

**Holding the Line on Patent Holdup: Why Antitrust Enforcement Matters**  
**Commissioner Terrell McSweeney<sup>1</sup>**  
March 21, 2018

Recently, some academics and practitioners have suggested that patent holdup is a “flawed” theory without real-world evidence to back it up.<sup>2</sup> It has also been suggested that recent empirical studies “contradict” patent holdup.<sup>3</sup> I do not find these arguments compelling. The competitive risks associated with patent holdup have long been an area of bipartisan agreement – for good reason. It would be unfortunate if the antitrust agencies were to unlearn the lessons of over 15 years of scholarship and bipartisan study and question their longstanding support for combatting holdup based on vague concerns about over-deterrence.

In 2001, Tim Muris announced an initiative by the Federal Trade Commission and Department of Justice to “develop a better understanding of how to manage the issues at the intersection of competition and intellectual property law and policy.”<sup>4</sup> Then-Chairman Muris identified the standard-setting process as an important topic for further study. The antitrust agencies held a series of hearings that featured over 300 panelists and more than 100 written comments. Based on that record, as well as a review of the scholarly literature, in April 2007,

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<sup>1</sup> The views expressed in this statement are my own and do not necessarily reflect those of the Federal Trade Commission or any other Commissioner.

<sup>2</sup> See, e.g., Feb. 13, 2018 Letter to Assistant Attorney General Makan Delrahim, <https://cpip.gmu.edu/wp-content/uploads/sites/31/2018/02/Letter-to-DOJ-Supporting-Evidence-Based-Approach-to-Antitrust-Enforcement-of-IP.pdf>. See also Makan Delrahim, Assistant Attorney General, Dep’t of Justice, The “New Madison” Approach to Antitrust and Intellectual Property Law, Remarks at U. Penn. Law School, Philadelphia, PA (Mar. 16, 2018), <https://www.justice.gov/opa/speech/file/1044316/download> (claiming that holdup theories “remain an empirical enigma in the academic literature” and that holdup “is fundamentally not an *antitrust* problem.”)

<sup>3</sup> See Feb. 13, 2018 Letter to Assistant Attorney General Makan Delrahim, *supra* note 2.

<sup>4</sup> Tim Muris, Competition and Intellectual Property Policy: The Way Ahead, Prepared Remarks before the American Bar Association, Antitrust Section Fall Forum, Nov. 15, 2001, <https://www.ftc.gov/public-statements/2001/11/competition-and-intellectual-property-policy-way-ahead>.

the agencies issued a joint report, “Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition.”<sup>5</sup>

The agencies’ 2007 Report devoted over 20 pages to discussing the patent “holdup problem.” Numerous panelists raised the issue of patent holdup, including industry participants speaking from real-world experience.<sup>6</sup> The Report noted that this problem threatens harm to consumers both through higher prices as well as “less investment in developing and implementing standards.”<sup>7</sup> The agencies closely analyzed several mechanisms that could assist standard-setting organizations (SSOs) in “mitigat[ing] the threat of licensing hold up” to avoid these anticompetitive outcomes.<sup>8</sup>

The agencies’ joint findings were the result of careful and thorough analysis of antitrust and intellectual property issues. The Commission ultimately voted unanimously (5-0) to approve the findings of the Report. In 2011, a subsequent Commission again voted unanimously (5-0) to endorse a report on “The Evolving IP Marketplace,” which noted that “[h]old-up in the standard setting context can be particularly acute.”<sup>9</sup>

### ***The Theory of Patent Holdup***

The theory of patent “holdup” is simple and straightforward. It refers to the fact that the bargaining position of a patent-holder may increase considerably after a patent is included in the

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<sup>5</sup> U.S. Dep’t of Justice & Fed. Trade Comm’n, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition (April 2007) <https://www.ftc.gov/reports/antitrust-enforcement-intellectual-property-rights-promoting-innovation-competition-report>.

<sup>6</sup> *See, e.g.*, U.S. Dep’t of Justice & Fed. Trade Comm’n, Hearings on Competition and Intellectual Property Law and Policy in the Knowledge Based Economy: Standard Setting, April 18, 2002, at Tr: 241-43, 291-94 (Remarks of Allen Lo, Director of Intellectual Property for Juniper Networks), 246-51 (Remarks of Scott Person, Corporate Counsel for Intellectual Property at Hewlett-Packard), <https://www.ftc.gov/news-events/events-calendar/2002/02/competition-ip-law-policy-knowledge-based-economy-hearings>.

<sup>7</sup> 2007 Report, *supra* note 5, at 33-56.

<sup>8</sup> *Id.* at 37.

<sup>9</sup> Fed. Trade Comm’n, The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition 28, (2011), <https://www.ftc.gov/sites/default/files/documents/reports/evolving-ip-marketplace-aligning-patent-notice-and-remedies-competition-report-federal-trade/110307patentreport.pdf>.

standard. The patent holder may use this position as leverage to cause a licensee to pay up to the value of switching to non-standardized technology. The agencies' 2007 Report explains the holdup problem as follows:

In the standard-setting context, firms may make sunk investments in developing and implementing a standard that are specific to particular intellectual property. To the extent that these investments are not redeployable using other IP, those developing and using the standard may be held up by the IP holders.<sup>10</sup>

Oliver Williamson won the Nobel Prize in economics in 2009 due in no small part to his work showing how opportunistic behavior such as holdup can lead to inefficient economic outcomes.<sup>11</sup>

As Dennis Carlton has explained, once a patent is included in a standard, “the patent owner definitely has some additional market power conferred on him that he can exploit in the absence of a constraint on him.”<sup>12</sup> That added market power derives from the value of the standard itself, rather than the value of the underlying intellectual property.<sup>13</sup> This is what makes holdup economically inefficient. There is nothing novel about the theory of patent holdup in the standard-setting context. Indeed, the agencies' 2007 Report explains that it is merely “a variant of the *classic* ‘hold-up problem.’”<sup>14</sup>

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<sup>10</sup> 2007 Report, *supra* note 5, at 35 n.11. *See also* 38 (“A holder of IP incorporated into a standard can exploit its position if it is costly for users of the standard to switch to a different technology after the standard is set. Making such a change would require abandoning that standard and developing a new one, but developing an alternative standard could be costly and may delay the introduction of a new product. The profits lost by such a delay may represent a significant portion of the cost of developing the alternative standard. In addition, to implement an alternative standard for an existing product that requires compatibility and interoperability, the SSO members might incur switching costs in redesigning components that had been based on the old standard and might have to subsidize consumers' migration from a standard based on one technology to a standard based on another technology.”).

<sup>11</sup> *See* Avnish Dixit, Remarks at the AEA 2011 Nobel Lunch Honoring Elinor Ostrom and Oliver Williamson, January 8, 2011, at 3, <https://www.princeton.edu/~dixitak/home/NobelLunchTalkJan2011.pdf>.

<sup>12</sup> Economists' Roundtable on Hot Patent-Related Antitrust Issues, 27 ANTITRUST 11 (Sum. 2013).

<sup>13</sup> As a general principle, a FRAND rate should reflect value that the patented technology brings to consumers, relative to the other technologies available when the technology was chosen for the standard. *See, e.g., Ericsson, Inc. v. D-Link Systems, Inc.* 773 F.3d 1201, 1235 (Fed. Cir. 2014) (“We further hold that district courts must make clear to the jury that any royalty award must be based on the incremental value of the invention, not the value of the standard as a whole or any increased value the patented feature gains from its inclusion in the standard”).

<sup>14</sup> 2007 Report, *supra* note 5, at 35 n.11 (emphasis added).

## ***The Evidence on Patent Holdup***

There is ample evidence that patent holdup exists. The FTC has brought a number of enforcement actions challenging opportunistic behavior by patent holders designed to hold up implementers of a standard. Panelists at the FTC/DOJ hearings reported having experienced patent holdup.<sup>15</sup> There is also strong anecdotal support for the theory that patent holders are willing to seek considerably more than the FRAND value of their patents, consistent with the added market power conferred by inclusion within a standard. When courts have been asked to rule on the reasonableness of purported “FRAND” offers by patent holders, they have found patent holders demanding far more than that to which they were entitled – a finding consistent with holdup. Below are two recent examples:

***Microsoft Corp. v. Motorola, Inc.* (W.D. Wash. Apr. 25, 2013):** Motorola sought to exclude Microsoft’s gaming consoles from the United States and demanded that Microsoft pay royalties of between \$6–8 per console for the use of patents reading on the 802.11 and H.264 standards. The court determined that the F/RAND rate was less than four cents per unit for the 802.11 standard, and less than one cent per unit for the H.264 standard. The cumulative RAND royalty found appropriate by the court was approximately 1/150<sup>th</sup> the royalty sought by Motorola.<sup>16</sup>

***Realtek Semiconductor Corp. v. LSI Corp.*, (N.D. Cal. June 16, 2014):** LSI filed an action with the U.S. International Trade Commission (ITC) seeking an exclusion order and then offered to license Realtek the underlying SEPs in exchange for a royalty that exceeded the selling price of Realtek’s standard-compliant products. The federal district court determined that the cumulative F/RAND royalty to which LSI was entitled was 0.19% of the selling price – less than 1/500<sup>th</sup> the amount that LSI had demanded<sup>17</sup>

In both cases, the F/RAND royalty rates offered by SEP-holders were orders of magnitude higher than what a neutral arbitrator found to be fair and reasonable. It is also worth noting that

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<sup>15</sup> See, e.g., note 6 *supra*.

<sup>16</sup> *Microsoft Corp. v. Motorola, Inc.*, 2013 U.S. Dist. LEXIS 60233\* 303 (W.D. Wash. Apr. 25, 2013). The cumulative royalty of 4.026 cents was 1/149th the FRAND rate sought by Motorola. The court also calculated ranges of RAND rates. The sum of the “upper bound” of these ranges was just under 36 cents. This upper bound was still less than 1/16th of the FRAND rate sought by Motorola.

<sup>17</sup> *Realtek Semiconductor Corp. v. LSI Corp.*, 2014 U.S. Dist. LEXIS 81673 \* 23 (N.D. Cal. June 16, 2014).

the SEP holders sought exclusion orders, which would have operated in much the same way as an injunction by limiting the sale of the implementing products in the United States.

Critics of antitrust enforcement in the holdup context sometimes point to studies showing that quality-adjusted prices have decreased in high-tech industries where standard-setting is common.<sup>18</sup> These studies do not actually “contradict” the theory of patent holdup. The question is not whether quality-adjusted prices will decrease *at all*, but whether holdup slows the *pace* of this trajectory for new technologies.

Imagine a construction project that closes a lane of traffic on a busy roadway. Cars will continue to move while construction is underway – just more slowly. The mere fact that cars are still moving forward does not “contradict” the notion that construction impedes traffic. Similarly, here, the fact that quality-adjusted prices are still “moving forward,” by itself, provides little useful information about the effect of patent holdup on the pace of innovation or on consumer prices. It would be difficult to design a study that would provide a conclusive empirical answer one way or the other given the inherent unknowability of the but-for world.

In the absence of such an answer, do we heed the straightforward economic theory on holdup, or do we ignore it? Do we recognize the compelling anecdotal evidence of patent holdup, or do we ignore that too? My recommended approach is the same one the agency has been following for the better part of two decades – we should recognize the potential for harm from holdup and enforce on a case-by-case basis where appropriate.<sup>19</sup>

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<sup>18</sup> See, e.g., February 13, 2018 Letter to Assistant Attorney General Makan Delrahim, *supra* note 2 (“Several empirical studies demonstrate that the observed pattern in high-tech industries, especially in the smartphone industry, is one of constant lower quality-adjusted prices, increased entry and competition, and higher performance standards. These robust findings all contradict the testable implications of ‘patent holdup’ theory.”).

<sup>19</sup> Some have suggested that the antitrust agencies should focus more attention on so-called patent holdout. Attempts to draw an equivalence between holdup and holdout are misguided and ignore the underlying reason for focusing on patent holdup as antitrust enforcers – namely that adoption of a standard locks in implementers and confers incremental market power on one side of a licensing negotiation. Antitrust enforcers would, of course, take seriously any evidence of collusion by implementers to engage in collective holdout against a patent holder.

## *Conclusion*

The FTC's record of challenging holdup on antitrust grounds stretches back over two decades.<sup>20</sup> The Agency has brought seven significant enforcement actions across both Republican and Democratic administrations.<sup>21</sup> The good news is that the standard-setting process works well overall. These seven challenges were brought against a backdrop of hundreds of thousands of FRAND licensing negotiations. Parties successfully negotiate the vast majority of SEP licenses without involvement from the courts or antitrust agencies.

Although antitrust enforcement actions are rare, they are nonetheless important.<sup>22</sup> For example, between 1996 and 2003, the FTC brought three cases challenging deception by patent holders for failure to disclose patents reading on standards. Following these enforcement actions, this type of opportunistic behavior appears to have abated. By protecting the integrity of the standard-setting process itself, sound antitrust enforcement actually strengthens market opportunities for new technologies, thus improving the incentive for valuable innovation. The motivation for firms to engage in holdup will endure where there is opportunity. Given the importance of standard-setting to the modern economy, it is imperative that the FTC continue to take holdup seriously and not abdicate its antitrust enforcement mission in this area.

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<sup>20</sup> The Department of Justice has not brought an enforcement action related to patent holdup.

<sup>21</sup> *In re Dell*, 121 F.T.C. 616 (1996) (No. C-3658); *In re Rambus, Inc.*, No. 9302 (2002); *In re Union Oil Co. of Cal.*, No. 9305 (2003); *In re Negotiated Data Solutions LLC*, No. 051-0094 (2008); *In re Robert Bosch GmbH*, No. 121-0081 (2012); *In re Motorola Mobility*, No. 121-0120 (2013); *FTC v. Qualcomm* (N.D. Cal. filed Jan. 17, 2017).

<sup>22</sup> The significance of holdup and the fact that antitrust has a meaningful role to play have long been subjects of agreement among enforcement-minded antitrust officials from both Republican and Democratic administrations. See, e.g., Tim Muris, *Bipartisan Patent Reform and Competition Policy 12* (American Enterprise Institute May 2017), <http://www.aei.org/wp-content/uploads/2017/05/Bipartisan-Patent-Reform-and-Competition-Policy.pdf> (“Under Republicans and Democrats, the antitrust agencies have pursued anticompetitive conduct. Despite disagreement on particular cases and on the underlying theory under which cases should proceed, there is widespread agreement on the importance of the issue [of patent holdup] and its suitability as an appropriate subject for antitrust enforcement.”).