Does the International Trade Commission Facilitate Patent Holdup?

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Section 337 of the Tariff Act of 1930 prohibits "[t]he importation into the United States, the sale for importation, or the sale within the United States after importation . . . of articles that . . . infringe a valid and enforceable United States patent." Under section 337, a patent holder may file a complaint with the U.S. International Trade Commission (ITC) to seek an exclusion order against an infringing article imported into the United States. For a complainant to prevail in a section 337 claim before the ITC, the complainant must establish (1) the infringement of a patent under Title 35 of the U.S. Code, (2) the importation of the allegedly infringing product, and (3) the existence of a domestic industry related to the product that is protected by the patent.² If the ITC finds a violation of section 337, it shall direct the exclusion of the infringing article from the United States, unless it finds that the public-interest factors that section 337 enumerates counsel against imposing that remedy.³

In 2012, the Subcommittee on Intellectual Property, Competition, and the Internet of the House Judiciary Committee held a hearing on the risk

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¹ 19 U.S.C. § 1337(a)(B)(i).

² *Id.* § 1337(a)(1)–(2).

³ Id. § 1337(d)(1); see also J. Gregory Sidak, Injunctive Relief and the FRAND Commitment in the United States, in 1 Cambridge Handbook of Technical Standardization Law: Antitrust and Patents (Jorge L. Contreras ed., Cambridge Univ. Press forthcoming 2017), https://www.criterioneconomics.com/docs/injunctive-relief-and-the-frand-commitment.pdf; J. Gregory Sidak, International Trade Commission Exclusion Orders for the Infringement of Standard-Essential Patents, 26 Cornell J.L. & Pub. Poly (forthcoming 2016), https://www.criterioneconomics.com/docs/itc-exclusion-orders-for-standard-essential-patents.pdf; J. Gregory Sidak, Using the Economic Theory of Investment to Prove Whether a Domestic Industry Exists in a Section 337 Patent Infringement Investigation Before the U.S. International Trade Commission, 51 Wake Forest L. Rev. (forthcoming 2016), https://www.criterioneconomics.com/docs/economic-theory-of-investment-domestic-industry-requirement-itc.pdf.

of abusive litigation at the ITC.4 In 2006, the Supreme Court's decision in eBay Inc. v. MercExchange, LLC eliminated the practice of automatically granting an injunction to a patent holder upon a finding of infringement in a federal district court; the decision instead announced a more stringent standard that requires the patent holder to satisfy a four-factor test before obtaining an injunction. Representative Bob Goodlatte, who chaired the Subcommittee during the 2012 hearing, said that this development had rendered the ITC "an increasingly attractive forum for all patent holders." The increase in the number of section 337 complaints brought by nonpracticing entities (NPEs)—that is, patent holders that do not practice their patents but instead monetize them through licensing⁷—prompted allegations that NPEs were using the threat of an exclusion order to extort royalties that exceed the value of their asserted patents.8 To address concerns about abusive litigation, witnesses at the 2012 hearing recommended revising the ITC's standard for issuing exclusion orders,9 introducing more stringent requirements for complainants that seek to establish a domestic industry on the basis of licensing activities, 10 and "institut[ing] an inquiry into the equities of each 337 investigation at an early stage of the proceeding."11

Four years later, in April 2016, the Subcommittee on Courts, Intellectual Property, and the Internet of the House Judiciary Committee held another hearing, inviting six witnesses to testify on whether the ITC had adequately addressed the alleged risk of abusive patent litigation.¹² During his opening remarks, Representative Jerrold Nadler acknowledged that, since 2012, the ITC had adopted safeguards to mitigate the risk of abusive litigation.¹³ He observed that "NPEs, whose entire business model depends on litigation, may find it more difficult to establish that there is a domestic industry that would be threatened by the importation of a particular product, as is

⁴ International Trade Comm'n and Patent Disputes: Hearing Before the Subcomm. on Intellectual Prop., Competition & the Internet of the H. Comm. on the Judiciary, 112th Cong. (2012) [hereinafter 2012 Hearing].

⁵ 547 U.S. 388, 391, 394 (2006).

⁶ 2012 Hearing, *supra* note 4, at 2–3 (statement of Rep. Bob Goodlatte, Chairman, Subcomm. on Intellectual Prop., Competition & the Internet).

⁷ Id. at 3 (statement of Rep. Bob Goodlatte, Chairman, Subcomm. on Intellectual Prop., Competition & the Internet).

⁸ *Id.* at 4 ("[A] recent migration of patent infringement actions to the [ITC] has intensified concerns about the possibility of patent holdups, in which patent holders can use the threat of an exclusion order . . . often as an unfair negotiating tool.") (statement of Rep. Mel Watt, Ranking Member, Subcomm. on Intellectual Prop., Competition & the Internet).

⁹ Id. at 48 (testimony of Albert A. Foer, President, American Antitrust Institute).

¹⁰ Id. at 30 (testimony of Neal A. Rubin, Vice President of Litigation, Cisco Systems, Inc.).

¹¹ Id. at 24 (testimony of David B. Kelley, Intellectual Property Counsel, Ford Global Technologies, LLC).

¹² International Trade Commission Patent Litigation: Hearing Before the Subcomm. on Courts, Intellectual Prop. & the Internet of the H. Comm. on the Judiciary 4, 114th Cong. (2016) (Opening Statement of Rep. Jerrold Nadler, Ranking Member, Subcomm. on Intellectual Prop., Competition & the Internet) [hereinafter 2016 Hearing].

¹³ Id.

required under Section 337."¹⁴ Representative Nadler also noted that the ITC had initiated a pilot project to identify at an early stage the "case dispositive issues," which he said might "help [to] weed out weak claims . . . and discourage many others from even being filed."¹⁵ He acknowledged that the number of complaints that NPEs have filed "ha[d] dropped from its peak, between 2008 and 2011,"¹⁶ though he asked the witnesses to opine on "whether this reduction in [ITC] filings [was] just temporary, or whether the ITC ha[d] adequately addressed the concern over abusive litigation through these and other measures."¹⁷ Representative Nadler also asked the witnesses to opine, if they believed further action to be necessary, on whether the ITC possessed adequate tools to address concerns over abusive litigation or whether new legislation was necessary.¹⁸ In addition, Representative Nadler invited the witnesses to opine more generally on whether "patent litigation at the ITC serves as a complement to district court litigation or whether they conflict with each other."¹⁹

Professor Fiona Scott Morton of the Yale School of Management and the economic consultancy Charles River Associates opined on the risks of allowing a holder of standard-essential patents (SEPs) that had committed to license its SEPs on fair, reasonable, and nondiscriminatory (FRAND) terms to seek an exclusion order from the ITC.²⁰ She argued that the availability of exclusion orders against products that infringe SEPs inevitably bestows disproportional bargaining power on the SEP holder. She said that the mere threat of an exclusion order would result in patent holdup—it would, in her words, force an "implementer [of industry standards] to pay more than the ex ante economic value of the patented technology."²¹ Professor Scott Morton said that, despite warnings from government agencies, the ITC has ignored the risk of patent holdup.²² She recommended that, "to avoid harm to the American economy from the ITC's current role as a policy outlier," the ITC should (I) apply a test comparable to the eBay standard for injunctions when deciding whether to issue an exclusion order against a product found to infringe a FRAND-committed SEP or, alternatively, (2) categorically deny

¹⁴ *Id*.

¹⁵ Id.

¹⁶ *Id*.

¹⁷ Id.

¹⁸ Id

¹⁹ *Id*

²⁰ International Trade Commission (ITC) Patent Litigation: Hearing Before the H. Comm. on the Judiciary Subcomm. on Courts, Intellectual Prop., & the Internet 2, 114th Cong. (2016) (written testimony of Fiona M. Scott Morton, Professor, Yale University School of Management) [hereinafter Scott Morton Testimony], https://judiciary.house.gov/wp-content/uploads/2016/04/04.14.16-Scott-Morton-Testimony.pdf; see also Fiona Scott Morton, Charles River Associates, http://www.crai.com/expert/fiona-scott-morton.

²¹ Scott Morton Testimony, *supra* note 20, at 3.

²² *Id.* at 4.

an exclusion order to any SEP holder that can obtain a remedy in a district court.²³

I analyze here the accuracy of Professor Scott Morton's testimony and the sufficiency of the evidence supporting her policy recommendations. Her testimony omitted important information about the position that courts and economists have adopted toward the patent-holdup conjecture. That information contradicts Professor Scott Morton's assertion that the ITC is a "policy outlier." She also failed to show that the ITC faces a problem that necessitates the broad changes in law that she recommends. Professor Scott Morton did not actually examine whether the ITC faces a risk of abusive litigation. Instead, she assumed the answer to this question by relying exclusively on the assertion that patent holdup is a risk that can exist in theory. However, her assertions about the risk of patent holdup failed to account for important legal developments that have drained the patent-holdup conjecture of plausibility. By ignoring those developments, Professor Scott Morton exaggerated the risk that an SEP holder's request for an exclusion order would result in an above-FRAND royalty. If there is no evidence that a problem exists, then there can be no valid justification for assuming that the implementation of policy prescriptions intended to remedy that nonexistent problem would have any salutary effect on economic welfare.

In Part I of this article, I summarize Professor Scott Morton's testimony. In Part II, I address the omissions and inaccuracies in her testimony. In Part III, I examine the plausibilty of Professor Scott Morton's conjecture about abusive litigation at the ITC.

I. Professor Scott Morton's Testimony

Professor Scott Morton's testimony addressed the availability of exclusion orders against multicomponent products, particularly products practicing technologies protected by SEPs that are subject to a FRAND commitment.²⁴ She argued (without offering any historical evidence) that section 337 was originally designed to resolve cases with only "a single-patent product"—that is, a product that practices only one patent—in which the product's total value is, in her view, highly correlated with the value of the patented technology.²⁵ She opined, however, that in cases involving multicomponent products practicing multiple patents, the prospect of an exclusion order confronts the infringer with an "outsize threat."²⁶ She argued that, when an asserted patent covers only one component of a multicomponent product, the threat of

²³ Id. at 5–6; 2016 Hearing, *supra* note 12, at 45 (statement of Fiona M. Scott Morton, Professor, Yale University School of Management).

²⁴ Scott Morton Testimony, *supra* note 20, at 1–3.

²⁵ *Id.* at 2.

²⁶ Id.

excluding the entire product from the United States gives the patent holder undue leverage that empowers that patent holder to obtain a royalty that exceeds the value of its patented technology.²⁷

Professor Scott Morton opined that the threat of an exclusion order is particularly acute in cases concerning FRAND-committed SEPs, in which, by definition, the infringer cannot design around the patent.²⁸ She opined that, in those cases, "[t]he threat of an inappropriately granted exclusion order creates an extortion-like environment" that forces the respondent to agree to a royalty that exceeds the SEP's "ex ante economic value."²⁹ Professor Scott Morton thus opined that allowing an SEP holder to seek an exclusion order against a product that infringes FRAND-committed SEPs would routinely result in an above-FRAND royalty.

Professor Scott Morton said that "[t]he growing role of [patent assertion entities (PAEs)] exacerbates this issue," although she did not elaborate on why a PAE's threat of an exclusion order against an SEP infringer would be more severe than the same threat instigated by a practicing entity,30 Professor Scott Morton also did not define the term "PAE" in her testimony, nor did she explain how a PAE differs from an NPE. She did, however, cite a law review article that she co-authored with Professor Carl Shapiro of the University of California, Berkeley and Charles River Associates. There, Professors Scott Morton and Shapiro define a PAE as a company whose "business model involves purchasing patents, often in large numbers, and obtaining revenues by asserting those patents, with no conventional lines of business."31 They said that, "[b]y contrast, while 'Non-Practicing Entities' . . . do not use the patents to provide goods and services, they may engage in innovation and technology transfer."32 I thus assume that Professor Scott Morton's use of the terms "PAE" and "NPE" in her 2016 congressional testimony matches the definitions that she presented in her 2014 article with Professor Shapiro.33

²⁷ Id.

²⁸ Id.

²⁹ *Id.* at 3.

⁰ Id.

³¹ Fiona M. Scott Morton & Carl Shapiro, *Strategic Patent Acquisitions*, 79 ANTITRUST L.J. 463, 464 (2014). The Federal Trade Commission (FTC) similarly defines a PAE as a "firm[] with a business model based *primarily* on buying patents and then attempting to generate revenue by asserting them against businesses that are already practicing the patented technologies." *Patent Assertion Entities (PAE) Study*, FEDERAL TRADE COMMISSION, https://www.ftc.gov/policy/studies/patent-assertion-entities-pae-study (emphasis added).

Scott Morton & Shapiro, *supra* note 31, at 465 n.4.

³³ The ITC distinguishes between "Category I NPEs" and "Category 2 NPEs." Section 337 Statistics: Number of Section 337 Investigations Brought by NPEs (Updated Quarterly), U.S. International Trade Commission, https://www.usitc.gov/intellectual_property/337_statistics_number_section_337_investigations.htm [hereinafter Number of Section 337 Investigations Brought by NPEs]. Category I NPEs consist of "[e]nities that do not manufacture products that practice the asserted patents, including inventors who may have done R&D or built prototypes but do not make a product covered by the asserted patents," such as universities, research institutions, or startups. Id. Professor Scott Morton's definition of NPE thus corresponds to what the ITC defined as Category I NPEs. Her definition of PAEs corresponds, at least

Professor Scott Morton suggested that to avoid the risk that an SEP holder would use the threat of an exclusion order to engage in patent holdup, the ITC should change its standard for granting exclusion orders. She said that SEP holders are not interested in obtaining an injunction, because a FRAND commitment is an "acknowledgment that monetary compensation is an adequate remedy."³⁴ Professor Scott Morton said that, because an SEP holder can obtain compensation by filing a patent infringement lawsuit in a district court, "[t]here is no sound economic reason why an exclusion order is needed to adequately compensate an SEP owner."³⁵ In those circumstances, she believed, "the ITC is a duplicative venue that operates under a different standard for injunctive relief and allows SEP owners to engage in anticompetitive holdup."³⁶

To address those concerns, Professor Scott Morton would have the ITC adopt a standard for issuing exclusion orders that resembles the Supreme Court's *eBay* standard for issuing an injunction.³⁷ Her oral testimony, however, recommended more broadly that Congress "eliminate ITC jurisdiction over licensing disputes that can safely go to Federal court."³⁸

II. Is Professor Scott Morton's Testimony on Patent Holdup Complete?

Professor Scott Morton's testimony relied on the patent-holdup conjecture that Professor Shapiro introduced with Professor Mark Lemley of Stanford

in general terms, to the ITC's definition of so-called "Category 2 NPEs"—that is, "[e]ntities that do not manufacture products that practice the asserted patents and whose business model primarily focuses on purchasing and asserting patents." *Id.*

³⁴ Scott Morton Testimony, supra note 20, at 3.

³⁵ *Id.* at 5. Professor Scott Morton said that a court could add a "certainty premium" that would raise the "court-determined F/RAND royalty above the level that would be freely negotiated for patents of uncertain enforceability, giving the potential licensee the incentive to settle prior to litigation for an ex ante F/RAND rate." *Id.* She added that "[t]he royalty may also include interest to compensate the patent holder for any delay in receiving its payments." *Id.*

³⁶ *Id.* at 3. In light of the fact that Professor Scott Morton previously served as the chief economist of the Antitrust Division, her phrase "*anticompetitive* holdup" is perplexing. Why, if patent holdup did occur, would it necessarily reduce competition in the market for the product practicing the SEP in suit?

^{38 2016} Hearing, *supra* note 12, at 45 (statement of Fiona M. Scott Morton, Professor, Yale University School of Management). It is unclear whether Professor Scott Morton intended her recommendations to target PAEs specifically or SEP holders generally. In the introduction to her testimony, she said that she would "explain how the availability of exclusion orders . . . allow[s] . . . *PAEs* to forum-shop and earn supracompetitive royalties." Scott Morton Testimony, *supra* note 20, at 1 (emphasis added). However, only three sentences in her written testimony mentioned the role of PAEs and NPEs in patent disputes in the federal district courts. *Id.* at 3. The remainder of her testimony addressed concerns about SEP holders generally. When presenting her recommendations, however, Professor Scott Morton returned to PAEs, saying that "[r]eform is needed to avoid harm to the American economy from the ITC's current role as a policy outlier and duplicative venue taken advantage of by *PAEs*." *Id.* at 5 (emphasis added). One is therefore left to wonder whether her proposed changes in law target PAEs exclusively or SEP holders generally.

University and others in 2007.³⁹ However, she omitted from her testimony that, since 2007, scholars have refuted many of the assumptions and predictions of the patent-holdup conjecture. She also omitted that both the Federal Circuit and the U.S. Trade Representative (USTR) have required that alleged infringers substantiate their allegations of patent holdup with empirical evidence. These omissions led her to conclude erroneously that the ITC is, in her words, a "policy outlier." In addition, the omissions in Professor Scott Morton's testimony are problematic, for they imply that her proposed changes in law comport with those that U.S. government agencies have advocated. But U.S. government agencies have never recommended, as Professor Scott Morton did, a categorical rule denying an SEP holder the ability to obtain an exclusion order against infringing imports.

A. Ignoring Criticisms of the Patent-Holdup Conjecture

Professor Scott Morton presented the patent-holdup conjecture to Congress as though it were objective knowledge in the Popperian sense.⁴⁰ She did not explain to the Subcommittee that the theory has drawn sustained criticism from many economists, lawyers, and judges who have identified theoretical flaws in the patent-holdup conjecture.⁴¹ For example, some have emphasized

³⁹ See Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 Tex. L. Rev. 1991 (2007). A similar exegesis appeared the same year in Joseph Farrell, John Hayes, Carl Shapiro & Theresa Sullivan, *Standard Setting, Patents and Hold-Up*, 74 ANTITRUST L.J. 603 (2007).

⁴⁰ See Karl R. Popper, Conjectures and Refutations: The Growth of Scientific Knowledge (1963); Karl R. Popper, Objective Knowledge: An Evolutionary Approach (1972). Cf. Daubert v. Merrill Dow Pharm., Inc., 509 U.S. 579, 593 (1993) (quoting Karl R. Popper, Conjectures and Refutations: The Growth of Scientific Knowledge 37 (5th ed. 1989) ("The criterion of the scientific status of a theory is its falsifiability, or refutability, or testability.") (emphasis omitted)).

⁴¹ See, e.g., J. Gregory Sidak, Tournaments and FRAND Royalties, I CRITERION J. ON INNOVATION 101 (2016), https://www.criterioneconomics.com/docs/tournaments-and-frand-royalties.pdf; J. Gregory Sidak, Mandating Final-Offer Arbitration of FRAND Royalties for Standard-Essential Patents, 18 Stan. Tech. L. Rev. I (2015); Alexander Galetovic, Stephen Haber & Ross Levine, An Empirical Examination of Patent Hold-Up, 11 J. COMPETITION L. & ECON. 1 (2015); J. Gregory Sidak, The Meaning of FRAND, Part I: Royalties, 9 J. COMPETITION L. & ECON. 931 (2013); Roger G. Brooks, SSO Rules, Standardization, and SEP Licensing: Economic Questions from the Trenches, 9 J. Competition L. & Econ. 859 (2013); Kirti Gupta, The Patent Policy Debate in the High-Tech World, 9 J. Competition L. & Econ. 827 (2013); Sir Robin Jacob, Competition Authorities Support Grasshoppers: Competition Law as a Threat to Innovation, 9 Competition Pol'y Int'l 15 (2013); James Ratliff & Daniel L. Rubinfeld, The Use and Threat of Injunctions in the RAND Context, 9 J. COMPETITION L. & ECON. I (2013); Gregor Langus, Vilen Lipatov & Damien Neven, Standard-Essential Patents: Who Is Really Holding Up (and When)?, 9 J. Competition L. & Econ. 253 (2013); Richard A. Epstein, F. Scott Kieff & Daniel F. Spulber, The FTC, IP, and SSOs: Government Hold-Up Replacing Private Coordination, 8 J. COMPETITION L. & ECON. 1 (2012); Luke Froeb, Bernhard Ganglmair & Gregory J. Werden, Patent Hold-Up and Antitrust: How a Well-Intentioned Rule Could Retard Innovation, 60 J. Indus. Econ. 249 (2012); Richard S. Taffet & Hill B. Wellford, Questioning the FTC's Incremental Value Test and Claims of Widespread Hold-Up in Technology Standards, 57 ANTITRUST BULL. 161 (2012); Mario Mariniello, Fair, Reasonable and Non-Discriminatory (FRAND) Terms: A Challenge for Competition Authorities, 7 J. Competition L. & Econ. 523 (2011); Joshua D. Wright & Aubery N. Stuempfle, Patent Holdup, Antitrust, and Innovation: Harness or Noose?, 61 Ala. L. Rev. 559 (2010); Damien Geradin, Anne Layne-Farrar & A. Jorge Padilla, Competing Away Market Power? An Economic Assessment of Ex Ante Auctions in Standard Setting, 4 Eur. Competition J. 443 (2008); Damien Geradin & Miguel Rato, Can Standard-Setting Lead to Exploitative Abuse? A Dissonant View on Patent Hold-Up, Royalty Stacking and the Meaning of FRAND, 3 EUR. COMPETITION J. 101 (2007); Bruch H. Kobayashi & Joshua D. Wright, Federalism,

that the patent-holdup conjecture erroneously bases its royalty predictions on the assumption that licensing SEPs is a one-shot game; they argue that the repeated nature of the interactions between an SEP holder and a licensee reduces the risk of opportunism in license negotiations.⁴² The patent-holdup conjecture ignores that important feature of SEP licensing and thus exaggerates the risk of patent holdup. In addition, the patent-holdup conjecture ignores the parallel risk of patent holdout—that is, opportunism by the potential licensee.⁴³

Economists have also emphasized that empirical evidence contradicts the patent-holdup conjecture's theoretical predictions.⁴⁴ In 2014, Alexander Galetovic, Stephen Haber, and Ross Levine found that "over long periods[,] SEP industries tend to show better performance than most other industries," and that innovation is greatest in industries that rely heavily on SEPs.⁴⁵ In 2015, they also showed that the quality-adjusted prices for products in SEP industries decline faster than those in non-SEP industries.⁴⁶ That evidence contradicts the hypothesis that patent holdup occurs systematically in the real world and harms consumer welfare through increased quality-adjusted prices and reduced innovation.

Professor Scott Morton is entitled to dispute the critics of the patentholdup conjecture. But she should have acknowledged in her testimony that those critics exist and that they reach conclusions diametrically opposed to her own. By neither acknowledging nor answering those critics, Professor Scott Morton's testimony might have caused the Subcommittee to conclude that patent holdup is more than a theoretical conjecture, which it is not.

Substantive Preemption, and Limits on Antitrust: An Application to Patent Holdup, 5 J. Competition L. & Econ. 469 (2009); Einer R. Elhauge, Do Patent Holdup and Royalty Stacking Lead to Systematically Excessive Royalties?, 4 J. Competition L. & Econ. 535 (2008). For the earliest rebuttals, see John M. Golden, "Patent Trolls" and Patent Remedies, 85 Tex. L. Rev. 2111 (2007) (criticizing the method and data that Lemley and Shapiro use to show that patent holders are systematically overcompensated); J. Gregory Sidak, Holdup, Royalty Stacking, and the Presumption of Injunctive Relief for Patent Infringement: A Reply to Lemley and Shapiro, 92 MINN. L. Rev. 714 (2008) (explaining methodological flaws in the Lemley-Shapiro model and assessing the factors that bias their results); Damien Geradin, Anne Layne-Farrar & A. Jorge Padilla, Royalty Stacking in High Tech Industries: Separating Myth from Reality 3–4 (CEMFI Working Paper No. 0701, 2007).

⁴² See, e.g., Elhauge, supra note 41, at 548-49; Sidak, The Meaning of FRAND, Part I: Royalties, supra note 41, at 971.

⁴³ See, e.g., J. Gregory Sidak, The Meaning of FRAND, Part II: Injunctions, 11 J. Competition L. & Econ.

⁴⁴ Joshua D. Wright, Comm'r, Fed. Trade Comm'n, Remarks at the Center for the Protection of Intellectual Property Inaugural Academic Conference: The Commercial Function of Patents in Today's Innovation Economy 20 (Sep. 12, 2013), https://www.ftc.gov/sites/default/files/documents/public_statements/ssos-frand-and-antitrust-lessons-economics-incomplete-contracts/130912cpip.pdf.

⁴⁵ Alexander Galetovic, Stephen Haber & Ross Levine, *Patent Holdup: Do Patent Holdurs Holdup Innovation?* 19, 28 (Hoover Inst. Working Grp. on Intell. Prop., Innovation & Prosperity, Stanford Univ., Working Paper No. 14011, 2014).

⁴⁶ Galetovic, Haber & Levine, supra note 41, at 554.

B. The Federal Circuit's and the U.S. Trade Representative's Approach to Scrutinizing Allegations of Patent Holdup

Professor Scott Morton said that the ITC has "not appear[ed] to have accepted the economic logic" behind the patent-holdup conjecture and that, for that reason, the ITC is a "policy outlier." The criticism of the ITC as a "policy outlier" stemmed from her analysis of the decision that Administrative Law Judge (ALJ) Theodore Essex issued in his Initial Determination on Remand in *Certain 3G Mobile Handsets*, where he found that, in that particular case, the theoretical risk of patent holdup did not counsel against the ITC's issuance of an exclusion order.⁴⁸ Professor Scott Morton implied that, to align its position with that of other government entities, the ITC must adopt the assumption that an SEP holder will exploit the threat of an exclusion order to hold up the implementer and, on the basis solely of that assumption, the ITC must categorically deny an exclusion order against products that infringe FRAND-committed SEPs. However, Professor Scott Morton's criticism is mistaken for two reasons.

First, her criticism of Judge Essex's decision manifested a misunderstanding of an ALJ's authority in rendering his opinion. An ALJ is bound by the factual record before him. In *Certain 3G Mobile Handsets*, Judge Essex found no evidence of patent holdup, and thus he concluded that the *theoretical* risk of patent holdup did not counsel against the issuance of an exclusion order.⁴⁹ If the respondent does not provide any evidence of patent holdup, the ALJ cannot rely on unsubstantiated theoretical allegations to deny the patent holder's request for an exclusion order.

Second, the Federal Circuit has consistently refused to consider unsubstantiated theoretical allegations of patent holdup. In *Ericsson, Inc. v. D-Link Systems, Inc.*, the Federal Circuit emphasized that the theoretical conjectures of patent holdup and royalty stacking are relevant to the jury's calculation of a FRAND royalty *only if* empirical evidence substantiates such conjectures in that specific case. The Federal Circuit said that, "[i]n deciding whether to instruct the jury on patent hold-up . . . the district court must consider the evidence on the record before it," and it emphasized that "[c]ertainly something more than a general argument that these phenomena are possibilities is necessary." Similarly, in *Commonwealth Scientific & Industrial Research*

⁴⁷ Scott Morton Testimony, *supra* note 20, at 4–5.

⁴⁸ *Id.* at 5 (discussing Certain 3G Mobile Handsets and Components Thereof at 61, 125–26, Inv. No. 337-TA-613, Doc. ID 555877 (Apr. 27, 2015) (Initial Determination on Remand)).

⁴⁹ Certain 3G Mobile Handsets and Components Thereof at 61–62, Inv. No. 337-TA-613, Doc. ID 556738 (Apr. 27, 2015) (Initial Determination on Remand).

⁵⁰ 773 F.3d 1201, 1234 (Fed. Cir. 2014) ("The district court need not instruct the jury on hold-up... unless the accused infringer presents actual evidence of hold-up or stacking."); see also J. Gregory Sidak, Apportionment, FRAND Royalties, and Comparable Licenses After Ericsson v. D-Link, 2016 U. ILL. L. Rev. 1809.

⁵¹ Ericsson, 773 F.3d at 1234.

Organization v. Cisco Systems, Inc., the Federal Circuit said that "abstract recitations" of unsubstantiated theories such as the patent-holdup and royal-ty-stacking conjectures, "without being anchored to a quantitative market valuation[,]" "are insufficiently reliable" to be admissible into evidence.⁵² In short, the Federal Circuit clearly rejects a presumption of patent holdup and instead requires a case-by-case analysis.

The USTR has similarly advised the ITC to use an evidence-based approach for scrutinizing allegations of patent holdup. In 2013, President Obama, acting through USTR Michael Froman, vetoed the exclusion order that the ITC had issued against certain Apple products that the Commission had found to infringe Samsung's SEPs, on the grounds that the exclusion order would disserve the public interest.53 Ambassador Froman advised that the ITC, in future investigations involving FRAND-committed SEPs, "seek proactively to have the parties develop a comprehensive factual record ... including ... the presence or absence of patent hold-up."54 He recognized that "technology implementers also can cause potential harm by, for example, engaging in 'reverse hold-up"55-that is, deliberately refusing to accept an SEP holder's FRAND licensing offers with the intent of obtaining a lower royalty.⁵⁶ He consequently advised the ITC to consider factual evidence of both patent-holdup and reverse-holdup when deciding whether to issue an exclusion order for a FRAND-committed SEP.⁵⁷ Thus, the USTR-like the Federal Circuit-rejects a presumption of patent holdup in favor of a case-specific inquiry.

In light of the requirement of both the Federal Circuit and the USTR to substantiate allegations of patent holdup with empirical evidence, Professor Scott Morton's criticism of Judge Essex and the ITC is unjustified. The ITC has not refused to consider "the economic logic" behind the patent-holdup conjecture. To the contrary, following the example of the Federal Circuit and the USTR, the ITC has required that respondents substantiate allegations of patent holdup with empirical evidence.⁵⁸

⁵² 809 F.3d 1295, 1302 (Fed. Cir. 2015).

⁵³ Letter from Michael B. G. Froman, Exec. Office of the President, to the Honorable Irving A. Williamson, U.S. Int'l Trade Comm'n at 3 (Aug. 3, 2013) [hereinafter Froman Letter], https://ustr.gov/sites/default/files/08032013%20Letter_1.PDF.

⁵⁴ *Id.* at 3 (emphasis added).

⁵⁵ Id. at 2.

⁵⁶ See U.S. Department of Justice & U.S. Patent & Trademark Office, Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments 7, 7 n.15 (2013) [hereinafter DOJ & FTC Policy Statement], https://www.uspto.gov/about/offices/ogc/Final_DOJ-PTO_Policy_Statement_on_FRAND_SEPs_1-8-13.pdf.

⁵⁷ Froman Letter, *supra* note 53, at 2–3.

⁵⁸ Professor Scott Morton also inaccurately described the authority that government agencies have in defining a FRAND royalty. She said that U.S. antitrust enforcement agencies agree that a FRAND royalty is "the royalty that the parties would have settled upon in a hypothetical *ex ante* negotiation that took place before the technology had been incorporated into a standard and before potential licensees had committed to implementing that standard." Scott Morton Testimony, *supra* note 20, at 1. To support this assertion,

C. Government Agencies' Positions on Exclusion Orders for Products Infringing SEPs

Professor Scott Morton said that the ITC should issue exclusion orders "[o]nly in the limited circumstances pointed out by the FTC and DOJ, that is, when the implementer is not submitting to, or complying with, a legal process designed to determine appropriate money damages." However, neither the Federal Trade Commission (FTC) nor the Antitrust Division nor the U.S. Patent and Trademark Office (USPTO) has suggested limiting an SEP holder's access to an exclusion order to cases in which the SEP holder cannot obtain monetary compensation in a district court.

In its statement to the ITC in *Certain Wireless Communications Devices* in 2012, the FTC recommended that "the ITC could find that Section 337's public interest factors support denial of an exclusion order *unless* the holder of the RAND-encumbered SEP has made a reasonable royalty offer." The FTC thus recommended that an SEP holder that has discharged its FRAND obligation could request an exclusion order against an infringer.

Similarly, the 2013 joint policy statement of the Antitrust Division and the USPTO submitted to the ITC, which Professor Scott Morton cited in her testimony, emphasizes that one should *not* conclude that the "public interest factors . . . would always counsel against the issuance of an exclusion order." The Antitrust Division and the USPTO identified a number of circumstances in which they believe that an exclusion order would be appropriate in a case involving SEPs, including when the licensee refuses to pay a FRAND royalty or refuses to negotiate a FRAND license or "act[s] outside the scope" of the SEP holder's FRAND commitment. The Antitrust Division and the USPTO said that "[t]his list is *not* an exhaustive one," which implies that

Professor Scott Morton said that the Antitrust Division "recently approved revisions to the IEEE's IPR policy" that comport with that definition of a FRAND royalty. *Id.* at 1 n.1 (emphasis added). That statement is incorrect. The Antitrust Division is not a regulatory commission possessing the authority to "approve" a standard-setting organization's rules. The Division "is not authorized to give advisory opinions to private parties," but it is "willing in certain circumstances to review proposed business conduct and state its enforcement intentions." 28 C.F.R. § 50.6. The "approval" to which Professor Scott Morton referred was nothing more than a nonbinding letter from the Antitrust Division stating that it had no intention at that time of pursuing an antitrust enforcement action against the IEEE. Business Review Letter from Hon. Renata B. Hesse, Acting Assistant Attorney Gen., U.S. Dep't of Justice, to Michael A. Lindsay, Esq., Dorsey & Whitney, L.L.P. at 1 (Feb. 2, 2015) [hereinafter DOJ Business Review Letter], https://www.justice.gov/file/338591/download.

⁵⁹ 2016 Hearing, *supra* note 12, at 165 (Response to Questions for the Record from Fiona M. Scott Morton, Theodore Nierenberg Professor of Economics, Yale School of Management).

⁶⁰ Third Party U.S. Fed. Trade Comm'n Statement on the Public Interest at 4, Certain Wireless Communication Devices, Portable Music and Data Processing Devices, Computers and Components Thereof, Inv. No. 337-TA-745, Doc. ID 482234 (June 6, 2012) (emphasis added).

⁶¹ DOJ & FTC POLICY STATEMENT, supra note 56, at 7.

⁶² Id

those two agencies believe that other circumstances might justify an SEP holder's request for an exclusion order.⁶³

Professor Scott Morton, in contrast, recommended that an exclusion order be available to an SEP holder *only* when the implementer has failed to participate in a legal process to determine appropriate monetary compensation.⁶⁴ Her recommendation departs materially from the recommendations of the FTC, the Antitrust Division, and the USPTO.

III. Does a Royalty Negotiated Under the Threat of an Exclusion Order Always Exceed a FRAND Royalty?

Professor Scott Morton based her recommendations on the assumption that a royalty negotiated against the backdrop of a possible exclusion order will always exceed a FRAND rate. However, that assumption is false. Legal developments since 2012 have significantly reduced, if not completely eliminated, an SEP holder's ability to evade its FRAND commitment and use the threat of an "inappropriately granted exclusion order" to increase its bargaining power. In addition, the risk of having its patent invalidated and the delay of royalty payments are factors that increase the SEP holder's economic incentives to accept FRAND compensation rather than seek an above-FRAND rate. In fact, the empirical evidence on section 337 filings contradicts Professor Scott Morton's concerns: there is no evidence that the ITC is facing a patent-holdup problem.

A. Have Legal Developments Reduced the Risk of Abusive Litigation?

Professor Scott Morton said that "the ITC is a very popular venue for patent holders who want to avoid their F/RAND commitments" and that the "threat of an inappropriately granted exclusion order" would force the defendant to accept an above-FRAND rate.⁶⁷ However, she ignored that an SEP holder that evades a FRAND commitment by engaging in patent holdup is unlikely to obtain an exclusion order at the ITC.

As I explained in Part II.B, since Ambassador Froman's instructions in August 2013, the ITC has required the presiding ALJ in any case involving

⁶³ Id. (emphasis added).

^{64 2016} Hearing, *supra* note 12, at 165 (Response to Questions for the Record from Fiona M. Scott Morton, Theodore Nierenberg Professor of Economics, Yale School of Management).

⁶⁵ See Douglas H. Ginsburg, Taylor M. Owings & Joshua D. Wright, Enjoining Injunctions: The Case Against Liability for Standard Essential Patent Holders Who Seek Injunctions, 14 ANTITRUST SOURCE, Oct. 2014, no. 1, at 4 ("[D]espite all the handwringing over the prospect of SEP holders using injunctions and exclusion orders to suppress competition and extract above-FRAND licensing fees, we have not found even one injunction or exclusion order that actually kept a product off the shelf because it infringed a SEP.").

⁶⁶ Scott Morton Testimony, supra note 20, at 3.

⁶⁷ Id.

SEPs to examine the evidence of patent holdup and reverse holdup when deciding whether to issue an exclusion order. The USTR's clear implication is that the ITC should deny the SEP holder's request for an exclusion order if the evidence indicates that patent holdup exists. That evidentiary requirement decreases the likelihood that an SEP holder ever could obtain the "inappropriately granted exclusion order" upon which Professor Scott Morton predicates her testimony. In addition, the USTR said that it "will look for these elements in any future decisions involving FRAND-encumbered SEPs." Therefore, even if the ITC improvidently issued an exclusion order despite there being evidence in the record establishing patent holdup, the USTR would promptly veto the order's enforcement.

Furthermore, if the SEP holder's request for an exclusion order violates its obligations arising from its FRAND commitment, the respondent may obtain an injunction in a district court that will prevent the SEP holder from enforcing that exclusion order. In *Realtek Semiconductor Corp. v. LSI Corp.*, the U.S. District Court for the Northern District of California found that an SEP holder must extend to an unlicensed implementer a clear and specific license offer before seeking an exclusion order. Judge Ronald Whyte found that the SEP holder had sent a letter notifying the implementer of its infringement and, less than one week later, filed an action with the ITC to block the unlicensed importation of the implementer's allegedly infringing products. Because the SEP holder's letter did not include a license offer, Judge Whyte concluded that the SEP holder had not discharged its FRAND obligation to the unlicensed implementer. Judge Whyte consequently granted the implementer—the respondent in the ITC action—an injunction that enjoined the SEP holder from enforcing any exclusion order that the ITC might issue.

In short, Professor Scott Morton's claim that "the ITC is a very popular venue for patent holders who want to avoid their F/RAND commitments" misrepresents how section 337 investigations actually proceed. The "inappropriately granted exclusion order" for which she castigates the ITC is a figment.

B. Does an SEP Holder Have the Incentive to Accept a FRAND Royalty?

Professor Scott Morton asserted that, even if the ITC does not ultimately issue an exclusion order, "the mere threat of an *eventual* exclusion order gives

⁶⁸ See, e.g., Certain 3G Mobile Handsets and Components Thereof at 4, Inv. No. 377-TA-613, Doc. ID 530340 (Mar. 24, 2014) (Commission Determination to Remand Investigation).

⁶⁹ Froman Letter, *supra* note 53, at 3.

⁷⁰ 946 F. Supp. 2d 998, 1008 (N.D. Cal. 2013).

⁷¹ *Id.* at 1002.

⁷² *Id.* at 1005–08.

⁷³ *Id.* at 1009.

the patent holder the leverage to extract inefficiently high, above-F/RAND, royalty rates during settlement negotiations."⁷⁴ However, no economic argument justifies assuming that, in the shadow of an exclusion order, a royalty to which the parties would agree to settle a section 337 investigation necessarily would exceed a FRAND royalty.

From an economic perspective, it would be irrational for the respondent to settle for an above-FRAND royalty if the likelihood that the SEP holder would obtain an exclusion order is low. Professor Scott Morton herself said in her 2014 law review article with Professor Shapiro that, for an exclusion order to serve as an effective threat, "[t]he would-be licensee must believe the outsized threat to be a *real* possibility." But, as I explained in Part III.A, the probability that an SEP holder will obtain an "inappropriately granted" exclusion order approaches zero. Put differently, there is no "real possibility" that an SEP holder that failed to discharge its FRAND obligation would be able to obtain an exclusion order. In such an environment, the threat of an "inappropriately granted" exclusion order cannot persuade the respondent to accept an above-FRAND rate.

Similarly erroneous is the statement that an SEP holder has no reason to "turn down the[] . . . additional profits" that it could allegedly obtain from engaging in holdup.⁷⁶ For the SEP holder to have an incentive to hold up the implementer, the SEP holder would need to expect that doing so would always generate more profit than would accepting no more than FRAND compensation. However, the expected payoff from engaging in patent holdup does not necessarily exceed the expect payoff from accepting a FRAND royalty. The expected payoff from engaging in patent holdup is necessarily uncertain. An SEP holder that seeks to use the threat of an exclusion order as a tool to hold up an infringer faces the risk that its patents might be found invalid or unenforceable. It is also possible that the ITC will conclude that the SEP holder has failed to establish the existence of a domestic industry, as required by section 337 of the Tariff Act, or that the statutorily enumerated public-interest factors counsel against the issuance of an exclusion order. Engaging in patent holdup might also impose significant costs on the SEP holder, including the costs associated with the temporarily forgone profit (incurred during the prolonged negotiations in an attempt to extract higher royalties), litigation costs, the risk of potential antitrust liability, and reputation costs.⁷⁷ The sum of those expected costs could exceed the expected incremental increase in profit from engaging in patent holdup. It would thus

⁷⁴ Scott Morton Testimony, *supra* note 20, at 5 (emphasis added).

⁷⁵ Scott Morton & Shapiro, *supra* note 31, at 478 (emphasis added).

⁷⁶ Scott Morton Testimony, *supra* note 20, at 5.

⁷⁷ U.S. antitrust authorities have subjected SEP holders that seek injunctions against implementers of industry standards to antitrust scrutiny on multiple occasions. *See* Sidak, *The Meaning of FRAND, Part II: Injunctions, supra* note 43, at 247–57.

be erroneous to assume that an SEP holder always expects to profit more from engaging in a patent holdup than from accepting FRAND compensation. Contrary to Professor Scott Morton's testimony, it might be rational for the SEP holder to forgo the uncertain additional royalty revenue that it might gain from engaging in patent holdup.

In sum, no economic reasoning justifies assuming that, in real-world license negotiations, the threat of an exclusion order so intimidates the implementer as to eclipse other factors that might constrain the SEP holder's incentives to engage in holdup (to the extent that such incentives even exist). Moreover, such an assumption would ignore that an SEP holder might seek a remedy at the ITC, rather than at a district court, for reasons unrelated to patent holdup, such as the ITC's speedy adjudication, its expert judges, or its *in rem* jurisdiction.⁷⁸

C. Does Empirical Evidence Support Professor Scott Morton's Patent-Holdup Conjecture?

No empirical evidence supports Professor Scott Morton's claim that patent holdup routinely occurs in ITC investigations, or that abusive litigation at the ITC is a serious concern. To the contrary, data from the ITC show that the number of section 337 investigations initiated on the basis of a PAE's complaint has decreased significantly since 2012.⁷⁹ Although ITC filings by PAEs spiked in 2011, that number has declined significantly since 2012.⁸⁰ There were nine investigations initiated on the basis of complaints brought by PAEs in 2011, whereas in 2015 there were only two such investigations.⁸¹

In her oral testimony, Professor Scott Morton tried to reconcile her theoretical opinion with the empirical evidence this way: "if you count these cases by both the number of companies involved, and also by whether the patent holder is interested in money damages, rather than whether they fall in a narrow bucket called an NPE or a PAE, you would get a much larger number." In other words, she argued that, if one were to account for not only the total number of ITC investigations initiated by PAEs, *but also* the total number of respondents in each case and whether the complainant was truly interested in obtaining an exclusion order, it would become evident that

⁷⁸ See, e.g., 2016 Hearing, *supra* note 12, at 12 (written testimony of Deanna Tanner Okun, Partner, Adduci, Mastriani & Schaumberg, LLP, and former Chairwoman of the ITC).

⁷⁹ Number of Section 337 Investigations Brought by NPEs, supra note 33; Section 337 Statistics: Number of New, Completed, and Active Investigations by Fiscal Year (Updated Quarterly), U.S. International Trade Commission [hereinafter Number of New, Completed, and Active Investigations by Fiscal Year], https://www.usitc.gov/intellectual_property/337_statistics_number_new_completed_and_active.htm.

⁸⁰ Number of Section 337 Investigations Brought by NPEs, supra note 33; see also 2016 Hearing, supra note 12, at 54 (statement of Thomas L. Stoll, Principal, Stoll IP Consulting).

⁸¹ Number of Section 337 Investigations Brought by NPEs, supra note 33.

^{82 2016} Hearing, *supra* note 12, at 44 (statement of Fiona M. Scott Morton, Theodore Nierenberg Professor of Economics, Yale School of Management).

abusive litigation involving PAEs persists at the ITC as of 2016. However, the publicly available data indicate otherwise.

A 2016 study by RPX reported that the annual number of respondents targeted in ITC investigations brought by NPEs decreased annually from 2011 to 2014, starting at 162 respondents added in 2011 and falling to 29 respondents added in 2015.⁸³ In the study, RPX considered a PAE to be a type of NPE.⁸⁴ Therefore, data on the number of respondents in ITC investigations contradict Professor Scott Morton's assertion that counting the number of respondents in ITC investigations would reveal a high volume of allegedly abusive litigation by PAEs.

Professor Scott Morton's second argument—that one would find evidence of abusive litigation by examining whether the complainant was interested in monetary damages—is not a testable hypothesis. No publicly available information exists that one could use to determine that a complainant prefers an exclusion order to monetary compensation. In the absence of such evidence, there is no reason to assume that, despite the decreasing number of ITC investigations, the risk of abusive litigation is pervasive in 2016 and requires Congress to act.

IV. Conclusion

Professor Scott Morton testified to Congress in 2016 that there exists a risk of patent holdup when an SEP holder that has committed to license its SEPs on FRAND terms asks the ITC for an exclusion order against an infringer. She said that an SEP holder could use the threat of an exclusion order to engage in patent holdup. However, Professor Scott Morton's testimony was inaccurate. It omitted important information about the position that courts, government agencies, and economists have adopted toward the patentholdup conjecture. It posited erroneous assumptions about the risk and prevalence of abusive litigation at the ITC, particularly involving SEPs, and about the SEP holder's incentive to use an exclusion order, or even the mere threat of one, to hold up a potential licensee. There is no valid economic justification for assuming, as Professor Scott Morton did in her testimony, that the ITC is rife with patent holdup and abusive patent assertion. In fact, publicly available data indicate that, in 2016, the ITC does not face the issues that she raised in her testimony. Finally, even if patent holdup were a plausible risk at the ITC, Professor Scott Morton's testimony failed to explain

⁸³ RPX, 2015 Report: NPE Litigation, Patent Marketplace, and NPE Cost 15 (2016), https://www.rpxcorp.com/wp-content/uploads/sites/2/2016/07/RPX-2015-Report-072616.FinalZ.pdf.

⁸⁴ See, e.g., id. at 13 (for example, chart 15 treats a PAE as a type of NPE). In addition, Professor Scott Morton herself seems to consider a PAE as a type of NPE. In her testimony, she said that "PAEs account for roughly 90% of these patent infringement actions brought by non-practicing entities." Scott Morton Testimony, supra note 20, at 3.

why following the Federal Circuit's approach (and the USTR's advice to the ITC), which requires analyzing the evidence of patent holdup on a case-by-case basis, would fail to contain the risk of an SEP holder's opportunism. Professor Scott Morton presented no evidence to justify her view that a categorical rule that would deny SEP holders the right to obtain an exclusion order would be superior to the existing case-specific analysis.