1-1-2011

Patent Exhaustion: What's It Good For

Vincent Chiapetta

Follow this and additional works at: http://digitalcommons.law.scu.edu/lawreview
Part of the Law Commons

Recommended Citation
Available at: http://digitalcommons.law.scu.edu/lawreview/vol51/iss4/3

This Article is brought to you for free and open access by the Journals at Santa Clara Law Digital Commons. It has been accepted for inclusion in Santa Clara Law Review by an authorized administrator of Santa Clara Law Digital Commons. For more information, please contact sculawlibrarian@gmail.com.
PATENT EXHAUSTION: WHAT'S IT GOOD FOR?*

Vincent Chiappetta**

The Supreme Court created the patent exhaustion

* With apologies to Norman Whitfield, Barrett Strong and, of course, Edwin Starr.
** Professor of Law, Willamette University College of Law. My thanks to the Santa Clara School of Law High Technology Institute for putting together a terrific symposium, and particularly, my thanks to Professor Eric Goldman for inviting me to participate.

1. The inquiry here is limited to domestic patent exhaustion. The exhaustion doctrine also applies to other intellectual property regimes. Although a discussion of patent exhaustion can inform those other applications, significant differences in doctrine and policy across regimes precludes a one-size-fits-all solution. For example, copyright exhaustion is governed by § 109 of the Copyright Act (15 U.S.C. § 109), and must consider that statutory language and legislative history. Additionally, unlike patent law, copyright must address the significant free speech issues that arise from giving authors control over expression. Cf. Vincent Chiappetta, The Desirability of Agreeing to Disagree: The WTO, TRIPS, International IPR Exhaustion and a Few Other Things, 21 MICH. J. INT'L. L. 333, 361–66 (discussing the point in the context of international exhaustion). International, inter-jurisdictional exhaustion raises yet more complex doctrinal, policy, and political issues that also require separate inquiry and analysis. See generally id.

2. "Patent exhaustion" and the "first sale doctrine" refer to the same substantive rule: the inability to claim patent infringement based on post-sale use or resale following the initial authorized sale of a patented article. Further confusing matters, the doctrine is also referred to as "first sale exhaustion" and is sometimes conflated with the notion of "implied license." See infra note 162. There are three arguments made for preferring the "first sale" nomenclature over "exhaustion." The first is largely semantic, that as a patent only gives the owner a negative right to exclude, it is technically inaccurate to talk in terms of the patent as having been "used up." See, e.g., Judge Giles S. Rich, Address at Sixth Annual Conference on International Intellectual Property Law & Policy (April 16, 1998). The second argument focuses on the important substantive point that the doctrine does not actually "exhaust" the owner's entire patent right; it merely prevents post-sale patent enforcement based on use or resale of a specific article following its "first sale." See infra notes 46–50 and accompanying text. The final argument objects that "exhaustion" may prejudge the doctrine's application. Specifically, the "first sale" tie to a specific transaction leaves room for the parties to override its application based on the particular circumstances, whereas "exhaustion" suggests an "immutable state of affairs." See F. Scott Kieff, Quanta v. LG Electronics: Frustrating Patent Deals

1087
doctrine in the nineteenth century. It arose from the straight-forward proposition that patent owners should only be paid once when they sell an article incorporating their invention. Upon payment of the purchase price, the patent owner receives its full due, and the rest of us should be free thereafter to use and resell the article without further concern for the patent.

Economic life, however, is not straight-forward. During the twentieth century, the market matured and patent exploitation became more complex. The factual permutations and the Court's exhaustion decisions proliferated, ultimately leaving the exhaustion doctrine in some disarray.

Many hoped the Court's most recent consideration of the doctrine in *Quanta Computer, Inc. v. LG Electronics, Inc.* would provide the needed clarification. Instead, the decision produced yet more confusion. The opinion largely ignored the debate, and instead offered Delphic pronouncements leading to conflicting interpretations by commentators. Some read

---

3. The origins of the doctrine generally are traced back to *Bloomer v. McQuewan*, 55 U.S. 539 (1852), although the Court does cite in that opinion to the earlier case of *Wilson v. Rousseau*, 45 U.S. 646 (1846). Unlike the copyright first sale doctrine, patent exhaustion has never been codified in the federal Patent Act.

4. The "single royalty" rationale is discussed *infra* at notes 24–25 and accompanying text (discussing the rationale's articulation in the Adams case).

5. Without exhaustion, every patented article would carry the risk of infringement. Patent law's "in rem" rights reach everyone using and selling such articles without the need for a specific undertaking (privity), no matter how far removed the user or seller may be from the original sale and even if they are unaware the patent exists. The regime's powerful "property rules" remedial bias favors injunctive relief, preventing further use or resale even by the article's owner, and damages that deter as well as compensate.

6. The myriad cases populating the doctrine's troubled past are discussed *infra* in Part I.

7. 553 U.S. 617 (2008). The decision is discussed *infra* at notes 123–50 and accompanying text.

the case as holding the doctrine absolutely prohibits patent enforcement of post-sale conditions. Others view the decision as a cautionary tale, with exhaustion operating as a default contract term placing the burden on patent owners (and their lawyers) to incorporate any waiver explicitly into the sale agreement. Many practitioners and scholars, myself included, are not sure what the correct interpretation may be.

Two inquiries help untangle the situation. Part I examines the Court's exhaustion jurisprudence, identifying the specific source and nature of the confusion. That inquiry reveals three uncontroversial principles directing the doctrine's basic application. First, patent exhaustion only applies when the patent owner has authorized the making and sale of the particular article in question. Specifically, when otherwise legal conditions limit a licensee's manufacture and sale, the doctrine does not apply to articles made or distributed beyond the scope of those restrictions. In such cases, the patent can be enforced against both the licensee and anyone acquiring, using, or reselling such articles, even a purchaser for full value. Second, when the sale of an authorized article does not include otherwise lawful post-sale restrictions, exhaustion prohibits the claim that subsequent use or resale constitutes patent infringement. Finally, when it applies, exhaustion only permits use and resale of the article sold. Exhaustion does not authorize either the making or sale of additional articles, nor does it permit the reconstruction of an authorized article at the end of its useful life.

The confusion arises when the sale of an authorized article purports to impose otherwise lawful limitations on its use or resale. The Court's exhaustion cases fail to clearly resolve the basic issue: Is patent exhaustion mandatory, or is it merely a default the parties can waive by contrary agreement? If it is mandatory, the doctrine prevents any patent enforcement of post-sale restrictions, even when the sale transaction is expressly to the contrary. If it is a default, then proper waiver will permit patent enforcement of post-

---

9. See infra notes 26-45 and accompanying text.
10. See infra notes 18-25 and accompanying text.
11. See infra notes 46-50 and accompanying text.
sale limitations on use or resale against not only the original purchaser, but also all subsequent owners or users violating the restrictions. This unresolved issue raises a follow-on question: When patent exhaustion applies, does it only prevent the patent infringement claim or does it also prevent enforcement under contract law?

Part II addresses the latter two questions by first assessing which response best advances the market efficiency paradigm that currently justifies and drives the patent regime. That inquiry finds strong support for exhaustion as a legal default provision, filling the "gap" when the parties have been silent concerning the seller/patent owner's right to post-sale patent enforcement. Transactional terms implied by law reduce transaction costs when they provide outcomes consistent with what reasonable parties would normally agree to under the circumstances. When the parties have not addressed post-sale patent rights, it can be reasonably assumed they intend that, upon payment of the agreed consideration, the buyer will receive the article free of any limitations on post-sale use or resale imposed by the patent. That legitimate expectation, combined with the significant consequences of post-sale patent enforcement, also supports imposing a high threshold for effective waiver of the default. Patent owners wishing to preserve their post-sale patent rights should be required to explicitly articulate the exact scope and terms of the proposed waiver by tying it to specific restrictions, to obtain the buyer's express assent, and to ensure its explicit implementation in the final agreement. Finally, the default approach resolves the open question of how exhaustion should affect contract enforcement in favor of independent assessment. Exhaustion is governed by the waiver requirements and contract enforcement is governed exclusively by normal principles of contract law.

Market efficiency does not support a mandatory (per se) exhaustion rule prohibiting all patent enforcement of restrictions, even when the parties have properly waived the doctrine's application. Post-sale patent enforcement does raise a number of legitimate efficient market "assumption" concerns. The regime's in rem application increases

12. See infra notes 156–71 and accompanying text.
13. See infra notes 151–53 and accompanying text (discussing the
transaction costs by requiring downstream acquirers and users to determine if such a right exists. The increased availability of injunctive enforcement can prevent resources from moving to their maximum use, can cause waste from disposal of tangible articles prior to the end of their useful life, can impair competition, and may impede innovation.

Justifying exhaustion, however, requires more than identifying that these costs exist. An appropriate resolution must also consider the beneficial transactional flexibility and increased patent incentives that post-sale patent enforcement can produce. Obtaining a net positive outcome requires eschewing a blanket exhaustion prohibition in favor of targeted solutions that address the specific cost concerns—for example, reducing downstream transaction costs by making actual or inquiry notice a condition precedent to patent enforcement and, perhaps, recalibrating environmental, antitrust, and other general law requirements to address any significant waste, competition, or innovation concerns that may arise.

The final efficiency argument, that per se exhaustion acts as an internal patent law constraint ensuring that the regime's powerful exclusionary rights produce optimal incentives, is equally unconvincing. That argument requires demonstrating that limiting enforcement of post-sale restrictions to contract law in all circumstances produces a more efficient outcome than the default approach. As patent enforcement permits greater transactional flexibility and higher returns, thus enhancing the regime's incentives to innovate, the answer turns on whether the consumer welfare gains from the contract-only approach exceed those losses. As with most patent matters, there is insufficient empirical data to make a definitive determination. A review of the relevant considerations, however, makes it very likely that a per se exhaustion rule would actually reduce rather than enhance efficient market operation.

Merely determining that market efficiency does not support per se exhaustion does not conclude the inquiry. It can be argued that the doctrine's justification lies in its

---

assumptions necessary for efficient market operation and their relationship to post-sale patent enforcement). *See infra* notes 172–220 (discussing the efficiency assumption justifications applied to per se exhaustion).

14. *See infra* notes 221–42 and accompanying text.
mitigation of the adverse effects that an efficient patent law regime has on individual members of society.\textsuperscript{15} Specifically, the current regime's focus on producing optimal market incentives to innovate imposes substantial limitations on access to patented articles that are important and even essential to personal well-being. Preventing patent law enforcement of post-sale restrictions might increase the availability of patented goods, thus reducing that problem.

Although patent law's distributional effects deserve serious consideration, addressing that issue requires a fundamental rethinking and restructuring of the regime, and likely much more of the legal and social fabric. Although mandatory exhaustion may play a useful role in implementing a decision to adjust patent law's goals, the doctrine's appropriateness cannot be assessed before the new objectives have been determined. Any attempt to justify exhaustion on non-efficiency grounds is, therefore, not only premature, but more likely to confuse than advance the necessary antecedent debate over the regime's appropriate outcomes.

\textbf{PART I: THE EXHAUSTION DOCTRINE}

The patent exhaustion doctrine is a creation of the United States Supreme Court.\textsuperscript{16} Unlike the closely associated copyright doctrine, it has never been codified in the federal Patent Act.\textsuperscript{17} Examining the Court's precedents identifies three (relatively) uncontroversial aspects of exhaustion that define the doctrine's basic application, and reveals the two open issues that create the confusion.

\textbf{A. Exhaustion Basics}

The doctrine's foundational principles are set out in the much-cited \textit{Adams v. Burke}.\textsuperscript{18} The case involved a patent on a coffin lid. The patent's original owner assigned Lockhart & Seelye the limited right to make and sell the patented lids

\begin{itemize}
  \item \textsuperscript{15} See infra notes 243–46 and accompanying text.
  \item \textsuperscript{16} See supra note 3.
  \item \textsuperscript{17} The Patent Act is codified at 35 U.S.C. §§ 1–376 (2006).
  \item \textsuperscript{18} 84 U.S. 453 (1873). The earlier, also frequently cited, case of Bloomer v. McQuewan, 55 U.S. 539 (1852), involved a less direct application of the doctrine as triggered by an extension of the patent term.
\end{itemize}
within a ten-mile radius of the center of Boston.\textsuperscript{19} The remaining rights were then transferred to Adams.\textsuperscript{20} Lockhart & Seelye made and sold a coffin lid within its assigned territory to Burke, an undertaker who operated a funeral business outside the ten-mile limitation.\textsuperscript{21} When Burke used the lid in his business outside the Lockhart & Seelye territory, Adams sued Burke for infringement.\textsuperscript{22}

The Court made short work of dismissing Adams’s patent claim. It first held that “when [the lids] are once lawfully made and sold, there is no restriction on their use to be implied for the benefit of the patentee or his assignees or licensees.”\textsuperscript{23} The Court then explained the rationale for finding the patent rights had been exhausted by the Lockhart & Seelye (first) sale as follows:

\textit{[I]n the essential nature of things, when the patentee, or the person having his rights, sells a machine or instrument whose sole value is in its use, he receives the consideration for its use and he parts with the right to restrict that use. The article \ldots passes without the limit of the monopoly. That is to say, the patentee or his assignee having in the act of sale received all the royalty or consideration which he claims for the use of his invention in that particular machine or instrument, it is open to the use of the purchaser without further restriction on account of the monopoly of the patentees.}\textsuperscript{24}

These succinct statements in \textit{Adams} establish the two core exhaustion principles. First, when exhaustion applies to the sale of an article, it precludes claims that the article’s post-sale use constitutes patent infringement. The effect, however, goes beyond preventing the patent owner from asserting the patent against the initial purchaser. Because the article “passes without the limit of the monopoly,” the patent cannot be asserted against any subsequent owner

\textsuperscript{19} \textit{Adams}, 84 U.S. at 453–54.
\textsuperscript{20} \textit{Id.} at 454.
\textsuperscript{21} \textit{Id.}
\textsuperscript{22} \textit{Id.}
\textsuperscript{23} \textit{Id.} at 457 (emphasis in original).
\textsuperscript{24} \textit{Id.} at 456. In a footnote, the Court cited to Bloomer v. McQuewan, 55 U.S. 539 (1852), and Mitchell v. Hawley, 83 U.S. 544 (1872). \textit{Id.} at 456 n.2. The former case is frequently cited as the “original” exhaustion holding. \textit{See supra} note 3. The latter case is discussed \textit{infra} at notes 63–65 and accompanying text.
based on use of the article. Second, the doctrine arises from the "essential nature of things." When a patent owner sells a patented article, reasonable parties will normally assume, and so should the law, that the owner has demanded and received full compensation under the patent. The sale, therefore, should convey the article free of patent constraints on its use. A contrary outcome would permit patent owners to retain patent control and demand more than the single royalty that is their due.

Following Adams, the Court developed a second line of cases drawing an important distinction between authorized and unauthorized sales. The distinction is best understood by comparing the decisions in United States v. General Electric Co. and General Talking Pictures Corp. v. Western Electric Co., Inc. with the holding in Adams. All three cases involve a restriction on the manufacture and sale of the patented articles. In Adams the rights were limited to making and selling the patented coffin lids within a ten-mile radius of Boston. In GE, Westinghouse had obtained a license to make and sell General Electric’s patented incandescent light bulbs subject to its compliance with General Electric’s pricing and other sales policies. And in GTP, the patent owner granted the licensee the right to make and sell patented amplifiers, but only for private and home use.

GE involved a United States Department of Justice challenge to the resale price maintenance restriction under antitrust law. Addressing how exhaustion affected the matter, the Court first reiterated the Adams holding that “where a patentee makes the patented article, and sells it, he can exercise no future control over what the purchaser may wish to do with the article after his purchase. It has passed beyond the scope of the patentee’s rights.” But the Court then found Adams inapplicable on the facts, stating: “the question is a different one which arises when we consider

26. 272 U.S. 476 (1926) [hereinafter GE].
27. 304 U.S. 175 (1938), reh'g granted 305 U.S. 124 (1938) [hereinafter GTP].
28. GE, 272 U.S. at 478–79.
30. GE, 272 U.S. at 478.
31. Id. at 489.
what a patentee who grants a license to one to make and vend the patented article may do in limiting the licensee in the exercise of the right to sell."\textsuperscript{32} In such cases, the Court held patent owners have the right to restrict licensees' rights "upon any condition . . . which is reasonably within the reward which the patentee by the grant of the patent is entitled to secure."\textsuperscript{33} The Court then went on to find the resale price maintenance restriction consistent with that requirement and, therefore, enforceable in accordance with its terms.\textsuperscript{34}

The GE case makes an important point about exhaustion. The doctrine only affects post-sale restrictions on use and resale of existing articles incorporating a patented invention. Manufacturing licenses divide the patent right, permitting the licensee to make new articles. The enforceability of restrictions in such agreements raises different policy concerns antecedent to the application of exhaustion.\textsuperscript{35}

In GTP, the Court fully closed the circle, defining how manufacturing license restrictions affect exhaustion's application to patented articles made and sold under a limited license.\textsuperscript{36} As in Adams, GTP involved a patent owner's infringement suit against the purchaser of patented articles made and sold by a licensee.\textsuperscript{37} Unlike in Adams, however, the Court in GTP found the patent infringement claim survived the sale.\textsuperscript{38}

\begin{footnotes}
\footnotetext[32]{Id. at 489–90.}
\footnotetext[33]{Id. at 489. The Court went on to define permissible conditions to be those "normally and reasonably adapted to secure pecuniary reward for the patentee's monopoly." Id. at 490. The fact that a limiting condition can be otherwise unenforceable has important implications for finding a justification for exhaustion. Because some conditions will not be enforceable at all, including under patent law, exhaustion only operates to prevent enforcement of otherwise valid conditions.}
\footnotetext[34]{Id. at 490–94.}
\footnotetext[35]{The ability to leverage others' manufacturing capabilities requires a different kind of control than leveraging third party distribution (resale) expertise; specifically, it requires assurance that output levels can be constrained. See infra notes 227–29 and accompanying text. See also Bloomer v. McQuewan, 55 U.S. 539, 549 (1852).}
\footnotetext[38]{Id. at 127.}
\end{footnotes}
The different outcome turned on the distinction made in *GE*. In *GTP*, the licensee had sold the patented articles it made for a commercial use, a clear violation of the private/home use limitation in its manufacturing license. The Court held the license restriction was valid under *GE*.

As the sale exceeded the scope of the licensee's rights under the patent, the licensee/seller was unable to convey what it did not have, the right to use under the patent. That, in turn, meant the sale could not give the purchaser the right to use the articles free of the patent. Exhaustion therefore did not apply and the right to enforce the patent survived, making the purchaser liable for patent infringement.

In *Adams*, the license restriction raised a different issue. Unlike *GTP*, the article at issue (a coffin lid) was manufactured and sold by the licensee, Lockhart & Seelye, in compliance with the ten-mile radius of Boston limitation imposed on its rights, but was being used by the purchaser elsewhere. That made the exhaustion issue whether the purchaser of the "lawfully made and sold" coffin lid could use and resell it outside the restriction on the licensee's rights under the patent; or, stated in "servitude" terms, whether the limitation on the licensee's right to manufacture and sell "ran with the article" to constrain the purchaser as well. The Court held that it did not:

It seems to us that, although the right of Lockhart & Seelye to manufacture, to sell, and to use these coffin-lids was limited to the circle of ten miles around Boston, that a

---

39. *Id.* at 127.
41. *GTP II*, 305 U.S. at 127.
42. *Id.* The Court seems remarkably unconcerned about the transaction costs involved in determining whether a particular article is subject to a patent and, if so, whether its manufacture was authorized. Although the Court noted that the purchaser had notice of the restriction, the rationale in *GTP* arguably goes much further, exempting all sales of unauthorized articles from exhaustion. Interestingly, the purchaser in the exhaustion cases has always had notice, up to and including *Quanta Computer, Inc.* v. *LG Electronics, Inc.*, 553 U.S. 617 (2008). Consequently, the question of what effect the lack of notice might have in a case has not been addressed by the Court. *Cf. id.* That important issue and the related transaction costs concerns are discussed *infra* notes 183–89 and accompanying text.
43. The Court's statement of the facts indicates the problem arose when the purchaser (Burke) used the lid in its business located outside the ten-miles of Boston limitation. *See Adams* v. *Burke*, 84 U.S. 453, 454–55, 457 (1873).
44. *Id.* at 457.
purchaser from them of a single coffin acquired the right to use that coffin for the purpose for which all coffins are used. That so far as the use of it was concerned, the patentee had received his consideration, and it was no longer within the monopoly of the patent. It would be to engraft a limitation upon the right of use not contemplated by the statute nor within the reason of the contract to say that it could only be used within the ten-miles [sic] circle.\textsuperscript{45}

Read together, GE, GTP, and Adams create a coherent whole. The exhaustion doctrine only applies when the article has been lawfully manufactured and sold. That will always be the case when the patent owner makes and sells the article. Regarding manufacturing licensees, however, it requires compliance with any valid restrictions on the scope of the license. Otherwise, the license violation constitutes infringement, exhaustion does not apply, and the patent remains enforceable against the initial purchaser as well as all subsequent owners or users.

The third baseline exhaustion principle addresses the doctrine’s specific effect on the patent rights. When exhaustion applies, it only extinguishes the patent owner’s ability to sue for infringement based on post-sale use and resale of the particular article. It does not “exhaust” the patent right in its entirety.\textsuperscript{46} Consequently, patent owners can still sue for infringement when purchasers make, use, or sell additional articles.\textsuperscript{47} That distinction applies in straightforward fashion when a new article has been created. The complication arises when changes are made to the specific article acquired. That requires determining if and when such changes move beyond the “use” authorized by exhaustion, and instead become an impermissible “making” of a new article. The Court has drawn that line by distinguishing between “repairing” the article, which constitutes permissible use, and “reconstruction,” which does not.\textsuperscript{48} Although that inquiry

\textsuperscript{45} Id. at 456–57.

\textsuperscript{46} This important point is one of the arguments suggesting that the doctrine should be identified as the “first sale doctrine,” rather than “patent exhaustion.” See supra note 2.

\textsuperscript{47} See Mitchell v. Hawley, 83 U.S. 544, 548 (1872).

poses significant practical line-drawing difficulties, the rationale and approach are non-controversial. The repair-reconstruction distinction rests on the same expectations logic the Court used to support exhaustion generally.\textsuperscript{49} When purchasing a patented article the buyer will reasonably assume the right to use includes the ability to maintain the purchased article in good working order, but not the right to remake it at the end of its useful life.\textsuperscript{50}

\textbf{B. The Exhaustion Controversy}

The exhaustion controversy arises from two related issues: (1) Does the doctrine prohibit all post-sale patent enforcement as a matter of public policy, thus precluding "contracting around" by the parties, and (2) If exhaustion prevents patent enforcement of post-sale restrictions, can those restrictions still be enforced under contract law?\textsuperscript{51}

The cases provide no clear answer to either question. A straight-forward explanation exists for why the contract enforcement issue remains unresolved. It has never been expressly presented to the Court and, consequently, there has not been an opportunity for its examination on the merits.\textsuperscript{52}

The uncertainty regarding whether exhaustion is mandatory, or merely a waivable default rule, arises from ambiguous and even conflicting language in the Court's exhaustion decisions. The Federal Circuit's decision in \textit{Mallinckrodt, Inc. v. Medipart, Inc.}\textsuperscript{53} lies at the center of the controversy. Mallinckrodt had imposed a single use restriction on sales of its patented medical device.\textsuperscript{54} When Medipart resold devices it had obtained from those "conditional" purchasers, Mallinckrodt sued Medipart for patent infringement.\textsuperscript{55}

\textsuperscript{49} See infra notes 23–25 and accompanying text.
\textsuperscript{50} See Mitchell, 83 U.S. at 548; MERGES & DUFFY, supra note 48, at 914–15.
\textsuperscript{51} The existence of the patent raises a third related issue: Whether the patent right insulates post-sale limitations from the application of other laws affecting their enforceability, in particular antitrust. The Court's determination that it does not, and the relationship of that finding to exhaustion, is discussed infra notes 114–22 and accompanying text.
\textsuperscript{52} See Quanta Computer, Inc. v. LG Electronics, Inc., 553 U.S. 617, 637 n.7 (2008).
\textsuperscript{53} 976 F.2d 700 (Fed. Cir. 1992).
\textsuperscript{54} Id. at 701.
\textsuperscript{55} Mallinckrodt claimed Medipart's activities both induced infringement by
The district court held that “violation of the ‘single use only’ notice can not be remedied by suit for patent infringement.” On appeal, the Federal Circuit explicitly addressed the question of whether under exhaustion “no restriction or condition may be placed upon the sale of a patented article” or “private parties retain the freedom to contract concerning conditions of sale.” The panel unequivocally held in favor of freedom of contract, finding exhaustion operated as a default rule that the parties can avoid by agreeing otherwise. When the parties have done so, any activity exceeding otherwise lawful conditions will constitute patent infringement.

The Supreme Court’s exhaustion precedents provide support for both defenders and critics of Mallinckrodt. All exhaustion arguments start from the Adams holding, stating that “when [patented articles] are once lawfully made and sold, there is no restriction on their use to be implied for the benefit of the patentee or his assignees or licensees.” This is

---

56. Id. The Federal Circuit’s opinion indicates the rationale for the District Court’s holding was somewhat unclear in that it combined elements of unenforceability of the condition under the doctrine of patent misuse, but cited to a variety of patent exhaustion precedents. See id. at 703–04. A fair reading of the District Court’s actual opinion, however, indicates a relatively clear and straight-forward application of the mandatory view of patent exhaustion. See Mallinckrodt, Inc. v. Medipart, Inc., No. 89 C 4524, 1990 WL 19535 (N.D. Ill. 1990), at *7-8.

57. Mallinckrodt, 976 F.2d at 708.

58. See id. The court’s citation to GTP (“that a restrictive license is legal seems clear”) is inappropriate. See id. at 704–05. GTP involved a license limitation on the right to manufacture and sell, not on the resale of acquired finished articles. As discussed earlier in this article, divisions of the patent right permitting the making of new articles involve different policy considerations and can (and should) be distinguished on the facts. See supra notes 32–35 and accompanying text.

59. The panel also held that enforceability of a post-sale condition required compliance with other applicable legal limitations, in particular those imposed by the patent misuse doctrine. Mallinckrodt, Inc. v. Medipart, Inc., 976 F.2d 700, 709 (Fed. Cir. 1992).

60. Id. The Federal Circuit has continued to adhere to the “default” view of exhaustion. See B. Braun Med., Inc. v. Abbott Lab., 124 F.3d 1419, 1426 (1997). Mallinckrodt had also argued that Medipart’s reconditioning of the devices constituted infringement. The Federal Circuit found the repair versus reconstruction distinction would be irrelevant if the condition was enforceable, as “even repair of an unlicensed device constitutes infringement.” This finding is consistent with the Federal Circuit’s non-mandatory approach to exhaustion. Mallinckrodt, 976 F.2d at 709.

because the patent owner has in "the act of sale received all
the royalty or consideration which he claims for the use of his
invention in that particular machine or instrument." The
disagreement is over how to interpret that language. Does
the language mean that exhaustion eliminates all post-sale
patent enforcement, or can the parties avoid its application by
agreeing otherwise?

i. Exhaustion as a "Default"

Support for the Mallinckrodt default approach is found in
the doctrine's origins. In Mitchell v. Hawley,\textsuperscript{63} decided prior
to and cited in Adams, the Court explained exhaustion's
application as follows:

Patentees acquire by their letters-patent the exclusive
right to make and use their patented inventions and to
vend to others to be used for the period of time specified in
the patent, but when they have made one or more of the
things patented, and have vended the same to others to be
used, they have parted to that extent with their exclusive
right, as they are never entitled to but one royalty for a
patented machine, and consequently a patentee, when he
has himself constructed a machine and sold it \textit{without any
conditions}, or authorized another to construct, sell, and
deliver it, or to construct and use and operate it, \textit{without
any conditions}, and the consideration has been paid to him
for the thing patented, the rule is well established that the
patentee must be understood to have parted to that extent
with all his exclusive right, and that he ceases to have any
interest whatever in the patented machine \textit{so sold and
delivered or authorized} to be constructed and operated.\textsuperscript{64}

The first part of this explanation tracks the "essential nature"
and single royalty rationales for exhaustion. The "without
any conditions" language, however, adds an important caveat,
indicating that exhaustion applies only when the patented
article is "so sold and delivered or authorized."\textsuperscript{65}

Subsequent cases eliminated the possibility that the
caveat in Mitchell was mere dicta. In Bauer & Cie. v.
O'Donnell, the patent owner put a notice on its

\textsuperscript{62.} Id. at 456.
\textsuperscript{63.} 83 U.S. 544 (1872).
\textsuperscript{64.} Id. at 546–47 (emphasis added).
\textsuperscript{65.} Id. at 547.
pharmaceutical products purporting to set a minimum resale price.\(^6\) The Court of Appeals for the District of Columbia, by certified question, asked the Supreme Court to determine whether the defendant's resale for less than the indicated minimum price constituted patent infringement.\(^6\) The Court's explanation and its reasoning for holding that exhaustion precluded an infringement claim reflects the need to consider the *Mitchell* caveat before the doctrine can be applied:

It is contended in argument that the notice in this case deals with the use of the invention, because the notice states that the package is licensed 'for sale and use at a price not less than $1,' that a purchase is an acceptance of the conditions, and that all rights revert to the patentee in event of violation of the restriction. *But in view of the facts certified in this case, as to what took place concerning the article in question, it is a perversion of terms to call the transaction in any sense a license to use the invention.* . . .

The packages were sold with as full and complete title as any article could have when sold in the open market, excepting only the attempt to limit the sale or use when sold for not less than $1. In other words, *the title transferred was full and complete,* with an attempt to reserve the right to fix the price at which subsequent sales could be made. There is *no showing of a qualified sale for less than value for limited use* with other articles only, as was shown in the Dick Case. There was *no transfer of a limited right to use this invention,* and to call the sale a license to use is a mere play upon words.\(^6\)

If exhaustion prohibited all patent enforcement of post-sale conditions, then the Court's extended inquiry would have been irrelevant and unnecessary. Instead, the decision carefully examines the specific facts surrounding the particular condition to determine whether the transaction was a sale conveying "full and complete" title,\(^6\) or merely a "license" reflecting "transfer of a limited right to use this invention."\(^7\) That analysis clearly implies that had the facts been otherwise—if the post-sale restriction reflected a

\(^6\) 229 U.S. 1 (1913).
\(^7\) Id. at 1.
restriction on the buyer’s rights in return for payment of “less than value for limited use”—then the patent infringement claim would have survived.  

Both Straus v. Victor Talking Machine Co.\textsuperscript{72} and Motion Picture Co. v. Universal Film Manufacturing Co.,\textsuperscript{73} decided on the same day, reflect the Bauer “full and complete” versus “limited right to use” distinction. In Straus, the Court invalidated a resale price maintenance restriction based on the exhaustion doctrine.\textsuperscript{74} Again, it did so by performing a detailed analysis of the substance of the transaction, finding on the facts that:

[The price restriction program] thus plainly is to sell property for a full price, and yet to place restraints upon its further alienation, such as have been hateful to the law from Lord Coke’s day to ours, because obnoxious to the public interest. The scheme of distribution is not a system designed to secure to the plaintiff and to the public a reasonable use of its machines, within the grant of the patent laws, but is in substance and in fact a mere price-fixing enterprise, which, if given effect, would work great and widespread injustice to innocent purchasers, for it must be recognized that not one purchaser in many would read such a notice, and that not one in a much greater number, if he did read it, could understand its involved and intricate phraseology, which bears many evidences of being framed to conceal rather than to make clear its real meaning and purpose. It would be a perversion of terms to call the transaction intended to be embodied in this system of marketing plaintiff’s machines a “license to use the invention.”\textsuperscript{75}

As in Bauer, the Court did not merely declare that exhaustion barred all post-sale patent enforcement. Instead, it determined on the specific facts that the buyer had paid “full price” and it “would be a perversion of terms to call the transaction . . . ‘a license to use the invention.’”\textsuperscript{76} That assessment draws an express distinction between sales for

\begin{itemize}
\item \textsuperscript{71} Id.
\item \textsuperscript{72} 243 U.S. 490 (1917).
\item \textsuperscript{73} 243 U.S. 502 (1917).
\item \textsuperscript{74} Straus, 243 U.S. at 498–99.
\item \textsuperscript{75} Id. at 500–01 (quoting Bauer & Cie. v. O’Donnell, 229 U.S. 1, 16 (1913)) (emphasis added).
\item \textsuperscript{76} Id.
\end{itemize}
full price and those for "less than value for limited use," strongly implying exhaustion applies only to the former and not to the latter.

*Motion Picture* involved the sale of patented film projectors subject to the limitation that they could only be used to show certain films, and to other terms to be fixed by the licensor. When the defendant, who had acquired the projector from the original purchaser, violated the film restriction, the patent owner sued for patent infringement. The Court’s exhaustion analysis specifically cited to *Bauer*, articulating that case’s holding as follows: “the right to vend is exhausted by a single, *unconditional* sale, the article sold being thereby carried outside the monopoly of the patent and rendered free of every restriction which the vendor may attempt to put upon it.”

The Court found the *Bauer* exhaustion analysis of the patent “right to vend” applied with equal force to the patent “right to use” implicated by the restrictions at issue. It then, however, struck down the restriction for the following reasons:

[I]t is not competent for the owner of a patent, by notice attached to its machine, to, in effect, extend the scope of its patent monopoly by restricting the use of it to materials necessary in its operation, but which are no part of the patented invention, or to send its machines forth into the channels of trade of the country subject to

77. *Id.* Two additional points raised in *Straus* merit note. First, as with many of the exhaustion cases the Court is clearly concerned with the anticompetitive effects of finding the condition enforceable, a particular problem as the Court had not yet found that the patent does not insulate the condition from application of the antitrust laws. That subsequent determination substantially changed the need for mandatory exhaustion, permitting the courts to find a condition entirely unenforceable on other grounds. See *infra* at notes 113–122 and accompanying text. Second, *Straus* explicitly articulates the notice problem raised by *in rem* patent enforcement of a post-sale condition—the “great and widespread injustice to innocent purchasers.” *Straus*, 243 U.S. at 501. A similar concern is visible in other exhaustion cases, creating an early manifestation of the “shrink-wrap/clickwrap” sufficient notice/deemed assent problem currently bedeviling contract law. The possibility that concern justifies exhaustion is dealt with *infra* notes 162–68 and 183–89 and accompanying text.

78. *Motion Picture Co.*, 243 U.S. at 505.
79. *Id.* at 505–06.
80. *Id.* at 516 (emphasis added).
81. *Id.*
conditions as to use or royalty to be paid, to be imposed thereafter at the discretion of such patent owner.\textsuperscript{82}

Once again, the analysis goes beyond that required if exhaustion prevented all patent enforcement of post-sale restrictions. Instead, the Court looked to the specific facts, finding the limitation unenforceable because it "extend[ed] the scope of [the] patent monopoly" by requiring use of materials falling outside the patent claims.\textsuperscript{83} Determining the validity of the specific condition in an infringement action would be entirely unnecessary unless some conditions escape exhaustion's reach; an outcome consistent with a "conditional sale" exception to the doctrine.\textsuperscript{84}

\textit{ii. Exhaustion as an Absolute (Per Se) Bar}

The Court's precedents also support exhaustion as a prohibition on all post-sale patent enforcement. The argument starts from \textit{Motion Picture}. That decision expressly overruled the strongest conditional sale precedent,\textsuperscript{85} \textit{Henry v. A.B. Dick Co.}\textsuperscript{86} In \textit{A.B. Dick}, the Court had explicitly distinguished between unconditional and conditional sales and expressly held exhaustion did not preclude post-sale patent law enforcement of violations of restrictions imposed in the latter kind of transaction.\textsuperscript{87} Although \textit{Motion Picture} was decided based on the unenforceability of the particular condition on other grounds,\textsuperscript{88} overruling \textit{A.B. Dick} clearly indicated that, at a minimum, the parties' ability to contract around exhaustion had been significantly circumscribed.\textsuperscript{89}

\textsuperscript{82.} Id.
\textsuperscript{83.} Id.
\textsuperscript{84.} A logical explanation is that the Court finally decided to address the anticompetitive effects of post-sale conditions directly, an interpretation strongly supported by the fact that \textit{Motion Picture} became the foundation for the patent misuse doctrine. See Vincent Chiappetta, \textit{Living with Patents: Insights from Patent Misuse}, 15 MARQ. INTELL. PROP. L. REV. 1, 16–19 (2010).
\textsuperscript{85.} See \textit{Motion Picture Patents Co. v. Universal Film Mfg. Co.}, 243 U.S. 502, 518 (1917).
\textsuperscript{86.} 224 U.S. 1 (1912).
\textsuperscript{87.} Id. at 24–25.
\textsuperscript{88.} See supra notes 78–84 and accompanying text.
\textsuperscript{89.} As \textit{A.B. Dick} involved a tying arrangement, it specifically conflicted with the outcome in \textit{Motion Picture} invalidating the same kind of requirement. The issue of how that interaction affects a reconciliation of the Court's exhaustion cases is discussed infra at notes 110–18 and accompanying text.
Boston Store of Chicago v. American Graphophone,90 decided a year later, strongly supports a wide-reaching reading of Motion Picture’s overruling of A.B. Dick. In American Graphophone, the Court surveyed its prior exhaustion cases including Bauer, Straus, and Motion Picture. The Court interpreted Motion Picture as deciding:

[T]hat the rulings in Bauer v. O’Donnell and Straus v. Victor Talking Machine Co. conflicted with the doctrine announced and the rights sustained in Henry v. Dick, and that case was consequently overruled. Reiterating the ruling in the two last cases it was again decided that as by virtue of the patent law one who had sold a patented machine and received the price and had thus placed the machine so sold beyond the confines of the patent law, could not by qualifying restrictions as to use keep under the patent monopoly a subject to which the monopoly no longer applied.91

That statement, omitting any reference to the possibility or effect of “conditional sales,” directly preceded the Court’s holding that:

There can be equally no doubt that the power to [impose the price-fixing restriction] in derogation of the general law was not within the monopoly conferred by the patent law and that the attempt to enforce its apparent obligations under the guise of a patent infringement was not embraced within the remedies given for the protection of the rights which the patent law conferred.92

Read together, these two statements can quite reasonably be read as obviating any need to assess the substance of the transaction or the condition because a sale triggers exhaustion, and the exhaustion doctrine prevents all enforcement of the post-sale condition “under the guise of patent infringement.”93

Two subsequent cases reinforce the absolute bar reading of American Graphophone. In GE,94 the Court, before finding exhaustion entirely inapplicable to conditions limiting manufacturing licenses,95 articulated the doctrine as follows:

---

90. 246 U.S. 8 (1918).
91. Id. at 25.
92. Id.
93. See Hungar, supra note 8, at 528.
94. 272 U.S. 476 (1926).
95. See supra notes 32–34 and accompanying text.
"It is well settled . . . that where a patentee makes the patented article, and sells it, he can exercise no further control over what the purchaser may wish to do with the article after his purchase."\textsuperscript{96} In support of that clearly unequivocal view of the "settled" law of exhaustion, the Court specifically cited, among other cases, \textit{Mitchell}, the source of the "without any conditions" caveat.

The Court subsequently reaffirmed the \textit{GE} absolute bar articulation in \textit{United States v. Univis Lens Co.}\textsuperscript{97} Univis had included explicit resale price limitations in the licenses it granted to make and/or sell its patented eyeglass lenses.\textsuperscript{98} The Department of Justice sued to enjoin enforcement of the condition under the Sherman Act.\textsuperscript{99} The key issue in the case was "whether the [retail price maintenance] system . . . is excluded by the patent monopoly from the operation of the Sherman Act."\textsuperscript{100}

Addressing the effect of exhaustion, the Court provided a detailed supporting explication of the doctrine's operation and effect:

The full extent of the monopoly is the patentee's "exclusive right to make use, and vend the invention or discovery." The patentee may surrender his monopoly in whole by the sale of his patent or in part by the sale of an artile [sic] embodying the invention. His monopoly remains so long as he retains the ownership of the patented article. But sale of it exhausts the monopoly in that article and the patentee may not thereafter, by virtue of his patent, control the use or disposition of the article. . . .\textsuperscript{101}

. . . The reward [the patent owner] has demanded and received is for the article and the invention which it embodies and which his vendee is to practice upon it. He has thus parted with his right to assert the patent monopoly with respect to it and is no longer free to control the price at which it may be sold either in its unfinished or finished form. . . .

\textsuperscript{96} \textit{GE}, 272 U.S. at 489.
\textsuperscript{97} 316 U.S. 241 (1942).
\textsuperscript{98} \textit{Id.} at 243–45.
\textsuperscript{99} \textit{Id.} at 242–43.
\textsuperscript{100} \textit{Id.} at 243.
\textsuperscript{101} \textit{Id.} at 250.
Our decisions have uniformly recognized that the purpose of the patent law is fulfilled with respect to any particular article when the patentee has received his reward for the use of his invention by the sale of the article, and that once that purpose is realized the patent law affords no basis for restraining the use and enjoyment of the thing sold.\textsuperscript{102}

The Court then concluded by holding that, as exhaustion prohibits “any further control over the article sold” by “virtue of the patents,” that regime could not insulate the condition from application of the antitrust laws.\textsuperscript{103}

The above language reaffirms both that exhaustion operates as a blanket prohibition on post-sale patent enforcement and the underlying “single royalty” rationale for that outcome. A patent gives the owner the right to demand whatever compensation he can obtain for the patented article at the time of sale. Upon payment of that consideration, however, the patent owner has “parted with his right to assert the patent monopoly” putting post-sale conditions beyond the patent’s reach.\textsuperscript{104}

C. Reconciling the Positions

The traditional method for producing coherence among conflicting cases is to look for distinctions that permit reconciliation.\textsuperscript{105} Unfortunately, applying that approach to the Court’s exhaustion cases does not produce a satisfactory resolution. Absolute prohibition proponents attempt to explain away the “conditional sale” caveat by arguing that phrase must be read in its contemporaneous context.\textsuperscript{106} Specifically, they note (with justification) that at the time Mitchell, Bauer, Straus, and Motion Picture were decided, “conditional sale” referred to conditions precedent to the

\begin{footnotes}
\item[102] Id. at 251.
\item[103] United States v. Univis Lens Co., 316 U.S. 241, 252 (1942). In reaching the conclusion, the Court noted that the “Court in \textit{GE} was at a paints [sic] to point out that a patentee who manufactures the product protected by the patent and fails to retain his ownership in it can not control the price at which it is sold by his distributors.” \textit{Id.}
\item[104] Id. at 251.
\item[105] In many of the exhaustion cases, the statements of the doctrine are technically dicta, and thus could be dismissed on that ground. But as the Court is generally making those statements to articulate the full operation of the doctrine, a closer analysis on the merits is justified.
\item[106] \textit{See} Hungar, \textit{supra} note 8, at 532.
\end{footnotes}
passing of title, not to conditions limiting the rights ultimately conveyed. Thus understood, the caveat only indicates that patent owners may retain patent control over use of an article while they retain ownership. Once any conditions to transfer are satisfied and title passes to the buyer, exhaustion triggers and the patent no longer applies to post-sale use.

The argument ignores the actual assessment performed in the cases. None of the cases mention whether title had or had not passed to the buyer. Nor do they make any inquiry into whether the particular conditions at issue were precedent to transfer of title. Instead, they distinguish between sales conveying “full and complete title” to articles “sold and delivered” at “full price,” and “qualified sale[s] for less than value for limited use” transferring “a limited right to use” as a “license.” That inquiry clearly assumes the buyer “owns” the article. The relevant exhaustion issue is whether the buyer paid for (and was thus entitled to) full post-sale rights to use and resell, or whether the buyer only paid for something less.

The argument for a default view of exhaustion is, in the end, equally unsatisfactory. It requires explaining away the overruling of A.B. Dick in Motion Picture, as well as the unequivocal per se exhaustion language in American Graphophone, GE and, most problematically, Univis. The absolute bar statement in GE is the easiest to resolve. In that case, the Court only raised exhaustion to make the point that the doctrine did not apply to conditions in licenses to make and sell under the patent. Because exhaustion did not control, there was no need for precision regarding the doctrine’s details. That reading is consistent with the Court’s restatement of the doctrine at the conclusion of the opinion. Rather than reiterating its earlier unqualified no post-sale patent enforcement statement, the Court instead tracked the Mitchell/Bauer caveated rule. “[A] patentee may not attach

107. See supra notes 63–71.
108. The answer turns, first, on whether the sale reflects less than an absolute right to use or resell in return for less than full value (indicating that the “single royalty” premise for exhaustion did not apply and, consequently, neither did the doctrine); and, second, whether the specific restriction on post-sale use or resale was legally enforceable under other applicable law. See id.
109. See supra notes 32–34 and accompanying text.
to the article made by him or with his consent a condition running with the article in the hands of purchasers limiting the price which one who becomes its owner for full consideration shall part with it.”

The Motion Picture overruling of A.B. Dick and the absolute language found in American Graphophone and Univis require more detailed analysis. Those cases all involved post-sale conditions allegedly violating either the patent misuse doctrine or the antitrust laws—a tying restriction in the first case, and resale price maintenance in the latter two cases. The defendant patent owner argued its patent insulated the conditions from application of those laws. If exhaustion freed the articles from the patent, then that defense would fail.

Interpreted in that context, the Court’s overruling A.B. Dick in Motion Picture can be read as entirely consistent with the default view of exhaustion. Although the Court explicitly affirmed that exhaustion prevents patent enforcement of post-sale conditions on use, it specifically indicated it only did so in a “single, unconditional sale.” Then, rather than determining the caveat should be eliminated, the Court decided the case on other grounds. Specifically it held:

[W]e are convinced that the exclusive right granted in every patent must be limited to the invention described in the claims of the patent, and that it is not competent for the owner of a patent, by notice attached to its machine, to, in effect, extend the scope of its patent monopoly by restricting the use of it to materials necessary to its operation, but which are no part of the patented invention or to send its machines forth into the channels of trade of the country subject to conditions as to use or royalty to be paid to be imposed thereafter at the discretion of such patent owner.

A.B. Dick, an opinion that upheld a similar tying restriction, clearly could not survive the determination in Motion Picture that such a post-sale limitation is unenforceable because it exceeds the scope of the patent

112. Id. (emphasis added).
claims. But as the Court noted in GE, the Motion Picture reasoning only requires overruling A.B. Dick to the extent its holding insulates post-sale conditions from examination under other laws. It does not mandate that exhaustion prevent all patent enforcement of post-sale conditions. The Court's actual analysis in Motion Picture is consistent with that limited reading. Requiring individual post-sale conditions to be examined for "scope of the patent" validity before deciding whether a patent infringement claim can be made, would be entirely unnecessary if exhaustion precluded all such enforcement.

The same relationship between post-sale patent enforcement and invalidity under other laws can be clearly seen in American Graphophone. There, the Court held:

Applying the cases thus reviewed [both exhaustion and antitrust prohibition on retail price maintenance] there can be no doubt that the alleged price-fixing contract disclosed in the certificate was contrary to the general law and void. There can be equally no doubt that the power to make it in derogation of the general law was not within the monopoly conferred by the patent law and that the attempt to enforce its apparent obligations under the guise of a patent infringement was not embraced within the remedies given for the protection of the rights which the patent law conferred.

This statement parallels the Motion Picture analysis that patent rights do not prevent examination of conditions for

113. In Motion Picture, the Court moved beyond exhaustion and directly addressed the potential anticompetitive effects of post-sale restrictions imposed in patent transactions. The case develops the foundation for the patent misuse doctrine which prevents patent rights from shielding harmful conditions from invalidity under laws of "general" application. See id. at 514; see generally, Chiappetta, supra note 84; Hovenkamp, supra note 8. Although mandatory exhaustion would prevent that outcome, it would both over-shoot the mark, preventing net beneficial post-sale patent enforcement, and fail to resolve the problem by allowing contract law enforcement of harmful conditions.


115. See supra notes 81–84 and accompanying text. The point in the text also explains the Motion Picture Court's invalidation of the "conditions as to use or royalty to be paid, to be imposed thereafter at the discretion of such patent owner." Motion Picture Co., 243 U.S. at 516. The condition's unenforceability was based on the open-ended discretion reserved by the patent owner, not a blanket prohibition of post-sale conditions under exhaustion. If it were the latter, there would have been no need to note the reserved discretion.

other legal limitations on their enforcement. And, again, if exhaustion eliminated all post-sale patent enforcement of restrictions on use or resale with regard to a specific article, it would be unnecessary to determine whether the specific condition fell “within the monopoly conferred by the patent law.”

Univis, however, provides an insurmountable obstacle to treating exhaustion as a default doctrine. Unlike Motion Picture or American Graphophone, the decision explicitly references and relies on exhaustion to explain why patent law does not insulate post-sale conditions from the application of other laws. The Court specifically held that because the doctrine prevents all patent enforcement of post-sale conditions, such conditions cannot, by definition, remain “within the protection of the patent law.” Nor does the argument that the particular sales were at “full value,” and thus satisfied the exhaustion caveat, find any support in the Court's analysis. Nothing in the statement of the facts indicates the issue has any bearing whatsoever on exhaustion, nor does the actual analysis contain any mention of full, as opposed to limited, value as a relevant consideration. Even the citation to GE points to that decision's initial unequivocal statement of the doctrine, not the later “full consideration” articulation. Moreover, Univis provides affirmative support for the per se argument regarding the meaning of “conditional sale,” stating that exhaustion applies whenever the seller “fails to retain ownership [in the article].”

D. The Quanta Decision

Many observers hoped the Supreme Court would resolve this confused state of affairs and provide a definitive

---

117. See United States v. Masonite Corp., 316 U.S. 265, 277 (1942) (reading and citing both the patent misuse doctrine derived from Motion Picture and American Graphophone in this way). Masonite also tracks the conditional sale approach to exhaustion, finding the doctrine applicable when “there has been such a disposition of the article that it may fairly be said that the patentee has received his reward for the use of the article.” Id. at 278.


120. Id. at 243–47, 251–52.

121. Id. at 252.

122. Id.
resolution in *Quanta Computer, Inc. v. LG Electronics, Inc.*123 There, Intel had produced and sold chip sets under a license from LG Electronics (LGE) to use its patents.124 Quanta purchased the chips and used them in its computer systems.125 LGE asserted that the use exceeded Intel’s manufacturing authorization and sued Quanta for infringement.126 Quanta countered that exhaustion eliminated LGE’s right to post-sale patent enforcement.127

Although the stage was set, clarification was not forthcoming. In fact, the unanimous opinion seems oddly oblivious to the debate over the proper interpretation of the Court’s exhaustion precedents. Neither the summary of the cases, nor the exhaustion analysis directly raises, much less addresses, the absolute bar versus default issue, instead providing only Delphic pronouncements that generated further ambiguity and conflicting interpretations.128

The absolute bar position finds support in aspects of the opinion’s summary of the exhaustion precedents, its heavy reliance on *Univis*, and the substantive analysis supporting the finding that exhaustion bars LGE’s post-sale infringement action. On its face, the Court’s summary of the prior cases seems to favor the per se prohibition position. It first interprets *A.B. Dick* as “permit[ting] postsale restrictions on the use of a patented article.”129 It then notes that *A.B. Dick* was not applied in *Bauer* and was explicitly overruled in *Motion Picture.*130

Unfortunately, however, the review is not as definitive as it seems, leaving myriad open questions. There is no discussion of the “less than limited rights” language expressly used to distinguish *A.B. Dick* in *Bauer*, or the “unconditional sale” language in *Motion Picture* that was cited without comment.131 Even more problematically, the Federal Circuit’s *Mallinckrodt* decision, directly conflicting with an absolute

---

124. Id. at 617.
125. Id.
126. Id.
127. Id.
128. See supra note 8.
130. See id.
131. Id.
bar reading of the summary, 132 is not even mentioned. 133 If the Court intended its summary of the doctrine to resolve the conflicting "bar or default" readings of its prior cases in favor of the former, it easily could have spoken much more clearly. 134

The reliance on Univis argument fairs no better. 135 The Court did expressly make the case controlling at one point in the opinion, stating, "[w]e agree with Quanta that Univis governs this case." 136 Interpreting that holding as confirming the absolute bar position, however, goes too far. Read in context, the Court is clearly only relying on (and reaffirming) Univis with regard to the threshold question of when an article sufficiently embodies a patent to trigger exhaustion, most particularly with regard to process claims. 137

The opinion's actual substantive exhaustion analysis is more convincing, but non-definitive. The Court first distinguished GTP, finding Intel's license unrestricted on the facts, thus making Intel's manufacture and sale duly authorized. 138 It next found LGE's intent to impose post-sale restrictions on Intel's purchasers irrelevant, stating that "exhaustion turns only on Intel's own license to sell products practicing the LGE Patents." 139 The opinion concludes by holding that "[b]ecause Intel was authorized to sell its products to Quanta, the doctrine of patent exhaustion prevents LGE from further asserting its patent rights with respect to the patents substantially embodied by those products." 140

132. See supra notes 53–60 and accompanying text.
133. Quanta, 553 U.S. at 625–28. The argument that the patent holder, LGE, chose not to defend or rely on the case is unconvincing. Cf. Hungar, supra note 8, at 530 (raising it as a possibility). As the Court was certainly aware of the issue, the better argument is that it felt that the facts made resolving the broader question raised by Mallinckrodt unnecessary to resolution of the case before it. See infra notes 142–45 and accompanying text.
134. Even if the Court did not need to resolve the debate, the opportunity to provide much-needed and beneficial clarification of its own precedents called for a less parsimonious use of dicta in its restatement of the existing law. See supra note 133.
135. See Hungar, supra note 8, at 532.
137. See id. at 631–35.
138. See id. at 635.
139. Id. at 637.
140. Id.
The final summary of the exhaustion holding articulates the blanket per se position even more clearly:

The authorized sale of an article that substantially embodies a patent exhausts the patent holder's rights and prevents the patent holder from invoking patent law to control postsale use of the article. Nothing in the License Agreement limited Intel's ability to sell its products practicing the LGE Patents. Intel's authorized sale to Quanta thus took its products outside the scope of the patent monopoly, and as a result, LGE can no longer assert its patent rights against Quanta.\textsuperscript{141}

As dispositive as the above analysis seems, its power fades when read in the context of the actual facts. Specifically, to apply exhaustion as an absolute bar requires a valid restriction upon which it can operate. Although the buyer, Quanta, had received notice "that LGE had not licensed [Intel's] customers to practice its patents,"\textsuperscript{142} LGE was not the seller of the specific patented articles. Instead, they were produced and sold by Intel under its license. Avoiding exhaustion on those facts requires a valid restriction in Intel's license. Regarding that issue, as the Court points out, LGE's desires or intent are irrelevant.\textsuperscript{143} The license must in fact legally restrict Intel's authority to make and sell the particular goods under the patents. Because it did not, Intel's authorized making and unconditional sale of the patented articles triggered exhaustion and prohibited LGE from enforcing its patents based on use or resale by the purchasers.\textsuperscript{144}

This fact-based interpretation also explains the apparent gaps in the Court's analysis.\textsuperscript{145} Determining whether exhaustion applied on the Quanta facts only required the Court to make the two findings in the opinion. First, that under Univis, exhaustion applies to process patents,

\begin{footnotes}
\textsuperscript{141} \textit{Id.} at 638.
\textsuperscript{142} Quanta Computer, Inc. v. LG Electronics, Inc., 553 U.S. 617, 638 (2008).
\textsuperscript{143} \textit{Id.} at 636–37.
\textsuperscript{144} Nothing indicates that the Intel sales to Quanta were conditional. But even had they been, as Intel was not the patent owner, those restrictions would have no relevance to LGE's ability to enforce its patents against downstream acquirers/users. This fact fully explains the Court's statement that "exhaustion turns only on Intel's own license to sell products practicing the LGE patents." \textit{Id.} at 627.
\textsuperscript{145} See supra notes 131–34 and accompanying text. If a case ever called for judicious use of dicta, however, this was it. \textit{See supra} note 134.
\end{footnotes}
triggering the doctrinal inquiry. Second, no restriction was imposed on Intel’s manufacture and sale, thus avoiding \textit{GTP}. Because no “conditional sale” was involved, the “per se versus default” exhaustion issue never arose. That made addressing either the “unconditional sale” caveat in \textit{Motion Picture} or the Federal Circuit’s \textit{Mallinckrodt} decision unnecessary to the resolution of the case.

This reading of \textit{Quanta} also sheds useful light on an important undercurrent in many of the earlier exhaustion cases: What is required to prevent the doctrine from applying? The decision’s reference to Quanta’s knowledge that LGE desired a post-sale restriction tracks the strong implication in a number of those opinions that adequate notice is a condition precedent.\textsuperscript{146} More importantly, the Court’s focus on the “structure of the Intel-LGE transaction,”\textsuperscript{147} despite Quanta’s clear knowledge of LGE’s desired limitation, indicates that even actual notice will not suffice. To avoid exhaustion the limitation must be expressly included in the terms of the bargained-for exchange, making the transaction \textit{in substance} a transfer of only a limited right to use for less than full value.\textsuperscript{148} In short, the Court in \textit{Quanta} seems to be making the same point articulated in \textit{Hobbie v. Jennison}\textsuperscript{149} over a century ago, regarding what is required for a licensee restriction to preclude a finding of exhaustion:

It is easy for a patentee to protect himself and his assignees when he conveys exclusive rights under the patent for particular territory. He can take care to \textit{bind} every licensee or assignee, if he gives him the right to sell articles made under the patent, by imposing conditions which will prevent any other licensee or assignee from being interfered with.\textsuperscript{150}

\begin{itemize}
\item \textsuperscript{146} See \textit{supra} note 77.
\item \textsuperscript{147} \textit{Quanta}, 553 U.S. at 636.
\item \textsuperscript{148} See \textit{supra} notes 66–77 and accompanying text (discussing the \textit{Bauer} and \textit{Straus} examination of the substance of the transaction to determine whether exhaustion applied).
\item \textsuperscript{149} 149 U.S. 355 (1893).
\item \textsuperscript{150} \textit{Id.} at 363 (emphasis added).
\end{itemize}


E. Concluding Thoughts on the Status Quo

The Court's exhaustion jurisprudence has not produced a final answer on the "absolute prohibition-default contract-around" question. The resulting confusion is highly problematic in the real world, where post-sale restrictions can be found in abundance. The possibility of post-sale patent enforcement considerably ups the individual and social ante. Buyers without sufficient motivation or funds will simply comply to avoid the increased exposure, even when contract expectation damages would produce a better personal (and perhaps social) outcome. Those willing and able to resist must still determine whether the highly unpredictable and potentially damaging outcome merits the investment of time and resources. Conversely, if patent owners cannot be assured that conditional sales will be enforced in accordance with their terms, including against downstream owners and users, they will be less willing to agree to lower prices in exchange for restrictions on use or resale. Therefore, it is important to eliminate the current confusion, and to establish clear and reliable rules governing the doctrine's application.

PART II: THE POLICY INQUIRY

Resolving the exhaustion conundrum requires answering the two open questions: (1) Is exhaustion mandatory or a waivable default, and (2) When the doctrine applies, does it prevent contract enforcement of the post-sale condition? The appropriate answers will be those that best deliver on what society has decided patent law should produce.

In the United States, identifying the raison d'être for patent law is straight-forward. Patent law exists to overcome a specific problem faced in advancing our commercial law system's primary goal of fostering efficient market operation—the free-riding disincentive to invest in innovation. To solve that problem, the regime implements a market-based solution. By granting innovators the legal right to exclude others from making, using, or selling their

151. See, e.g., Chiappetta, supra note 84, at 8–12. Mere adoption of the market "failure" approach does not make it "correct" in the normative sense. Other equally legitimate alternative views of intellectual property rights have, in fact, been adopted by other societies. See id.; Chiappetta, supra note 1, at 375–81 (making the point that these normative differences make the international exhaustion issue extremely complicated).
inventions, a patent permits them to capture whatever market returns their investments might produce.

But patent law must do more than create maximum incentives. It must also advance the over-arching goal of increasing market efficiency. That requires the regime to produce an optimal overall improvement when its innovation benefits are netted against the inefficiencies caused by the right to exclude.

A. The Efficient Market Justifications for Exhaustion

The net efficiency improvement requirement provides the necessary metric for assessing the usefulness of exhaustion within the current patent law paradigm. The doctrine may help ensure that patent law produces optimally efficient incentives to innovate in one of two ways. It may prevent post-sale patent enforcement from producing net harm to the basic assumptions required for an efficient market—for example, increased transaction costs or undue interference with competition. Or, exhaustion may function as an inherent limitation within the patent system itself, essential to preventing excessive direct costs from the right to exclude—for example, unjustified higher prices and resulting deadweight loss.

The “basic assumptions” argument supports legal interventions when they help move the unruly real world into better alignment with the theoretical assumptions required for efficient market operation. In particular, intervention should reduce transaction costs, eliminate externalities,
enhance information, or foster increased competition. It is not enough, however, for such interventions to produce gains in a particular assumption, for example by increasing available information. The inefficiencies caused by the intervention—for example, the costs of providing information under the legal requirement—must also be considered. Consequently, for exhaustion to pass muster, it must do more than prevent inefficiencies arising from post-sale patent enforcement. It must also be the best solution to the problem; that is, the approach producing the maximum overall improvement in efficient market operation.

The "basic assumptions" argument provides strong support for treating exhaustion as a default legal term, completing transactions when the parties have been silent regarding the patent owner's post-sale enforcement rights. It does not, however, support exhaustion as a mandatory (i.e., per se) prohibition that prevents the parties from agreeing to the contrary. Although post-sale patent enforcement raises legitimate basic assumption concerns, per se exhaustion lacks the nuance essential to obtaining maximally efficient outcomes. The preferred solution involves more tailored legal interventions directed at the source of the specific post-sale patent enforcement problem.

i. Exhaustion as a Default

The case for an exhaustion default rule tracks the reduced transaction cost argument that generally supports contract terms implied by operation of law. Contract negotiation is an expensive and time-consuming business. The law can help reduce those costs by providing default terms that fill "gaps" left by the parties in their negotiation. To be beneficial, however, the default contract terms must be appropriate to the transaction. Appropriate default terms should approximate the result the parties would have reached had they actually discussed the matter. Achieving that goal requires determining what reasonable parties would generally agree to, and thus would likely expect, under the circumstances.

The implied seller's warranty of good and unencumbered title in Article 2 of the Uniform Commercial Code provides a

155. See Chiappetta, supra note 84, at 9-11.
relevant example of the approach. The substantive warranty reflects the reasonable assumption that in transactions in goods, the parties generally intend to convey full and clear title upon payment of the purchase price. But it only operates as a default. Parties can eliminate the warranty by satisfying the statutory requirements for its removal. Those requirements ensure that the buyer receives reasonable notice that the proposed transaction does not conform to the “normal” expectations regarding title. This scheme permits negotiating adjustments to the bargain before proceeding with the purchase.

The same rationale applies to treating exhaustion as a default term when the sale involves a patented article. As the Court noted in Adams, the “essential nature” of such a transaction makes it logical to assume that when the parties have not addressed post-sale patent rights, they intend the sale of the article “whose sole value is in its use” to permit post-sale use free of the patent. Consequently, the law can usefully fill the “gap” by deploying exhaustion to eliminate any patent law interference with that expectation.

When parties do address the issue, basic contract law (and related efficiency) principles call for implementation of their bargain, provided it does not violate public policy. Some purchasers will only want an article for a limited use, for example, for a private rather than commercial application, or to merely consume the ink in a printer cartridge or the

158. See supra notes 23–25 and accompanying text.
159. It is important to note that patent law’s inherent operation provides a particularly strong justification for the default outcome. Because patents prevent any unauthorized sale or use of the article, the parties’ agreement need not contain an express limitation to trigger infringement. The exhaustion default prevents the ridiculous outcome that purchasers literally could not use or resell the article they acquired. Although eliminating the inherent post-sale patent limitations on use or sale offers a strong justification for a default exhaustion rule, it does not address the more complicated intent and expectation issues raised when the parties expressly include limitations on use or resale in return for a reduction in price. How to deal with these issue lies at the heart of the per se versus default debate, and the Court’s failure to explicitly make this distinction creates some of the confusion in the cases.
160. The Court’s holding that patent law does not insulate conditions from application of other laws of general application (including antitrust) eliminates the concern that the agreement may cause other efficiency or public policy difficulties. See supra notes 113–122 and accompanying text.
medicine in a syringe. In such instances, buyers would happily accept patent-enforced limitations on other post-sale use or resale as the quid pro quo for a reduced purchase price.\textsuperscript{161} Moreover, the reliability of such enforcement will encourage the patent owner to agree to the arrangement. Treating exhaustion as a waivable default accommodates these interests, facilitating tailoring of individual bargains to the particular circumstances.

Although a default rule maximizes transactional flexibility, it also raises an information asymmetry/transaction cost problem. For a default term to operate properly, contracting parties must know it exists and know when it does not apply. The rationale for creating the default addresses the former concern. As the doctrine tracks the parties' normal expectations regarding post-sale use and resale under the circumstances, reasonable people will not be surprised to discover the law has added exhaustion to their bargain, even though it was not explicitly negotiated.

The U.C.C. Article 2 approach to the implied warranty of title provides baseline insight into what should be required for eliminating the default.\textsuperscript{162} Because purchasers will generally assume good and clear title will be conveyed, and purchasers will be harmed if that does not occur, the U.C.C. places the burden of disclaimer on the seller who obtains the benefit. The same basic requirement should apply to exhaustion. At a minimum, patent owners seeking to avoid exhaustion should be required to demonstrate that the

\textsuperscript{161} See B. Braun Med., Inc. v. Abbott Lab., 124 F.3d 1419, 1426 (1997); Kieff, supra note 2, at 316–17.

\textsuperscript{162} See U.C.C. art. 2 (2007). The elimination/waiver issue has been confused by the inappropriate conflation of exhaustion with the “implied license” doctrine. Although both concepts rest on the parties' likely intent to limit claims for infringement, they operate very differently. An implied patent license frees the individual buyer from specific patent constraints based on the particular circumstances of the actual transaction. Exhaustion reflects an a priori determination that in every sale of a patented article, reasonable parties will normally intend and expect elimination of all post-sale patent enforcement rights. Consequently, nothing further is required for exhaustion to arise than the sales transaction itself. The crucial intent inquiry, therefore, is whether the facts indicate that the specific parties had a contrary intent. See Quanta Computer Inc. v. LG Electronics, Inc., 553 U.S. 617, 637 (2008); Julie E. Cohen & Mark A. Lemley, Patent Scope and Innovation in the Software Industry, 89 Calif. L. Rev. 1, 30–33 (2001).
purchaser had either actual knowledge,\textsuperscript{163} or a reason to know,\textsuperscript{164} of the change.

The current contract debate over the acceptance of terms included in browse-wrap, shrink-wrap, or click-wrap agreements can usefully inform the exhaustion default waiver requirements regarding adequacy of notice.\textsuperscript{165} The same basic issue is involved—the need to find an appropriate balance between the costs of giving notice and ensuring that buyers have a reasonable opportunity to protect their interests. Regarding exhaustion, however, other important considerations should control the outcome. An exhaustion waiver would impose substantial limitations enforceable against the original purchaser, as well as other down-stream owners and users, through the patent regime's powerful property rules remedies.\textsuperscript{166} Avoiding such an unexpected and substantial change to the parties' bargain having significant third party effects supports a much higher waiver standard—requiring proof that the purchaser explicitly agreed,\textsuperscript{167} not merely to post-sale patent enforcement, but to the specific limitations on use or resale to which the waiver applies.\textsuperscript{168}

\begin{footnotesize}
\begin{enumerate}
\item\textsuperscript{163} Cf. U.C.C. § 2-312(1)(b).
\item\textsuperscript{164} Cf. U.C.C. § 2-312(2).
\item\textsuperscript{165} See, e.g., Glen O. Robinson, Personal Property Servitudes, 71 U. CHI. L. REV. 1449, 1473–79 (2004); Molly Shaffer Van Houweling, The New Servitudes, 96 GEO. L.J. 885, 924–40 (making the good point that the problem of inattentive purchasers is magnified in the lower cost, more routine environment of personal property transactions).
\item\textsuperscript{166} As noted above, eliminating exhaustion does not merely permit patent enforcement of conditions, but can create the ludicrous outcome that even when the parties' agreement imposes no express restrictions on post-sale use or transfer, the inherent operation of patent law would prevent the buyer from all use or resale of the article. See supra note 159. The important problem of adequate notice of the restriction to downstream owners and users is addressed infra at notes 183–189.
\item\textsuperscript{167} The Bauer and Straus inquiries into the substance of the transaction (see supra notes 65–77 and accompanying text) and the Quanta decision, making even actual notice insufficient to permit post-sale patent enforcement (see supra notes 146–50 and accompanying text), all point in this direction. Ensuring a valid waiver does not impose undue transaction costs on subsequent conveyances is addressed in the next section.
\item\textsuperscript{168} The requirement that explicit restrictions in the parties' actual agreement trigger infringement addresses the problem of the inherent patent limitation on all use. See supra notes 159 and 166. As it is inconceivable that any rational buyer would agree to such a restriction, it is both appropriate and reasonable to require the scope of the waiver be expressly articulated. That requirement also helps address the behavioral economics point that buyers are not only unlikely to pay attention, but when they do, they will overly discount
\end{enumerate}
\end{footnotesize}
Treating exhaustion as a default term also resolves the second open exhaustion issue—how the doctrine’s application should affect contract (or other legal) enforcement of post-sale conditions. Under the default approach, exhaustion becomes part of the agreement terms analysis, with its application determined by the specific requirements governing its waiver. If the parties’ agreement imposes no post-sale restrictions on use or resale, then no enforceable contractual limitations exist and the unwaived exhaustion default eliminates unexpected post-sale patent-related restrictions on use or resale. 169 If the parties’ agreement contains a post-sale limitation, but fails to address exhaustion, a breach triggers contract rights. But the lack of an effective waiver leaves the exhaustion default in place, and it prevents patent enforcement of the restriction. In agreements including restrictions and addressing exhaustion, contract enforcement remains governed by that regime’s generally applicable rules and the exhaustion outcome will, independently, depend on the effectiveness of the waiver. If, as should be the rule, waiver requires explicit acceptance by the purchaser, 170 the patent right will survive only if the patent owner can prove the buyer agreed that the waiver applies to the particular restriction at issue.

One final point affects patent enforcement of post-sale restrictions, even when properly waived under the default rule. As the Court has properly held, the overarching goal of ensuring efficient market operation requires that patent law not insulate conditions from examination under other laws of general application, including antitrust law. 171 When a restriction is found unenforceable on such grounds, not only does the finding render it unenforceable under contract law, it also precludes a patent infringement action even with a valid waiver.

---

169. The exhaustion default avoids the patent’s inherent limitation on any use or resale by the purchaser. See Van Houweling, supra note 165, at 939–40.

170. See supra notes 165–68 and accompanying text.

171. See supra notes 113–22, 160 and accompanying text. See also Chiappetta, supra note 84, at 26–29.
ii. Exhaustion as an Absolute Bar (Per Se Prohibition)

The "basic assumptions" argument for a blanket prohibition of all post-sale patent enforcement of contractual limitations on use or resale of patented articles raises legitimate concerns, but ultimately fails. Justification requires that the per se rule reliably produce the maximum possible net improvement in efficient market operation.

The exhaustion cases provide little explicit policy support for a per se prohibition. Most do no more than articulate the "single royalty" rationale—that when the patent owner has been paid in full, the buyer should obtain the article free of the patent. That argument only logically supports treating exhaustion as a default rule applicable when the transaction is for "full value," but not otherwise. The Motion Picture analysis could, perhaps, be read as offering a different justification—that exhaustion exists to prevent post-sale restrictions from extending the scope of the patent monopoly. But that argument would permit patent enforcement of all restrictions found to fall within the scope of the patent, an outcome inconsistent with a per se ban.

More importantly to the net effects inquiry, none of the cases raise, much less address, the efficiency gains produced by permitting post-sale patent enforcement of restrictions on use or resale. By increasing the reliability of limitations imposed in return for reduced consideration, such enforcement encourages greater use of conditional sales. That transactional flexibility, in turn, increases access to inventions legally controlled by the patent owners. Moreover, the returns from such transactions can also increase the

172. The default approach would prevent enforcement of a patent's inherent prohibition on all post-sale use or resale unless a valid waiver has been obtained—something highly unlikely to be forthcoming. See supra note 168 and accompanying text. The key blanket exhaustion issue, therefore, is whether the parties can waive exhaustion and permit post-sale patent enforcement of restrictions that are explicitly accepted by the purchaser. See supra notes 162–68 and accompanying text (discussing the acceptance and specificity requirements for a valid waiver).

173. See supra notes 63–77 and accompanying text.

174. See supra notes 78–84 and accompanying text.

175. In contrast to the Court's exhaustion jurisprudence, the Federal Circuit cases not only address the benefits, but identify them as justifying post-sale patent enforcement in conditional sales. See supra note 161.

176. See supra note 175; Kieff, supra note 2, at 316–17.
value of patents, enhancing the regime’s targeted incentives
to invest in innovation.  

Ironically, the best argument for a per se exhaustion rule
is only mentioned in passing by the Court in Straus v. Victor
Talking Machine Co. 118 There, the Court connected the
document to restraints on alienation that “have been hateful to
the law from Lord Coke’s day to ours, because obnoxious to
the public interest.” 117 The primary difficulty with looking to
restraint on alienation for justification is that, as in Straus,
its assertion frequently does no more than posit harm without
offering any supporting explanation. 180 That lack of specifics
is particularly problematic in the current patent law
efficiency paradigm. The required showing that exhaustion
produces a net overall improvement in market operation
makes it insufficient to point out the obvious fact that
allowing post-sale patent enforcement of contractual
restrictions on use or resale further impairs the free
movement of patented articles in the market. 181 It must be
demonstrated that the removal of that constraint produces
the optimal net outcome in light of the resulting forgone
transactional flexibility and incentives to innovate.

Excellent articles by Professors Robinson, Hovenkamp,
and Van Houweling helpfully round-up the more specific
efficiency arguments supporting per se exhaustion. 182 They

---

177. As discussed above, merely increasing the incentives is insufficient; the
incentives must be optimal in light of the costs. See supra notes 151-53 and
accompanying text. But any increase in incentives cannot simply be ignored; it
must be included in the net gains or losses assessment on the facts.
178. 243 U.S. 490 (1917).
179. Id. at 501.
180. See Robinson, supra note 165, at 1480–81.
181. At first glance, exhaustion seems oddly conceived if ensuring the free
movement of goods is the doctrine’s objective. As it only prevents patent
enforcement of post-sale conditions, it does not preclude their existence or
enforcement under contract law. One possible response would be that when
exhaustion applies, it also precludes contract enforcement (answering that
second open exhaustion issue in the negative). But that would effectively
invalidate all post-sale limitations on the use or resale of patented articles,
eliminating all transactional flexibility. The better argument is that
enforcement should be limited to contract law, thus eliminating the much
greater “in rem” reach of patent infringement actions and thereby increasing
the free flow of patented articles in the after-market. That argument requires
closer investigation, an inquiry found later in the text. See infra notes 221–42
and accompanying text.
182. See Hovenkamp, supra note 8; Robinson, supra note 165; Van
Houweling, supra note 165.
identify three “basic assumption” concerns raised by patent enforcement of post-sale restrictions on the use or resale of patented articles: (1) increased downstream transaction costs, (2) resource misallocations and waste, and (3) undue interference with competition and innovation.

Patent law’s objective of producing optimal incentives to invest in innovation frames and focuses the inquiry into these concerns. That metric requires that per se exhaustion do more than produce a net overall improvement in efficient market operation. It must provide the optimal solution. Consequently, even if the per se rule results in a net efficiency improvement, if another solution delivers a better net outcome, it must be preferred.

iii. Transaction Costs Associated with Conditions “Running with the Good”

Permitting post-sale patent enforcement of restraints on use or resale creates uncertainty and risk for subsequent acquirers. Contract enforcement requires privity, a requirement that turns on a party’s knowledge and acceptance of the limitation. Patent rights operate “against the world”—permitting enforcement without notice or an agreement to be bound. Consequently, if violating a restriction on post-sale use or resale constitutes patent infringement, liability attaches to anyone exceeding its scope. The possibility that a limitation exists somewhere in the chain of title will therefore require spending time and money on inquiry and contractual self-help (such as terms and remedies providing practical protection against such claims) in every transaction involving a potentially patented article. Avoiding those transaction costs may justify a per se exhaustion rule.

183. See Hovenkamp, supra note 8, at 23–27; see Van Houweling, supra note 165, at 893–900, 914–21. Beyond the basic downstream identification concern discussed in the following text, synergistic effects can arise from the anti-commons fragmentation of ownership rights and the resulting need to locate multiple parties whose consent may be required for use or acquisition by downstream uses. See Robinson, supra note 165, at 1492–93; see Van Houweling, supra note 165, at 902–03. The anti-commons information issues raise the same cost concerns as, and are covered by, the discussion immediately below in the text. The separate synergistic adverse anti-commons effects on competition and innovation are discussed infra notes 204–20 and accompanying text.
The problem of unknown upstream limitations is not unique to the patent exhaustion inquiry. Restrictions on the use and resale of land raise a similar dilemma and pose the same efficiency conflict—the desire to maximize transnational flexibility through highly reliable “property rules” enforcement of limitations without creating the substantial transaction costs associated with uncertainty risk. The real property problem was resolved by creating statutory title record systems, and the related concepts of actual, constructive, and inquiry notice. That approach produced a sufficiently reliable and inexpensive means for creating and confirming title restrictions to justify allowing conditions to “run with the land”—that is, to permit enforcement against all subsequent owners with legally adequate notice, requiring their compliance with the restrictions in accordance with their terms.

The law has been more circumspect about permitting “servitudes” on personal property interests. It has not, however, imposed a blanket ban. Instead, to permit transnational flexibility, it has used tailored solutions to address the transaction cost problem. Two examples highlight that point. First, when the social benefits of fostering the type of transaction justifies the expense, personal property law has adopted a modified version of the real property record-notice system. In particular, to encourage financing transactions using goods as collateral, title systems were created to track automobile, boat, and airplane ownership and related liens, and a filing system under U.C.C. Article 9 permits perfecting priority security interests in a wide range of personal property. Second, the doctrine of superior relative title permits assertion of “better” prior ownership rights in all kinds of personalty by lessors, bailors, and under the law of finders.

A similar cost mitigation approach provides a more efficient response to post-sale patent enforcement risks than

---

184. See Hovenkamp, supra note 8, at 27; see Van Houweling, supra note 165, at 896–900; see also R. Wilson Freyermuth, Jerome M. Organ & Alice M. Noble-Allgire, Property and Lawyering 734–54 (3d ed. 2004).
186. See Freyermuth et al., supra note 184, at 146 n.1.
188. See Freyermuth et al., supra note 184, at 130–45; see Robinson, supra note 165, at 1508.
a per se exhaustion rule. Because those risks can affect virtually any transaction, the large numbers and relatively low values make a recordkeeping solution prohibitively expensive. The solution lies in the underlying goal of such systems, ensuring purchasers have a reasonable opportunity to protect their interests. Adapting the real property notice triumvirate to the personal property context provides the necessary mechanism. Lack of records eliminates constructive notice, leaving actual and inquiry notice. To preserve a claim for patent infringement, the patent owner would have to demonstrate that the downstream defendant either was aware of the patent and the restriction or had sufficient information to trigger a reasonable concern, and that the resulting investigation would reveal the post-sale patent enforcement right. Uncertainty costs could be further reduced by requiring patent owners to take reasonable steps to affirmatively inform the market of their rights. For example, in appropriate cases they might be required to attach notice to the good, or to impose contractual downstream disclosure requirements on initial purchasers.

The notice approach does not eliminate the uncertainty and risk transaction costs of post-sale patent enforcement; it merely reduces them. But it does so substantially. Patent owners will bear the costs of providing adequate notice, but will have full control over that investment, allowing them to match it to the resulting benefits. Inquiry and contractual self-help costs would be limited to acquirers with notice, eliminating virtually all such costs in most transactions. In the remaining situations, the acquirer will have already received much, if not all, of the essential information from other sources. Comparing these minimal transaction costs to the transactional flexibility and incentive benefits of permitting post-sale patent enforcement, the notice approach seems a far more efficient solution than per se exhaustion.

iv. Allocative Inefficiency Concerns

Post-sale patent enforcement of restrictions raises two potential allocative efficiency problems. The first is the

---

189. There will, of course, also be enforcement battles regarding the adequacy of notice.
190. See Hovenkamp, supra note 8, at 34–37; see Robinson, supra note 165, at 1489–90; see Van Houweling, supra note 165, at 900–02, 921.
adverse effect on dynamic market reallocation of resources in response to change. The second involves the waste caused when restrictions trigger disposal of patented articles prior to the end of their useful life.

The paradigmatic example of the dynamic reallocation problem is the real property "residential only" restriction. Injunctive enforcement substantially reduces the seller's risk that a breach will negatively affect its interests. That increased reliability encourages conditional transactions, increasing access to and maximizing present use of the land. But when circumstances change, as when the area changes into an industrial zone, the same restriction prohibits the burdened property from moving to a more appropriate and higher value use.

As with transaction costs, real property law adopted a cost-mitigation approach to maximize the net outcome. Rather than prohibiting injunctive enforcement of all restrictions, and foregoing the related transaction flexibility benefits, it reduced the likely harm. That was accomplished by combining an outside limit on a restriction’s duration, addressing the fact that after an extended period of time the benefits will dissipate leaving only the costs,192 with an “abandonment/changed circumstances” doctrine, allowing for interim challenges should a limitation cease to provide value at an earlier time.193

Patent enforcement of restrictions on patented articles arguably can have the same effects, i.e., initially encouraging productive transactional flexibility, but disrupting future dynamic reallocation in response to changing circumstances. A per se exhaustion rule would reduce the possibility of future allocative harm, but would provide less encouragement to the original transaction. The question is whether a better net solution exists.

191. The possible harms to competition and innovation from underuse of intellectual property resources are addressed infra notes 204–20 and accompanying text.

192. The now-infamous Rule Against Perpetuities has been largely replaced by (generally) more straight-forward statutory time limitations. See FREYERMUTH ET AL., supra note 184, at 321–24; see JOSEPH WILLIAM SINGER, PROPERTY 336–38 (3d ed. 2009).

193. FREYERMUTH ET AL., supra note 184, at 645–57; see SINGER, supra note 192, at 231–32, 288–90.
Two differences between patented articles and real property make the dynamic allocation problem less problematic. First, most patented articles do not change in application in response to new circumstances. They are constructed for a specific purpose and their nature makes it difficult to adapt them to other uses. Second, they generally have relatively short useful lives and low absolute value. Together these facts substantially reduce the concern that changed circumstances will trap a worrisome aggregate value of patented articles in unproductive use for a problematic period of time.

In the unlikely event such problems do exist, the real property approach again provides a better net efficiency response than per se exhaustion. The twenty-year patent term establishes a relatively short and easily applied maximum limitation on post-sale patent enforcement. The passage of time will constantly reduce the patent term and with it the maximum duration of post-sale limitations imposed on newly sold articles. In actuality, short useful lives mean most conditions will last only for substantially shorter periods. If some significant problem should surface, it can be addressed by implementing a variation on the “changed circumstances” doctrine.

The related problem of waste arises from the same characteristics of patented articles that all but eliminate the dynamic allocation efficiency concern. When owners have no further use for a patented article they will consider how to dispose of it. The logical solution is to sell the article to

194. See Robinson, supra note 165, at 1489; see Van Houweling, supra note 165, at 921. A dynamic allocation problem can arise from the inability to shift to a more productive use in response to changed circumstances under “field of use” limitations—for example a restriction permitting only private (rather than commercial) use. The problem would only be severe, however, if a substantial amount of resources remained trapped for a significant period of time. That outcome is highly unlikely given the relatively short useful lives of most personal property and the greater possibility for negotiating a release of the restriction against payment of a reasonable price (the restriction normally is imposed for purely financial return reasons, to prevent the buyer from obtaining value not included in the original, reduced price, not to protect another investments or prevent externalities). The more likely problem is “waste,” an issue discussed immediately following the dynamic allocation discussion in the text.


196. Thus avoiding the original Rule Against Perpetuities debacle. See supra note 192.
another user, obtaining value for and permitting capture of its remaining useful life. Post-sale patent enforcement of restrictions can decrease the chances of that occurring, producing inefficient non-use, frequently in the form of outright disposal. The problem goes well beyond restrictions that prevent resale. Field of use or resale price requirements make it more difficult to locate qualified and willing purchasers. Because patented articles have relatively low values and short useful lives, there is little incentive to take steps to overcome the restriction through renegotiation, challenge, or breach. As the incorporated physical resources may be insubstantial, the option of recycling them to another use is also likely unattractive. These factors combine to make deposit in the trash bin the frequent outcome.

The high probability of early disposal raises two concerns that might justify a per se exhaustion rule: Direct waste from the failure to recycle the physical resources incorporated in the article, and the loss of the article's remaining useful life. Regarding direct waste, Professor Hovenkamp makes the valid point that the problem is mitigated by its self-regulating nature.197 A patent owner imposing a restriction leading to early physical disposal must pay to acquire the incorporated materials. Even when those costs can be passed on to consumers, patent owners will seek to maximize their profit margins by avoiding duplicative manufacture, either by permitting additional use for further consideration or by recovering useable materials (or articles) whenever economically feasible.198

The real difficulty with relying on direct waste to justify per se exhaustion is that prohibiting post-sale patent enforcement does little to solve the problem. The absence of patent remedies only marginally increases the likelihood of continued use of the article until the end of the article's useful life; contractual enforcement will generally suffice. And, in all events, at life-end the direct waste problem still remains. If it is a significant concern, direct waste would be far more effectively and efficiently addressed by an environmental law mandating recycling.

197. See Hovenkamp, supra note 8, at 36.

198. In fact many companies, such as ink cartridge manufacturers, have return programs designed to facilitate direct recycling.
The second waste concern focuses on the loss of remaining useful life when a post-sale condition triggers early disposal. For example, when a supplier imposes a single use restriction on printer ink cartridges, the limitation will prevent the refilling and reuse of an existing article that can still fulfill its purpose. When it is disposed of, the value of that use is destroyed.

Although the problem is real, it does not justify eliminating post-sale patent enforcement in all cases. Even on its own terms, exhaustion does not fully address the problem. The doctrine prevents reconditioning. For articles considered at the end of their useful life based on partial consumption, such as the ink cartridge, exhaustion will not prevent the loss of their considerable remaining value. For others, the savings from rebuilding over new manufacture will be lost. More importantly, as with direct waste, contract enforcement of post-sale restrictions causes the more significant harm. That regime constrains transfer by the initial purchaser, thus causing the maximum loss of remaining useful life. If lost useful life were sufficient to support legal intervention, the law should prohibit all enforcement of post-sale restrictions.

The same reasons the law does not impose such a blanket prohibition also make per se exhaustion an inappropriate solution. Some post-sale conditions only minimally constrain use to the end of useful life. For example, any restriction permitting resale to a limited but large group of potential buyers makes conveyance straight-forward. Prohibiting enforcement on lost useful life grounds in such cases would unnecessarily interfere with beneficial transactional flexibility (and in the case of exhaustion, patent incentives). But even when a condition substantially interferes with full capture of an article’s useful life, the resulting waste cannot

199. See Van Houweling, supra note 165, at 940–41.
200. Recycling mitigates, but does not resolve, the lost useful life concern. Although the resources can be put back into productive use, any remaining value to be derived from the initial manufacturing and distribution investment will disappear.
202. The absence of more powerful patent law remedies may mitigate the issue somewhat by encouraging efficient breach. The point is discussed infra at note 238 and accompanying text.
justify prohibition standing alone. The resulting loss of useful life may be necessary to obtain other gains producing a net overall improvement in efficient market operation. For example, in some instances such restrictions may avoid serious safety or quality problems. In others they will facilitate quid pro quo price reductions that increase overall access and use.

Any prophylactic prohibition on enforcement will, therefore, considerably overshoot the mark. The overreaction possibility is particularly applicable in the per se exhaustion context. As post-sale patent enforcement only marginally increases the possibility of lost useful life, the resulting elimination of transactional flexibility and increased patent incentives makes a net negative outcome very likely. The net efficiency improvement metric requires a more targeted approach—one that reliably distinguishes between net positive and net negative outcomes on the specific facts. The answer is found in the approach to the same line-drawing requirement raised by the next topic on the justification agenda: the competitive harms caused by post-sale restrictions on use or resale.

v. Harms to Competition

Many post-sale conditions interfere with the robust competition essential to market efficiency. Geographic limitations, restrictions on field of use, and sourcing restrictions, such as tying and exclusive dealing or resale price/terms constraints, can increase prices and reduce output by constraining existing competitors and prohibiting new entry by foreclosing access to markets and required resources. Although the concerns are real, and post-sale patent enforcement would increase the effect of such restrictions, the problem does not justify a per se exhaustion rule.

As with lost useful life, not all post-sale conditions restricting competition produce net inefficient outcomes. The need to distinguish between net beneficial and net harmful conditions led to the Rule of Reason assessment that guides application of contemporary antitrust law. The Rule of

203. See Hovenkamp, supra note 8, at 36–37.
204. See generally Hovenkamp, supra note 8; see also Robinson, supra note 165, at 1494–1516; see also Van Houweling, supra note 165, at 921–23.
Reason inquiry recognizes an important real world fact: although every restriction impairs competition and efficient market operation to some extent, that harm is justified when necessary to obtain a net overall improvement. Consequently, blanket prohibition of all restrictions must yield to individual assessment of net effects on market performance under the specific circumstances.

The evolution of antitrust vertical restraint jurisprudence—the form of restriction imposed by patent owners on purchasers of patented articles—eloquently makes the point. The Court started from much the same place as per se exhaustion. It held that the resulting interference with competition justified a per se ban on virtually every post-sale restriction, including those fixing minimum resale prices, maximum resale prices, as well as those imposing geographic and other market resale limitations. One by one, each of those per se rules has been replaced by the Rule of Reason assessment. The rationale was the same in every case: Although such post-sale restrictions constrain competition, they can also improve efficient market performance overall. As a result, before finding a condition unenforceable, it is necessary to inquire into its actual effects in the specific circumstances.

It might be argued that exhaustion fills a gap left by antitrust law's focus on market power. Antitrust law does permit post-sale restrictions when the seller controls only a small portion of the market, a situation likely to exist regarding many patented articles. In fact, in vertical restraint cases, the presence of significant interbrand competition frequently serves as the primary justification for

206. See Dr. Miles Med. Co. v. John D. Park & Sons Co., 220 U.S. 373 (1911) (the Court justifies the antitrust prohibition, in part, on restraint of trade grounds).
209. The per se ban on market divisions in Schwinn was overruled in Cont'l T.V. v. GTE Sylvania, 433 U.S. 36 (1977); the Albrecht per se ban on maximum retail price maintenance was overruled in State Oil v. Khan, 522 U.S. 3 (1997); and the Dr. Miles per se ban on minimum retail price maintenance was overruled in Leegin Creative Leather Prod., Inc. v. PSKS, Inc., 551 U.S. 877 (2007).
210. The market power gap argument is one of the primary justifications for the doctrine of patent misuse. It fares no better than the exhaustion version for the reasons discussed in the text. See Chiappetta, supra note 84, at 32–39.
permitting the supplier to control intrabrand competition by constraining post-sale use and resale of its products. But treating that apparent insouciance as an antitrust law gap misses the point. Absent sufficient market power, competition effectively constrains over-reaching. As Judge Posner pointed out when objecting to the Court's then-still-existing per se ban on maximum retail price maintenance in Khan v. State Oil Co., when the supplier imposing such a post-sale restriction lacks market power, resellers will simply move to alternatives if it "squeezes their margins below a competitive level." As the market can prevent net harms in such cases, legal intervention would only interfere with net positive arrangements as demonstrated by market demand.

Antitrust Rule of Reason analysis is the superior approach to competitive harm caused by post-sale restrictions. Proper assessment of market effects will take into account the consequences (positive and negative) of post-sale patent enforcement, including the increased effectiveness of the restraint. Any restriction causing net harm will be entirely unenforceable, whether through a patent infringement action or otherwise. The competitive interference produced by enforcing all other restrictions will be justified based on the arrangement's overall net efficiency improvement. A per se exhaustion rule would interfere with that desirable outcome by eliminating the related transactional flexibility, as well as unjustifiably eliminate the

211. See Cont'l T.V., 433 U.S. at 52 n.19 (1977) ("[W]hen interbrand competition exists ... it provides a significant check on the exploitation of intrabrand market power because of the ability of consumers to substitute a different brand of the same product."). Vertical transactions involving end-users will receive yet more relaxed scrutiny as they constitute the basic engine of the market economy. See Nynex Corp. v. Discon, Inc., 525 U.S. 128, 137 (1998). But again, a failure to sanction reflects a finding that under the circumstances such transactions produce more net benefit than harm. See id. (rejecting application of a per se rule).
212. 93 F.3d 1358 (7th Cir. 1996).
213. See id. at 1362.
214. Current antitrust doctrine undoubtedly fails to properly make the proper Rule of Reason net determination in many instances. That shortcoming, however, calls for recalibrating the regime's implementing doctrine, not imposing a blanket prohibition sweeping in even desirable conditional transactions. See Chiappetta, supra note 84, at 39–41.
215. Default exhaustion will apply to prevent patent law's inherent restrictions from barring all use or sale by the purchaser. See supra notes 159 and 168.
increased incentives produced by post-sale patent enforcement. 216

vi. Harms to Innovation

Commentators frequently address the potential adverse effects of post-sale limitations on innovation as a distinct issue. 217 Such harms can arise in a variety of ways—restrictions can decrease access to development tools or other necessary resources, prohibit independent development, or foreclose essential markets. 218 Although a real concern, constraints on innovation should be understood and addressed as a form of “competitive” harm. 219 Any restriction adversely affecting innovation will trigger antitrust concern and a Rule of Reason assessment. Failure to impose antitrust sanctions will reflect a determination that the harm to innovation is necessary to produce a net increase in efficient market operation. 220 Imposing a blanket exhaustion prohibition on post-sale patent enforcement would again inappropriately interfere with desirable transactions, and would unjustifiably eliminate the benefits of post-sale patent enforcement.

216. These additional benefits and their related costs of patent enforcement should be part of the Rule of Reason inquiry. The possibility that limiting enforcement of otherwise net efficient restrictions to contract law produces a better net efficiency outcome is discussed infra at notes 223–42 and accompanying text.

217. As patent law exists expressly to foster innovation, there is merit to ensuring its powerful exclusionary rights do not themselves inappropriately impair inventive behavior. See Hovenkamp, supra note 8, at 43–44 (raising the issue only to dismiss it quickly); see Robinson, supra note 165, at 1492–93. The same patent policy argument has been made in support of patent misuse and can be dismissed for the same reasons as discussed in the text. See Chiappetta, supra note 84, at 48–55. The related more general argument that exhaustion provides a necessary inherent limitation on patent rights to ensure optimal incentives is discussed in the next section.

218. See Chiappetta, supra note 84, at 48–49.

219. See id. at 49–50.

220. See id. at 50–55. The argument that antitrust law may be too insensitive to incipient harms, particularly when an emerging technology is involved, has some merit. That problem calls for improving antitrust Rule of Reason analysis, however, and not a blanket interference with all transactions. See id.
Exhaustion as an Inherent Limitation on Patent Rights

The above discussion demonstrates that although post-sale limitations on use or resale can adversely affect the assumptions essential to efficient market operation, legal interventions tailored to mitigate the specific harms they can cause provide a better net efficient solution than per se exhaustion. That conclusion, however, does not fully resolve the inquiry. It fails to consider that exhaustion only prevents post-sale patent enforcement of restrictions on use and resale. That leaves the possibility that limiting enforcement of otherwise net positive restrictions to contract law in all circumstances might produce an even better net outcome than treating exhaustion as a waivable default, thus justifying a per se exhaustion rule.

Answering that question requires examining how the contract-only approach would affect the benefits and costs. The case that the approach produces the more efficient outcome is straight-forward. Eliminating patent law’s in rem, injunctive enforcement reduces the reach of post-sale restrictions on use and resale. That will, in turn, improve (or create) the secondary aftermarket, reducing prices, increasing access, and limiting deadweight loss. Some empirical evidence supports this argument, showing that when intellectual property rights cannot be used to segment markets and price discriminate, consumer welfare increases. This improvement in consumer welfare may justify per se exhaustion as an inherent limitation on patent rights, functioning to eliminate unmerited harms from the right to exclude.

Determining whether the “inherent limitation” argument has merit requires looking first at how it fits with current

---

221. See Rahul Telang, Associate Professor of Information Technology and Management, Heinz College, Carnegie Mellon University, Panel Discussion at the Santa Clara University School of Law High Tech Law Institute Symposium: Exhaustion and First Sale in IP (Nov. 5, 2010).

222. See Cohen & Lemley, supra note 162, at 31–32. The limitation only involves the potential leveraging effects of exercising the right to exclude and must be distinguished from rectifying problems related to the requirements governing patentability (proper subject matter, novelty, nonobviousness and the like). Undue costs from improper implementation of those requirements should be addressed by their recalibration, not limitations on the exploitation of the resulting patents. See Chiappetta, supra note 84, at 13–14, 31.
patent policy. The patent regime exists to overcome free-riding distortion of investment in innovation.\textsuperscript{223} It creates countervailing incentives by giving investor/inventors the legal right to exclude others from making, using, or selling their innovations. That legal right permits the capture of related market demand. The regime’s in rem enforcement and powerful “property rule” remedies play a central role in translating that theory into reality. This remedial approach ensures control “in fact” by reaching all competitive adoption, by deploying “property rule” injunctive relief to eliminate the trespass and by imposing enhanced damages to deter infringements in the first instance. The resulting actual control allows patent owners to maximize their individual return by adjusting output and price to the full extent of their patent “monopoly.”\textsuperscript{224} Those adjustments create surplus returns from consumer wealth transfers, as well as deadweight loss, that, in turn, generate the incentive to invest.

Because the regime operates by reducing consumer welfare, justifying a per se exhaustion rule based solely on such improvements is a non-starter. In fact, the same studies demonstrating increases in consumer welfare find, unsurprisingly, that it comes at the expense of the intellectual property owner.\textsuperscript{225} Patent law, however, is subject to the core efficiency tenet that any legal intervention must not only produce a net increase in efficient market operation but the optimal outcome. That requires patent law incentive benefits not only be calibrated based on the associated costs, but that the regime also produce the maximally efficient result.

The question, therefore, is whether contract-only enforcement of post-sale restrictions on use or resale improves the patent incentive versus cost net outcome. As laws of general application prevent all enforcement, patent or

\textsuperscript{223. See supra notes 151–53 and accompanying text.}

\textsuperscript{224. The “monopoly” only references control over the claimed invention. Actual returns will be affected by competitive alternatives. See Ill. Tool Works, Inc. v. Indep. Ink, Inc., 547 U.S. 28 (2006). The “take and pay” liability rules alternative suffers from two significant defects. First, it moves the regime away from producing incentives that reflect actual market demand. Second, it triggers the considerable difficulties, uncertainties, and administrative costs of judicial determination of appropriate value.}

\textsuperscript{225. See supra note 221.}
contract, of otherwise net inefficient post-sale restrictions on use or resale, any net outcome improvement from contract-only enforcement must arise in the context of otherwise net positive restrictions. Patent enforcement of such restrictions encourages their use, as well as increases patent owner returns and resulting incentives. But it also reduces consumer welfare by permitting more effective market segmentation and price discrimination. The key question, therefore, is whether contract-only enforcement produces a sufficient improvement in consumer welfare so as to offset the transactional flexibility, and the returns and related incentives lost by prohibiting all post-sale patent infringement actions. If so, per se exhaustion would be justified as an inherent patent law limitation ensuring that the regime’s exclusionary rights only produce optimally efficient incentives.

a. An Aside on Licenses to Manufacture and Distribute

The optimally efficient incentives requirement justifies the current inapplicability of the exhaustion doctrine to licenses to make and sell. Such licensing allows patent owners to leverage third party manufacturing capacity and expertise, as well as their related distribution advantages. Reliable enforcement of such limitations permits patent owners to more efficiently create patented articles, increasing output and lowering price. Eliminating reliable patent law enforcement would make such licensing much riskier for both the patent owner and the manufacturer. Contract-only enforcement would provide damages but severely impair, if not eliminate, patent owners’ actual control over output levels, as well as their ability to insulate the licensee from intrabrand competition. The resulting decrease in skills and resource leveraging would impede desirable patent

226. The default exhaustion position eliminates the inherent, non-contractual patent law restrictions on use and resale. See supra note 159.
227. See supra notes 30–35 and accompanying text. It merits note that the downstream transaction cost concern applies with equal force to sales of both authorized and unauthorized articles. That fact supports the argument in favor of imposing adequate “notice” requirements on all post-sale patent enforcement, including those based on the breach of a manufacturing license. See supra notes 185–89 and accompanying text.
228. See Hovenkamp, supra note 8, at 30.
exploitation while reducing efficient market operation and consumer welfare.\textsuperscript{229}

\textit{b. Sales of Patented Articles}

Enforcement of post-sale conditions on existing patent articles raises different issues and concerns. The Court’s “single royalty” rationale provides the appropriate starting point for that inquiry.\textsuperscript{230} This rationale reflects the intuitive and logical notion that a patent owner receiving the market value of a patented article in an arms-length sale has obtained the full incentive due under the patent right. Permitting post-sale patent enforcement would give the patent owner inappropriate down-stream leverage, permitting the extraction of surplus consideration. Because those returns exceed the innovation’s market value, they cause unjustified consumer harm, producing surplus (more than optimum) incentives to invest.

The argument does not withstand scrutiny.\textsuperscript{231} Although a patent can produce a non-competitive surplus return, that return reflects the market-demand incentive contemplated by the right to exclude. The possibility that post-sale patent enforcement increases that surplus by permitting down-stream “multi-charging” can be dismissed on the same basis as the discredited monopoly leveraging argument applied to tying. The unconstrained purchase price will include the returns from subsequent resale to others. Patent owner attempts to capture that value through restrictions on resale will result in an off-setting reduction\textsuperscript{232} in the price the buyer is willing to pay. Whether collected from the initial purchaser, or from a series of subsequent down-stream purchasers, the aggregate return will be the same. Post-sale

\begin{itemize}
\item \textsuperscript{229} Patent owners would engage in inefficient self-help (pursuing and terminating violators), and would limit their licensing activity both to those they trusted (who might not be the most efficient producers) and in aggregate. Potential licensees would be harder to convince, requiring assurances in the form of guarantees and other undertakings by the patent owner.
\item \textsuperscript{230} See supra notes 24–25 and accompanying text.
\item \textsuperscript{231} See Hovenkamp, supra note 8, at 21–23.
\item \textsuperscript{232} The actual amount will be discounted to reflect present value and risk. The accuracy of these adjustments, of course, assumes that the remaining efficiency assumptions are operational, including the availability of adequate information, the ability to process it, and the capacity to act as an economically efficient actor. Ensuring that is the case may require other legal regulation. See supra note 168 and infra note 243.
\end{itemize}
patent enforcement does not produce any incremental harm, while less reliable contract-only enforcement presses patent owners to extract the full amount on the first sale. By unnecessarily constraining transactional flexibility, the contract-only approach would produce a net decrease in efficiency, and not an improvement.

The possibility that contract-only post-sale enforcement may eliminate excess returns and non-optimal incentives from other sources requires a more detailed inquiry. Whenever a post-sale restriction on use or resale exists, the buyer will insist on a related reduction in the purchase price to account for the limitation. Although, for the reasons explained above, patent enforcement of such restrictions does not permit patent owners to capture surplus returns from down-stream transactions related to the specific article, it can nonetheless increase patent owners’ aggregate returns from all sales by permitting effective price discrimination.233

For example, a negotiated post-sale restriction may limit the field of use, impose a floor on resale price, or prohibit resale entirely. Initial buyers will insist that the price they pay reflects only the value they receive, and so they will pay less for specific articles subject to such limitations. By reducing the initial price, the patent owner only receives the value attributable to the rights conveyed in that particular transaction. But the condition also reduces secondary market competition with initial sales. That increases the patent owner’s ability to set and maintain separate prices reflecting distinct market demands, thus increasing wealth transfers from higher-value users. Because buyers are generally indifferent to these effects on other purchasers (they have only paid for the value they received and may, in fact, prefer higher prices be paid by others) the patent owner will receive the entire amount of those extra returns. Therefore, the patent owner will increase its overall returns whenever its price discrimination gains exceed the reductions in price on conditional sales.

Increased patent owner returns from price discrimination based on more reliable post-sale patent enforcement enhances the patent incentive. But that increased incentive

233. See Hovenkamp, supra note 8, at 37–39; see Robinson, supra note 165, at 1506–07.
is only justified if it produces the optimal net overall efficiency outcome in light of the decrease in consumer welfare. Although it is impossible to precisely measure the incremental increase in efficiency from post-sale patent enforcement in transactional flexibility (increased output through reliable enforcement of restrictions permitting additional sales) or increased investment in innovation from the prospect of additional returns from price discrimination, it is reasonable to assume some exists. It is equally reasonable to assume that the less certain control afforded by contract-only enforcement will constrain transactional flexibility, and will reduce patent owner returns. Therefore, the key question is whether the contract-only approach can reduce the adverse consumer welfare effects of price discrimination while maintaining sufficient overall output to produce a superior net efficiency outcome.

Although definitive empirical evidence is lacking, a review of the relevant considerations makes a superior net outcome from contract-only enforcement extremely unlikely. Two initial points substantially narrow the prospects. Most importantly, antitrust law will prohibit all enforcement of post-sale vertical restrictions when competition does not effectively constrain intrabrand market segmentation/price discrimination. Consequently, the improvement must come from reducing consumer welfare harms and maintaining output when alternative offerings already significantly limit the patent owner's ability to price discriminate. Second, the tangible nature of patented articles significantly reduces the ability of even a vibrant secondary

234. Professor Telang's studies focus on the effects of exhaustion regarding sales of intangible copyrighted articles (eBooks). As he noted, these effects cannot be directly applied to the patented articles inquiry. See supra note 221. As Professor Ochoa wryly, but accurately, noted at the conference, that is the situation in most intellectual property debates. It is not unusual to have sufficient empirical evidence to convince ourselves but not others of the merit of our position. Tyler Ochoa, Professor of Law, Santa Clara University School of Law, Panel Discussion at the Santa Clara University School of Law High Tech Law Institute Symposium: Exhaustion and First Sale in IP (Nov. 5, 2010).

235. See Hovenkamp, supra note 8, at 41–42; see Robinson, supra note 165, at 1505–08.

236. See supra notes 206–13 and accompanying text. The argument that owning the patent, by itself, provides sufficient power to trigger concern was eliminated by the Court in Ill. Tool Works, Inc. v. Indep. Ink, Inc., 547 U.S. 28 (2006).
market to constrain the price of new goods. Time and use degrades and obsoletes such articles, so used articles will have only a very limited effect on patent owner sales. Moreover, even if exhaustion applies, the doctrine's bar to reconstruction will limit reconditioning, and to the extent refurbishing is permitted, it will increase secondary market prices, reducing used article competitiveness.

That said, the fact that patent owners desire to preserve infringement claims provides a sufficiently credible argument that enforcement of post-sale conditions provides enough of a supplemental return, and an associated decrease in consumer welfare, to merit further inquiry. Determining the likely effect of a contract-only enforcement approach on consumer welfare and output must start from the fact that it would only mitigate, not prevent, price discrimination. The strong normative bias to comply with agreed contract restrictions will lead many, and likely the vast majority, of initial and subsequent purchasers to honor the limitation. In such cases, as the patented article will never escape the constraint, no improvement can occur. That means contract-only enforcement would produce some net decrease in efficiency by eliminating some conditional transactions without obtaining any related benefit.

Instances of purchaser breach may nonetheless be substantial enough to create a viable secondary market. Eliminating the more powerful patent remedies may increase that likelihood by changing the risk calculus for both the reseller and potential acquirers. Initial reseller liability will be limited to contract expectation damages (reflecting contract law's encouragement of efficient breach) and, for regular purchasers from the patent owner, perhaps termination of their future supply. For down-stream sellers and all potential buyers, the absence of contractual privity with the patent owner would significantly limit their exposure, requiring the patent owner to rely on such notoriously difficult claims as tortious interference with contract.

237. See supra note 194 and accompanying text (discussing the relatively short useful life of patentable articles).

238. It bears mention that most downstream sellers and buyers will be unaware of the limitation, meaning the notice requirements predicate to enforcement (justified on other grounds) would exempt them from post-sale
But that is not the end of the matter. If sufficient leakage occurs, patent owners will respond. At a minimum, they will increase the pressure to comply by emphasizing their reasonable expectation of adherence to negotiated conditions (particularly when they reflect a quid pro quo reduction in price), and the legal and practical risks of failing to do so. They will also take steps to make the requirement and related breach more apparent to potential purchasers. This can be accomplished, for example, by permanently affixing notice to the articles themselves. Higher risk customers, particularly distributors and other volume buyers, may be subjected to enhanced record keeping and tracking requirements, more frequent and unscheduled inspections, and renewal standards that take into account arbitrage concerns. Barriers to effective enforcement, and any encouragement to breach they may provide, will be addressed by market-watch and investigatory programs designed to identify sources and aggressive pursuit of violators, including, perhaps most effectively, terminating problematic supply arrangements.

If the problem becomes substantial—precisely those situations likely to produce any significant consumer welfare increases—patent owners may change their distribution approach. The most hard pressed may elect to lease rather than sell the articles and condition all assignments on the assignee’s express assumption of the limitations. But in all events, patent owners will react the way every producer does to legal interference with price discrimination—by increasing initial sales prices to account for reduced returns from unchecked arbitrage.

These patent owner responses to contract-only enforcement make an improved efficiency outcome highly unlikely. The self-help expenditures and direct increases in price will increase the cost of initial acquisition and authorized resale (both price and the overhead of compliance requirements). Combined with the increased patent owner

---

239. Inability to use post-sale patent enforcement against the current owner/user makes it necessary in most cases to identify the original purchaser supplying in breach of contract. Cf. Hovenkamp, supra note 8, at 42.

240. See Robinson, supra note 165, at 1507.
reluctance to enter into riskier conditional sales in the first instance, the contract-only enforcement approach is more likely to result in fewer articles sold at higher prices, decreasing both efficiency and consumer welfare, perhaps substantially.\textsuperscript{241}

The absence of consumer welfare gains (to say nothing of the possible decrease) and reductions in output powerfully undermine the argument that the contract-only approach provides a superior net efficiency outcome. As the default exhaustion rule provides enhanced transactional flexibility and increased incentives with substantially the same, if not better, consumer welfare and output outcomes, it is the preferred approach.\textsuperscript{242}

\textit{viii The Efficiency Bottom Line}

The efficiency paradigm strongly supports using exhaustion as a default contract term that can be waived by obtaining the purchaser’s express agreement to specific exceptions. It does not provide any viable argument for a per se rule prohibiting post-sale patent enforcement in all circumstances. Rather, the identified efficiency concerns are better addressed by creating specific limitations that target and mitigate the particular harms. First, in order to prevent undue interference with competition and innovation, every post-sale restriction must comply with other laws of general application, most particularly antitrust law. Second, to avoid excessive transaction costs enforcement of otherwise valid restrictions, post-sale patent enforcement should only be permitted when the patent owner can demonstrate the particular defendant had actual or inquiry notice of the limitation. Finally, although post-sale patent enforcement

\textsuperscript{241} See Hovenkamp, supra note 8, at 40; see Robinson, supra note 165, at 1508.

\textsuperscript{242} Professor Hovenkamp raises the interesting point that the default exhaustion rule permits patent owners to more effectively price discriminate than other market participants, a competitive inequality that at least intuitively seems at odds with an efficient marketplace. See Hovenkamp, supra note 8, at 42. Patent policy provides the answer. Patent law allows patent owners to more effectively price discriminate by giving them powerful control over all use and resale of the invention. But that enhanced control is the very point of granting patents. The policy concern, therefore, is not that patents create extra power or competitive inequality. The concern is whether the post-sale exercise of the right produces less than optimum incentives. For the reasons discussed in the text, it does not.
under the default approach will permit some degree of price discrimination and related consumer wealth transfer, the contract-enforcement-only alternative would likely reduce overall efficiency and consumer welfare.

B. Non-efficiency Justifications

One additional justification for per se exhaustion remains to be considered. Although efficiency-driven patent law policy does not support blanket exhaustion, there is ample reason to wonder whether the regime should be so single-mindedly focused on advancing that particular goal. An efficient market, and consequently a patent regime properly designed to implement that objective, can only produce “efficient” outcomes. Specifically, resources will only be available to those who can deliver what the current owner demands in exchange. That distributional consequence is frequently cited as a justification for limiting patent rights. Because a patent legally limits use of the invention, those unable to pay the owner’s going-rate will have no access to the covered articles. As the regime not only entitles, but encourages, owners to maximize their individual returns, they will restrict output and increase price in accordance with the power afforded by their patent. Consequently, a properly efficient patent law regime will prohibit some, and probably many, members of society from obtaining resources they may require.

Per se exhaustion appears to offer a ready solution to that distributional concern. Prohibiting all post-sale patent enforcement permits patented articles to move more freely in the market, making them perhaps more readily available at lower cost. There are two significant problems with this argument. First, for the reasons discussed above, those

243. Efficient outcomes will only be produced when the efficient market theory operates effectively in the real world. If the necessary assumptions are not satisfied, then the “market” will not generate the desired outcome. In such cases, it makes no sense to justify any legal intervention, including patent exhaustion, based on whether it helps foster efficient outcomes. But that possible shortcoming takes the discussion well beyond justification of exhaustion into a reconsideration of the economic, legal, and social system as a whole, an exercise well beyond the scope of this inquiry. Cf. Vincent Chiappetta, The (Practical) Meaning of Property, 46 WILLAMETTE L. REV. 297, 330 n.155 (2009) (discussing the problems created if the “rational economic actor assumption” does not apply).

244. The same distribution concern, of course, applies in all property regimes. See generally id.
hoping that prohibiting post-sale patent enforcement of restrictions on use or resale will "improve" distribution by reducing prices and increasing access will likely discover that it has the opposite effect in actual operation.245 And, even should it produce some degree of redistribution, other legal tools may produce (far) superior overall outcomes. For example, it may be more effective to permit patent law to produce optimal innovation incentives and then use taxes and social assistance programs to reallocate the resulting maximized wealth.

Second, and even more problematic, is that justifying exhaustion on the grounds that it changes market-based efficient distributional outcomes directly conflicts with the current approach to patent law and the policy it is designed to implement. The recent election, and much of the current political rhetoric, demonstrates that a substantial portion of the body politic will likely find such a justification unconvincing.

That some (or even many) desire to maintain the status quo does not mean that the discussion should not occur. Whether more than maximizing aggregate utility is required for a society to be considered "fair and just" deserves serious consideration. The difficulty is that debate raises issues well beyond determining whether exhaustion plays a useful role in advancing the current goals set for the patent regime. It implicates the antecedent normative question of what those goals should be;246 an inquiry that requires revisiting whether (or at least to what extent) the efficient market model should continue to serve as the fundamental organizing principle for our economic interactions and the objective of the related implementing commercial law.

Exhaustion provides an extremely poor framework for that important discussion. It raises the wrong issue. Debating whether the doctrine properly implements patent law's objectives will only create confusion when the actual disagreement lies in differing views regarding what a properly structured regime should produce. It is far more productive to eliminate the misdirection caused by debating those normative differences through an implementation proxy

245. See supra notes 234–42 and accompanying text.
246. See Chiappetta, supra note 243, at 335–42.
like exhaustion and instead directly discuss what we believe constitute desirable patent law outcomes. The increased transparency will enhance identification and understanding of the various normative positions, and will improve the search for how they might be acceptably accommodated, if not reconciled.

Clearly, any attempt to justify per se exhaustion on non-efficiency grounds is premature. Until we have agreed that patent law should produce such outcomes, to what extent and in what forms, it is impossible to determine whether prohibiting all post-sale patent enforcement of limitations on use or resale furthers the regime’s goals.

CONCLUSION

The original question posed—what is patent exhaustion good for?—can now be answered. Although no justification for a per se exhaustion prohibition on post-sale patent enforcement exists within the current efficiency paradigm (as an inherent limitation on patent rights or otherwise), the doctrine provides substantial value as a default term, waivable by the parties to specific transactions. Proper default implementation necessitates specific constraints: All waivers should be based on express buyer acceptance of post-sale patent enforcement of specifically identified restrictions. Even when properly waived, downstream patent enforcement should only be permitted when the particular defendant has prior actual or inquiry notice of the patent and the restriction allegedly breached. Additionally, some adjustments to the antitrust Rule of Reason inquiry are likely appropriate to ensure the effects of post-sale patent enforcement receive due consideration in the net efficiency assessment.

Finally, exhaustion cannot be justified on non-efficiency policy grounds. In the current paradigm, those arguments turn the exhaustion debate into an unproductive proxy framework for arguing over what patent law should produce. In particular, any effort to position exhaustion as a means for adjusting the distributional consequences of an efficiency-driven patent regime should be replaced by direct and transparent discussion of the actual underlying normative concern.