commitment_Brooks%207.20.10.pdf).

<sup>24</sup> See Contreras, “A Brief History of FRAND” (February 3, 2014), available at SSRN: <http://ssrn.com/abstract=2374983>, and material cited therein.

Though many recent articles have focused on (c) and (d) above, (a) and (b) above – ensuring that interested parties will be able to obtain licenses to the technology necessary to make standards-compliant products, thereby enhancing competition in the markets for standards-compliant products – are arguably more important/fundamental. The early history of RAND makes it clear that parties were concerned about ensuring that potential implementers had access to the necessary technology.<sup>25</sup>

The second basis is rooted in competition policy provisions, especially restrictions against an “abuse of a dominant position” in some relevant market. In its Orders, the Commission referred to Section 4 of the Indian Competition Act, which provides that “no enterprise or group shall abuse its dominant position” and further provides (in relevant part) that “it shall be an abuse of a dominant position if an enterprise or group ... imposes unfair or discriminatory ... price in purchase or sale ... of goods or services.”<sup>26</sup> The Commission has concluded that Ericsson has a dominant position in “the relevant market of GSM and CDMA technologies as it held a large number of GSM and CDMA patents”<sup>27</sup> and the Indian Department of Telecommunication “has directed that All GSM/CDMA network equipment imported into India should also meet the standards of international telecommunications technology ...”<sup>28</sup> We note that (contrary to the Commission’s statement that “there was no alternate technology in the market in India”<sup>29</sup>) numerous other firms also own substantial number of patents relating to the GSM and CDMA standards, so that they too presumably have a similar sort of “dominant position” in the relevant technology markets that Ericsson has.<sup>30</sup> As such, each is to some extent constrained in its licensing behavior by the licensing behavior of others.

The Commission’s argument at times veers from a contract-based approach to a competition-policy based approach. Note that the two approaches are conceptually different and involve different sorts of considerations. Some behavior may violate a contractual commitment but not fall afoul of competition policy, or *vice versa*. In particular, a patent holder that has contractually committed to licensing its patents on non-discriminatory basis may breach that contractual commitment even if its

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<sup>25</sup> *Id.*

<sup>26</sup> See [http://www.cci.gov.in/images/media/competition\\_act/act2002.pdf?phpMyAdmin=QuqXb-8V2yTtoq617iR6-k2VA8d](http://www.cci.gov.in/images/media/competition_act/act2002.pdf?phpMyAdmin=QuqXb-8V2yTtoq617iR6-k2VA8d) . In its Orders, the Commission does not cite to any Indian case law interpreting the term “discriminatory” as used in the Act, whether as that term is used in licensing contexts or more generally.

<sup>27</sup> Intex Order, Para. 16; Micromax Order, Para. 16.

<sup>28</sup> Intex Order, Para. 14.

<sup>29</sup> Intex Order, Para. 16. Technically, the SEPs of Ericsson and those of other holders of SEPs relating to the same telecommunications standards are *complements*, not substitutes, and in that sense the Commission’s statement that the SEPs held by others are not “alternate technolog[ies]” for Ericsson’s patents is correct. But they *are* “alternate technologies” relating to GSM products.

<sup>30</sup> The Commission may be relying on the proposition that Ericsson has the “largest” number of SEPs relating to cellular communications standards (Micromax Order, Para. 16; Intex Order, Para. 16). But any firm with even a single SEP controls an intangible asset that implementers need to be able to use in order to make and sell standards-compliant products, so in that sense there can be hundreds of firms, each with a “dominant position” relative to some (narrowly-defined) technology market consisting of its own patented technology and the alternatives that could have been chosen for incorporation into the standard instead (but which were not). The Commission seems to be leaning toward this interpretation when it says that Ericsson “holds SEPs and there is no alternative technology available in the market” capable of being used as a substitute for Ericsson’s patented technology to make and sell standards-compliant products. *Id.*

conduct is not anticompetitive from a competition policy perspective. Or it may violate the competition laws despite not having made (or breached) any contractual commitment.

It is worth noting that economists are aware that price discrimination can improve both economic efficiency and social welfare.<sup>31</sup> Any argument based solely on competition policy concerns needs to address that insight.<sup>32</sup> Other than their argument about “excessive” royalties (discussed below), the Commission has not suggested that Ericsson’s proposed royalties are economically inefficient, only that they are “*prima facie* discriminatory.”

### III. No Guidance/Support For Commission’s Position From ETSI IPR Policy

Looking first at the contract-based approach, we find no support for the Commission’s position in either the ETSI policy or Ericsson’s RAND submissions. The ETSI Intellectual Property Rights (“IPR”) policy, available on the ETSI website,<sup>33</sup> does not provide any clarification of what ETSI means by the term “non-discriminatory” (nor “reasonable”) in connection with its RAND licensing policy. When it was contemplating its IPR policy (which underwent considerable revision before finally being adopted<sup>34</sup>), ETSI appointed a Special Committee on IPR, which issued a “Common Objective” document which provided (*inter alia*) that “Licensing terms and conditions should allow normal business practices for ETSI members. ETSI should not interfere in licensing negotiations.”<sup>35</sup> Since percentage-based running royalties are a clear example of “normal business practices,” we think it is unlikely that ETSI intended its RAND policy to prohibit such licenses as being “*prima facie* discriminatory” and inconsistent with RAND, as the Commission now contends.

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<sup>31</sup> See Hal Varian, “Price Discrimination,” Ch. 10 in Schmalensee and Willig (eds.), *Handbook of Industrial Organization*, Vol. 1, pp. 597-654 (1989).

<sup>32</sup> The Commission has not cited any Indian case law or regulations interpreting “price discrimination,” whether generally or in the licensing context.

<sup>33</sup> The ETSI IPR policy, set forth in Annex 6 to the ETSI Rules of Procedure, is available at [http://www.etsi.org/images/etsi\\_ipr-policy.pdf](http://www.etsi.org/images/etsi_ipr-policy.pdf). ETSI also provides a “Guide on IPRs,” available at <http://www.etsi.org/images/files/IPR/etsi-guide-on-ipr.pdf>, and a list of “ETSI IPR FAQs” [Frequently Asked Questions], available at <http://www.etsi.org/services/ipr-database/14-about/569-etsi-ipr-policy-fags>. ETSI policy makes it clear that licensing negotiations are to be conducted outside ETSI between the parties involved. The Commission’s Orders did not refer to (or cite) any of these documents, or any similar documents from any SSO.

<sup>34</sup> The history of ETSI’s IPR policy (and how it evolved significantly over time) provides useful evidence as to what ETSI did and did not intend its IPR Policy to mean. See the discussion of that history in Brooks and Geradin, “Interpreting and Enforcing the Voluntary RAND Commitment,” pp. 31-32, available at [http://www.cravath.com/files/Uploads/Documents/Publications/Interpreting%20and%20Enforcing%20Vol%20Frاند%20Commitment\\_Brooks%207.20.10.pdf](http://www.cravath.com/files/Uploads/Documents/Publications/Interpreting%20and%20Enforcing%20Vol%20Frاند%20Commitment_Brooks%207.20.10.pdf). See also Contreras, “A Brief History of FRAND” (February 3, 2014). Available at SSRN: <http://ssrn.com/abstract=2374983> and material cited therein.

<sup>35</sup> ETSI/GA 20(94)2 (SC Final Report), ANNEX XII, discussed *id.* at pp. 31-32.



Many commentators have decried the lack of clarity in what is meant by RAND and have called (so far largely unsuccessfully) for further clarification,<sup>36</sup> and numerous proposals have been made (and rejected) to “clarify” what is meant by RAND.<sup>37</sup> The Commission has not cited to the ETSI IPR policy, nor indeed any provision in the IP policies or rules of any standards-setting organization, that provides any specificity or clarification of what ETSI or other SSOs mean by the term “non-discriminatory,” or of what firms that have made RAND commitments have understood or intended those commitments to mean in this regard. Nor does the language of Ericsson’s commitments to license its SEPs on RAND terms provide any clarification of what “non-discriminatory” means.

The Commission’s opinions thus cannot be derived from the language of the ETSI IPR policy or the terms of Ericsson’s RAND commitments. Instead, they seem to be based on the Commission’s own view of what “non-discriminatory” means, without any citation to any authority (other than the Competition Act) or any scholarly analysis of the issue.

We do not mean to suggest, and should not be understood as suggesting, that the Commission’s opinion or reasoning is clearly *inconsistent* with either the ETSI IPR Policy or the terms of Ericsson’s RAND commitments. The lack of clarification as to what ETSI meant by RAND means that multiple royalty structures can be consistent with the RAND policy. It is certainly possible (even likely) that fixed per-unit royalties are consistent with RAND, though our discussion of the relationship between RAND royalties and the “value” that the licensee gets from being able to use the patented technology (set forth in detail below) casts some doubt on this proposition. But mere lack of inconsistency is not an *affirmative* justification for the Commission’s opinions. The fact that many firms (such as Ericsson) that have made RAND commitments have chosen to license their patents on a percentage basis suggests that those firms do not feel that such a licensing policy is inconsistent with their commitments.

#### IV. No Support In The Academic Literature

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<sup>36</sup> See, e.g., Lemley, “Intellectual Property Rights and Standards Setting Organizations,” *Calif. L. Rev.*, Vol. 90, pp. 1889-1980, at 1904 (2002) (“While ‘reasonable and non-discriminatory’ licensing thus appears to be the majority rule among SSOs with a patent policy, relatively few SSOs provide much explanation of what those terms mean or how licensing disputes would be resolved.”) For a recent survey reaching much the same conclusion, see Rudi Bekkers and Andrew Updegrove, “A Study of IPR Policies and Practices of a Representative Group of Standard Setting Organizations Worldwide,” Presented to National Academies of Science Symposium on Management of IP in Standards- Setting Processes, Session 4 (Oct. 3, 2012), available at [http://sites.nationalacademies.org/xpeditio/groups/pgasite/documents/webpage/pga\\_072197.pdf](http://sites.nationalacademies.org/xpeditio/groups/pgasite/documents/webpage/pga_072197.pdf).

<sup>37</sup> Of the proposals, the one most similar to the position taken by the Commission was a November 2011 proposal by Apple to ETSI that RAND royalties be calculated on a “Common Royalty Base,” which Apple defined as “no higher than the industry-average selling price of a basic communications device capable of both voice and data communications.” Basing royalties on an “industry-average selling price” rather than on the actual selling prices of a particular licensee’s products would mean that the royalty would be the same across differently-priced licensed products, as the Commission proposes. The Apple proposal is available at <http://www.scribd.com/doc/80899178/11-11-11-apple-letter-to-etsi-on-frand>. As of now, ETSI has not adopted Apple’s proposal, and several major ETSI members have opposed Apple’s proposal. Since Apple’s iPhones sell for significant multiples of the “industry-average selling price of a basic communications device,” the benefits to Apple if its proposal *were* to be adopted, in the form of a smaller royalty base and thus presumably in the form of lower total royalties Apple would owe to others, are clear.

There are a (relatively small) number of academic articles discussing the “non-discriminatory” aspect of RAND,<sup>38</sup> compared to a much larger number of articles discussing the “reasonable” aspect of RAND. Some of the articles focus on the issue whether the patent holder “charges” itself a royalty comparable to the royalties charged to third-party licensees,<sup>39</sup> arguing that the purpose of the “non-discriminatory” aspect of RAND is to compel the patent holder to “charge itself” the same royalty it charges to third-party licensees, though we believe (a) that is a non-issue which (b) finds no support in the IPR policies of any SSO. One respected author recently suggested “a shift of emphasis from the ‘fair and reasonable’ prong of FRAND, which is often inherently ambiguous, to the ‘non-discrimination’ prong ...”<sup>40</sup> arguing that the latter “if clearly defined can provide meaningful protection against ex post holdup *if* bilateral negotiations between rights holders and industry members occur *before* firms and consumers make investments that are specific to a standard.”<sup>41</sup> To our knowledge, based on our review of hundreds of articles on RAND licensing, no scholar has supported the Commission’s interpretation of what the “non-discrimination” aspect of RAND means.<sup>42</sup> Certainly in its Orders the Commission has not cited to any author or article that has proposed anything similar to the Commission’s interpretation of the “non-discrimination” aspect of RAND.

That said, it is worth noting that economists that have studied price discrimination have historically differentiated between three types of price discrimination. In “first-degree” price discrimination, the seller knows the value that each potential customer places on the product, and charges each buyer an individuated price equal to that buyer’s maximum willingness to pay. In “second-degree” price discrimination, sellers pay different per-unit prices depending on the quantities they purchase. The classic example involves volume discounts. In “third degree” price discrimination, sellers can observe certain characteristics of the buyers and charge different prices depending on the buyers’ characteristics.<sup>43</sup> Common examples include discounts for youths and senior citizens, time-of-day discounts or pricing based on conditions of purchase (such as airline pricing).

An argument can be made that percentage-based royalties are an example of “third degree” price discrimination,<sup>44</sup> with the observable “buyer” characteristic being the price that the licensee/buyer

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<sup>38</sup> See., e.g., Layne-Farrar, “Nondiscriminatory Pricing: Is Standard Setting Different?,” *J. Competition L. and Econ.*, (2010), available at [http://scholar.google.com/scholar\\_url?hl=en&q=http://www.researchgate.net/publication/247572944\\_NONDISCRIMINATORY\\_PRICING\\_IS\\_STANDARD\\_SETTING\\_DIFFERENT/file/60b7d521ba78c74e1b.pdf&sa=X&scisig=AAGBfm0-YPb3QMMp-rK1C-OJKLT6CNbMpQ&oi=scholar](http://scholar.google.com/scholar_url?hl=en&q=http://www.researchgate.net/publication/247572944_NONDISCRIMINATORY_PRICING_IS_STANDARD_SETTING_DIFFERENT/file/60b7d521ba78c74e1b.pdf&sa=X&scisig=AAGBfm0-YPb3QMMp-rK1C-OJKLT6CNbMpQ&oi=scholar), and articles cited therein.

<sup>39</sup> See Baumol and Swanson, “Reasonable and Nondiscriminatory (RAND) Royalties, Standards Selection, and Control of Market Power,” *73 Antitrust L. J.* pp 1-58 at 26-27 (2005).

<sup>40</sup> Gilbert, “Deal or No Deal? Licensing Negotiations in Standards Setting Organizations,” *Antitrust Law Journal*, Vol. 77 No. 3 (2011), pp. 855-888 at 859.

<sup>41</sup> *Id.* (emphasis added).

<sup>42</sup> In his “FOSS Patents” blog, Florian Muller favorably cited what he saw as the Commission’s focus on the chipset price as the appropriate royalty base for RAND royalties for cellular communications standards, though the Commission’s focus was in fact not on the chipset but on the “per unit phone” issue. See <http://www.fosspatents.com/search?q=india>

<sup>43</sup> See Hal Varian, “Price Discrimination,” Ch. 10 in Schmalensee and Willig (eds.), *Handbook of Industrial Organization*, Vol. 1, pp. 597-654 (1989).

<sup>44</sup> We thank Ed Egan for this point.

charges for the licensed products it sells.<sup>45</sup> Each licensee who charges the same price pays the same percentage-based per-unit royalties, so the “discrimination” is not so much across licensees as across products. Whether ETSI intended the RAND policy to prohibit such differential royalties based on differential pricing, or whether firms (such as Ericsson) that made RAND commitments to ETSI understood those commitments to prevent them from charging percentage-based royalties, is of course a different matter.

#### V. Analogy To “Most Favored Nation” Provisions

Some commentators have analogized the purpose of the “non-discrimination” aspect of RAND licensing to the rationales underlying “most favored nations” (“MFN”) clauses in licenses (and other commercial contracts).<sup>46</sup> In both cases, the presence of the provision provides an assurance to the customer that the royalty (price) it pays will be no higher than the royalty (price) paid by another similarly situated licensee selling a licensed product for the same price – i.e., that one licensee will not be treated more favorably than another comparably-situated licensee.

Using this analogy, the limitations of the Commission’s reasoning become apparent. Licenses calling for all licensees to pay the same percentage-based royalties based on the selling prices of the products the licensees sell would not fall afoul of an MFN provision; they are “non-discriminatory” among/across different licensees. If there is any “discrimination,” it is not across licensees but across *products*, with per-unit royalties for higher-priced products being higher than royalties for lower-priced products, but with each licensee selling products for the same price paying the same per-unit royalty. The Commission has given no explanation why any SSO would want to adopt a RAND policy directed, not to “discrimination” among/across licensees, but to (claimed) “discrimination” across standards-compliant products selling for different prices.

In effect, the Commission’s argument (if adopted) would mandate a particular *royalty structure*, with different licensed products selling for different prices having the same per-unit royalties if they use the patented technology in the same fashion. That has nothing to do with “discrimination” among/across *licensees*. The Commission has provided no citations to any SSO’s IPR policy, or any scholarly commentary, suggesting that the purpose or intent of the “non-discriminatory” aspect of a RAND commitment is to preclude licenses calling for percentage-based royalties (based on the selling price of the end-user product) for SEPs.

#### VI. Is A Percentage-Based Royalty A “Price”?

The Commission may be appealing, not to the ETSI IPR policy or to Ericsson’s RAND commitment pursuant to that policy, but to Section 4 of the Indian Competition Act, which provides (in relevant part) that “it shall be an abuse of a dominant position if an enterprise or group ... imposes unfair or

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<sup>45</sup> There is an argument that this is not so much a “buyer” characteristic, as a given buyer/licensee can sell both high-priced and low-priced items, as a characteristic of the pricing decision made by the buyer/licensee for particular *products* that it sells.

<sup>46</sup> See Gilbert, “Deal or No Deal? Licensing Negotiations in Standards Setting Organizations,” *Antitrust Law Journal*, Vol. 77 No. 3 (2011), pp. 855-888 at 880.

discriminatory ... price in purchase or sale ... of goods or services.”<sup>47</sup> What is at issue here is not a tangible “good” but an intangible “service” -- a license that authorizes the licensee to use Ericsson’s patented technology. The “price” being charged is the royalty for that use. What does “price” mean in the context of royalties?

“Prices” can take many forms. Tangible goods are typically priced on an “each” basis: \$X/unit. But royalties can be expressed either as a percentage of sales or on a per-unit-royalty basis (or in other forms, such as lump-sum licenses). But the right to use patented technology does not come in “units.”

By way of analogy, “services” includes labor. Labor can be provided in exchange for compensation that can take many forms. One form is a per-unit-of-*output* basis, where the laborer’s output is measured in some fashion (*e.g.*, by the number of garments sewed, or baskets of fruit picked) and the laborer is paid on a per-unit-of-output “piecework” basis. Other examples include commissioned sales, where the employee is paid a commission (typically a percentage, possibly with some sort of sliding scale) on consummated sales. But many types of labor do not lend themselves to measuring a worker’s output in such a fashion, and a more common payment method is on a per-unit-of-*input* basis, *e.g.*, an hourly wage for hours worked. The three payment-for-service approaches have different implications, but all of them are reasonable in the appropriate circumstances.

It seems to us indisputable that a percentage-based running royalty is one form of “price” for the use of intangible intellectual property, as is a fixed dollars-per-unit running royalty. Ericsson proposed to charge all licensees the same percentage-based royalty, and in that sense its royalty was not “discriminatory” among/across licensees. Such a structure has the implications that the per-unit royalty would vary across *products*, with higher-priced products bearing higher per-unit royalties than lower-priced products. The Commission concluded that this was “*prima facie* discriminatory” on a “per unit phone” basis,<sup>48</sup> but it provides no explanation for why the “per unit phone” approach is the required one. (Obviously, patent holders *could* charge per-unit royalties, but Ericsson elected not to, and that choice is consistent with one common industry practice.) That is not the way that royalties were specified in Ericsson’s proposed license,<sup>49</sup> and the Commission fails to explain why they believe a per-unit royalty is the appropriate way to interpret “price,” as that term is used in the Act, in the royalty context. In effect, the Commission seems to believe that the Act mandates that, to avoid “discrimination” in setting royalties, “dominant” firms must use a per-unit royalty “price” approach rather than a percentage-based approach, as specified in Ericsson’s proposed license. Given that either approach is a widely-used method for setting “prices” for the use of intellectual property, it is by no means clear to us that the Commission’s approach should prevail. (Returning to our labor analogy, it would be as though the Commission mandated a per-unit-of-output “piecework” approach rather than a per-unit-of-input hourly wage approach to setting compensation for labor, or *vice versa*, on the grounds that the alternative involved improper “discrimination.” Or using our commission sales analogy, it would

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<sup>47</sup> See [http://www.cci.gov.in/images/media/competition\\_act/act2002.pdf?phpMyAdmin=QuqXb-8V2yTtoq617iR6-k2VA8d](http://www.cci.gov.in/images/media/competition_act/act2002.pdf?phpMyAdmin=QuqXb-8V2yTtoq617iR6-k2VA8d). In its Orders, the Commission does not cite to any Indian case law interpreting the term “discriminatory” as used in the Act, either generally or in the context of patent licensing.

<sup>48</sup> Intex Order, Para. 17; Micromax Order, Para. 17.

<sup>49</sup> Royalties were specified as a percentage of revenues, not on a “per unit phone” basis.

be as though the Commission mandated a “per unit sale” commission, with the commission being the same for each sale regardless of the size of the sale, rather than a percentage-based commission.<sup>50</sup>)

The stated purpose of the Indian Competition Act is “to prevent practices having adverse effect on competition, to promote and sustain competition in markets, to protect the interests of consumers and to ensure freedom of trade carried on by other participants in markets, in India.”<sup>51</sup> The Commission has identified no “adverse effect on competition” or on “the interests of consumers” from allowing the use of percentage-based royalties. We submit that the widespread use of percentage-based royalties suggests that they are consistent with “promot[ing] and sustain[ing] competition in markets.”

## VII. “Excessive Royalty” Issue

As for the Commission’s conclusion that “Charging of two different license fees per unit phone for use of the same technology ... reflects excessive pricing vis-à-vis high cost phones,”<sup>52</sup> unless and until the Commission explains the criteria that it uses to determine why, when and how royalties are “excessive” (whether with respect to particular products or generally), it is not possible to fully evaluate this conclusion. We note that Ericsson’s proposed rates are well within the range of rates sought by other holders of portfolios of standards-essential patents related to cellular standards.<sup>53</sup>

In the context of physical goods, one metric commonly used to examine the extent of market power is the Lerner index, defined as  $(P-MC)/MC$  where  $P$  is the price charged and  $MC$  is the marginal cost of producing the good in question. But economists recognize that the Lerner index is useless in the context of intangible intellectual property rights, where the “marginal cost” of licensing an additional item is effectively zero<sup>54</sup> (so that the Lerner index is effectively infinite regardless of the price charged).

Another criterion sometimes used to evaluate whether royalties charged are “excessive” is to compare the total royalties paid by (charged to) licensees (or the licensor’s total licensing revenue) with the total value to the licensees of being able to use the patented technology. The argument is that royalties are “excessive” if they exceed the *ex ante* value of being able to use the patented technology.

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<sup>50</sup> Commissions *could*, of course, be calculated on such a basis, but the economic (incentive-alignment) and organizational behavior problems with such an approach are obvious.

<sup>51</sup> Preamble to Competition Act, available at [http://www.cci.gov.in/images/media/competition\\_act/act2002.pdf?phpMyAdmin=QuqXb-8V2yTtoq617iR6-k2VA8d](http://www.cci.gov.in/images/media/competition_act/act2002.pdf?phpMyAdmin=QuqXb-8V2yTtoq617iR6-k2VA8d).

<sup>52</sup> Intex Order, Para. 17; Micromax Order, Para. 17.

<sup>53</sup> See the proposed royalty rates for patent portfolios “essential” to the LTE standard summarized in Stasik, “Royalty Rates and Licensing Strategies for Essential Patents on LTE (4G) Telecommunications Standards,” *Les Nouvelles*, September 2010, pp. 114-119, available at <http://www.investorvillage.com/uploads/82827/files/LESI-Royalty-Rates.pdf>. Admittedly, the LTE standard is a different (later generation) cellular standard than the GSM and CDMA standards that were the subject of Ericsson’s licensing proposal and the Commission’s arguments, but publicly-available data suggests that patent holders are seeking royalty rates for LTE that are comparable to the rates that had been sought for GSM/CDMA.

<sup>54</sup> It does cost money to pay renewal fees for patents and to administer a licensing program, but the “marginal cost” to the licensor when the licensee makes an additional sale is zero, as information is non-rival in use.

In such contexts, where royalties charged for different products are different, the relevant test involves comparing the total royalties charged with the total value. But the Commission made no effort to determine the value to licensees of being able to use Ericsson's patented technology, and did not address the approach that would be needed (or the data that would be required) to perform that comparison.

If the Commission merely means to say that (a) under a percentage-based running royalty, the per-unit royalty for higher-priced products is higher than for lower-priced products and (b) if a low per unit royalty is acceptable to the patent holder for lower-priced products, any higher per-unit royalty must *a fortiori* be "excessive," the obvious problem with such a position is that it ignores the fact that the patent holder presumably only agreed to "accept" a given percentage-based royalty rate in the full knowledge that the per-unit royalty would be lower for lower-priced products and higher for higher-priced products, and that its overall royalty income would reflect the mix of licensed products. The patent holder did *not* agree to "accept" the lowest implied per-unit royalty (*i.e.*, the percentage royalty rate times the lowest-priced licensed product) if it would only receive that amount "across the board."

In order for the patent holder to receive the same total royalties with a single "flat" per-unit royalty as it would receive under a percentage-based royalty – in order to hold the total compensation for use of the patented technology constant – the per-unit royalty would have to increase for lower-priced products (and fall for higher-priced products).<sup>55</sup> To illustrate, we will flesh out the Commission's (incomplete and purely illustrative) numerical example. Suppose that there are only two categories of licensed products: lower-priced products selling for Rs. 100, and higher-priced products selling for Rs. 1000.<sup>56</sup> As the Commission notes, with a 1.25% running royalty, the per-unit royalty for the lower-priced product is Rs. 1.25 and the per-unit royalty for the higher-priced product is Rs. 12.5. Suppose for concreteness that licensees sell 1 million units of the lower-priced product and 100,000 units of the higher-priced product.<sup>57</sup> Then the patent holder's total licensing revenue is (1 million units)×(Rs. 1.25 /unit royalty) + (100,000 units)×(Rs. 12.5/unit royalty), or Rs. 2.5 million. In order to hold the total compensation received by the patent holder constant with a single flat per-unit royalty rate across all products, the per-unit royalty would have to be (Rs. 2.5 million)/(1.1 million units),<sup>58</sup> or Rs. 2.2727 per unit. That is, the per-unit royalty on the low-priced products would have to nearly double, while the per-unit royalty on the higher-priced product would fall by a factor of roughly five.<sup>59</sup> As compared to a percentage-based royalty, such a royalty structure would favor the higher-priced product and disadvantage the lower-priced product. It is by no means clear that this outcome is more consistent

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<sup>55</sup> We thank Katya Madrid for this point.

<sup>56</sup> As noted in Fn. 8 above, Intex's actual selling prices are from Rs. 950 to Rs. 25000. Intex Order, Para. 3.

<sup>57</sup> There is no *a priori* reason why firms that sell lower-priced products would not also sell higher-priced products. There is no *a priori* reason why firms will sell more lower-priced products than higher-priced products; that depends on the market's reaction to the price differential vis-à-vis any perceived value differential.

<sup>58</sup> This is not quite correct. For simplicity, this calculation ignores the fact that, if the per-unit royalty increased for lower-priced products and decreased for higher-priced products, and if those royalties were reflected in selling prices, the quantities sold would be affected due to price-elasticity effects, so that the denominator (the number of units sold) would not stay constant.

<sup>59</sup> The actual effect would depend on the relative quantities of the higher- and lower-priced products sold.

with Ericsson's RAND commitments, or the purpose and intent of the Act, than Ericsson's proposed 1.25% running royalty is.

Of course, the Commission might argue that there is no need to hold the total compensation received by the patent holder constant. But in order to be meaningful, any comparison requires holding something constant, whether tacitly or explicitly. The Commission has not given any reasoned explanation why percentage-based royalties applied to higher-priced products are inherently "excessive," or why Ericsson's proposed Rs. 12.5 royalty on a Rs. 1000 cellphone is "excessive" simply because it is many times the proposed per-unit royalty on a Rs. 100 cellphone.

#### VIII. "Patented Product" Issue

One fallacy in the Commission's reasoning is that the Commission seems to tacitly assume that the "patented product" is the GSM chipset,<sup>60</sup> rather than the cellphones that Intex and Micromax actually sell. (They buy chipsets from other firms; they do not sell chipsets other than imbedded in the cellphones they sell.) Nothing in Ericsson's RAND commitment, and nothing in the ETSI IPR policy, requires licensing at the chipset level rather than at the cellphone level.<sup>61</sup> Intex and Micromax sell cellphones, not chipsets. And the fact that Ericsson is seeking to license end-user devices (such as cellphones) rather than chipsets suggests that the "licensed products" would be the end-user devices, not the chipsets.

The Commission made no effort to investigate the nature, claims, coverage or scope of Ericsson's patents. (They acknowledge that Ericsson has 33,000 patents issued worldwide, with some 400 of them granted in India.<sup>62</sup>) While it might well be true that a chipset itself would be infringing some of the claims of some of Ericsson's patents (whether directly or via the doctrines of contributory infringement and/or inducement to infringe, given that chipsets have no practical use other than to be incorporated into cellphones and used to access cellular services), we believe that it is likely that some of Ericsson's patent claims are not directly infringed by chipsets, but rather are either (a) device claims that require that the chipset be incorporated into a handset/cellphone or (b) "systems" claims that

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<sup>60</sup> See Intex Order, Para. 17; Micromax Order, Para. 17. Technically, because different chipsets can have different features and can sell for different prices, a percentage-based royalty based on the selling price of the chipset would charge (somewhat) different per-unit royalty amounts depending on the selling prices of the chipsets (not on the prices of the end-user products into which those chipsets are incorporated, as Ericsson proposed). However, because at any given point in time chipset prices vary little as compared to the much larger variation in end-user product prices, a percentage-based royalty based on chipset prices would effectively charge roughly the same per-unit royalty for different-priced end-user products.

Because chipset prices are driven by competition in chipset markets and because competition among chipset providers is driven in large part by Moore's Law, cellular chipset prices have fallen significantly over time. A fixed cents-per-unit royalty would not fall with falling chipset prices over time, and thus over time would loom larger as a percentage of the chipset price than a percentage-based royalty based on the selling price of the chipset.

<sup>61</sup> The requirement that Ericsson make an "unlimited" number of licenses available on RAND terms can be satisfied by licensing at the end-user device level rather than at the chipset level.

<sup>62</sup> Intex Order, Para. 16.

require the cellphone to be used as part of a cellular network consisting of multiple cellphones and base station equipment. If so – if some of the claims in some of Ericsson’s patents read on cellphones and/or cellular systems -- then the “patented product” is broader than the chipset, and the Commission’s (unsubstantiated) assertions that percentage-based running royalties based on the selling price of the cellphones “had no linkage to patented product”<sup>63</sup> are simply false.

The Commission may have believed that, in order to be RAND-compliant, the royalty base in any license for SEPs relating to cellular communications standards *should* have been the chipset, rather than the cellphone, but the Commission did not articulate any reason why that should be the case, and it is inconsistent with common industry practice with running-royalty licenses, many of which call for the licensees to pay royalties based on the selling prices of the products they sell (rather than based on the selling price of some *component* that they *purchase*, such as a chipset).

#### IX. Economic Reasons In Favor of Percentage-Based Royalties

There are a number of good, and conceptually distinct, economic reasons why it is common (though not universal) practice, and thus “reasonable” in the sense of “commercially reasonable,” for licenses to call for percentage-based running royalties calculated on the selling prices of the licensed products sold by the licensee. Over the life of a patent license, licensees often sell dozens if not hundreds of different licensed products with different features, at a wide variety of price points (and prices for particular products can and often do change over time in response to market conditions). Fixed cents-per-unit royalties do not have the flexibility to adjust to changing market conditions that percentage-based running royalties inherently do. It is easier to specify a single percentage-based royalty rate to be applied across the board to all licensed products than to specify different per-unit royalty rates for different products or product categories, especially as the boundary lines between different product categories become blurred over time as new products (e.g., smartphones or tablets) combining features of what had previously been distinct product categories are introduced, causing disputes as to which product category a new product falls.

One of the key benefits of a percentage-based running royalty structure is that it tends to align the incentives of the patent holder and the licensee better than a fixed cents-per-unit royalty does. Incentive-alignment is a well-recognized desideratum in economics, as it tends to alleviate the problems caused by misalignment of interests between the parties. With a fixed cents-per-unit royalty, the interests of the patent holder and the licensee are significantly opposed. For example, the patent holder wants the licensee to sell more products (so as to increase the royalty base and thus the royalties collected), and this can best be accomplished by lowering the price that the licensee sells the licensed products for. But if the licensee lowers the price that it charges while the per-unit royalty remains fixed, that cuts into the licensee’s profit margins, thus harming the licensee. Conversely, with a percentage-based running royalty, if the licensee cuts its price, it also reduces the per-unit royalty that it pays (while boosting the number of units sold). Similarly, percentage-based running royalties help to align the parties’ incentives in the face of cost changes, whether idiosyncratic or due to economy- or industry-

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<sup>63</sup> Intex Order, Para. 17.



wide inflation. If product prices increase (or decrease) due to inflation (or other factors such as Moore's Law), with a percentage-based running royalty so too do the per-unit royalties, which does not happen with fixed cents-per-unit royalties.

A percentage-based royalty also allocates risks (of both market success and market failure) as between the licensor and the licensee differently than a fixed per-unit royalty does. And as discussed in more detail below, to the extent that different licensees get different "values" from being able to use the patented technology, and to the extent those values are correlated with the selling prices charged, a percentage-based running royalty tends to align the royalties paid with the value that the licensee gets from being able to use the patented technology.

Moreover, in our experience (based on a review of thousands of licenses) charging percentage-based royalties is a common practice, even for firms with no market power whatsoever.

The Commission's argument that using a percentage-based royalty rate based on the selling prices of the end-products is "*prima facie* discriminatory" ignores all of those pragmatic considerations in favor of using percentage-based royalties.

We should not be misunderstood as opining that a cents-per-unit royalty structure is *not* RAND. The relevant question, however, is whether a percentage-based royalty based on the selling price of the end-user device (the cellphone) sold by the licensee "*prima facie* is discriminatory," as the Commission contends,<sup>64</sup> even if all licensees pay the same percentage royalty rate.

It is true that some licenses call for fixed cents-per-unit royalties (in which case the royalty base is the number of units sold, and does not vary depending on the nature or the selling price of the products in question), rather than percentage-based royalties. One example from the proposed Ericsson-Micromax license was the provision that Micromax should pay a fixed royalty of US\$2.50 per dongle, rather than a percentage of the selling price of the dongle.<sup>65</sup>

Some patent pools, notably the 802.11 patent pool administered by Via Licensing and the H.264 patent pool administered by MPEG-LA, charge cents-per-unit royalties. (To date, attempts to form a patent pool for GSM-related patents have been unavailing, so there is no "comparable" patent pool for similar technology to Ericsson's GSM-related SEPs for either the royalty structure or the level of royalty rates.) But those patent pools also offer significant volume discounts, with firms selling high volumes of licensed products paying as little as 9% of the per-unit royalty paid by firms selling smaller volumes of licensed products.<sup>66</sup> It is at least debatable whether such substantial quantity discounts, for which the smaller-volume sellers cannot effectively qualify, satisfy the "non-discrimination" aspect of RAND. Such substantial volume discounts are difficult to justify based on the cost of licensing.

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<sup>64</sup> Intex Order, Para. 17; Micromax Order, Para. 17.

<sup>65</sup> Micromax Order, Para. 4.

<sup>66</sup> For example, the Via Licensing 802.11(a-j) patent pool charges royalties of \$0.55/unit for licensee sales below 500,000 units/year, falling to \$0.05/unit for licensee sales above 40 million/year, less than 1/10<sup>th</sup> the per-unit rate charged to the lowest-volume licensees. See <http://www.vialicensing.com/licensing/ieee-80211-fees.aspx>.

## X. Value, Cost and Price

The question is whether the Commission's interpretation of "discriminatory" makes sense from a public policy, abuse of dominance, and/or contractual interpretation perspective. One commonly-accepted principle of RAND licensing is that the royalty rate should somehow reflect "the value" to the licensee of being able to use the patented technology in making and selling its products. But a licensee that uses the patented technology to make and sell a \$100 cellphone is getting different value from using the patented technology than one that makes and sells a \$1000 cellphone. Both the prices and the likely profit margins of the two products are different.

The Commission asserts (without support) that "Higher cost [sic] of a smartphone [presumably, as compared to a lower-cost cellphone without certain features of the smartphone] is due to various other software/technical facilities and applications provided by the manufacturer/licensee for which he had to pay royalties/charges to other patent holders/patent developers."<sup>67</sup> We have a number of concerns with this statement. First, "cost" *per se* does not enter into it; the relevant issue is the royalties paid, which (with a percentage-based royalty) are based on the *selling price* that the licensee charges for its product, not on the *cost* to the licensee of making and selling a more sophisticated cellphone containing additional features. Second, there is no *a priori* reason to believe that differences in selling prices are driven by "royalties/charges to other patent holders/patent developers." We would agree that a more complex product containing more features *is* likely to cost more to make than a less-complex product containing fewer features and selling for a lower price, and that much of the cost differential is driven by the different costs of physical inputs rather than "royalties/charges to other patent holders." (For example, incorporating a higher-resolution digital camera with more memory costs more in terms of physical inputs than incorporating a lower-resolution camera with less memory.) But the Commission cited to no evidence, and apparently made no attempt to investigate, as to what "royalties/charges to other patent holders/patent developers" existed (other than making a general and non-empirically-based statement about the possibility of "royalty stacking"<sup>68</sup>), or whether differences in such royalties across different licensees existed, or whether they explained the levels of (or differences in) selling prices. Indeed, the well-known fact that Apple's margins on iPhones are dramatically higher than the margins earned by other cellphone and smartphone developers<sup>69</sup> casts strong doubt on the proposition that price differences are driven by royalty cost (or other cost) differences.

## XI. Value Superadditivity and Synergies

Another fallacy in the Commission's argument is its tacit assumption that value is additive. We are used to *prices* (which generally are objective publicly-observable market phenomena) being additive; the price of a bundle of items is (generally) the sum of the individual prices of the items in the bundle

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<sup>67</sup> Intex Order, Para. 17; Micromax Order, Para. 17.

<sup>68</sup> Micromax Order, Para. 13; Intex Order, Para. 13.

<sup>69</sup> See, e.g.,

[http://www.theregister.co.uk/2013/11/16/android\\_powers\\_7x\\_more\\_handsets\\_than\\_iphone\\_but\\_apple\\_bags\\_more/](http://www.theregister.co.uk/2013/11/16/android_powers_7x_more_handsets_than_iphone_but_apple_bags_more/) (visited March 6, 2014).

(absent quantity discounts). By contrast, *value-in-use*<sup>70</sup> is inherently subjective (varying from entity to entity) and need not be additive. The value to a particular entity of a combination of features can be less than, equal to, or greater than the sum of the individual values of the features considered separately. (These three alternatives correspond to what mathematicians call subadditive, additive, and superadditive values, respectively.) One term commonly used to describe situations characterized by superadditive values is “synergy,” where the value of a combination of features is *greater* than the sum of the individual values of those features considered in isolation.

This implies that “the value” of being able to add Ericsson’s patented features to a particular cellphone can vary depending on the other features of the cellphone. For example, cellular communications technology allows not only voice signals but also data to be communicated over the cellphone network. Ericsson’s patented technology relates to cellular communications, which is *technically* unrelated to other features of a cellphone (such as whether the phone has a digital camera and/or PDA functionality or not); but from an economic perspective, the relevant question is not technological relatedness, but the impact on value. When one adds a feature (such as a digital camera) to a cellphone, the value to users of the ability to take pictures with that camera is enhanced by the ability to send those images to others over the cellular network. Similarly, the value of cellular connectivity is affected by the types of uses that can be made of that cellular connectivity, and being able to send digital images taken by a camera enhances that value relative to the situation in which the cellphone does not have a camera, despite the fact that the cellular capability and the camera are *technologically* unrelated. Similarly, the value of the ability to communicate over a cellular network is enhanced by the ability to use the cellphone to surf the Internet, which depends on adding features (such as Internet browsing) that may be *technically* unrelated to Ericsson’s cellular technology, but that is not the relevant *economic* question.

Given this synergy between Ericsson’s patented technology and other features of a cellphone, there is no reason why the per unit royalty rate appropriate for a more-complex smartphone incorporating more features (and selling for a higher price) should not be higher than the per unit royalty rate for a less-complex cellphone containing fewer features (and selling for a lower price), even if both products use Ericsson’s cellular technology in “the same” manner. The Commission’s conclusion to the contrary, that “increase in royalty for patent holder is without any contribution [of the patented technology] to the product of the licensee,”<sup>71</sup> is simply invalid from an economic perspective. It confuses technological contribution with economic (value) contribution. It ignores the presence of synergies.

It may be that the Commission intends to suggest that, under a percentage-based royalty structure, the differences in per-unit royalties between high-priced and low-priced products are not *commensurate* with differences in the “contribution” of the patented technology to the different products sold by the licensee, and/or are not commensurate with the “value” that licensees get from using the patented technology in different products. That is a different argument than the one the

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<sup>70</sup> As contrasted with “value in exchange.”

<sup>71</sup> Micromax Order, Para. 17; Intex Order, Para. 17.

Commission actually made. It is difficult to measure the “contribution” of the patented technology to different products selling for different prices. As discussed in the next Section, licenses have to be administrable, in the sense of basing the royalties due on some metric that is observable, non-manipulable, and collected in the ordinary course of the licensee’s business. Selling price is such an observable metric.

## XII. “Reasonable Royalties” and The Value to Licensees of Being Able to Use the Patented Technology

One principle that has sometimes been proposed as a touchstone for RAND royalties relates the royalties sought to “the value” to the licensee of being able to use the patented technology, typically measured relative to using some non-infringing alternative technology.

Given synergies, there is no reason to believe that all licensees receive the same “value” from being able to use the patented technology, even if they use it in “the same” manner. Different licensees can get different types and/or different amounts of synergies from their use of the patented technologies. Many commentators have argued that the ND aspect of RAND does *not* require that all licensees pay the same royalties, but only that “similarly situated” licenses be treated similarly. To the extent that different licensees receive different values from being able to use “the same” patented technology, one might argue that charging different licensees the *same* per-unit royalty rate would violate the spirit of a “non-discrimination” provision, and that charging higher per-unit royalties to those who receive a higher “value” from being able to use the patented technology is not “discriminatory” in any sense that a RAND policy is intended to address.

As a pragmatic matter, it is not possible to observe “the value” that any particular licensee gets from being able to use the patented technology. Parties to licenses want those licenses to be administrable, in the sense that they do not lead to disputes as to what and what is not covered and as to the amount of royalty owed. To be administrable, licenses must rely on information that (a) is collected in the ordinary course of the licensee’s business and (b) is not “manipulable” (subject to variation due to arbitrary choices). For example, while in a sense “the value” is more tied to the *profits* (or profit differential) that the licensee gets from being able to use the patented technology than to the *revenue* (price) that the licensee receives, reported profit margins are subject to manipulation by the licensee due to the range of choices of overhead allocation rules across multiple products available to the licensee (when the licensee makes and sells multiple products), and consequently it is quite uncommon for licenses to specify that the licensee will pay royalties based on the profit margins that the licensee earns on different products. Instead, licenses typically call for the licensee to pay royalties based on the *selling prices*, which are agreed to in arms’-length transactions between the licensee and the customer and thus are much less subject to “manipulation” than reported profit margins are.

It is not realistic to expect that royalty terms can be perfectly titrated to match “the value” that different licensees get from the use of the patented technology, whether for each and every product sold by a given licensee or across licensees, especially when the products the licensee sells, their product characteristics, and product prices change over the life of the patent license. What is required is that

licensing terms be “reasonable” and “non-discriminatory,” not that they be perfect. Moreover, one would expect that these sorts of issues would be resolved by negotiations between the parties over licensing terms.

### XIII. Other Competition Authorities’ Positions

The issue of RAND licensing has attracted the attention of a number of competition authorities, including the FTC/DOJ in the U.S. and DG Comp in Europe. To our knowledge, based on our review of their public positions, none of them have adopted the position apparently taken by the Indian Competition Commission, that percentage-based royalties based on the selling prices of consumer products (such as cellphones) are “*prima facie* discriminatory” (and thus inconsistent with RAND commitments) and/or an abuse of a dominant position. All of them seem to have adopted the position that the purpose of the non-discrimination aspect of RAND is to prevent discrimination across licensees, to provide licensees with a “level playing field,” and that licenses that call for all similarly-situated licensees to be offered the *same* percentage-based royalty rate are fully consistent with both RAND commitments and public policy concerns.

Indeed, in connection with a patent pool for “essential” patents held by Philips, Sony and Pioneer relating to DVD technology, in December 1998 the US DOJ issued a business review letter approving a patent pool that proposed to charge royalty rates of 3.5% of the selling price of the DVD player (and \$0.05 per DVD), with a per-player minimum player royalty of \$7/unit (falling to \$5/unit after 2000)<sup>72</sup> – i.e., a royalty structure of the “greater of X% or \$Y/unit” form. Similarly, in June 1999 the DOJ issued a business review letter approving a different DVD patent pool, this one formed by Hitachi, Matsushita, Mitsubishi, Time Warner, Toshiba, and Victor Company of Japan, which proposed royalties of “\$0.75 per DVD Disc and 4% of the net sales price of DVD players and DVD decoders, with a minimum royalty of \$4.00 per player or recorder,”<sup>73</sup> which is the same form (albeit with somewhat different values) as the Philips-Sony-Pioneer royalty structure. Since different DVD players have different features and sell for different prices,<sup>74</sup> the DOJ’s approval of two different patent pools, each charging

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<sup>72</sup> See letter from Joel Klein, Assistant Attorney General, Antitrust Division, US DOJ, to Garrard Beane, dated December 16, 1998, p. 6, (hereafter “PSP Business Review Letter”), available at <http://www.justice.gov/atr/public/busreview/2121.pdf>.

<sup>73</sup> Letter from Joel Klein to Corey Ramos, pp. 6-7 (hereafter “HMMTWTV Business Review Letter”), available at <http://www.justice.gov/atr/public/busreview/2485.htm>.

<sup>74</sup> As of March 9, 2014, an Internet search of “DVD player” prices at Best Buy, a US-based retailer, found 34 DVD players selling for retail prices from a low of \$29.99 to a high of \$381.59. The lowest-priced product was a basic DVD player; the highest-priced product was a DVD player-recorder with a 500 GB hard drive. There were 19 products selling for prices less than \$50, 11 products selling for between \$50 and \$100, and 3 products selling between \$100 and \$150. See [http://www.bestbuy.com/site/olstemplatemapper.jsp?\\_dyncharset=UTF-8&dynSessConf=-5665426031039108075&id=pcat17071&type=page&ks=960&st=categoryid%24abcat0102005&sc=Global&cp=1&sp=-bestselling&skuids=saas&qp=currentprice\\_facet%3DSAAS%7EPrice%7E%24250+-%24499.99&list=y&usc=All+Categories&nrp=15&fs=saas&iht=n&seeAll=&browsedCategory=abcat0102005](http://www.bestbuy.com/site/olstemplatemapper.jsp?_dyncharset=UTF-8&dynSessConf=-5665426031039108075&id=pcat17071&type=page&ks=960&st=categoryid%24abcat0102005&sc=Global&cp=1&sp=-bestselling&skuids=saas&qp=currentprice_facet%3DSAAS%7EPrice%7E%24250+-%24499.99&list=y&usc=All+Categories&nrp=15&fs=saas&iht=n&seeAll=&browsedCategory=abcat0102005) All presumably used the DVD technology covered by the patent pool in “the same” fashion to play back DVDs, though DVD player-recorders may well have used the patented technology in an additional fashion than do DVD players.

the greater of a percentage-based royalty and a fixed dollar-per-unit minimum royalty, casts strong doubt on the proposition that the DOJ concluded that percentage-based royalties based on the selling prices of the licensed products were “*prima facie* discriminatory” and hence not RAND,<sup>75</sup> as the Commission concluded.<sup>76</sup>

That lack of endorsement of the Competition Commission’s position could, or course, merely reflect the possibility that other competition authorities have not considered the issue,<sup>77</sup> but we find that possibility implausible.

#### XIV. U.S. RAND Case Law

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The Best Buy data cited above is current. The pools were approved back in the 1998-99 period. It does not appear that the pool rates have changed over time. For the Hitachi-led pool, the current rates are available at <http://www.dvd6cla.com/royaltyrate.html>; the website indicates that the percentage royalty rate (of 4%) is unchanged from what it was when the Business Review Letter was issued, and that the per-player minimum royalty will fall from the current \$4/unit to \$2/unit “after the effective date of the New DVD6 License Agreement,” but there is no indication what that “Effective Date” is or will be.

DVD player prices have fallen significantly over time. An undated (latest data from 1999) Bureau of Labor Statistics report on “Developing a Hedonic Regression Model for DVD Players in the U.S. CPI” reported that InfoTech, Inc., a market data firm, “reports that the average retail price for DVD video players has declined from \$735 in the first half of 1997 to \$470 in the second half of 1998,” and “The mean price for all DVD players included in this study during the first half of 1999 was \$443.39.” See <http://www.bls.gov/cpi/cpidvd.htm>.

The fact that DVD player prices have fallen precipitately over time makes it more likely that the minimum per-unit royalties charged by the DVD patent pools, with their “the greater of X% or \$Y/unit” structure, become binding, thus increasing the burden of the royalty as a percentage of the selling price of the product (though this admittedly reduces the likelihood that different licensees will be charged different royalties, as the per-unit minimum is more likely to be binding). Simply put, when retail DVD player prices averaged over \$400/unit (as they did back in 1998-99), the 4% royalty sought by the Hitachi-led pool (presumably calculated on wholesale, not retail, prices) would likely have been greater than the \$4/unit minimum, and the royalty that the licensee paid would have been the percentage-based amount; with retail DVD player prices now as low as \$30, that is no longer the case.

<sup>75</sup> The pool participants in the Philips-Sony-Pioneer pool had agreed to license all of their “essential” patents “non-discriminatorily to all interested third-parties.” PSP Business Review Letter, *supra* note 56, at p. 6. The pool participants in the Hitachi-Matsushita-Mitsubishi-Time Warner-Toshiba-Victor pool had agreed to make licenses available to “interested third parties” on “fair, reasonable and non-discriminatory” terms. HMMTWTV Business Review Letter, *supra* note 57, at p. 3.

<sup>76</sup> From an economic perspective, the only difference between the two situations is that the Commission’s Orders were directed to Ericsson’s request for a pure percentage-based running royalty, while the two DVD patent pools both used a hybrid “the greater of X% or \$Y/unit” approach. The two are effectively identical above the “cross-over” level of product price at which the percentage royalty equals the minimum per-unit royalty. For product prices above that “cross-over” price, the percentage-based royalty controls (and higher-priced products pay higher per-unit royalties); for product prices below that “cross-over” price, the minimum royalty controls (and all such products pay the minimum royalty).

<sup>77</sup> An alternative possibility is that other countries’ competition laws do not have provisions comparable to Section 4 of the Indian Competition Act. EU Article 102(c) refers to “abuse of a dominant position,” but its language prevents “applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage.” Available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:12008E102:EN:NOT>. In the U.S., the Sherman Act and Clayton Act do not have the “abuse of dominant position” language, though the Robinson-Patman Act does prohibit price discrimination in some contexts. To our knowledge, neither Article 102(c) nor the Robinson-Patman Act has been interpreted as prohibiting percentage-based royalties as “*prima facie* discriminatory.”

We are aware that, in *Microsoft v. Motorola*, one U.S. case involving RAND licensing issues, the trial judge, Judge Robart, opined: “a patent’s royalty rate should be based on the importance of the patent to the standard and to the implementer’s product. Under this analysis, this royalty rate would fluctuate little, if at all, based on the end selling price of the product. Accordingly, if 0.8 cents per unit is a reasonable royalty rate for a \$200.00 Xbox, then it should be a reasonable royalty rate for an Xbox selling for \$400.00 that uses the patented technology in the same manner.”<sup>78</sup> This is a significant aspect of his ruling, as it appears to rule out percentage-based royalties based on the selling price of the end-user product as being inconsistent with (his view of) RAND. Since such royalties are common in the industry (though not in the two patent pools he considered in his analysis) and thus are presumably “reasonable” in the “commercially reasonable” sense, he does not explain how he would deal with them.

We disagree with Judge Robart’s analysis in this regard. Due to synergy/value superadditivity, “the importance of the patent ... to the implementer’s product” can vary significantly depending on the value to the licensee (implementer) of being able to use the patented technology in different products that vary with respect to features other than the licensed patented technology and selling for different price points. There is simply no reason to believe that the value of being able to use the patented technology in different products “would fluctuate little, if at all” across different products selling for different price points, merely because the products “use[] the patented technology in the same manner.”

Moreover, neither the Commission nor Judge Robart addressed the pragmatic advantages of a percentage-based royalty structure. As noted in Section X above, there are a number of good economic reasons to choose a percentage-based royalty structure over the available alternatives.

We note that Judge Robart’s opinion and reasoning, as stated, appears to be based on the “reasonable” prong of RAND, whereas the Commission’s opinion and reasoning is based on the “non-discrimination” prong of RAND (or the statute). Again, we disagree with Judge Robart’s reasoning for much the same reasons we disagree with the Commission’s reasoning. But Judge Robart’s reliance on the “reasonable” prong of RAND is problematic for another reason. In determining what is “reasonable,” we believe that one touchstone is what is “commercially reasonable” in the sense of what would likely be agreed to in arm’s-length negotiations between unaffiliated entities. Given that percentage-based royalties are common in this industry (as well as many others), for both SEPs and non-SEPs, we find it highly unlikely that ETSI and/or Ericsson, by adopting a RAND policy, intended to preclude the use of percentage-based running royalty licenses. Judge Robart did not render any opinion as to the appropriate royalty base, other than concluding that the appropriate royalty structure was a

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<sup>78</sup> “Findings of Fact and Conclusions of Law,” *Microsoft v. Motorola*, U.S. District Court, Western District of Washington at Seattle, Para. 617; available at <http://www.scribd.com/doc/138032128/13-04-25-Microsoft-Motorola-FRAND-Rate-Determination> .

cents-per-unit royalty<sup>79</sup> (so that the royalty base was the number of units sold and did not vary with the selling price of the licensed products).

We are aware that, in *In re Innovatio*, another U.S. case involving RAND licensing issues, the trial judge, Judge Holderman, concluded that the appropriate *damages* base was the selling price of the Wi-Fi chipset.<sup>80</sup> However, the judge in that case reached that ruling after concluding that the patent holder had failed to prove otherwise, and had “provided this court no legally and factually credible method to apportion the price of the accused end-products to the value of only [the patent holder’s] patented features. The court therefore has no choice but to look to the [defendants’] proposed method of calculating a RAND royalty based on the price of a Wi-Fi chip.”<sup>81</sup> That is not a basis for a general finding that the appropriate royalty base in connection with cellular communications standards is always the chipset. Instead, it was a comment on the patent holder’s failure (in that particular case) to carry its burden of adequately supporting a different result. (Judge Holderman ultimately awarded damages of 9.56 cents per Wi-Fi chip, rather than a percentage-based damage amount.)

Finally, in *Ericsson v. D-Link*, another U.S. case involving RAND issues, the trial judge, Judge Davis, rejected D-Link’s argument that Ericsson had failed to comply with its RAND commitment by not licensing Intel, the chipmaker that supplied chipsets to D-Link, and by not suing Intel after Intel intervened in the case. Ericsson had committed to offer RAND licenses to “fully compliant” products.<sup>82</sup> Judge Davis said that “Ericsson’s objective in licensing only fully compliant products was to isolate a particular level of the supply chain and to license companies at that level. By licensing end-product manufacturers, Ericsson believed it was indirectly licensing chip manufacturers such as Intel. ... There is no IEEE rule preventing restricted RAND commitments, and other companies have adopted the same ‘fully compliant’ licensing policy as Ericsson.”<sup>83</sup>

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<sup>79</sup> His reasoning may reflect the fact that the two patent pools he used as “reference” points both charged cents-per-unit (rather than percentage-based) royalties.

<sup>80</sup> The choice of *damages* base for patent infringement damages raises different issues from the choice of *royalty* base for patent licenses. In particular, patent infringement damages awards are limited by various legal considerations, such as the proposition that damages can only be awarded for products that (a) have been *shown* to infringe one or more valid patent claims and (b) are “made, used or sold” in the country in which the patent is in force and in which suit is brought. Those considerations do not apply to licensing, where licenses commonly call for the licensee to pay royalties on its *worldwide* sales of all “licensed products” (*whether or not* they have been shown to be infringing, as one obvious purpose of licensing is to avoid the necessity of litigating infringement issues) and despite the fact that the patent holder typically does not have patents in every country in which the licensee operates.

<sup>81</sup> “Memorandum Opinion, Findings, Conclusions and Order,” *In re Innovatio Ventures LLC Patent Litigation*, U.S. District Court for the Northern District of Illinois, Eastern Division, September 27, 2013, p. 34; available at [http://www.essentialpatentblog.com/wp-content/uploads/sites/234/2013/10/2013.10.03-975\\_Public-Version-of-Memorandum-Opinion-and-Order.pdf](http://www.essentialpatentblog.com/wp-content/uploads/sites/234/2013/10/2013.10.03-975_Public-Version-of-Memorandum-Opinion-and-Order.pdf).

<sup>82</sup> After Intel intervened, Ericsson offered to license Intel at the same 50-cents-per-unit royalty that it offered to D-Link. Intel did not respond to Ericsson’s proposed draft license. “Memorandum Opinion and Order,” *Ericsson v. D-Link*, U.S. District Court for the Eastern District of Texas, Tyler Division, August 6, 2013, p. 46; available at <http://www.essentialpatentblog.com/wp-content/uploads/sites/234/2013/08/13.08.06-Dkt-615-Ericsson-v.-D-Link-Order-on-Post-Trial-Motions.pdf>.

<sup>83</sup> *Id.* at p. 48.



## XV. The “Reasonable” Aspect of F/RAND Licensing

The Commission’s analysis focuses on the “non-discriminatory” aspect of RAND licensing. But there is also the “reasonable” (or “fair and reasonable”) aspect. Other than the “excessive pricing” issue (already addressed), the Commission does not suggest that Ericsson’s proposed royalty structure (percentage-based royalties based on the selling prices the licensee charges for the products it sells) fails to satisfy the “R” (or “FR”) aspect of F/RAND.

This may or may not reflect an intentional choice by the Commission. It may believe that it is sufficient to argue that Ericsson’s proposed percentage-based royalties fail to satisfy the “non-discriminatory” aspect, and simply choose not to reach the “reasonable” aspect. (The fact that Section 4 of the Act does not address whether royalties are “reasonable” may be another reason why the Commission focused only on the “non-discriminatory” aspect.) But as noted above, there are a number of good and conceptually-distinct economic reasons why percentage-based royalties are “reasonable” in the sense of “commercially reasonable,” and why charging all similarly-situated licensees the same percentage-based royalty rate does not “discriminate” among/across licensees in any meaningful economic sense.