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발 · 제 2

FRAND 화약의 경제학적 해석

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Professor Yi's academic research focuses on applied microeconomic theory, industrial organization and the economic analysis of antitrust. He has published highly-cited papers in academic journals such as *Rand Journal of Economics*, *International Journal of Industrial Organization*, *Games and Economic Behavior*, *Journal of International Economics*.

Professor Yi's current research focuses on the economic analysis of competition law, with particular interest in software and smartphone industries. He has authored numerous papers (including a publication in *Competition Policy International*) and consulted on several key antitrust cases in Korea, including damages estimation from collusion, horizontal and non-horizontal mergers, and abuse of dominance (such as tying, refusal to deal and loyalty rebates).

Responsibilities of FRAND-encumbered SEP owners under competition law

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(2) (Especially if dominant,) should not refuse to license a competing component maker.

5. Should not tie licensing of SEPs with non-SEPs

(my proposal)

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1. Introduction

- ❖ Consider the following questions:
- ❖ "If a SEP holder evaded its FRAND commitments and asked for higher royalties that exceed the **ex ante** value of its technology, wouldn't the contract (+ tort, patent) law court provide enough protection for the implementers as the third-party beneficiaries?"
- ❖ Why should the competition agency/court intervene?"
- ❖ I seek answers to these questions.

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1. Introduction

- ❖ It is well established that "the essence of a patent grant is the right to exclude others from profiting from by the patented invention".
 - ❖ Dawson Chem. Co. v. Rohm & Haas Co., 448 U.S. 176, 215 (1980)
- ❖ The U.S. Patent Act [35 U.S.C. § 154](#)
 - ❖ "Every patent shall contain a short title of the invention and a grant to the patentee, his heirs or assigns, of **the right to exclude others from making, using, offering for sale, or selling** the invention throughout the United States **or importing** the invention into the United States ..."

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1. Introduction

- ❖ FRAND-encumbered Standard-Essential Patents (SEPs) are different.
- ❖ In exchange for being selected by an SSO, SEP owners make voluntary commitments to the SSO to license its essential patents on a "fair and reasonable and non-discriminatory basis."
- ❖ That is, FRAND-encumbered SEP owners **voluntarily limit their right to exclude** in order to see its technology included in the standard.

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1. Introduction

- ❖ But SSOs typically specify very little as to the meaning of "fair", "reasonable" or "non-discriminatory."
- ❖ Given the costs associated with identifying all contingencies that might arise in future licensing negotiations, the inherent ambiguity in FRAND commitments does not signal inefficiency.
- ❖ Nonetheless, some SEP holders try to take advantage of such ambiguities to "hold up" implementers after they have made sunk investments in developing products that depend on the standard.

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1. Introduction

- ❖ Of course, the level of the royalty rates and other terms for FRAND-encumbered SEPs should be left to private negotiations. Competition law should not be in the business of price control.
- ❖ I disagree with Qualcomm's rectification plan that China NDRC approved to the extent that it fixes prices (royalty rates and the royalty base for branded handsets sold for use in China).

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1. Introduction

- ❖ "For licenses of Qualcomm's 3G and 4G essential Chinese patents for branded devices sold for use in China, Qualcomm will charge royalties of 5% for 3G devices (including multimode 3G/4G devices) and 3.5% for 4G devices (including 3-mode LTE-TDD devices) that do not implement CDMA or WCDMA, in each case using a royalty base of 65% of the net selling price of the device."
 - ❖ Qualcomm, "Qualcomm and China's National Development and Reform Commission Reach Resolution" Feb. 9, 2015
<https://www.qualcomm.com/news/releases/2015/02/09/qualcomm-and-chinas-national-development-and-reform-commission-reach>

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1. Introduction

- ❖ The general maxim that the competition agency is not a price regulator, however, does not mean that violations of FRAND commitments are exempt from competition law liability.
- ❖ For the U.S. law, I include FTC Act Sec. 5 in addition to Sherman Act Sec. 2 (whose reach for single-firm conduct has been systematically reduced by the Supreme Court over the last forty years due to concerns about the "excessive" private action caused by treble damage/class action/extensive discovery—which I label "the American Exceptionalism") .

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1. Introduction

- ❖ Indeed, several recent enforcement decisions by the FTC (Motorola) and the EC (Motorola and Samsung) have established the principle that using the threat of injunction against a **willing** licensee in licensing negotiations is not simply a contract law matter, but could constitute a competition law violation.
- ❖ I build upon these decisions to explore the perimeters of responsibilities of FRAND-encumbered SEP owners under competition law.

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1. Introduction

- ❖ My thesis #1: if a breach of FRAND commitments threatens **the integrity of the SEP selection process within an SSO that functions as a “competitive process” that replaces competition in the marketplace**, it is not simply a matter of contract law.
- ❖ Rather, such a FRAND violation falls squarely within the essential prerogatives of competition law that protects the “competitive process.”

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1. Introduction

- ❖ My thesis #2: In addition to harming “the SEP selection process within an SSO as a competitive process,” if a breach of FRAND commitments **excludes/is likely to exclude competition in the conventional sense**, then it is **all the more important** that competition agencies/courts strongly enforce the law.

- ❖ Because the collective decision making within SSOs supplants competition in the marketplace as the “competitive process for the establishment of the standardized technology,” a narrow focus on exclusion of competition in the traditional sense that stems from a FRAND violation is misguided.

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1. Introduction

- ❖ My thesis #3: Of course, I do not mean that *any* breach of FRAND commitments (which are, after all, inherently open-ended) is a competition law violation.

- ❖ My thesis #2 is aimed at those commentators who take a very narrow view on the role of competition law in the SSO process.

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1. Introduction

- ❖ There should be **guiding/limiting principles**.
- ❖ Limiting principle #1: A pure “exploitative abuse”, without some “bad” acts, is better addressed by contract law.

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1. Introduction

- ❖ Limiting principle #2: The “bad” acts in #1 are those that undermine the very foundations of the SSO process as a competitive process.
- ❖ Examples:
 - ❖ Deception
 - ❖ Seeking an injunction against a willing licensee
 - ❖ Conditioning the supply of a dominant component (for a SEP holder who is vertically integrated into components) on the end-product accepting the license.

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1. Introduction

- ❖ Limiting principle #3: For a SEP holder which is vertically integrated into component manufacture, I propose a “sliding scale” rule for discriminatory conduct under which the burden of proof of foreclosure decreases with the strength of the position of the SEP holder in the component market.
- ❖ If not dominant in the component market, sufficient weight should be given to plausible efficiencies.

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2. SSO as a competitive process

- ❖ Broadly speaking, there are two main “competitive processes” through which a (patented) technology emerges as an industry standard.
- ❖ First, competing technologies could engage in conventional “competition in the marketplace”.
 - ❖ VHS v. Betamax
 - ❖ Windows v. Macintosh
- ❖ Second, they can compete for adoption in the collective decision making process within an SSO.

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2. SSO as a competitive process

- ❖ Either way, technologies compete against one another to become the standard.
- ❖ Regardless of where the competition takes place, it is the duty of the competition authorities/courts to ensure that competition takes place "on the merits".
- ❖ There are two main dimensions of meritorious competition among technologies:
 - ❖ "Quality" (broadly defined)
 - ❖ "Price" (broadly defined)

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2. SSO as a competitive process

- ❖ Regardless of the venue of competition, quality of the patented technology plays a crucial role in the competition to become/be included in the standard.
- ❖ The key difference arises in the dimension of "price" competition.
- ❖ When SSOs evaluate and select technologies to be included in the standard, actual implementation is yet to take place in the future.

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2. SSO as a competitive process

- ❖ The incomplete contract literature teaches us that when the costs associated with specifying future contingencies are high, inefficiencies arise if contract terms are set rigidly well before the investments are made and consumer demand is realized.
- ❖ As a consequence, instead of requiring "one-size-fits-all" pre-set license terms and conditions (upfront fees, running royalties and other terms), SSOs demand generally-worded FRAND commitments from SEP holders to prevent hold-up problems.

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2. SSO as a competitive process

- ❖ Unfortunately, this inherent vagueness in FRAND commitments often tempts SEP holders to exploit the ambiguities and hold up implementers, i.e.,
 - ❖ engage in the *ex post* opportunistic exercise of monopoly power that results from the industry-wide lock-in to the SEPs
 - ❖ after competing technologies are eliminated from the standard and implementers/complementary good producers make massive *sunk* investments that conform to the standard.

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2. SSO as a competitive process

- ❖ Condoning such opportunistic behavior by SEP holders destroys the very foundation upon which the selection process of SSO rests.
- ❖ Because the selection process within an SSO replaces competition in the marketplace as the "competitive process" for becoming/being included in the industry standard", reneging on FRAND commitments that harms the integrity of the SSO process is not merely a contract law matter.

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2. SSO as a competitive process

- ❖ Rather, because it has industry-wide consequences beyond the disputing parties, breach of FRAND commitments that harms the integrity of the SSO selection process could constitute a competition law violation.
- ❖ In addition, SEP holders which are vertically integrated into "midstream" components and/or "downstream" end-products might be tempted to exclude competitors by abusing its ex post monopoly power.

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2. SSO as a competitive process

- ❖ Because the exclusion of competition results from the abuse of ex post monopoly power granted by the SSO under the condition that the SEP holder will not exploit it,
- ❖ I argue that a *lower* standard for the proof of anticompetitive effects is called for.
- ❖ In particular, if the SEP holder is also *dominant* in the component market, instead of *actual* proof, *likelihood* of exclusion 배제우려 should suffice.

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3. No injunction against a willing licensee

- ❖ Several recent enforcement decisions by FTC (Motorola) and EC (Motorola and Samsung) have established the principle that using the threat of injunction against a willing licensee is not simply a contract/tort/patent law matter, but may constitute a competition law violation.

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3. No injunction against a willing licensee

- ❖ FTC: "The Complaint alleges that ... Motorola reneged on a licensing commitment made to several standard-setting bodies to license its standard-essential patents relating to smartphones, tablet computers, and video game systems on FRAND terms by seeking injunctions against willing licensees of those SEPs. This conduct tended to **impair competition in the market** for these important electronic devices ..."
- ❖ Statement of the Federal Trade Commission, In the Matter of Google Inc. January 3, 2013,
<http://www.ftc.gov/os/caselist/1210120/130103googlemotorolastmtofcomm.pdf>.

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3. No injunction against a willing licensee

- ❖ EC: "[T]he **seeking of injunctions may be abusive when two conditions are met**: - first, a SEP holder has given a commitment to license on FRAND terms during standard-setting; - and second, the potential licensee is willing to enter into a licence on FRAND terms."
- ❖ Joaquin ALMUNIA, "Introductory remarks on Motorola and Samsung decisions on standard essential patents" April 29, 2014
http://europa.eu/rapid/press-release_SPEECH-14-345_en.htm

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3. No injunction against a willing licensee

- ❖ KFTC agrees:

- ❖ “[A]n act of filing an injunction against willing licensees by an SEP holder who promised to license its SEP on FRAND terms can be determined as a behavior that restricts competition in the relevant market as it exceeds the reasonable extent of exercise of patent right.”

- ❖ “Review Guidelines on Unfair Exercise of Intellectual Property Rights”
Dec. 17, 2014

http://eng.ftc.go.kr/bbs.do?command=getList&type_cd=62&pageId=0401

- ❖ Its earlier decision exonerating Samsung in its disputes with Apple rested on its factual finding that “Apple did not engage in good-faith negotiations” as demonstrated by “Apple’s filing of patent infringement action against Samsung during licensing negotiations”

http://ftc.go.kr/news/ftc/reportView.jsp?report_data_no=5542&tribu_type_cd=&report_data_div_cd=&curpage=23&searchKey=&searchVal=&stdate=&enddate= (Feb. 2014,
Korean only)

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3. No injunction against a willing licensee

- ❖ It is important to recognize that FTC’s and EC’s enforcement decisions against Motorola and Samsung do not depend on **exclusion of competitors** in the traditional sense (in the “downstream” end-product market **ex post**, i.e., after the standard is adopted and investments to implement it are made).

- ❖ While these two cases did concern competitors in the downstream handset markets, FTC and EC found the *threat* of injunction anticompetitive. *Actual* injunction and the resulting exclusion of competitors were *not* required.

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3. No injunction against a willing licensee

- ❖ Rather, FTC/EC were concerned about “protecting the integrity of the standard-setting process” that “supplants the competitive process”.
- ❖ Statement of the Federal Trade Commission, In the Matter of Google Inc. January 3, 2013, pp. 1~2
<http://www.ftc.gov/os/caselist/1210120/130103googlemotorolastmtofcomm.pdf> .
- ❖ That is, it is abuse for a FRAND-encumbered SEP owner to *use the threat of exclusion* in order to force an implementer to surrender and accept high royalty rates and/or other concessions (e.g., cross licensing of the latter’s non-SEPs).

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3. No injunction against a willing licensee

- ❖ This is my starting point from which I explore the responsibilities of FRAND-encumbered SEP holders under competition law.
- ❖ Using the threat of exclusion in the *ex post* negotiation in order to extract higher royalty payments and other concessions from an **locked-in** implementer harms the integrity of the SSO as a “competitive process” for selecting technologies to be incorporated into the standard.

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3. No injunction against a willing licensee

- ❖ Because the proper functioning of the SSO process as a “competitive process” rests on the premise that the SEP holder will honor its commitment to license its SEPs to a willing licensee, breach of such commitment is not just a matter of contract law;
- ❖ Rather it falls squarely within the realm of competition law that “protects the competitive process.”

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3. No injunction against a willing licensee

- ❖ Going back to the question that I posed at the beginning of my presentation,
- ❖ The SEP holder using the injunction as a negotiating chip in order to extract higher royalty payments from a willing licensee is not simply a bilateral price negotiation matter that the contract law can provide sufficient relief from a social point of view.
- ❖ Rather, the competition authority/court should care.

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3. No injunction against a willing licensee

- ❖ After all, unless the SEP holder is vertically integrated into end-product market, a SEP holder (in the “upstream” technology market) is not interested in the exclusion of handset makers (in the “downstream” end-product market) per se; they are the source of their licensing revenue.
- ❖ Rather, the SEP holder’s real goal is to “demand and realize royalty payments reflecting the investments firms make to develop and implement the standard, rather than the economic value of the technology itself.” (FTC Motorola Statement, p. 2)

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3. No injunction against a willing licensee

- ❖ While the SEP holder should be “adequately and fairly rewarded for the use of their IPRs,” (ETSI IPR Policy § 3.1) it should not use the injunction threat to extract higher royalties from a willing licensee.
- ❖ Doing so undermines the very premise of the integrity of the SSO process that granted ex post monopoly power to the SEP holder on the condition that “it is prepared to grant irrevocable licences on fair, reasonable and non-discriminatory (“FRAND”) terms and conditions under such IPR”. (ETSI IPR Policy § 6.1)

<http://www.etsi.org/images/files/IPR/etsi-ipr-policy.pdf>

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My proposals

- ❖ I build upon the above accepted principle to explore other responsibilities of a FRAND-encumbered SEP holders under competition law.
- ❖ I begin with a SEP holder that is **vertically integrated into the production of a component** that practices SEPs.
- ❖ I then move on to other general responsibilities.

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ My first proposition is that if the SEP holder is **dominant** in a component market (as a whole or some product/geographic segment which constitute a relevant market), it should not condition the **supply and the subsequent use** of such a component on the end-product maker accepting the license.
- ❖ Refusal to supply its component to the end-product maker unless the latter signs the license contract is **tantamount to the SEP holder seeking an injunction** against the latter.

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ The effect on the end-product maker is no different.
 - ❖ If the injunctive relief is granted, it cannot make/use/sell/import an infringing product.
 - ❖ If denied the supply of a key component, it cannot survive against rivals in the marketplace.

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ Hence, once one accepts that a SEP holder should not seek exclusion against a willing licensee,
- ❖ it naturally follows that a vertically integrated SEP holder with a dominant position in a key component should not condition the supply its dominant component on the end-product maker accepting the license.

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ Indeed, refusal to supply the near-monopoly component is **more powerful** in some respects than seeking an injunction, because its effect is **immediate, certain and global in its reach**.
 - ❖ Seeking an injunction takes time until the injunction/exclusion order is actually obtained.
 - ❖ There is uncertainty in how the court/ITC might rule on the issue of infringement and patent validity.
 - ❖ Injunction/exclusion order are effective only in that jurisdiction.

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ In order to make my point, I will use the mobile telephony industry and Qualcomm as a real-world illustration.
 - ❖ Disclaimer: This is for discussion purpose only; I am not pre-judging Qualcomm's conduct. Only after a highly fact-intensive inquiry, can one determine if any company's conduct is a violation of competition law. I lack access to facts necessary to make such a determination.

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ By its own reckoning, Qualcomm has accumulated “a leading intellectual property portfolio ... including patents that are essential ... to the commercial implementation of CDMA2000, WCDMA (UMTS), ... and OFDMA products.”
 - ❖ Qualcomm 2013 10-K, p. 7. Note: OFDMA = LTE
 - ❖ <http://investor.qualcomm.com/secfiling.cfm?filingID=1234452-13-483>
- ❖ Qualcomm is also “a leading developer and supplier of integrated circuits ... based on CDMA, OFDMA”
 - ❖ Qualcomm 2013 10-K, p. 4

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ Strategy Analytics estimates Qualcomm’s 2013 revenue shares are both over 90% in the (multimode) LTE segment and in the CDMA segment.
- ❖ Without the timely supply of Qualcomm’s near-monopoly LTE chips (in the high-end LTE handset segment) and CDMA chips (for selling to the CDMA network operators such as Verizon, Sprint, US Cellular and China Telecom), handset makers cannot survive in the fierce “time-to-market” competition.

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Baseband modem share estimates

	Revenue share	Unit share
(Multimode) LTE	96.0%	93.5%
UMTS (W-CDMA)	53.9%	46.8%
CDMA	93.1%	86.1%
TD-SCDMA	13.2%	4.2%
GSM/GPRS/EDGE	1.1%	0.5%
Overall	63.1%	31.5%

- ❖ Source: Strategy Analytics "Baseband Market Share Tracker 2013" March 24, 2014

❖ <http://www.strategyanalytics.com/default.aspx?mod=reportabstractviewer&a0=9492>

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ But Qualcomm's current policy amounts to, in effect, a refusal to supply its near-monopoly LTE and CDMA chipsets to non-licensee handset makers.
- ❖ To see this, one needs to understand that, **contrary to common practice**, Qualcomm separates out licensing of its SEPs from sales of its modem chips (that practice SEPs).

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ In 2007, Qualcomm submitted an amicus brief to the United States Supreme Court in *Quanta v. LG Electronics* that explains the key elements of its licensing and modem chip supply policies.
- ❖ Quanta v. LG Electronics, BRIEF OF QUALCOMM INCORPORATED AS. AMICUS CURIAE IN SUPPORT OF RESPONDENT (pp. 8~9) Dec. 7, 2007

https://www.eff.org/files/filenode/quanta_v_lg/06-0937bsacqualcommincorporated.pdf

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ First, handset makers need to sign a Subscriber Unit License Agreement ("SULA") with QTL (Qualcomm Technology Licensing division) "to make, use and sell fully assembled handsets that, in the absence of a SULA, would infringe Qualcomm's patents." (p. 8)
- ❖ Second, in order to purchase chips from QCT (Qualcomm CDMA Technologies division), handset makers need to sign a separate agreement, a Components Supply Agreement ("CSA"). (p. 9)

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ The same document proclaims, "Qualcomm typically sells chips **only to** those handset manufacturers that are **licensed** to Qualcomm's patents under a SULA". (p. 9)
- ❖ Taken literally, the above statement leaves some room as to the possibility that Qualcomm *might* supply its chipsets to non-licensees.

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ However, Qualcomm explains that the "Component Supply Agreements provide that the buyer-handset makers may **only** incorporate the chips purchased from Qualcomm into **fully assembled handsets that are the subject of the SULA**" (p. 9)
- ❖ In other words, unless the handset maker signs a SULA, it cannot **use** or **sell** the Qualcomm chips that it paid for.

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ I have been able to find one redacted Component Supply Agreement. It is one that Axestel signed with QCTAP (QCT Asia-Pacific) in 2001.
- ❖ Section 11 confirms that Qualcomm's conduct dates back to its early days.
 - ❖ **11. INTELLECTUAL PROPERTY.** [...] Buyer may not use or sell any Product, alone or in combination with other software or components, without a separate license from QCTAP under all applicable patents [...]
 - ❖ <http://www.sec.gov/Archives/edgar/data/1092492/000119312504180928/dex1025.htm>

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ In effect, Qualcomm's restrictions on the **use/sales** of the chips that a handset maker buys from it is tantamount to Qualcomm refusing to supply its chipsets to a handset maker unless it signs a (separate) license agreement.
- ❖ Indeed, the China NDRC has determined that Qualcomm does condition the supply of its chipsets on the handset maker taking the license agreement with some unreasonable terms:
 - ❖ 中华人民共和国国家发展和改革委员会, “国家发展改革委对高通公司垄断行为责令整改并罚款60亿元” (People's Republic of China National Development and Reform Commission, NDRC Requests Rectifications to Qualcomm's Monopoly Conducts and Fines RMB 6 Billion) Feb. 10, 2015
http://www.sdp.gov.cn/xwzx/xwfz/201502/t20150210_663822.html

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ “Qualcomm sets the signing and the non-challenging the patent license agreement as the conditions for Chinese licensees to obtain the supply of Qualcomm’s baseband chips. If the potential licensee does not sign the patent license agreement which includes the aforesaid unreasonable clauses, or the licensee brings up lawsuits on the dispute arises from the patent license agreement, Qualcomm then refuses to supply the baseband chips. Because Qualcomm holds a dominant position in the baseband chip market, and Chinese licensees are highly dependent on baseband chips of Qualcomm, Chinese licensees are forced to accept the unfair and unreasonable patent license conditions due to the addition of unreasonable conditions by Qualcomm in sales of baseband chips.” (Author’s translation).

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ However, the NDRC press release did not present any evidence on Qualcomm’s tying of chip supply to the handset maker accepting a SULA.
(***Need to check if the NDRC has released a full decision.)
- ❖ It did not articulate a coherent theory of harm that makes connection to seeking injunction against a willing licensee, either.
- ❖ I do.

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ More importantly, Qualcomm seems to be not much affected by the NDRC decision.
- ❖ While explaining that one key term of its rectification plan that NDRC approved is that
 - ❖ “Qualcomm will not condition the sale of baseband chips on the chip customer signing a license agreement **with terms that the NDRC found to be unreasonable** or on the chip customer not challenging unreasonable terms in its license agreement.”

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ Qualcomm immediately adds,
- ❖ “However, this does not require Qualcomm to sell chips to any entity that is not a Qualcomm licensee ...”
 - ❖ Qualcomm, “Qualcomm and China’s National Development and Reform Commission Reach Resolution” Feb. 9, 2015
<https://www.qualcomm.com/news/releases/2015/02/09/qualcomm-and-chinas-national-development-and-reform-commission-reach>
- ❖ Hence, even if Qualcomm honors its rectification plan that NDRC approved, it is far from clear that Qualcomm will not condition its supply of chips on the (non-Chinese in particular) handset maker accepting a license agreement.

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ Applying my theory to Qualcomm's conduct suggests that competition authorities need to make a full-scale inquiry to determine its legality
- ❖ because Qualcomm's *de facto* refusal to supply near-monopoly (multimode) LTE chips and CDMA chips unless a handset maker signs a license agreement is tantamount to seeking an injunction against the handset maker in the segments of the handset market that incorporate these chips.

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ I note that Qualcomm apparently agrees with the principle that a FRAND-encumbered SEP holder should not seek an injunctive relief against a willing licensee.
- ❖ In its statement to the International Trade Commission on the issue of Motorola seeking an exclusion order against Apple's smart devices, Qualcomm submitted (p. 6):
 - ❖ Submission of Qualcomm Incorporated in Response to the Commission's Request for Written Submissions in *Certain Wireless Communication Devices, Portable Music and Data Processing Devices, Computers and Components Thereof*, Inv. No. 337-TA-745.

<http://www.essentialpatentblog.com/wp-content/uploads/sites/234/2012/12/337-TA-745-Qualcomm-Initial-Submission-re-public-interest.pdf>

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ "Indeed, it could be disruptive of standardized industries and the public interest if parties were able to (a) make FRAND commitments for their patented technologies to be included in a standard; (b) in breach of their FRAND commitments, refuse to license those patents on FRAND terms to an implementer willing to negotiate and enter into a license in good faith; and (c) nevertheless obtain exclusion orders from the Commission against the standard-practicing products of those manufacturers."

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4. No refusal to supply dominant components to a willing end-product maker

- ❖ I look forward to Qualcomm's response to my argument that a refusal to supply a near-monopoly component to a willing licensee-handset maker is equivalent to and actually **more powerful** in some respects than seeking an injunction against it.

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5. No refusal to license a willing component rival

- ❖ Leading SSOs require that SEP holders license their essential patents to **all** applicants, including competitors. Refusing to license competitors would be discriminatory.
- ❖ TIA (Telecommunications Industry Association) is the most explicit. Its IPR Guidelines specifically points out that refusing to license competitors of the licensor would constitute discrimination.
 - ❖ Guidelines to the Intellectual Property Rights Policy of the Telecommunications Industry Association Edition 1, March 2005
http://www.tiaonline.org/sites/default/files/pages/IPRGuidelines_edition1_companion_to_4th_ed_engmanual_0.pdf

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5. No refusal to license a willing component rival

- ❖ "Requiring reasonable and non-discriminatory (RAND) licenses to all applicants prevents the inclusion of patented technology from resulting in a patent holder securing **a monopoly in any market as a result of the standardization process**. Thus, licensing offers which defeat this intention are likely to fail the RAND test and do not comply with the Policy. [...]
- ❖ *The term "non-discriminatory" implies a standard of even-handedness. An example of conduct that would constitute discrimination is a willingness to license all applicants except for competitors of the licensor.*" (p. 5; italics in original; bold added)

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5. No refusal to license a willing component rival

- ❖ A SEP holder that is also dominant in a component market should bear an extra burden not to harm competition in that component market by leveraging its monopoly power in the essential technology market (conferred upon the SEP holder or greatly strengthened by the SSO).
- ❖ In particular, I argue that a SEP holder-dominant component maker should grant standard **patent-exhausting licenses** to component rivals so that they could shield their customers from the infringement litigation by the SEP holder.

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5. No refusal to license a willing component rival

- ❖ Otherwise, component rivals cannot obtain the “long-term design freedom” that the SEP holder enjoys from owning the essential patents.
- ❖ Indeed, I believe that, regardless of whether or not they enter the component market, **all** SEP holders should grant patent-exhausting licenses to all willing component makers.
- ❖ Otherwise, component makers can only sell to the end-product makers that obtain licenses from the SEP holder.

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5. No refusal to license a willing component rival

- ❖ Even if the component makers sell only to licensee-end product makers, if the latter fights the validity of the patent or for some other reason does not or cannot pay royalties to the SEP holder, the component maker is exposed to the risk of sued for infringement and may end up being liable for the royalty payments.
- ❖ The resulting damages, if based on the end-product price (which is typically outside the control of the component maker), might well exceed any expected amount by the component maker.

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5. No refusal to license a willing component rival

- ❖ Hence, without a standard patent-exhausting license, component makers cannot “control their own fate” and thus will be discouraged from making long-term investment decisions, defeating the SSO’s goals to make the standard as widely adopted as possible.
- ❖ I thus believe that there is a strong case to be made for the proposition that **a SEP holder has given up the ordinary patent holder’s right to “choose the level in the production-consumption chain” at which it grants a patent-exhausting license.**

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5. No refusal to license a willing component rival

- ❖ The case is stronger for a SEP holder that is vertically integrated in the component market—and even stronger for a SEP holder-dominant component maker—as its component division is free from being sued by the SEP licensing division.
- ❖ The refusal to grant patent-exhausting patents to competing component makers excludes/is likely to exclude them in the conventional sense.

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5. No refusal to license a willing component rival

- ❖ In sum, I advocate the following “sliding-scale” rule.

Vertically separated SEP holder	Vertically integrated SEP holder	Vertically integrated SEP holder + dominance in component
Could be an abuse if combined with other “bad” acts	Could be an abuse by itself if accompanied by proof of <i>actual</i> foreclosure	Prima facie violation if the refusal is <i>likely</i> to foreclose competitors

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5. No refusal to license a willing component rival

- ❖ In the past, Qualcomm used to provide competing chipmakers **restricted** licensing agreements called ASIC Patent License Agreements ("APLAS") that allowed licensees to sell its chips "only to handset makers that have entered into a SULA with Qualcomm." (Qualcomm's 2007 Amicus Brief in *Quanta*, pp. 7~9).
- ❖ Qualcomm has been consistent in its policy of requiring licensed chipmakers to sell only to downstream subscriber equipment manufacturers that were Qualcomm's licensees.

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5. No refusal to license a willing component rival

- ❖ The first publicly available press release on Qualcomm's website about licensing competitors to Qualcomm's QCT [i.e., chipset business] segment is dated August 15, 1996.
- ❖ VLSI Technology became Qualcomm's second ASIC licensee after DSP Communications. The license enabled "VLSI to develop, manufacture and sell CDMA (IS-95) Application Specific Integrated Circuits (ASICs) **to Qualcomm's subscriber equipment licensees.**" "Qualcomm Signs CDMA (IS-95) ASIC License With VLSI Technology" Aug. 15, 1996
 - ❖ <https://www.qualcomm.com/news/releases/1996/08/15/qualcomm-signs-cdma-95-asic-license-vlsi-technology>

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5. No refusal to license a willing component rival

- ❖ Qualcomm's business rationale (from its own perspective; not from the viewpoint of honoring FRAND commitments) for licensing competing chipmakers is articulated in its 2005 10-K (p. 16; 2007 10-K, same):
- ❖ "We license our CDMA intellectual property to the competitors of our QCT segment to support the deployment of CDMA-based systems and technologies worldwide in order to grow our royalty revenues from customers licensed to sell CDMA phones and equipment. We believe that, if CDMA based systems expand sufficiently, QCT's business will also grow, even if we lose market share."

<https://www.qualcomm.com/media/documents/files/investor-2005-annual-report.pdf>

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5. No refusal to license a willing component rival

- ❖ After "CDMA based systems has expanded sufficiently," Qualcomm's policy towards its rival chipmakers has changed.
- ❖ Qualcomm does not even grant such restricted licenses to rival chipmakers.

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5. No refusal to license a willing component rival

- ❖ Instead, Qualcomm describes "Chipset Suppliers" as belonging to "Groups Outside our Standard Licensing Program" and elaborates that:
 - ❖ "Current practice is not to assert against or collect royalties from chipset suppliers"
 - ❖ "When necessary, QTL will enter into "patent peace" agreements with chipset suppliers that are carefully designed not to result in exhaustion of either party's patents"
 - ❖ Eric Reischneider, Senior VP & General Manager, Qualcomm Technology Licensing "The Qualcomm Technology Licensing Program and the Licensing of Standard-Essential Patents" February 20, 2013, presentation at the High Tech Sector of Licensing Executive Society US / Canada. (slide 18).
 - ❖ https://www.linkedin.com/groups/_ES-HTS-February-Call-Eric-49864.S.215289005 73
(download link currently broken)

5. No refusal to license a willing component rival

- ❖ An example for the "patent peace" agreement can be found in Qualcomm's 2013 joint public statement with MediaTek, a chipset rival:
 - ❖ "The original agreements [entered into in 2009] between MediaTek and Qualcomm were not, and the amended agreements are **not**, "license" (or "licensing") agreements. MediaTek does not have a license to any of Qualcomm's patents, and Qualcomm does not have a license to any of MediaTek's patents."

5. No refusal to license a willing component rival

- ❖ The same Qualcomm presentation extolls the virtue of (cross-)license that it obtains from the licensee-handset makers.
- ❖ According to Qualcomm, the “Purpose and Effect of Cross-License” are:
 - Protects Qualcomm from patent infringement assertions
 - Provides long-term design freedom to Qualcomm
 - Allows Qualcomm to pass through 3rd party intellectual property rights to our chipset customers.

(Reifschneider 2013, slide 24).

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5. No refusal to license a willing component rival

- ❖ To begin with, there is a **fundamental inconsistency** in Qualcomm’s positions.
- ❖ As a chipset maker (QCT), Qualcomm asks that “Licensee grants Qualcomm a license to licensee’s [standard-essential] patents.” (Reifschneider 2013, slide 23).
- ❖ As a SEP holder (QTL), however, Qualcomm refuses to license rival chipmakers.

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5. No refusal to license a willing component rival

- ❖ More importantly, by refusing to grant licenses to chip rivals, Qualcomm
 - **Expose**s rivals to the risk of Qualcomm's patent infringement assertions
 - **Deprive**s long-term design freedom to rivals
 - **Does not allow** rivals to pass through Qualcomm's intellectual property rights to **their** chipset customers.

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5. No refusal to license a willing component rival

- ❖ As a result, competition in the chip market is restricted/likely to be restricted.
- ❖ Since Qualcomm is dominant in the chip market (overall revenue share estimated at 63.1% in 2013), it is my proposition that **Qualcomm's refusal to grant a patent-exhausting license to rival chipmakers might constitute a violation under the competition law.**

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6. No tied licensing of SEPs with non-SEPs

- ❖ If a SEP holder does not offer licenses to its essential patents separately from licenses to its other patents, a licensee has no choice but to accept the entire portfolio, regardless of whether or not the licensee wants the non-SEPs.
- ❖ Such portfolio licensing makes it harder for the licensee to evaluate the true price of the SEPs.

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6. No tied licensing of SEPs with non-SEPs

- ❖ Similar to a regulated firm that sells a bundle of regulated and non-regulated products in order to evade price regulation, a FRAND-encumbered SEP owner could use bundled licensing of SEPs and non-SEPs to evade FRAND commitments.
- ❖ Moreover, the tied licensing forecloses/is likely to foreclose patent holders that compete with Qualcomm's non-SEPs, as Qualcomm's licensees will be reluctant to pay for the competing non-SEPs.

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6. No tied licensing of SEPs with non-SEPs

- ❖ Qualcomm states that it engages in "Patent Portfolio Licensing" which "With limited exceptions, covers the entire patent portfolio (not just standard-essential patents)" (Reifschneider 2013, slide 13).
- ❖ According to Qualcomm, "Potentially Essential" patents accounts for 12% and "Non-Essential" patents 88% (Reifschneider 2013, slide 13).

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6. No tied licensing of SEPs with non-SEPs

- ❖ Qualcomm's practice of tied licensing of SEPs and non-SEPs appears to differ from Ericsson's licensing policy.
- ❖ In its January 2015 Complaint against Apple in the Eastern District of Texas, Ericsson states (p. 10),
 - ❖ CIVIL ACTION NO.2:15-cv-17

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6. No tied licensing of SEPs with non-SEPs

- ❖ “Ericsson’s offers to Apple contemplate a **global license to all of Ericsson’s Essential Patents**. The parties have not exchanged any offers or requests to license individual patents; nor has Apple ever made a request for Ericsson to provide a license offer on a patent-by-patent basis. This is consistent with Ericsson’s extensive licensing experience as well as standard industry practice. **Licensing portfolios of standard-essential patents on a worldwide basis, rather than individual patents on a country-by-country basis, is the most efficient accommodation for licensing large and dynamic portfolios of standard-essential patents**, such as those owned by Ericsson, and it fulfills the FRAND commitment made by the IPR owner.”

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6. No tied licensing of SEPs with non-SEPs

- ❖ In the past, it seems that Qualcomm also gave a choice to licensees to take its portfolio of SEPs only:
 - ❖ “Qualcomm has offered licenses to its portfolio of technically necessary patents on FRAND terms to entities desiring such a license to produce products that implement a given standard.
 - ❖ Qualcomm also has offered licenses that cover essentially its entire portfolio of patents (including patents that are not technically necessary to implement a standard, but nonetheless may be desirable to utilize).”

❖ Qualcomm’s 2007 Amicus Brief in *Quanta*, p. 6.

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6. No tied licensing of SEPs with non-SEPs

- ❖ Portfolio licensing has obvious benefits, as it reduces litigation risks and the transaction costs of finding out and negotiating each patent's value.
- ❖ By its very nature, truly essential patents need to be licensed and thus a portfolio licensing of SEPs could be justified.
- ❖ However, cost savings for tying non-SEPs to SEPs is far less clear.

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6. No tied licensing of SEPs with non-SEPs

- ❖ Given the potential anticompetitive harm in the non-SEP licensing market and the risk that the portfolio licensing could be used as a pre-text to charge royalties for SEPs that exceed FRAND levels, it is my position that **tied licensing is an abuse of dominant position (in the licensing market for the SEPs)**.
- ❖ Indeed, China NDRC found "tying-in Non-SEPs for wireless communications without justification" as a violation of the China's Anti-Monopoly Law. I agree with this aspect of NDRC's decision.

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7. Summary

	Harm the integrity of the SSO process as the “competitive process” that supplants competition in the marketplace?	Exclude competitors in the conventional sense?
Seeking an injunction against a willing licensee	Yes	Potentially yes if vertically integrated into the licensee's market
Refusal to supply dominant components to a willing end-product maker	Yes	Yes if vertically integrated into the end-product market

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7. Summary

	Harm the integrity of the SSO process as the “competitive process” that supplants competition in the marketplace?	Exclude competitors in the conventional sense?
Refusal to grant patent-exhausting licenses to a willing component maker	Yes	Yes if vertically integrated into components
Tied-in licensing of SEPs and non-SEPs	Yes	Yes (in the non-SEP licensing market)

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