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Citations:

Bluebook 20th ed.

Michael A. Carrier, Sharing, Samples, and Generics: An Antitrust Framework, 103 Cornell L. Rev. 1 (2017).

ALWD 6th ed.

Michael A. Carrier, Sharing, Samples, and Generics: An Antitrust Framework, 103 Cornell L. Rev. 1 (2017).

APA 7th ed.

Carrier, M. A. (2017). Sharing, samples, and generics: An antitrust framework. Cornell Law Review, 103(1), 1-64.

Chicago 7th ed.

Michael A. Carrier, "Sharing, Samples, and Generics: An Antitrust Framework," Cornell Law Review 103, no. 1 (November 2017): 1-64

McGill Guide 9th ed.

Michael A Carrier, "Sharing, Samples, and Generics: An Antitrust Framework" (2017) 103:1 Cornell L Rev 1.

MLA 8th ed.

Carrier, Michael A. "Sharing, Samples, and Generics: An Antitrust Framework." Cornell Law Review, vol. 103, no. 1, November 2017, p. 1-64. HeinOnline.

OSCOLA 4th ed.

Michael A Carrier, 'Sharing, Samples, and Generics: An Antitrust Framework' (2017) 103 Cornell L Rev 1

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SHARING, SAMPLES, AND GENERICS: AN ANTITRUST FRAMEWORK

Michael A. Carriert

Rising drug prices are in the news. By increasing price, drug companies have placed vital, even life-saving, medicines out of the reach of consumers. In a recent development, brand firms have prevented generics even from entering the market. The ruse for this strategy involves risk-management programs known as Risk Evaluation and Mitigation Strategies ("REMS"). Pursuant to legislation enacted in 2007, the FDA requires REMS when a drug's risks (such as death or injury) outweigh its rewards. Brands have used this regime, intended to bring drugs to the market, to block generic competition. Regulations such as the federal Hatch-Waxman Act and state substitution laws foster widespread generic competition. But these regimes can only be effectuated through generic entry. And that entry can take place only if a generic can use a brand's sample to show that its product is equivalent.

More than 100 generic firms have complained that they have not been able to access needed samples. One study of 40 drugs subject to restricted access programs found that generics' inability to enter cost more than \$5 billion a year. Brand firms have contended that antitrust law does not compel them to deal with their competitors and have highlighted concerns related to safety and product liability in justifying their refusals. This Article rebuts these claims. It highlights the importance of samples in the regulatory regime and the FDA's inability to address the issue. It shows how a sharing requirement in this setting is consistent with Supreme Court caselaw. And it demonstrates that the brands' behavior fails the defendant-friendly "no economic sense" test because the conduct literally makes no sense other than by harming generics.

Brands' denial of samples offers a textbook case of monopolization. In the universe of pharmaceutical antitrust behavior, other conduct—such as "pay for delay" settlements

[†] Distinguished Professor, Rutgers Law School. Copyright © 2017 Michael A. Carrier. I would like to thank Jay Feinman, Cheryl Johnson, Mark Lemley, Steve Shadowen, Shashank Upadhye, and participants in the Stanford Law and Biosciences Workshop for very helpful comments; Brenna Sooy for outstanding research assistance; and Genevieve Tung for valuable legislative-history assistance.

between brands and generics and "product hopping" from one drug to a slightly modified version—has received the lion's share of attention. But sample denials are overdue for antitrust scrutiny. This Article fills this gap. Given the failure of Congress and the FDA to remedy the issue, antitrust can play a crucial role in ensuring generic access to samples, affirming a linchpin of the pharmaceutical regime.

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INTRODUCTION

Rising drug prices are in the news. By increasing price, drug companies have placed vital, sometimes life-saving, medicines out of the reach of consumers. In a recent development, brand firms have prevented generics even from entering the market. The ruse for this strategy involves risk-manage-

ment programs known as Risk Evaluation and Mitigation Strategies ("REMS"). Pursuant to legislation enacted in 2007, the FDA requires REMS when a drug's risks (such as death or injury) outweigh its rewards. Brands have used this regime, intended to bring drugs to the market, to block generic competition. Regulations such as the federal Hatch-Waxman Act¹ and state substitution laws foster widespread generic competition. But these regimes can only be effectuated through generic entry. And that entry can take place only if a generic can use a brand's sample to show that its product is equivalent.

More than 100 generic firms have complained that they have not been able to access needed samples.² One study of 40 drugs subject to restricted access programs found that generics' inability to enter increased U.S. healthcare costs by more than \$5 billion a year.³ As a leading FDA official lamented, brands "feel it's their duty to their stockholders to delay competition as long as possible."⁴

Brand firms have contended that antitrust law does not compel them to deal with their competitors and have highlighted concerns related to safety and product liability in justifying their refusals. This Article rebuts these claims. It highlights the importance of samples in the regulatory regime and the FDA's inability to address the issue. It shows how a sharing requirement in this setting is consistent with Supreme Court caselaw. And it demonstrates that the brands' behavior fails the defendant-friendly "no economic sense" test because

Drug Price Competition and Patent Term Restoration Act of 1984, Pub. L. No. 98-417, 98 Stat. 1585 (1984) (codified as amended at 21 U.S.C. § 355 (2012)).

² Press Release, Sen. Patrick Leahy (D-VT), The Creating and Restoring Equal Access to Equivalent Samples (CREATES) Act of 2016: Preventing Abusive Tactics that Delay the Creation of Affordable Generic Drugs (June 14, 2016), https://www.leahy.senate.gov/download/creates-act-one-pager [https://perma.cc/JJ2Z-EW3W].

³ See ALEX BRILL, MATRIX GLOB. ADVISORS, LOST PRESCRIPTION DRUG SAVINGS FROM USE OF REMS PROGRAMS TO DELAY GENERIC MARKET ENTRY 1 (2014).

⁴ David Gaugh, Strengthening REMS for Patient Safety and Faster Access to Generics, The Hill: Congress Blog (Apr. 18, 2016, 8:01 AM), http://thehill.com/blogs/congress-blog/healthcare/276494-strengthening-rems-for-patient-safety-and-faster-access-to [https://perma.cc/2TKL-T9SM]. See also The CREATES Act: Ending Regulatory Abuse, Protecting Consumers, and Ensuring Drug Price Competition: Hearing Before the Subcomm. on Antitrust, Competition, Policy & Consumer Rights, S. Judiciary Comm., 114th Cong., at 1:20:08 (2016), https://www.cspan.org/video/?411609-1/creates-act-ending-regulatory-abuse-protecting-consumers-ensuring-drug-price-competition [https://perma.cc/QH2J-ARJT] (rejecting claim that REMS denials are merely an example of "lifecycle management" and contending instead that they are "blatantly anti-competitive" (statement of Sen. Mike Lee (R-UT)).

the conduct literally makes no sense other than by harming generics.

Part I provides a background on REMS, offering a history and overview before examining the concern of blocked generic entry. Part II presents the caselaw, which is still developing, with opinions issued primarily in the setting of motions to dismiss. Part III outlines the relevant framework for the most appropriate antitrust case: a monopolization claim under Section 2 of the Sherman Act. It addresses monopoly power, the regulatory regime, and exclusionary conduct, the latter in the setting of refusals to deal and through a lens that analyzes whether the conduct makes economic sense.

Part IV then applies this new antitrust framework, showing how the denial of samples and failure to participate in shared REMS programs each can violate antitrust law because they tend to lack economic sense other than by harming generic competition. Part V concludes by rebutting the four justifications on which brand firms have most frequently relied. It first addresses arguments, based on the caselaw, that deny a duty to deal and reject liability where there is no previous course of dealing between the parties. And it then addresses two excuses based on business concerns about the safety of generic drugs and increased exposure to product liability claims.

Brands' denial of samples offers a textbook case of monopolization. In the universe of pharmaceutical antitrust behavior, other conduct—such as "pay for delay" settlements between brands and generics⁵ and "product hopping" from one drug to a slightly modified version⁶—has received the lion's share of attention. But sample denials are overdue for antitrust scrutiny. This Article fills this gap. Given the failure of Congress and the FDA to remedy the issue, antitrust can play a crucial role in ensuring generic access to samples, affirming a linchpin of the pharmaceutical regime.

I REMS

Courts are beginning to address the antitrust implications of brand companies' refusals to share samples of drugs that are subject to REMS programs. This Part examines REMS, tracing its history and requirements, and offering examples. It then

⁵ E.g., FTC v. Actavis, 133 S. Ct. 2223 (2013).

⁶ E.g., New York ex rel. Schneiderman v. Actavis PLC (Namenda), 787 F.3d 638 (2d Cir. 2015).

provides an overview of generic competition. Finally, it highlights the anticompetitive concern with REMS, which can prevent generic drugs from reaching the market.

A. Background

Beginning with the passage of the Food, Drug, and Cosmetic Act in 1938, the U.S. Food and Drug Administration ("FDA") has required manufacturers to prove a drug's safety before entering the market.⁷ In the following several decades, the agency imposed more rigorous requirements for demonstrating safety and effectiveness.⁸

In the mid-2000s, the FDA established Risk Minimization Action Plans ("RiskMAPs"), voluntary systems by which drug sponsors implemented risk-minimizing plans to address known risks.⁹ A RiskMAP is "a strategic safety program designed to meet specific goals and objectives in minimizing known risks of a product while preserving its benefits." ¹⁰ These were developed for products requiring strategies "beyond describing the risks and benefits of the product in labeling and performing required safety reporting" ¹¹ and formed the precursor to REMS. ¹²

In 2007, Congress enacted the Food and Drug Administration Amendments Act ("FDAAA"). ¹³ Section 505-1(a)(1) of the Act authorizes the FDA to require sponsors of drug applica-

⁷ Federal Food, Drug, and Cosmetic Act of 1938, Pub. L. No. 75-717, 52 Stat. 1040 (1938) (codified as amended in 21 U.S.C. § 301 et seq. (2012)).

⁸ See Shashank Upadhye & Braden Lang, The FDA and Patent, Antitrust, and Property Takings Laws: Strange Bedfellows Useful to Unblock Access to Blocked Drugs, 20 B.U. J. Sci. & Tech. L. 84, 91–92 (2014).

⁹ U.S. FOOD & DRUG ADMIN., CTR. FOR DRUG EVALUATION & RESEARCH (CDER), FORMAT AND CONTENT OF PROPOSED RISK EVALUATION AND MITIGATION STRATEGIES (REMS), REMS ASSESSMENTS, AND PROPOSED REMS MODIFICATIONS: GUIDANCE FOR INDUSTRY 3 (2009), http://www.fda.gov/downloads/UCM184128.pdf [https://perma.cc/BRN4-ZHP7] [hereinafter GUIDANCE FOR INDUSTRY].

¹⁰ Id

¹¹ Id. (explaining that "[f]or the majority of approved products, labeling and routine reporting requirements are sufficient to mitigate risks and preserve benefits" but that "[i]n a small number of cases, when additional measures were needed to ensure that the benefits of a drug outweigh the risks of the drug, FDA approved the drug with a RiskMAP").

¹² U.S. FOOD & DRUG ADMIN., STANDARDIZING AND EVALUATING RISK EVALUATION AND MITIGATION STRATEGIES (REMS) 9 (2014), https://www.fda.gov/downloads/UCM415751.pdf [https://perma.cc/57VQ-HF6V] [hereinafter STANDARDIZING REMS].

¹³ U.S. Food and Drug Administration Amendments Act of 2007 (FDAAA), 21 U.S.C. § 355-1(a)(1) (Supp. 2016).

tions¹⁴ to submit a proposed REMS if the agency determines that it is needed to ensure that a drug's benefits outweigh its risks.¹⁵ By September 2008, holders of drug applications that the FDA selected for REMS were required to submit a proposed REMS program.¹⁶ The transition to mandatory REMS was not intended to significantly change the voluntary programs in place at the time.

The FDA has defined REMS as "required risk management plans that use risk minimization strategies beyond the professional labeling to ensure that the benefits of certain prescription drugs outweigh their risks." Examples of REMS requirements include education addressing the risk of serious infection, certification of healthcare professionals targeting severe allergic reactions, the monitoring of liver damage, and negative pregnancy tests to address severe birth defects. 18

In determining the need for REMS, the FDA considers six factors: (1) the population size likely to use the drug; (2) the seriousness of the disease; (3) the drug's expected benefit; (4) the expected duration of treatment; (5) the seriousness of adverse effects; and (6) the drug's novelty. ¹⁹ The FDA can require a REMS before a drug enters the market based on known risks or after the drug has been approved based on new evidence of risk. ²⁰

All REMS must include a timetable for submission of periodic reports to the FDA regarding the REMS program.²¹ Other requirements vary depending on the risk profile of the drug and the need to inform doctors or patients of safety concerns.²² REMS programs differ in their level of restriction. The "least restrictive" program includes medication guides for patients and communication plans for healthcare practitioners.²³

¹⁴ The requirements apply to brand firms filing new drug applications ("NDAs"), generics filing abbreviated new drug applications ("ANDAs"), and biologic manufacturers filing biologics license applications ("BLAs"). STANDARDIZING REMS, *supra* note 12, at 9.

^{15 21} U.S.C. § 355-1(a)(1).

¹⁶ GUIDANCE FOR INDUSTRY, supra note 9, at 5.

U.S. FOOD & DRUG ADMIN., A BRIEF OVERVIEW OF RISK EVALUATION & MITIGATION STRATEGIES (REMS) 2, http://www.fda.gov/downloads/UCM328784.pdf [https://perma.cc/4Q9L-D3CH] [hereinafter BRIEF OVERVIEW].

¹⁸ *Id.* at 3, 13.

¹⁹ Id. at 6.

^{20 21} U.S.C. § 355-1(a)(2)(A).

²¹ STANDARDIZING REMS, *supra* note 12, at 9; BRIEF OVERVIEW, *supra* note 17, at 17 (noting that timetable "must be at least by 18 months, 3 years, and in the 7th year after the REMS is approved" and "[c]an be eliminated after 3 years").

²² See Upadhye & Lang, supra note 8, at 92.

²³ Id. at 93.

More restrictive REMS programs have "Elements To Assure Safe Use (ETASU)," which can include prescriber experience requirements, certification systems, patient monitoring or registration, or controlled distribution. These requirements can restrict a drug's distribution and affect how it can be sold to consumers. ETASU measures are "designed to be compatible with established distribution, procurement, and dispensing systems for drugs." Even though the requirements affect distribution, the FDA has sought to ensure that they do not burden patients who "have difficulty accessing health care (such as patients in rural or medically underserved areas)" or those with "serious or life-threatening diseases or conditions." ²⁶

Since their enactment in 2007, REMS programs—in particular, those with ETASU requirements—have become an increasingly prevalent part of the FDA approval process. 40 percent of new drugs have REMS programs, ²⁷ and there are currently 76 approved REMS programs, with 42 of these requiring ETASU measures. The prevalence of ETASU requirements marks a shift from early REMS programs, which tended to cover less restrictive medication guides. Despite their increasing frequency, a report from the U.S. Department of Health and Human Services Office of Inspector General questioned "the overall effectiveness of the REMS program," with just 7 of 49 REMS meeting all of their goals. An understanding of the competitive effects of REMS-related behavior requires a brief overview of generic competition.

B. Generic Competition

Generic competition is an indispensable foundation of the pharmaceutical industry. Congress enacted the Hatch-Waxman Act in 1984 to ensure the provision of "low-cost, generic drugs for millions of Americans." Generic competition would save consumers, as well as the federal and state governments,

BRIEF OVERVIEW, supra note 17, at 13; Upadhye & Lang, supra note 8, at 94.

²⁵ FDAAA, 21 U.S.C. § 355-1(f)(2)(D)(ii) (Supp. 2016).

²⁶ Id. § 355-1(f)(2)(C).

BRILL, supra note 3, at 2.

Approved Risk Evaluation and Mitigation Strategies (REMS), U.S. FOOD & DRUG ADMIN., http://www.accessdata.fda.gov/scripts/cder/rems/index.cfm?event=RemsDetails.page&REMS=17 [https://perma.cc/SNH2-EACQ] (last updated May 26, 2017) [hereinafter Approved REMS].

BRILL, supra note 3, at 3.

³⁰ U.S. DEP'T OF HEALTH & HUMAN SERVS., OFFICE OF INSPECTOR GEN., OEI-04-11-00510, FDA LACKS COMPREHENSIVE DATA TO DETERMINE WHETHER RISK EVALUATION AND MITIGATION STRATEGIES IMPROVE DRUG SAFETY 16, 22 (2013).

^{31 130} CONG. REC. 24,427 (1984) (statement of Rep. Waxman).

millions of dollars each year. And it would "do more to contain the cost of elderly care than perhaps anything else this Congress has passed."³²

The competition policies underlying the Hatch-Waxman Act were strengthened by state drug product selection ("DPS") laws, in effect in all 50 states today, which reduce prices for consumers.³³ These laws allow (and often require) pharmacists, absent a doctor's contrary instructions, to substitute generic versions of brand-name prescriptions. The laws are designed to address the disconnect in the industry between prescribing doctors, who are not directly responsive to drug pricing, and paying insurers and consumers, who do not directly select the prescribed drug.³⁴ In particular, DPS laws carve out a role for pharmacists, who are much more sensitive to prices than doctors.³⁵

In the past three decades, the size of the generics market has burgeoned.³⁶ Making up 19% of the prescription drug market in 1984, generics now constitute 89%.³⁷ Generics enter the market at significantly lower prices, with an average cost 80 to 85 percent lower than that of brand drugs.³⁸ As a result, brand drugs, which make up only 11% of prescriptions today, are responsible for 73% of drug spending.³⁹ Between 2006 and 2015, the ten-year savings from generic drugs was nearly \$1.5 trillion.⁴⁰

Generics can offer substantial savings because they do not need to replicate brand firms' expensive and lengthy clinical

³² Id

³³ Michael A. Carrier, A Real-World Analysis of Pharmaceutical Settlements: The Missing Dimension of Product Hopping, 62 Fla. L. Rev. 1009, 1017 (2010).

³⁴ See Bureau of Consumer Prot., FTC, Drug Product Selection 2-3 (1979).

³⁵ ALISON MASSON & ROBERT L. STEINER, BUREAU OF ECON., FTC, GENERIC SUBSTITUTION AND PRESCRIPTION DRUG PRICES: ECONOMIC EFFECTS OF STATE DRUG PRODUCT SELECTION LAWS 7 (1985).

³⁶ See Drug Price Competition and Patent Term Restoration Act of 1984, Pub. L. No. 98-417, 98 Stat. 1585 (1984) (codified as amended at 21 U.S.C. § 355 (2012)).

³⁷ See Generic Pharm. Ass'n, 2016 Generic Drug Savings & Access in the United States Report 5 (2016) [hereinafter GPhA Report]; Cong. Budget Off., How Increased Competition from Generic Drugs Has Affected Prices and Returns in the Pharmaceutical Industry ix (1998).

³⁸ Generic Drug Facts, U.S. FOOD & DRUG ADMIN., http://www.fda.gov/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/UnderstandingGenericDrugs/ucm167991.htm [https://perma.cc/NK9P-TL7Q] (last updated Sept. 13, 2016).

³⁹ GPHA REPORT, supra note 37, at 5.

⁴⁰ Id. at 6.

trials.⁴¹ As the Supreme Court has confirmed, a central purpose of the Hatch-Waxman Act was to "allow a generic competitor to file an abbreviated new drug application (ANDA) piggybacking on the brand's [new drug application] NDA."⁴² Instead of "providing independent evidence of safety and efficacy, the typical ANDA shows that the generic drug has the same active ingredients as, and is biologically equivalent to, the brandname drug," with such piggybacking "designed to speed the introduction of low-cost generic drugs to market."⁴³

C. Concern: Blocking Generics

The competition between brands and generics at the heart of the Hatch-Waxman Act is subject to a prerequisite: the use of a brand's sample.⁴⁴ Generic firms must have access⁴⁵ to samples of reference listed drugs⁴⁶ (which, for ease of reference, I refer to as brand drugs) to engage in bioequivalence testing, ensuring that its drug is absorbed into the body at the same rate as the brand's drug.⁴⁷ Such testing requires the generic applicant to have "access to a sufficient quantity" of the brand drug "to conduct the necessary comparisons" between the two.⁴⁸ Brand firms can stifle generic entry by invoking their REMS programs to refuse to sell samples of their drugs.

Typically, generics can acquire samples from distributors or wholesalers.⁴⁹ But REMS often include "provisions barring

⁴¹ See FTC, GENERIC DRUG ENTRY PRIOR TO PATENT EXPIRATION: AN FTC STUDY 5 (2002), http://www.ftc.gov/os/2002/07/genericdrugstudy.pdf [https://perma.cc/EY4H-UWXT] [hereinafter FTC GENERIC DRUG STUDY]. State substitution laws also allow generics to avoid marketing and promotion costs.

⁴² Caraco Pharm. Labs., Ltd. v. Novo Nordisk A/S, 566 U.S. 399, 404-05 (2012).

⁴³ Id. at 405

⁴⁴ E.g., U.S. DEP'T OF HEALTH & HUMAN SERVS., U.S. FOOD & DRUG ADMIN. & CTR. FOR DRUG EVALUATION AND RESEARCH (CDER), GUIDANCE FOR INDUSTRY, HANDLING AND RETENTION OF BA AND BE TESTING SAMPLES 3 (2004).

 $^{^{45}}$ See CREATES Act Hearing, supra note 4, at 2 (prepared statement of Beth Zelnick Kaufman).

⁴⁶ U.S. DEP'T OF HEALTH & HUMAN SERVS., U.S. FOOD & DRUG ADMIN. & CTR. FOR DRUG EVALUATION AND RESEARCH (CDER), HOW TO OBTAIN A LETTER FROM FDA STATING THAT BIOEQUIVALENCE STUDY PROTOCOLS CONTAIN SAFETY PROTECTIONS COMPARABLE TO APPLICABLE REMS FOR RLD GUIDANCE FOR INDUSTRY 4 (2014), http://www.fda.gov/downloads/UCM425662.pdf [https://perma.cc/YE9D-WZAR] [hereinafter HHS, FDA & CDER REPORT].

⁴⁷ FTC GENERIC DRUG STUDY, supra note 41, at 5.

⁴⁸ HHS, FDA & CDER REPORT, supra note 46, at 2.

⁴⁹ See Lauren Battaglia, Risky Conduct with Risk Mitigation Strategies? The Potential Antitrust Issues Associated with REMS, Antitrust Health Care Chronicle, Mar. 2013, at 26, 28; see also Transcript of Motions Hearing at 52, Actelion Pharm. Ltd. v. Apotex, Inc., Civil Action No. 1:12-cv-05743 (D.N.J. Oct. 17, 2013), ECF No. 93 (generic would "vastly prefer[]" buying from a "wholesaler, . . . distrib-

distributors and wholesalers from selling the drug to entities without approval under the REMS,"50 which result in generics "turn[ing] to the branded manufacturers themselves to supply the drug samples directly."51 When the brands then deny samples, the generics have no recourse.⁵² A generic company cannot use a foreign sample as a substitute because the FDA does not consider this to be the same drug product for bioequivalence testing purposes.53 And even if a generic has "the exact recipe of a brand formulation," it "cannot manufacture its own version" because only the brand version constitutes the "reference listed drug" under the Hatch-Waxman Act.54 Absent access to the brand sample, the generic company cannot demonstrate bioequivalence and thus can enter the market only by replicating all of the safety and efficacy evidence for the drug product, directly contravening the Hatch-Waxman Act's objectives.

Congress was keenly aware of the importance of generic competition when it passed the FDAAA. In doing so, it included a provision that made clear that ETASU measures should not be used to prevent generic firms from accessing samples of drugs covered by REMS.⁵⁵ In particular, the statute explicitly states that "[n]o holder of an approved covered application shall use any element to assure safe use required by the Secretary under this subsection to block or delay approval of an application." ⁵⁶ Such language provides not only that brands shall not

utor, or specialty pharmacy" than from a brand); José P. Sierra, *Generics Demand Brand Drug Samples for ANDA Filings*, Pharmarisc.com (Apr. 11, 2013), http://www.pharmarisc.com/2013/04/generics-demand-brand-drug-samples-for-anda-filings/ [https://perma.cc/F8B8-HW7P] (generic firms "[o]rdinarily . . . purchase" samples "from wholesalers on the open market").

Battaglia, supra note 49, at 28. For an example, see infra note 88.

⁵¹ Battaglia, supra note 49, at 28.

⁵² See, e.g., Actelion v. Apotex transcript, supra note 49, at 80 (explaining that FDA denied generic's attempt to address brand's refusal to provide sample by acquiring samples of Canadian drug).

⁵³ See Upadhye & Lang, supra note 8, at 112 n.129 ("[R]eference product is defined in § 355(j)(7)," which, in referring to "drug products approved under § 355(b) and (c)," allows reference only to U.S. products since "[f]oreign approved products are approved under that country's law" rather than sections 355(b) and (c)).

⁵⁴ *Id.* at 112. *See id.* at 111-12 ("FDA-approved brand product must be accessed and studied" and "[f]oreign reference product is not allowed").

⁵⁵ FDAAA, 21 U.S.C. § 355-1(f)(8) (Supp. 2016).

⁵⁶ *Id.* The full text reads: "No holder of an approved covered application shall use any element to assure safe use required by the Secretary under this subsection to block or delay approval of an application under section 505(b)(2) or (j) [21 U.S.C. § 355(b)(2) or (j)] or to prevent application of such element under subsection (i)(1)(B) to a drug that is the subject of an abbreviated new drug application." *Id.*

use REMS to block generics but also that they shall not use them to delay generics. 57

Congress was concerned that restrictions meant to prevent risky drugs from reaching consumers could prevent generic firms from buying samples and bringing those drugs to the market. Senators have criticized brands' uses of access to samples to block and delay generics. In a recent hearing, Senator Charles Grassley (R-IA) lamented "tactics that appeared to frustrate the intent of the Hatch-Waxman Act," as brand firms "were misusing their . . . REMS[] to withhold access to drug samples for bioequivalence testing and generic drug development in violation of FDA regulations and the Hatch Waxman Act." Similarly, Senator Patrick Leahy (D-VT) explained that "[t]his simple delay tactic uses regulatory safeguards as a weapon to block competition." Brands need not even refuse to deal with a generic; instead they "simply engage in neverending negotiations that have the effect of delaying entry."

Earlier legislation would have been even more explicit in clarifying brand obligations to provide samples to generics for bioequivalence testing. See FDAAA, H.R. 2900, 110th Cong. § 505-1(f)(6) (2007) (stating that brand must provide "a sufficient amount of drug to conduct bioequivalence testing" if generic agrees to distribution restrictions assuring safe use and pays fair market value); S. 3187, 112th Cong. § 1131(k) (as passed by Senate, May 24, 2012) (providing that "no elements to ensure safe use shall prohibit \dots supply of [a needed] drug \dots for the purpose of conducting [necessary] testing"). The failure to include such language must be viewed in the context of the FDAAA, "vast" legislation that "altered a significant portion of the FDA's powers," Christopher Megaw, Reviving Essential Facilities to Prevent REMS Abuses, 47 COLUM. J. L. Soc. PROBS. 103, 116 (2013), and in which other provisions were deemed more important, see Upadhye & Lang, supra note 8, at 99 (calling the "drug-user fee reauthorization . . . the most important provision"). Even more significant, the Supreme Court has made clear that "[i]t is at best treacherous to find in congressional silence alone the adoption of a controlling rule of law." United States v. Wells, 519 U.S. 482, 496 (1997) (alteration in original) (quoting another source); see also Michigan v. Bay Mills Indian Cmty., 134 S. Ct. 2024, 2053-54 (2014) (Thomas, J., dissenting) ("[L]egislative inaction is usually indeterminate" and "[a]llowing legislative inaction to guide common-law decisionmaking is not deference, but abdication"); Johnson v. Transp. Agency, 480 U.S. 616, 672 (1987) (Scalia, J., dissenting) (relying on "congressional inaction" to signal acquiescence to a prior judicial opinion is "a canard").

⁵⁸ See supra text and notes accompanying 55-57.

⁵⁹ CREATES Act Hearing, supra note 4 (prepared statement of Sen. Chuck Grassley (R-IA)).

⁶⁰ Id. (prepared statement of Sen. Patrick Leahy (D-VT)).

S. Special Comm. on Aging, 114th Cong., Sudden Price Spikes in Off-Patent Prescription Drugs: The Monopoly Business Model that Harms Patients, Taxpayers, and the U.S. Health Care System 2, 115 (2016) [hereinafter Sudden Price Spikes]. See also Katie Thomas, Drug Makers Use Safety Rule to Block Generics, N.Y. Times, Apr. 15, 2013, at B1 (quoting Rep. Henry Waxman: "The purpose of these postmarket safety plans was to protect consumers from risky drugs, not to allow brand companies to thwart generic competition.").

In addition to the brand providing samples, Congress anticipated that generics and brands would need to cooperate. The 2007 legislation creating the regime required brands and generics to work together to create shared REMS known as a Single Shared REMS program ("SSRS").⁶² With the exception of instances in which the burden of such a single, shared system outweighs the benefit⁶³ or an aspect of the elements to assure the drug's safe use is covered by a patent or trade secret,⁶⁴ the brand and generic must work together in creating a shared REMS program.

Finally, it is not just Congress that has lamented brands' denials of needed samples. The FDA has demonstrated similar concern. Testifying at a Senate hearing, a leading agency official worried that REMS elements to ensure safe use "may restrict who gets the drug," with this power "used as an excuse . . . to not give the drug to the generics so they can compare it to their drug." Such behavior causes "barriers and delays in getting generics on the market."

II REMS CASELAW

Courts have addressed the issue of brand firms using REMS to block or delay generic entry. But this is a nascent issue, analyzed in only seven cases to date, none past the motion-to-dismiss stage. Part II introduces the cases, most of which occurred in the setting of brands' refusals to provide samples to generics, and two of which arose in the shared REMS setting.

A. Lannett v. Celgene

In the first case, *Lannett v. Celgene*, Lannett sued Celgene, the manufacturer of thalidomide (Thalomid), which originally was used as a sleeping pill to treat morning sickness during pregnancy and has been used to treat patients with multiple

⁶² See 21 U.S.C. § 355-1(i)(1)(B).

⁶³ FDAAA, 21 U.S.C. § 355-1(i)(1)(B)(i) (Supp. 2016).

⁵⁴ Id. § 355-1(i)(1)(B)(ii).

Generic Drug User Fee Amendments: Accelerating Patient Access to Generic Drugs: Hearing Before the S. Comm. on Health, Educ., Labor & Pensions, 114th Cong. at 1:03:09–22 (2016), https://www.c-span.org/video/?403817-1/hearing-generic-drug-approval-process-accessibility&start=3777 [https://perma.cc/9AU8-38AU] (testimony of Janet Woodcock, Dir., U.S. Food & Drug Admin., Ctr. For Drug Evaluation & Research).

⁶⁶ Id. at 1:03:25-33.

myeloma and leprosy complications.⁶⁷ Because the drug was notoriously linked to severe birth defects and fetal deaths, the FDA in 1998 approved it with strict safety protocols called a System for Thalidomide Education and Prescribing Safety ("STEPS") that restricted the drug's distribution.⁶⁸

Lannett sought FDA approval to market a generic version of Thalomid. It alleged that the agency approved its request to obtain samples from Celgene but that Celgene refused to sell samples.⁶⁹ At the same time, the STEPS program prevented Lannett from obtaining samples through other channels. The generic alleged that it agreed to all the "health and safety restrictions set forth by the FDA" to acquire Thalomid.⁷⁰ And it contended that Celgene's refusal to provide samples prevented it from introducing a generic version and harmed consumers who were forced to pay monopoly prices.⁷¹

Without offering a substantive opinion, the district court denied defendants' motion to dismiss. 72 Shortly afterwards, the case settled. 73

B. Actelion v. Apotex

The second case involved bosentan (Tracleer), a drug used to treat pulmonary arterial hypertension.⁷⁴ Brand firm Actelion sought a declaratory judgment that it did not have a duty to sell samples to Apotex, Roxane, and Actavis, justifying its refusal based on "government-mandated safety concerns."⁷⁵ The generics, on the other hand, alleged that Actelion refused to sell samples in order to maintain a monopoly.⁷⁶

In ruling from the bench that it would deny defendant's motion to dismiss, the court noted that the Supreme Court's

⁶⁷ Complaint at 1, 5, Lannett Co. v. Celgene Corp., Civil Action No. 08-3920-TJS (E.D. Pa. Aug. 15, 2008); *Thalidomide (marketed as Thalomid) Information*, U.S. FOOD & DRUG ADMIN., https://www.fda.gov/drugs/drugsafety/postmarket-drugsafetyinformationforpatientsandproviders/UCM107296.htm [https://perma.cc/H4M7-MT8L] (last updated July 24, 2015).

⁶⁸ Complaint, supra note 67, at 2, 4-5.

⁶⁹ *Id.* at 2.

⁷⁰ Id. at 18.

⁷¹ Id. at 16, 18.

⁷² Order upon Consideration of Defendant Celgene Corp.'s Renewed Motion to Dismiss, Lannett Co. v. Celgene Corp., No. 08-3920-TJS (Mar. 30, 2011); Battaglia, *supra* note 49, at 28 n.14.

Frin Coe, Lannett Cuts Deal with Celgene in Thalomid Antitrust Case, Law360 (Dec.7, 2011, 2:47 PM), https://www.law360.com/articles/291483/print?section=competition [https://perma.cc/8WZR-8PXP].

⁷⁴ See Actelion v. Apotex transcript, supra note 49, at 16.

⁷⁵ See id. at 116.

⁷⁶ Id.

refusal-to-deal decisions were "fact-specific" and "industry-specific."⁷⁷ In particular, it observed that "[t]he FDA is not the [Federal Communications Commission]" but is "a different environment," which made "clear" that the agency "does not have the regulatory power to compel samples" and that "there is no other potential remedy to a defendant suffering anticompetitive conduct in that regulatory scheme."⁷⁸ The court was "mindful of what Justice Scalia said" in the important case of *Verizon v. Trinko*⁷⁹ that "it's not the role of this Court or any Court to impose its own sense of competition or fairness or to become a super-regulatory agency."⁸⁰ But "[t]hat having been said," the court continued, "*Trinko* can't repeal Section 2," which "survives," and is "available, if the facts allow it, to prevent the improper maintenance and extension of a monopoly through improperly motivated conduct."⁸¹

Turning to the facts of the case, the generics "alleged a profit motive which did not exist in *Trinko*." And the court found that the generic firms could successfully prove monopolization if they could show that defendants were "motivated not so much by safety concerns but instead [] by the desire to use the REMS or REMS equivalent . . . to maintain and extend a monopoly." Shortly after the court denied the motion to dismiss, the case settled.84

C. Mylan v. Celgene

In the third case, *Mylan Pharmaceuticals v. Celgene*, Mylan sued Celgene, alleging that Celgene misused its REMS program to prevent Mylan from obtaining samples of Thalomid and Revlimid, treatments for, among other conditions, cancers and bone marrow disorders.⁸⁵ In 1998, the FDA approved Thalomid with the STEPS program described above.⁸⁶ Revlimid also had an approved REMS program.

⁷⁷ Id. at 115.

⁷⁸ *Id.* at 115–16.

⁷⁹ 540 U.S. 398 (2004).

⁸⁰ Actelion v. Apotex transcript, supra note 49, at 116.

⁸¹ Id.

⁸² *Id.* at 115.

⁸³ Id. at 117.

⁸⁴ Kat Greene, Actelion Settles Row over Giving Drugs to Generics Makers, Law360 (Feb.28, 2014, 7:07 PM), https://www.law360.com/articles/514434/print?section=competition [https://perma.cc/L2K3-C8W4].

Transcript of Oral Opinion at 3-4, Mylan Pharms. Inc. v. Celgene Corp., No. 14-2094-ES (D.N.J. Dec. 22, 2014), ECF No. 54.

⁸⁶ Id. See supra text accompanying note 68.

Mylan first attempted to obtain samples from Celgene in October 2004 and continued to negotiate, unsuccessfully, for five years.⁸⁷ The Thalomid STEPS program also prevented Mylan from obtaining samples of the drug through wholesale distributors.⁸⁸ Mylan similarly alleged that it unsuccessfully negotiated for Revlimid samples from 2009 until 2012.⁸⁹ Mylan claimed that Celgene violated antitrust law because it sold samples at retail prices to research organizations and lacked a legitimate business reason for refusing to sell to Mylan.⁹⁰

The district court denied Celgene's motion to dismiss, finding that Mylan sufficiently pled a monopolization claim. ⁹¹ It found that Third Circuit cases that had analyzed duties to deal found a "prior course of dealing" to be "relevant but not dispositive in determining whether such a duty applies." ⁹² It also noted that in *Trinko*, the Supreme Court considered facts like selling at retail and a prior course of dealing "not for their independent significance, but rather for what they *suggest*: [a] willingness to engage in irrational, anticompetitive conduct." ⁹³ The court concluded that Mylan's pleadings were "sufficient to allow the case to proceed to discovery," in part because Celgene pled "no legitimate business reason" for the behavior. ⁹⁴ Celgene filed an interlocutory appeal, which the Third Circuit denied. ⁹⁵ The case is scheduled for trial in 2017. ⁹⁶

D. In re Suboxone

In the fourth case, *In re Suboxone*, direct purchasers and end payors of Suboxone, a drug used to treat opioid addiction,

⁸⁷ Transcript of Oral Opinion, supra note 85, at 4-5.

⁸⁸ Id at 4

 $^{^{89}}$ *Id.* at 7–9 ("Mylan alleges that Celgene followed a 'nearly identical path of delay' for Revlimid, and that it worked to obtain samples from August 2009 to May 2012.").

⁹⁰ Id. at 17-18.

⁹¹ Id. at 9.

⁹² Id. at 12-13.

⁹³ Id. at 12 (emphasis in original).

⁹⁴ *Id.* at 17–18. The court dismissed a Section 1 claim targeting the brand manufacturer and distributors, finding that there was no showing that they had a "common anticompetitive goal." *Id.* at 24.

⁹⁵ Vin Gurrieri, 3rd Circ. Declines to Hear Mylan, Celgene Antitrust Fight, Law360 (Mar. 6, 2015, 4:55 PM), https://www.law360.com/articles/628588/3rd-circ-declines-to-hear-mylan-celgene-antitrust-fight [https://perma.cc/8DKX-TA93].

⁹⁶ Brian Malkin, NYSBA's REMS and Other Drug Distribution Restrictions Program Provided an Excellent and Informative Discussion, FDA LIFE (Nov. 4, 2016), http://www.fdalife.com/2016/11/04/nysbas-rems-and-other-drug-distribution-restrictions-program-provided-an-excellent-and-informative-discussion/[https://perma.cc/4H4DVUBS].

filed multi-district litigation against Reckitt Benckiser.⁹⁷ Plaintiffs alleged multiple antitrust violations, including a claim that Reckitt manipulated the requirement of an SSRS.⁹⁸

In December 2011, the FDA approved Reckitt's Suboxone REMS program to decrease the risk of pediatric exposure.⁹⁹ The next month, the FDA informed sponsors of pending generic applications that brand and generic versions would be subject to an SSRS, and the FDA anticipated that this requirement would be completed by May 2012.¹⁰⁰

Seeking to undercut the requirement of working together, Reckitt "reportedly turned down numerous invitations to participate in meetings with the [g]enerics, and refused to engage in substantive discussions until the [g]enerics agreed to a number of conditions the[y] found unfavorable, [including] an upfront agreement that all manufacturers would share the costs of product liability for future potential lawsuits." ¹⁰¹ The plaintiffs also alleged that Reckitt "refused to share non-public information from its REMS program until its demands were met." ¹⁰²

Plaintiffs notified the FDA of Reckitt's refusal, but the agency acknowledged that it could not compel the firm to share its non-public REMS program. ¹⁰³ Although the FDA implored Reckitt to work with the generics in good faith and to not block or delay them, the brand allegedly refused to cooperate unless the generics granted it veto authority or a super-majority vote on all issues relating to the SSRS. With Reckitt taking "unreasonable positions" and using "delay tactics to keep [glenerics off of the market for as long as possible," ¹⁰⁴ the generics sought and received a waiver from the FDA to submit their own separate REMS program. ¹⁰⁵

The court granted Reckitt's motion to dismiss, concluding that its refusal to cooperate did not violate the antitrust

^{97 64} F. Supp. 3d 665 (E.D. Pa. 2014).

⁹⁸ *Id.* at 674–77; Federal Food, Drug, and Cosmetic Act § 505-1(i)(1)(B), 21 U.S.C. § 355-1 (i)(1)(B) (Supp. 2016) ("A drug that is the subject of an abbreviated new drug application and the listed drug shall use a single, shared system under subsection (f).").

⁹⁹ In re Suboxone Antitrust Litig., 64 F. Supp. 3d at 675.

¹⁰⁰ Id. Plaintiffs explained that the agency gave a short turnaround time because Reckitt's recently approved REMS only needed to be amended slightly to incorporate the bioequivalent generics.

¹⁰¹ Id

¹⁰² Id.

¹⁰³ Id.

¹⁰⁴ Id. at 675, 687.

¹⁰⁵ Id. at 676.

laws. ¹⁰⁶ It stated that, even though "[i]t would have been easier to have Reckitt provide its REMS to its competitors with no strings attached, and participation on Reckitt's part would have allowed the process to move more quickly[,]... a monopolist certainly has no duty to deal under terms and conditions that the rivals find commercially advantageous." ¹⁰⁷

The court reasoned that the generics could apply for a waiver and create their own program. The case thus differed from the denial-of-samples cases, where the generic was not able to receive a sample in the first place. And the court found that even though there could be liability "where the SSRS process is manipulated to completely preclude a generic from filing an [application]," that was "not the situation" in this case. 109

E. Natco v. Gilead Sciences

In the fifth case, *Natco Pharma v. Gilead Sciences*, generic firm Natco sued Gilead, the manufacturer of ambrisentan (Letairis), a drug used for the treatment of pulmonary arterial hypertension. ¹¹⁰ Letairis can cause serious birth defects and is subject to a REMS program limiting its distribution to specialty pharmacies, dispensed by specially certified pharmacists. Natco alleged that Gilead refused to sell Letairis samples, thereby preventing its generic drug from receiving FDA approval. ¹¹¹ Natco also claimed that it offered to pay a market rate for samples and to buy the samples from Express Scripts, one of the specialty pharmacies dispensing Letairis.

The court granted Gilead's motion to dismiss on the grounds that Natco could have received the drug through a REMS-certified physician. 112 The court also was persuaded by another company's ability to obtain the drug for bioequivalence testing. 113 The court found that complying with a REMS program was a legitimate business reason not to sell the samples. 114 And it dismissed Natco's Section 1 claim on the

¹⁰⁶ Id. at 688.

¹⁰⁷ Id. (internal quotation marks omitted) (quoting another source).

¹⁰⁸ Id.

¹⁰⁹ Id.

 $^{^{110}}$ Civil No. 14-3247 (DWF/JSM), 2015 WL 5718398, at *1 (D. Minn. Sept. 29, 2015).

¹¹¹ Id. at *2.

¹¹² Id. at *5.

¹¹³ Id. at *5-6.

¹¹⁴ Id. at *5.

grounds that it did not specify particularized facts alleging an anticompetitive conspiracy. 115

F. In re Thalomid and Revlimid

In *In re Thalomid and Revlimid Antitrust Litigation*, the court denied a motion to dismiss in a third case challenging Celgene's denial of samples of Thalomid and Revlimid.¹¹⁶ The plaintiffs challenged Celgene's refusal to provide samples, which was "contrary to FDA communications with the generic manufacturers, which they forwarded to Celgene, and which stated that the agency would not take action if Celgene provided the samples."¹¹⁷

Celgene argued that a termination of a prior course of dealing was a necessary element of a refusal-to-deal claim. The court rejected this argument, explaining that the termination of dealing in the classic case of Aspen Skiing v. Aspen Highlands Skiing¹¹⁸ was "used as circumstantial evidence" of the defendants' "anti-competitive motivation" and "lack of legitimate business justifications."119 The court found that "motivation is central" and that it was "too soon" to determine that issue because Celgene "provided samples to researchers who were not seeking to enter the market, but not to competitors who were."120 The court found a "plausible inference" that defendant's reliance on its distribution programs was "pretextual" since it "continued to refuse to deal" even after the generics provided letters from the FDA indicating that the agency would not take action if Celgene provided samples. 121 The court also rejected a defense based on product liability concerns, stating that "[t]he possibility that [a brand] could be liable for a generic drug's harm is . . . not a legitimate justification that would support its refusal to supply generic manufacturers with samples."122 Finally, the court denied a motion to dismiss on the grounds of an overall anticompetitive scheme that included obtaining patents by fraud, engaging in sham litigation, filing a

¹¹⁵ Id. at *7.

¹¹⁶ Civil No.: 14-6997 (KSH) (CLW), 2015 WL 9589217, at *21 (D.N.J. Oct. 29, 2015).

¹¹⁷ Id. at *5.

^{118 472} U.S. 585 (1985).

¹¹⁹ Thalomid & Revlimid, 2015 WL 9589217, at *15.

¹²⁰ Id.

¹²¹ Id.

¹²² Id. at *16.

sham citizen petition with the FDA, and entering into "pay-fordelay" settlements. 123

G. In re Suboxone II

In a second *Suboxone* decision, ¹²⁴ generic Amneal Pharmaceuticals sued Indivior (the successor company to Reckitt), the manufacturer of suboxone. ¹²⁵ Amneal alleged that Indivior delayed generic entry by preventing the development of an SSRS and filing a sham citizen petition, thereby engaging in monopolization, attempted monopolization, and false advertising. ¹²⁶

As discussed above, ¹²⁷ in January 2012, the FDA directed all generic filers to contact Indivior to develop an SSRS, expecting that the process would be completed by May 2012. But the brand refused to participate in weekly meetings, demanded that generics share product-liability costs, and refused to engage in substantive conversations or describe its REMS program at an initial meeting.

In June 2012, the FDA allowed the generic companies to create a new REMS that did not use Indivior's allegedly propriety information, expecting the SSRS to be "up and running" by August 2012. But Indivior came up with "new excuses" to delay the SSRS, refusing to sign an agreement unless the generics "agree[d] to share a pre-specified percentage of all future product liability claims, regardless of fault. The generics instead requested a waiver of the shared program, which the FDA granted in February 2013.

Amneal challenged Indivior's conduct in relation to the SSRS, claiming that the actions amounted to anticompetitive deception. ¹³¹ The court rejected such a claim on the grounds that the ruling on which Amneal relied, *Broadcom Corp. v. Qualcomm Inc.*, ¹³² was "decidedly narrow" and "confined to its unique factual circumstances" of promises made to standard-setting organizations. ¹³³ The court dismissed the plaintiffs'

¹²³ Id. at *5-7, *16.

¹²⁴ See supra subpart II.D.

¹²⁵ In re Suboxone Antitrust Litig., MDL No. 2445, 2017 WL 36371, at *1 (E.D. Pa. Jan. 4, 2017).

¹²⁶ Id. at *1, *3.

¹²⁷ See supra note 100 and accompanying text.

¹²⁸ Suboxone, 2017 WL 36371, at *3-4.

¹²⁹ Id.

¹³⁰ Id. at *5.

¹³¹ Id. at *7.

^{132 501} F.3d 297 (3d Cir. 2007).

¹³³ Suboxone, 2017 WL 36371, at *7-8.

claims, finding that they merely "recast[]" their duty-to-deal allegation as a deception claim. 134

In contrast, the court found that "a plaintiff can allege a series of actions that when taken together make out antitrust liability even though some of the individual actions, when viewed independently, are not all actionable." Because "there has been no determination . . . that every aspect of the conduct alleged by Amneal fails under the antitrust laws[,] . . . Indivior's conduct during the SSRS process may be considered as one aspect of the overarching scheme claim." 136

In short, courts in four of the five cases addressing a refusal to provide samples for generic testing denied motions to dismiss, allowing the case to proceed. In contrast, the two cases involving a shared REMS program rejected antitrust liability for standalone claims, with one acknowledging potential liability as part of an overall course of conduct. Given the fledgling state of analysis, this Article next articulates an antitrust framework for courts to apply.

III ANTITRUST FRAMEWORK

The most typical antitrust case against brands for denying samples to generics is a monopolization claim under Section 2 of the Sherman Act. 137 To be liable for illegal monopolization, a company not only must have monopoly power but also must engage in exclusionary conduct. 138 This Part examines these issues. It first addresses monopoly power before analyzing refusals to deal with rivals. It then focuses on the existence and effectiveness of a regulatory regime. And it concludes with a discussion of the "no economic sense" test that can be discerned in refusal-to-deal cases and more general monopolization jurisprudence and antitrust scholarship.

A Section 1 claim targeting agreements between brands and other firms has received less attention. ¹³⁹ It is unlikely that a brand and generic would enter into an arrangement violating Section 1 because a denial of a sample does not result in the requisite agreement, ¹⁴⁰ and the shared REMS setting

¹³⁴ Id.

¹³⁵ Id.

¹³⁶ Id. at *9.

¹³⁷ See 15 U.S.C. § 2 (2012).

See United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966).

 $^{^{139}}$ The absence of mergers and acquisitions precludes reliance on Section 7 of the Clayton Act. See 15 U.S.C. § 18 (2012).

^{140 15} U.S.C. § 1 (2012).

(where the parties' continuing interactions lead to a greater opportunity for coordination) is marked by divergent incentives, with generics seeking to enter the market quickly and brands seeking to delay entry. He it is conceivable that a brand could enter into an agreement with distributors to withhold samples. And in this scenario, it is no defense that, as one court asserted, there is no "common anticompetitive goal" since a plaintiff challenging an agreement under Section 1 only needs to show anticompetitive effects that outweigh procompetitive justifications under the Rule of Reason.

A. Monopoly Power

A monopolization case consists of monopoly power and exclusionary conduct. The first element, which has not been the focus of the REMS cases to date, is monopoly power, which has been defined as "the power to control prices or exclude competition." Monopoly power can be shown in one of two ways. First, it can be proved indirectly by examining a defendant's market share along with barriers to entry that could entrench that market position. Courts regularly hold that a 90 percent market share supports market power, with some courts finding a 75 percent share to be sufficient.

¹⁴¹ In contrast, aligned incentives are present in other pharmaceutical behavior, most notably "pay for delay" (sometimes called "reverse payment" or "exclusion payment") settlements in which brands pay generics (initially in cash, now in in-kind transactions) to delay entry. *E.g.*, FTC v. Actavis Inc., 133 S. Ct. 2223, 2227 (2013). This raises antitrust concern because the brand gets more exclusion than is warranted by the patent alone. *See* Michael A. Carrier, *Payment After Actavis*, 100 Iowa L. Rev. 7, 9–10 (2014). "Because the brand makes more by keeping the generic out of the market than the two parties would receive by competing in the market, the parties have an incentive to split the monopoly profits, making each better off than if the generic had entered." Michael A. Carrier, *Unsettling Drug Patent Settlements: A Framework for Presumptive Illegality*, 108 Mich. L. Rev. 37, 73 (2009). In many cases, the generic even "gains more through settlement than through successful litigation." *Id*.

¹⁴² Transcript of Oral Opinion, supra note 85, at 24.

¹⁴³ See, e.g., Michael A. Carrier, The Rule of Reason: An Empirical Update for the 21st Century, 16 GEO. MASON L. REV. 827 (2009) (surveying Rule-of-Reason cases between 1999 and 2009); Michael A. Carrier, The Real Rule of Reason: Bridging the Disconnect, 1999 BYU L. REV. 1265 (1999) (surveying Rule-of-Reason cases between 1977 and 1999).

¹⁴⁴ E.g., United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966).

¹⁴⁵ United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 391 (1956).

¹⁴⁶ See Herbert Hovenkamp, Federal Antitrust Policy: The Law of Competition and its Practice, § 6.2b, at 359–60 (5th ed. 2016).

¹⁴⁷ Id. § 6.2a, at 357.

Second, monopoly power can be proved directly, 148 such as when a brand firm is able to "maintain the price of [a] drug... at supracompetitive levels without losing substantial sales..." Direct proof of monopoly power also can consist of observable effects on the market such as a price increase or output reduction. 150

The Supreme Court has held that a market can consist of a single product¹⁵¹ and courts have held that a single brand drug can constitute its own relevant market, which has led naturally to the conclusion of monopoly power.¹⁵² As discussed below, where potential purchasers have no alternative to using a particular drug, as is typically the case in the REMS setting, monopoly power is likely.¹⁵³

B. Refusals to Deal

The caselaw on exclusionary conduct is less clear than that on monopoly power. Courts often distinguish between the "willful acquisition or maintenance of [monopoly] power" and "growth or development as a consequence of a superior prod-

ABA SECTION OF ANTITRUST LAW, ANTITRUST LAW DEVELOPMENTS 69–70 (7th ed. 2012) (noting that "direct proof has provided the basis for findings of substantial anticompetitive effects in some prominent cases").

¹⁴⁹ In re Nexium (Esomeprazole) Antitrust Litig., 968 F. Supp. 2d 367, 388 n.19 (D. Mass. 2013); see also In re Aggrenox Antitrust Litig., 94 F. Supp. 3d 224, 246 (D. Conn. 2015).

¹⁵⁰ Broadcom Corp. v. Qualcomm Inc., 501 F.3d 297, 307 (3d Cir. 2007).

¹⁵¹ Eastman Kodak Co. v. Image Tech. Servs., Inc., 504 U.S. 451, 481–82 (1992).

E.g., Aggrenox, 94 F. Supp. 3d at 247 (stating that if the brand was not "able to charge supracompetitive prices," it "is not clear why [it] would have sued to prevent entry" of the generic); In re Cipro Cases I & II, 348 P.3d 845, 869 (Cal. 2015) (stating that plaintiff's prima facie case "will suffice, without more, to raise a presumption of the patentee's market power" since "[l]ogically, a patentee would not pay others to stay out of the market unless it had sufficient market power to recoup its payments through supracompetitive pricing"); Nexium, 968 F. Supp. 2d at 388 (rejecting defendants' claim that "other drugs may be used to treat heartburn"); In re Terazosin Hydrochloride Antitrust Litig., 352 F. Supp. 2d 1279, 1319 n.40 (S.D. Fla. 2005) (relevant market composed of brand and generic terazosin hydrochloride); In re Cardizem CD Antitrust Litig., 105 F. Supp. 2d 618, 680-81 (E.D. Mich. 2000), aff d, 332 F.3d 896 (6th Cir. 2003) (holding that brand and generic versions of heart medication with chemical compound diltiazem hydrochloride constitute single market); but see, e.g., Meijer, Inc. v. Warner Chilcott Holdings Co., 245 F.R.D. 26, 32-33 (D.D.C. 2007) (ordering discovery on oral contraceptives beyond brand and related generic version); In re Remeron Direct Purchaser Antitrust Litig., 367 F. Supp. 2d 675, 683 (D.N.J. 2005) (rejecting market definition limited to brand and generic versions because "[glenerics normally enter the market with prices significantly lower than that of the first brand name manufacturers").

¹⁵³ See infra notes 216-21 and accompanying text.

uct, business acumen, or historic accident." 154 This Article focuses on a monopolization claim based on a refusal to deal with potential rivals. 155

Courts have explained that monopolists generally do not have a duty to deal with competitors. A century ago, the Supreme Court famously declared that "as a general matter, the Sherman Act 'does not restrict the long recognized right of [a] trader or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal." But the Court later explained that this right is not "unqualified" and that "[u]nder certain circumstances, a refusal to cooperate with rivals can constitute anticompetitive conduct and violate [Section] 2." In the context of sample denials, this Article uncovers a combination of regulatory ineffectiveness and conduct lacking economic sense that triggers such an obligation. The facts of the leading refusal-to-deal cases offer guidance.

Several monopolization cases have served as landmarks guiding refusal-to-deal analysis.¹⁶⁰ For example, in *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, the owner of three downhill skiing facilities in Aspen, Colorado failed to offer a justification for withdrawing from a joint ticketing arrangement with the owner of the only other facility in the area.¹⁶¹ The Supreme Court defined exclusionary conduct as that which "tends to impair the opportunities of rivals" and which "either

¹⁵⁴ United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966).

Another somewhat-related antitrust claim treats the sample as an "essential facility" that a monopolist cannot deny to rivals seeking to compete in a market. A plaintiff relying on such a theory must show "(1) control of the essential facility by a monopolist; (2) a competitor's inability . . . to duplicate the essential facility; (3) the denial of the use of the facility[;] . . . and (4) the feasibility of providing the facility." MCI Commc'ns Corp. v. AT&T, 708 F.2d 1081, 1132–33 (7th Cir. 1983). This Article does not focus on essential-facilities claims, which are more narrowly targeted to natural monopolies and conduct in downstream markets and less likely to be consistent with the conservatism of the no-economic-sense test and the factual setting of brands' denial of samples.

¹⁵⁶ Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 600 (1985).

Verizon Comme'ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S.
 408 (2004) (quoting United States v. Colgate & Co., 250 U.S. 300, 307 (1919)).

¹⁵⁸ Aspen Skiing Co., 472 U.S. at 601.

¹⁵⁹ Trinko, 540 U.S. at 408.

See generally Michael A. Carrier, Nicole L. Levidow & Aaron S. Kesselheim, Using Antitrust Law to Challenge Turing's Daraprim Price Increase, 31 Berkeley Tech. L.J. 1379 (2017), (analyzing whether, by altering distribution scheme, Turing violated antitrust laws).

¹⁶¹ See 472 U.S. 585, 605-11 (1985).

does not further competition on the merits or does so in an unnecessarily restrictive way."¹⁶² The Court found that the monopolist was liable for anticompetitive conduct because it was willing to forego ticket sales and sacrifice profits to harm its smaller competitor. ¹⁶³

In a second classic case, *Otter Tail Power Co. v. United States*, the Supreme Court required a company to share electric power transmission with rivals.¹⁶⁴ The company "was already in the business of providing a service to certain customers," and thus could not "refuse[] to provide the same service to certain other customers."¹⁶⁵ In particular, there were "no engineering factors that prevented Otter Tail from selling power at wholesale to those towns that wanted municipal plants or [transferring] the power."¹⁶⁶ Rather, its "refusals to sell at wholesale or to [transfer] were solely to prevent municipal power systems from eroding its monopolistic position."¹⁶⁷ And as discussed in the next Section, additional monopolization cases highlight the importance of an effective regulatory regime covering the conduct.

C. Regulatory Regime

One of the most important developments in antitrust law in the past generation has been the Supreme Court's attention to regulatory regimes. In recent years, the Court has pointed to these regimes in the telecommunications and securities contexts in downplaying the need for antitrust enforcement.¹⁶⁸

The Supreme Court in *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*¹⁶⁹ considered the effect of a telecommunications regime on the application of antitrust law. The Telecommunications Act of 1996 sought to break up local monopolies by requiring incumbent local exchange carriers ("ILECs"), which had state-provided monopolies in the provision of local phone service, to share their networks with competitors. The *Trinko* case arose when an AT&T customer

¹⁶² Id. at 605 n.32.

¹⁶³ Id. at 608.

¹⁶⁴ See generally 410 U.S. 366, 377–82 (1973) (affirming lower court's monopolization finding).

¹⁶⁵ Verizon Comme'ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 410 (2004).

¹⁶⁶ Otter Tail, 410 U.S. at 378.

¹⁶⁷ Id.

 $^{^{168}}$ This section is adapted from Carrier, *Unsettling Settlements*, supra note 141 .

^{169 540} U.S. 398 (2004).

alleged that Verizon discriminated against new entrants in the local market. 170

The Court found that the statute "deter[red] and remed[ied] anticompetitive harm" and thus rejected the plaintiff's refusal-to-deal claim. The presence of a regime that included penalties and reporting requirements significantly reduced "the additional benefit to competition provided by antitrust enforcement." In contrast, the Court continued, where "nothing built into the regulatory scheme . . . performs the antitrust function, the benefits of antitrust are worth its sometimes considerable disadvantages." 174

The Court distinguished the *Aspen Skiing* and *Otter Tail* cases by noting that the defendants in those cases offered ski lift tickets and power transmission, respectively, which were services already available to the public. ¹⁷⁵ By contrast, Verizon was required to share unbundled network elements, a "brand new" type of service that "exist[ed] only deep within the bowels" of the company. ¹⁷⁶ These network elements were "offered not to consumers but to rivals, and at considerable expense and effort," which played a role in the dismissal of Trinko's claim. ¹⁷⁷ The Court also worried about requiring a firm to share with its rivals, as such a remedy would "require[] antitrust courts to act as central planners" and could "facilitate the supreme evil of antitrust: collusion." ¹⁷⁸

In addition to considering the role of the telecommunications regime in fostering competition, the Court more generally described the relationship between antitrust and regulation. It explained that "[a]ntitrust analysis must always be attuned to the particular structure and circumstances of the industry at issue." In particular, courts must take "careful account" of "the pervasive federal and state regulation characteristic of the industry." And the analysis needs to "recognize and reflect

¹⁷⁰ For a detailed overview and analysis of *Trinko*, see generally Michael A. Carrier, *Of Trinko*, *Tea Leaves*, *and Intellectual Property*, 31 J. CORP. L. 357 (2006).

¹⁷¹ Trinko, 540 U.S. at 412.

¹⁷² Id. at 413.

¹⁷³ Id. at 412.

¹⁷⁴ Id. (citation omitted).

¹⁷⁵ Id. at 409-10.

¹⁷⁶ Id. at 410.

¹⁷⁷ Id.

¹⁷⁸ Id. at 408.

¹⁷⁹ Id. at 411.

 $^{^{180}\,}$ Id. (quoting United States v. Citizens & S. Nat'l Bank, 422 U.S. 86, 91 (1975)).

the distinctive economic and legal setting of the regulated industry to which it applies." ¹⁸¹

Consistent with this approach, the Court in *Credit Suisse Securities v. Billing*¹⁸² concluded that the securities law regime "implicitly preclud[ed]" the application of the antitrust laws. In *Billing*, securities buyers challenged practices by which underwriting firms forced them to buy additional shares, pay high commissions, and purchase less desirable securities. The Court explained that the conduct fell "squarely within the heartland of securities regulations" and that the Securities and Exchange Commission ("SEC") had authority to supervise the activities and "continuously exercised" such authority. ¹⁸⁴ It also pointed to the "complex, detailed line" separating permitted from forbidden activity and the existence of activity that could be punished under the antitrust laws but upheld under the securities laws. ¹⁸⁵

Before minimizing the need for antitrust scrutiny, courts must find not only that a regulatory regime exists but also that it functions effectively. In Trinko, Justice Scalia explained that phone companies that provided local service were required to "be on good behavior" and not to discriminate in providing access to certain facilities before they could enter the longdistance market. 186 In addition, firms that did not satisfy these conditions were subject to financial penalties, daily or weekly reporting requirements, and the suspension or revocation of long-distance approval. 187 The Court concluded that "the regime was an effective steward of the antitrust function."188 In Credit Suisse, the Court noted the SEC's active enforcement, pointing as one example to its detailed definitions of "what underwriters may and may not do and say during their road shows" and bringing actions against underwriters who violated the regulations. 189 In short, it is not just the existence of a

 $^{^{181}}$ *Id.* at 411–12 (quoting Concord v. Boston Edison Co., 915 F.2d 17, 22 (1st Cir. 1990)).

^{182 551} U.S. 264, 267 (2007).

¹⁸³ Id. at 285.

¹⁸⁴ Id. at 277.

¹⁸⁵ Id. at 279.

^{186 540} U.S. 398, 412 (2004).

¹⁸⁷ See id. at 412–13. Even if the effectiveness of the telecommunications regime was weaker than the Court anticipated, at least the regulators were engaging in actions that promoted competition. See Carrier, Unsettling Settlements, supra note 141, at 69–70.

¹⁸⁸ Trinko, 540 U.S. at 413.

¹⁸⁹ Billing, 551 U.S. at 277.

regulatory regime that is important for antitrust analysis but also its effectiveness.

D. No-Economic-Sense Test

In contemplating tests for exclusionary conduct, one conservative approach that has been employed in other contexts is the "no economic sense test."¹⁹⁰ This framework determines if the exclusion of rivals "likely would have been profitable if the nascent competition flourished and the monopoly was not maintained."¹⁹¹ Applying the test requires an evaluation of the conduct's gains (not including those from eliminating competition) and costs to the monopolist. ¹⁹² The test focuses on the "reasonably anticipated impact" (according to "objective economic considerations for a reasonable person") rather than its actual impact. ¹⁹³

The no-economic-sense inquiry offers an economic test to determine whether the monopolist's sole motive is to impair competition. If a firm undertakes conduct that makes no economic sense, its "anticompetitive intent" can be "unambiguously... inferred." ¹⁹⁴ As one commentator has explained, the test's application "could not be simpler if . . . the conduct cannot possibly confer an economic benefit on the defendant other than by eliminating competition." ¹⁹⁵ Even in more nuanced settings than sample denials or shared REMS settings, the "technological superiority" of a new product should not prevent a finding of exclusionary conduct since the "value to consumers of the new system relative to the preexisting system" may not be "greater than the required development

¹⁹⁰ This section is adapted from Michael A. Carrier & Steve D. Shadowen, *Product Hopping: A New Framework*, 92 Notre Dame L. Rev. 167 (2016).

¹⁹¹ Gregory J. Werden, *Identifying Exclusionary Conduct Under Section 2: The "No Economic Sense" Test*, 73 ANTITRUST L.J. 413, 415 (2006). For conduct allegedly creating a monopoly, the test asks "whether the conduct likely would have been profitable if the existing competitors were not excluded and monopoly was not created." *Id.*

¹⁹² Id. at 416.

¹⁹³ Id

A. Douglas Melamed, Exclusive Dealing Agreements and Other Exclusionary Conduct—Are There Unifying Principles?, 73 ANTITRUST L.J. 375, 393 (2006). See also id. at 391–92 (employing the term "sacrifice test" because it is "widely used," but recognizing that both this test and the no-economic-sense test depend "not on the timeline, but rather on the nature of the conduct—on whether it would make no business or economic sense but for its likelihood of harming competition"); Steve D. Shadowen et al., Anticompetitive Product Changes in the Pharmaceutical Industry, 41 RUTGERS L.J. 1, 76 (2009) (explaining that conduct that is economically irrational absent reduced competition leads to the natural inference that the actor "was aware of and motivated solely to achieve that reduction").

¹⁹⁵ Werden, supra note 191, at 415.

costs."¹⁹⁶ In short, if a brand acquires or maintains monopoly power by engaging in sample denials or shared REMS behavior that fails the no-economic-sense test, courts should find it liable for illegal monopolization since the behavior makes no sense other than by stifling generic competition.¹⁹⁷

Outside the REMS setting, many courts, most notably the Supreme Court, have endorsed and applied a framework based on this analysis. ¹⁹⁸ In *Aspen Skiing*, the Court found that the defendant "was willing to sacrifice short-run benefits and consumer goodwill in exchange for a perceived long-run impact on its smaller rival." ¹⁹⁹ And in *Trinko*, the Court highlighted "a willingness to forsake short-term profits to achieve an anticompetitive end." ²⁰⁰ Lower courts have offered similar approaches. ²⁰¹

Janusz A. Ordover & Robert D. Willig, *An Economic Definition of Predation: Pricing and Product Innovation*, 91 Yale L.J. 8, 49 (1981). *See also* Spirit Airlines v. Nw. Airlines, 431 F.3d 917, 953 (6th Cir. 2005) (Moore, J., concurring) (stating that viable predation claims are based on theory that "an incumbent seeks to retain monopolist control in the future by ceasing to engage in economically rational behavior in the present in an effort to drive potential rivals from the market"); ROBERT H. BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF 144 (1978) (suggesting test to identify business practices that "would not be considered profit maximizing except for the expectation either that (1) rivals will be driven from the market, leaving the predator with a market share sufficient to command monopoly profits, or (2) rivals will be chastened sufficiently to abandon competitive behavior the predator finds inconvenient or threatening").

Application of the no-economic-sense test would reach an outcome similar to (or even more deferential than) tests courts have used to analyze refusals to deal outside the sample-denial context. Two of the three approaches have applied a "presumptively valid business justification" that can be rebutted, sometimes on grounds of pretext. Data Gen. v. Grumman Sys. Support Corp., 36 F.3d 1147 (1st Cir. 1994); Image Tech. Servs., Inc. v. Eastman Kodak Co., 125 F.3d 1195 (9th Cir. 1997). If conduct satisfies this presumptively valid justification, it will clear the easier-to-satisfy threshold that accepts all justifications other than those based on harming competitors. The third approach, articulated in In re Independent Service Organizations Antitrust Litigation ("Xerox"), 203 F.3d 1322 (Fed. Cir. 2000), provides three categories in which patent holders could be liable: tying, obtaining a patent through fraud, and sham litigation. The first of these categories could reach more aggressively than the no-economic-sense test to ensnare a patentholder even if it had a justification for tying. And the categories addressing fraud and sham litigation present behavior that would also tend not to satisfy the no-economic-sense test. In short, the no-economic-sense test would be no more restrictive—and often would be less restrictive—than the general approaches courts have applied to refusals to deal.

Many of the courts' versions apply the related profit-sacrifice test, which offers a more aggressive test that may not credit short-term profit sacrifice even for long-term economic gain. See infra notes 211-14 and accompanying text.

¹⁹⁹ Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 610–11 (1985).

^{200 540} U.S. 398, 409 (2004).

See, e.g., Novell, Inc. v. Microsoft Corp., 731 F.3d 1064, 1075 (10th Cir. 2013) (test satisfied when "monopolist's conduct [is] irrational but for its anticom-

Commentators have advocated the "no economic sense" test.²⁰² So have the leading antitrust treatises.²⁰³ And the Department of Justice ("DOJ") has advanced it in several important cases. For example, in *Trinko*, the agency asserted that "conduct is not exclusionary or predatory unless it would make no economic sense for the defendant but for its tendency to

petitive effects" (citing Aspen Skiing, 472 U.S. at 597; Trinko, 540 U.S. at 407)); Covad Commc'ns Co. v. Bell Atl. Corp., 398 F.3d 666, 676 (D.C. Cir. 2005) (considering predatory practice to be "one in which a firm sacrifices short-term profits in order to drive out of the market or otherwise discipline a competitor" (citing Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 222-23 (1993))); Advanced Health-Care Servs., Inc. v. Radford Cmty, Hosp., 910 F.2d 139, 148 (4th Cir. 1990) (conduct exclusionary if monopolist made "a short-term sacrifice in order to further its exclusive, anti-competitive objectives" (citing Smithkline Corp. v. Eli Lilly & Co., 575 F.2d 1056, 1065 (3d Cir. 1978))); Ne. Tel. Co. v. AT&T, 651 F.2d 76, 94-95 (2d Cir. 1981) (properly instructed jury could reasonably find that monopolist designed product to impede competition); Response of Carolina, Inc. v. Leasco Response, Inc., 537 F.2d 1307, 1330 (5th Cir. 1976) (technological tying cases "limited to those instances where the technological factor tying the hardware to the software has been designed for the purpose of tying the products, rather than to achieve some technologically beneficial result"); ILC Peripherals Leasing Corp. v. IBM, 458 F. Supp. 423, 439 (N.D. Cal. 1978) (no liability where "there was no evidence that IBM was sacrificing present profits with the expectation of recouping its losses with subsequent price increases").

See, e.g., Susan A. Creighton & Jonathan M. Jacobson, Twenty-Five Years of Access Denials, 27 ANTITRUST, Fall 2012, at 50, 54 (noting that, as applied to rival's access demands, rule "runs the least risk of reducing investment incentives while maintaining society's critical interest in preserving consumer welfare through competition"); Melamed, supra note 194, at 389 (offering test providing that "conduct is anticompetitive if, but only if, it makes no business sense or is unprofitable for the defendant but for the exclusion of rivals and resulting supracompetitive recoupment"); Werden, supra note 191, at 422-25 (articulating "no economic sense" framework); cf. Henry N. Butler, REMS-Restricted Drug Distribution Programs and the Antitrust Economics of Refusals to Deal with Potential Generic Competitors, 67 FLA. L. REV. 977, 1023 (2015) ("[U]nder the profit-sacrifice test, conduct is anticompetitive only if the defendant has no legitimate business purpose for the conduct or it is unprofitable in the short run and makes business sense only if a rival is excluded, leaving the defendant with a supracompetitive recoupment in the long run."); see generally Shadowen et al., supra note 194, at 75-77.

203 See generally 3A Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law ¶ 773e, at 209–13 (2d ed. 2002) (refusal to deal unlawful if irrational in sense that defendant sacrificed opportunity to make profitable sale only because of adverse impact refusal would have on rival); Herbert Hovenkamp, Mark D. Janis, Mark A. Lemley, Christopher R. Leslie & Michael A. Carrier, IP and Antitrust: An Analysis of Antitrust Principles Applied to Intellectual Property Law § 12.3, at 12-35 (3d ed. 2017) ("If a design change makes no economic sense unless the exclusion of rivals is taken into account, it is reasonable to infer both that the purpose behind the design change was anticompetitive and, more importantly, that the anticompetitive effects of the design change predominated over any technological benefits.").

eliminate or lessen competition."²⁰⁴ In *United States v. Microsoft Corp.*, ²⁰⁵ the DOJ contended that Microsoft's protection of its operating system monopoly was exclusionary because it "would not make economic sense unless it eliminated or softened competition."²⁰⁶ In *American Airlines*, ²⁰⁷ the agency asserted that the defendant excluded rivals by adding "money-losing capacity" and that "distinguishing legitimate competition from unlawful predation requires a common-sense business inquiry" based on "whether the conduct would be profitable, apart from any exclusionary effects."²⁰⁸ And in *United States v. Dentsply Int'l*, ²⁰⁹ the DOJ argued that "Dentsply's exclusionary policies made no economic sense but for their tendency to harm rivals, and so were predatory."²¹⁰

The test also avoids some of the recognized shortcomings of the "profit sacrifice" test, a similar framework that assesses whether conduct would be "unprofitable for the defendant but for the exclusion of rivals and resulting supra-competitive recoupment." In particular, the profit-sacrifice test, unlike the no-economic-sense test, could punish short-term sacrifices such as investments in R&D or capital equipment even though they would lead to a higher profit in the long term. The no-economic-sense test does not punish such investments, which "make economic sense apart from any tendency to eliminate competition." And the test avoids disputes about whether the manufacturer anticipated that it would recoup its sacri-

²⁰⁴ Brief for the United States and the Fed. Trade Comm'n as Amici Curiae Supporting Petitioner at 15, Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398 (2004) (No. 02-682) (emphasis omitted).

^{205 253} F.3d 34 (D.C. Cir. 2001).

Brief for Appellees United States and the State Plaintiffs at 48, United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001) (Nos. 00-5212, 00-5213).

United States v. AMR Corp., 335 F.3d 1109 (10th Cir. 2003).

<sup>Brief for Appellant United States of America at 2, 30, United States v. AMR
Corp., 335 F.3d 1109 (10th Cir. 2003) (No. 01-3202) (public redacted version).
399 F.3d 181 (3d Cir. 2005).</sup>

²¹⁰ Brief for the United States at 28, United States v. Dentsply Int'l, Inc., 399 F.3d 181 (3d Cir. 2005) (No. 03-4097) (public redacted version).

²¹¹ Melamed, *supra* note 194, at 389; *see also* Ordover & Willig, *supra* note 196, at 9–10 ("[P]redatory behavior is a response to a rival that sacrifices part of the profit that could be earned under competitive circumstances, were the rival to remain viable, in order to induce exit and gain consequent additional monopoly profit." (footnotes omitted)).

²¹² See Werden, supra note 191, at 424; see also Herbert Hovenkamp, The Harvard and Chicago Schools and the Dominant Firm, in How the Chicago School Overshot the Mark: The Effect of Conservative Economic Analysis on U.S. Antitrust 115 (2008) (noting that profit-sacrifice test "does not adequately distinguish anticompetitive 'sacrifice' from procompetitive 'investment'").

²¹³ Werden, supra note 191, at 424.

ficed profits sometime in the future.²¹⁴ Having introduced the no-economic-sense test, the next Part articulates an antitrust framework that applies the test to sample denials and shared REMS conduct in the pharmaceutical industry.

IV

THE ANTITRUST CASE AGAINST REMS PROGRAMS

In applying the antitrust framework articulated in Part III to REMS programs, this Part first addresses monopoly power. It then highlights the regulatory regime's existence and effectiveness. Finally, it turns to exclusionary conduct, focusing first on sample denials before concluding with shared REMS programs.²¹⁵

A. Monopoly Power

In the REMS cases to date, the courts have focused their attention on the issue of exclusionary conduct. For example, after articulating the elements of the monopolization offense, the court in *In re Suboxone* quickly stated that "[s]imple possession of monopoly power is not enough" and that "a defendant must also engage in exclusionary conduct to run afoul of [Section 2]," after which it proceeded directly to examine the issue of the defendant's duty to deal. In *Mylan v. Celgene*, the court indicated (at the motion-to-dismiss stage) that the parties disputed only the conduct element. And in *Actelion v. Apotex*, the court ruled that it would proceed to discovery without examining the issue of monopoly power.

In the cases litigated to date, proving monopoly power has not been a hurdle. One reason is the procedural setting, with courts crediting plaintiffs' allegations related to the factually-

²¹⁴ See Christopher R. Leslie, Predatory Pricing and Recoupment, 113 COLUM. L. REV. 1695, 1699 (2013) (describing "unnecessary and counterproductive" recoupment analysis); Steven C. Salop, Exclusionary Conduct, Effect on Consumers, and the Flawed Profit-Sacrifice Standard, 73 ANTITRUST L.J. 311, 319–20 (2006) (noting that no-economic-sense test "is primarily different from the conventional profit-sacrifice standard because it does not require a showing that there is a period of time in which the defendant's profits are lower than they were before the exclusionary conduct was undertaken" and explaining that "[t]he reduction in profits can be conceptual rather than temporal").

Another anticompetitive concern, which lies outside the scope of this Article, arises from brands' blocking of generics through patents on REMS. See Michael A. Carrier & Brenna Sooy, Five Solutions to the REMS Patent Problem, 97 B.U. L. REV. 1661 (2017).

²¹⁶ In re Suboxone Antitrust Litig., 64 F. Supp. 3d 665, 678–79 (E.D. Pa. 2014).

²¹⁷ Transcript of Oral Opinion, supra note 85, at 9.

²¹⁸ See Actelion v. Apotex transcript, supra note 49, at 117.

intensive determination of monopoly power in the context of a motion to dismiss. But as the cases proceed to later stages, analysis could very well reveal monopoly power, reflecting the control that brands typically have over markets that include REMS drugs. For example, the factors that the FDA evaluates²¹⁹ in requiring REMS "imply a cost-benefit analysis"²²⁰ that considers whether other drugs treat the same disease. Where there is a less dangerous alternative on the market, the FDA would not be likely to approve a new, more dangerous product. Instead, the agency is more likely to approve a risky REMS product only where there is no safer, effective alternative on the market. In other words, the REMS product is likely to fill an unmet medical need, lack close substitutes, and reflect monopoly power. Regardless of the factual setting relevant to monopoly power, the vast majority of the antitrust analysis to date has emphasized the second element: exclusionary conduct.221

B. Existing Regulations

Central to the antitrust analysis of exclusionary conduct is an understanding of the regulatory regime. As the *Trinko* Court explained, "[a]ntitrust analysis must always be attuned to the particular structure and circumstances of the industry at issue."²²² Courts must take "careful account" of "the pervasive federal and state regulation characteristic of the industry,"²²³ and the analysis must "recognize and reflect the distinctive economic and legal setting of the regulated industry to which it applies."²²⁴

²¹⁹ BRIEF OVERVIEW, *supra* note 17, at 6 (factors include the population size likely to use the drug, seriousness of the disease, drug's expected benefit, expected duration of treatment, seriousness of adverse effects, and drug's novelty).

220 Megaw, *supra* note 57, at 132.

Another issue is whether the plaintiff can demonstrate antitrust injury. See In re Warfarin Sodium Antitrust Litig., 214 F.3d 395, 401 (3d Cir. 2000) (noting that "[i]t is difficult to imagine a more formidable demonstration of antitrust injury" than higher drug prices); Anna Fabish, REMS Abuse And Antitrust Injury: Round Peg, Square Hole, LAW360 (Nov. 4, 2015 12:55 PM), https://www.law360.com/articles/723053/rems-abuse-and-antitrust-injury-round-peg-square-hole [https://perma.cc/JTK4-UX6U] (raising concerns with antitrust-injury showing); Darren S. Tucker, Gregory F. Wells & Margaret E. Sheer, REMS: The Next Pharmaceutical Enforcement Priority?, 28 ANTITRUST, Spring 2014, at 74, 78 (discussing elements of injury and causation).

²²² Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 411 (2004).

²²³ Id. (quoting United States v. Citizens & S. Nat'l Bank, 422 U.S. 86, 91 (1975)).

²²⁴ Id.

Just as the telecommunications regime in *Trinko* and securities regime in *Billing* presented comprehensive frameworks, the Hatch-Waxman Act and FDAAA offer exhaustive schemes that prescribed Congress's desired balance between competition and innovation in the pharmaceutical industry. The drafters of the Hatch-Waxman Act used patent-term extensions, market exclusivity, and thirty-month stays to foster innovation.²²⁵ And they introduced several mechanisms to increase generic competition.

Even though generic drugs have the same active ingredients, dosage, administration, performance, and safety as patented brand drugs, generic manufacturers were required, at the time of the Act, to engage in lengthy and expensive trials to demonstrate safety and effectiveness. The FDA approval process took several years, and because the required tests constituted infringement, generics could not begin the process during the patent term. They therefore waited until the end of the term to commence these activities, which prevented them from entering the market until two or three years after the patent's expiration. At the time Congress enacted Hatch-Waxman, there were no generic equivalents for roughly 150 drugs whose patent terms had lapsed. 228

The drafters of the Hatch-Waxman Act²²⁹ encouraged challenges to invalid or noninfringed patents, believing that such challenges would lead to earlier market entry and lower prices.²³⁰ They exempted from infringement the manufacture, use, or sale of a patented invention for uses "reasonably related to the development and submission of information under a Federal law which regulates the manufacture, use, or sale of drugs."²³¹ In addition to allowing the testing of the product before patent expiration, the drafters allowed generics to avoid the filing of a New Drug Application ("NDA") by submitting an Abbreviated New Drug Application ("ANDA").²³² To do this, the

See Carrier, Unsettling Settlements, supra note 141, at 43-45.

²²⁶ Generic Drugs: Questions and Answers, U.S. FOOD & DRUG ADMIN., http://www.fda.gov/Drugs/ResourcesForYou/Consumers/QuestionsAnswers/UCM 100100.htm [https://perma.cc/HSU7-UQTX] (last updated Aug. 24, 2017).

²²⁷ CONG. BUDGET OFF., supra note 37, at 38.

²²⁸ H.R. REP. No. 98-857, pt. 2, at 11 (1984), reprinted in 1984 U.S.C.C.A.N. 2647, 2650. This paragraph is adapted from Carrier, *Unsettling Settlements*, supra note 141, at 42.

Drug Price Competition and Patent Term Restoration Act of 1984, Pub. L. No. 98-417, 98 Stat. 1585 (codified as amended at 21 U.S.C. § 335 (2012)).

²³⁰ See 130 Cong. Rec. 24,427 (1984) (statement of Rep. Waxman).

²³¹ 35 U.S.C. § 271(e)(1) (2012).

²³² See FTC GENERIC DRUG STUDY, supra note 41, at 5.

generic must show that its drug possesses the same active ingredient, route of administration, bioequivalence, and other characteristics of the brand's drug. If it can make this showing, it can rely on the brand's safety and effectiveness studies, dispensing with the need for independent preclinical or clinical studies.²³³

In fact, fostering generic competition was an explicit goal of the Hatch-Waxman Act. Looking at the marketplace in 1984, the drafters sought to ensure the provision of "low-cost, generic drugs for millions of Americans."²³⁴ And they believed the legislation would "do more to contain the cost of elderly care than perhaps anything else this Congress has passed."²³⁵ A crucial centerpiece of the Act, in short, involved a reduction in drug prices by facilitating generic entry.

The importance of generic competition is crucial not only for the Hatch-Waxman Act but also for other elements of the pharmaceutical regime. The drafters of the FDAAA included a provision that made clear that ETASU measures should not be used to prevent generic firms from accessing samples of drugs covered by REMS.236 In particular, it made clear that "[n]o holder of an approved covered application shall use any element to assure safe use required by the Secretary under this subsection to block or delay approval of an application."237 Congress also provided that brand firms could not use REMS programs to burden patients who had serious medical conditions or difficulty accessing health care. 238 Such direction has been undermined by conduct relating to the drugs at issue in the cases, which involved treatments for pulmonary arterial hypertension (Tracleer), cancers and bone marrow disorders (Thalomid and Revlimid), and opioid addiction (Suboxone).²³⁹

Nor is the goal of fostering generic competition restricted to federal regulations. State drug product selection ("DPS") laws,

See id.; see, e.g., Caraco Pharm. Labs., Ltd. v. Novo Nordisk A/S, 566 U.S. 399, 404–05 (2012) (Hatch-Waxman Act "allow[s] a generic competitor to file an [ANDA] piggy-backing on the brand's NDA").

^{234 130} CONG. REC. 24,427 (statement of Rep. Waxman).

²³⁵ Id

²³⁶ FDAAA, 21 U.S.C. § 355-1(f)(8) (Supp. 2016) ("No holder of an approved covered application shall use any element to assure safe use required by the Secretary under this subsection to block or delay approval of an application under section 355(b)(2) or (j) [21 U.S.C. § 355(b)(2) or (j)] or to prevent application of such element under subsection (i)(1)(B) to a drug that is the subject of an abbreviated new drug application.").

²³⁷ Id.

²³⁸ Id. § 355-1(f)(2)(C). See supra note 26 and accompanying text.

²³⁹ See supra Part II.

in effect in all fifty states today, are designed to lower prices for consumers.²⁴⁰ These laws "allow—and in many cases require—pharmacists, absent a doctor's contrary instructions, to substitute generic versions of brand-name prescriptions."²⁴¹

DPS laws "are designed to address the disconnect in the industry between prescribing doctors, who are not directly responsive to drug pricing, and paying insurers and consumers, who do not directly select the prescribed drug."242 In particular, DPS laws "carve out a role for pharmacists, who are much more sensitive to prices than doctors."243 The laws typically allow pharmacists to substitute generic versions of brand drugs only if they are "AB-rated" by the FDA. To receive an AB rating, a generic drug must be therapeutically equivalent to the brand drug, which means that the generic has the same active ingredient, form, dosage, strength, and safety and efficacy profile.²⁴⁴ The drug also must be bioequivalent, which signifies that the rate and extent of absorption in the body is roughly equivalent to the brand drug. Without access to samples, the generic is not able to show equivalence, thus blocking the crucial substitution at pharmacy counters throughout the country.

C. Ineffective Regulations

The regulatory context discussed in the previous section showed the vital significance of samples. The Hatch-Waxman Act and 50 state substitution laws are explicitly centered on early generic entry to the market.

Price falls dramatically from entry because generics do not need to replicate brand firms' expensive and lengthy clinical trials.²⁴⁵ But the prerequisite to entering the market at a low price by demonstrating bioequivalence is the ability to access a brand's sample.²⁴⁶ This entire regime comes crashing to a halt without this access. For without the sample, the generic cannot engage in the required testing and must replicate all of this

²⁴⁰ Carrier, *supra* note 33, at 1017. *See supra* notes 33–35 and accompanying text.

²⁴¹ Id.

²⁴² Id.; see Bureau of Consumer Prot., supra note 34, at 2-3.

²⁴³ Carrier, supra note 33, at 1017; MASSON & STEINER, supra note 35, at 7.

²⁴⁴ See generally U.S. FOOD & DRUG ADMIN., CTR. FOR DRUG EVALUATION & RESEARCH, APPROVED DRUG PRODUCTS WITH THERAPEUTIC EQUIVALENCE EVALUATIONS (36th ed. 2016), http://www.fda.gov/Drugs/DevelopmentApprovalProcess/ucm0790 68.htm [https://perma.cc/VQ8Y-75dd].

 $^{^{245}}$ See supra notes 41--43 and accompanying text. The lack of promotion and marketing is another factor lowering generic costs.

See supra notes 44–47 and accompanying text.

work, in direct contravention of the Hatch-Waxman Act. One commentator has explained that "[i]f the brand company could limit access to its drug and be immune from any liability for doing so, the deprivation would essentially gut the purpose of the Hatch-Waxman Act," which Congress would not have done in such a "back-handed manner."²⁴⁷

Congress was keenly aware of the importance of generic competition when it passed the FDAAA, which made clear that brands could not use ETASU restrictions to "block or delay" generic applications.²⁴⁸ Despite the statute's prohibition on blocking or delaying generic competition, more than 100 generic firms have complained that they have not been able to access samples they need for testing to reach the market.²⁴⁹ As discussed above,²⁵⁰ Senators have lamented that the refusal to share samples is a "simple delay tactic [that] uses regulatory safeguards as a weapon to block competition" and that brands have "misus[ed]" REMS "in violation of FDA regulations and the Hatch-Waxman Act."²⁵¹ Even though the drafters of REMS believed that the programs would not be used to block or delay generic entry, they have in fact been used in such a manner.²⁵²

Not only is the regime not working as intended, but the FDA is unable to fix the problem. A Senate committee concluded that the agency "has attempted to stymie [brands'] obstruction" by providing letters to generic entrants indicating that "they . . . see no safety risk," but its "actions have been largely ineffective."²⁵³ While the statute "provide[s] the basis for the FDA to take action" against brand firms, "the lack of a remedial scheme leaves much to debate about the FDA's au-

²⁴⁷ Upadhye & Lang, supra note 8, at 97.

²⁴⁸ FDAAA, 21 U.S.C. § 355-1(f)(8) (Supp. 2016).

²⁴⁹ CREATES Act Hearing, supra note 4 (prepared statement of Sen. Patrick Leahy (D-VT)).

²⁵⁰ Id.; see supra notes 58-61 and accompanying text.

²⁵¹ CREATES Act Hearing, supra note 4 (prepared statement of Sen. Patrick Leahy (D-VT)); id. (prepared statement of Sen. Chuck Grassley (R-IA)).

Congress has recently considered legislation that would address the concerns presented by REMS programs. The Creating and Restoring Equal Access to Equivalent Samples Act ("CREATES Act") of 2016 provides a cause of action if a brand firm "decline[s] to provide sufficient quantities" of a drug "on commercially reasonable, market-based terms." S. 3056, 114th Cong. § 3(b)(1)(A) (introduced June 21, 2016). It also provides a cause of action if the brand "fail[s] to reach agreement with respect to a single, shared system" after 120 days. *Id.* § 3(b)(2). In addition to ordering (either) sufficient quantities of the drug or negotiation, the legislation provides for remedies that include attorneys' fees, costs, and an amount sufficient for deterrence. *Id.* §§ 3(b)(1)(D), 3(b)(2)(C).

²⁵³ SUDDEN PRICE SPIKES, supra note 61, at 115.

thority to enforce and consequently little incentive for the FDA to do so."254

Nor has the agency had more success in relation to shared REMS, as "get[ting] competitors to work together so that [they] can get a market share from the [brand] has proven very challenging for the FDA to get . . . done," which "has delayed access." Other than cases involving intellectual property, the agency has concluded that it "only has the power to authorize separate REMS systems if the delay in generic entry" has resulted in a drug's cost "affect[ing] patient access," which means that it "only act[s] after substantial delay." The director of the FDA's Center for Drug Evaluation and Research (which is responsible for drug safety257) has concluded that the agency "ha[s] to try and try and try and try, and then finally . . . declare defeat and . . . go ahead and let the generics have their own system that is separate but equal." 258

It thus is not a surprise that the FDA has conceded that "issues related to ensuring that marketplace actions are fair and do not block competition would be best addressed by the FTC, which is the Federal entity most expert in investigating and addressing anticompetitive business practices." To similar effect, the FDA responded to a citizen petition by Prometheus Laboratories by explaining that "[t]o the extent that . . . there may be antitrust issues associated with establishing single, shared systems," the party should "consult with the FTC." And the court in Actelion v. Apotex found it "clear . . . that the FDA does not have the regulatory power to compel samples and that there is no other potential remedy to a defendant suffering anticompetitive conduct in that regulatory scheme." 261

²⁵⁴ *Id.* at 117 n.733. The FDA does not even "have the authority to take enforcement actions against sponsors that do not include all information requested in FDA assessment plans." HHS REPORT, *supra* note 30, at 22.

²⁵⁵ SUDDEN PRICE SPIKES, supra note 61, at 115.

²⁵⁶ Id. at 116.

About the Center for Drug Evaluation and Research, U.S. FOOD & DRUG ADMIN., http://www.fda.gov/AboutFDA/CentersOffices/OfficeofMedicalProducts andTobacco/CDER/ [https://perma.cc/5FN7-LJWU] (last updated Dec. 9, 2014).

SUDDEN PRICE SPIKES, supra note 61, at 116.

²⁵⁹ Partial Petition Approval & Denial to Dr. Reddy's Labs.' Petition at 7, No. FDA-2009-P-0266-0006 (Aug. 7, 2013).

Grant in Part and Denial in Part, No. FDA-2013-P-0572 at 6 (Oct. 7, 2013). Actelion v. Apotex transcript, supra note 49, at 115–16. See also Anna M. Fabish, Why REMS Abuse Doesn't Belong in Antitrust Litigation, LAW360 (Apr. 23, 2015, 4:30 PM), https://www.law360.com/articles/645875/why-rems-abuse-doesn-t-belong-in-antitrust-litigation [https://perma.cc/7LZE-MWPY] ("The FDA would certainly need to expand its existing review and enforcement tools" to

Because the FDA has no power to compel a sale, the regulatory regime is not able to address competitive effects in the industry, ensuring an opportunity for antitrust enforcement. As it turns out, antitrust law can play a uniquely effective role in addressing the anticompetitive harms unleashed by the REMS regime. Absent a showing, not revealed to date, of below-market-rate offers, the denial of samples, as shown in the next Section, makes no economic sense other than by harming generic competition. ²⁶³

D. Sample Denials

The ineffective enforcement of the pharmaceutical regulatory regime ensures that antitrust law has an essential role to play. And this regime is well-equipped to analyze behavior so extreme that it fails even the conservative, defendant-friendly, no-economic-sense test.

Most fundamentally, the refusal to provide REMS samples to generics makes no economic sense other than by harming generics. Generics have been willing to pay a high price for samples, with one even stating that it pays "ridiculous amounts of money" for "a commercially immaterial quantity of drug." The caselaw provides examples of generics' willingness to purchase samples at a rate that would be profitable to the brand. In *Actelion v. Apotex*, generic firm Apotex was

address a refusal to provide samples); Matthew Perrone, *Drug Distribution Becomes Weapon to Block Competition*, DETROIT NEWS (Mar. 3, 2016 5:42 PM), http://www.detroitnews.com/story/business/2016/03/03/drug-distribution-competition-prices/81286042/ [https://perma.cc/297V-TD7T] (leading FDA attorney asserts that the agency "is hesitant to make a call on whether a manufacturer is actually intending to delay generic competition").

The court in *In re Suboxone Antitrust Litigation*, 64 F. Supp. 3d 665 (E.D. Pa. 2014), asserted that the statute prohibits brands from "manipulating the process to cause delay," which apparently "provides for increased FDA oversight and diminishes the need for antitrust scrutiny." *Id.* at 688. But such a holding fails to consider the effectiveness of the regulatory regime, in particular the FDA's inability and unwillingness to address competition concerns.

The Federal Trade Commission has filed two amicus briefs that have contended that refusals to provide samples can constitute exclusionary conduct under Supreme Court caselaw and undermine the goals of the Hatch-Waxman Act; that distribution agreements are not immune from antitrust scrutiny; and that bioequivalence testing is exempt from patent infringement. See generally Fed. Trade Comm'n's Brief as Amicus Curiae, Mylan Pharms. v. Celgene Corp., Case No. 2:14-CV-2094-ES-MAH (D.N.J. June 17, 2014); Fed. Trade Comm'n's Brief as Amicus Curiae, Actelion Pharms. v. Apotex Inc., Case No. 1:12-cv-05743-NLH-AMD (D.N.J. Mar. 11, 2013).

264 CREATES Act Hearing, supra note 4, at 2:10:38-47 (testimony of Beth Zelnick Kaufman).

²⁶⁵ Generics that lack access to a sample are not able to use a foreign sample as a substitute. *See supra* note 53 and accompanying text.

willing to "pay market prices for the samples."²⁶⁶ And in *Natco Pharma v. Gilead Sciences*, generic Natco "offered to pay the market rate and shipping" for more than 500 tablets.²⁶⁷

This willingness to pay the market rate has been combined with brands' seemingly irrational responses in refusing to provide samples. In Mylan v. Celgene, for example, Mylan alleged that it "requested the purchase of limited Revlimid samples for bioequivalence testing, offering to pay market value," and that it was willing to "enter into an indemnification agreement" that included nearly every concession to terms Celgene requested" during [earlier] negotiations.²⁶⁸ Celgene, however, responded by rejecting Mylan's offer. In fact, after negotiating for the sale of Thalomid samples for five years, and reaching an indemnification agreement in 2009, as of the date of this Article-eight years later-Mylan still has not been able to obtain access to samples.²⁶⁹ Another example is provided by generic firm Amneal, which explained to a Senate committee that it requested samples in December 2013, signed an agreement in February 2016, but (as of the date of this Article) still did not have samples.²⁷⁰ These examples of a lack of economic sense are confirmed when, at the same time brands deny samples to generics, they make sales to other entities including research organizations, distributors, and specialty pharmacies.²⁷¹

In short, it is clear that generics are willing to buy samples from brands and, in every reported instance, pay at least a

Memorandum of Law in Support of Defendants'/Counterclaim Plaintiffs' Opposition to Plaintiffs'/Counterclaim Defendants' Motion for Judgment on the Pleadings and to Dismiss Counterclaims, Actelion Pharm. Ltd. v. Apotex, Inc., Case No: 1:12-cv-05743 (NLH) (AMD) (D.N.J. Mar. 4, 2013), at *22; see also Actelion v. Apotex transcript, supra note 49, at 49 (Roxane's counsel states that "[t]he generics have offered to pay retail published price or, frankly . . . any price that was within the realm of reasonableness").

 $^{^{267}\,}$ Civil No. 14-3427 (DWF/JSM), 2015 WL 5718398, at *2 (D. Minn. Sept. 29, 2015). The regulatory regime and legislative history make clear that, in calculating the cost of a sample, brands cannot include anticipated future effects from product-liability lawsuits or safety concerns. See infra notes 382–96 and accompanying text.

Plaintiff Mylan Pharms.' Brief in Opposition to Celgene's Motion to Dismiss at *13–14, Mylan Pharms. Inc. v. Celgene Corp., Civ. Action No. 2:14-cv-02094-ES-MAH, 2014 U.S. Dist. Ct. Briefs LEXIS 1435 (D.N.J. June 16, 2014).

See Transcript of Oral Opinion, supra note 85, at 4-7.

²⁷⁰ CREATES Act Hearing, supra note 4, at 2–3 (prepared statement of Beth Zelnick Kaufman).

²⁷¹ Actelion v. Apotex transcript, supra note 49, at 49–50; see also In re Thalomid & Revlimid Antitrust Litig., Civil No.: 14-6997 (KSH) (CLW), 2015 WL 9589217, at *15 (D.N.J. Oct. 29, 2015) ("[M]otivation is central" when brand "provided samples to researchers who were not seeking to enter the market, but not to competitors, who were").

profitable market rate. This situates the denials comfortably in the range of settings in which courts have found liability because of a refusal to accept a retail price.

In Aspen Skiing, the Court found that the defendant "was willing to sacrifice short-run benefits and consumer goodwill in exchange for a perceived long-run impact on its smaller rival." In discussing the decision, the *Trinko* Court emphasized "[t]he unilateral termination of a voluntary (and thus presumably profitable) course of dealing," which "suggested a willingness to forsake short-term profits to achieve an anticompetitive end." And it observed that an "unwillingness to renew the ticket even if compensated at retail price revealed a distinctly anticompetitive bent."

To similar effect was *Otter Tail Power Co. v. United States*,²⁷⁵ in which the Court required a company to share electric power transmission with rivals. The firm was already providing the service, and the only reason it refused to provide it to competitors was "to prevent municipal power systems from eroding its monopolistic position."²⁷⁶ Similar to the ski lift tickets in *Aspen Skiing*, the defendant was "already in the business of providing" power transmission services to other customers.²⁷⁷

In contrast, the *Trinko* Court distinguished between refusing to sell a product at the "retail price," an indicator of anticompetitive behavior implying "a calculation" of a "future monopoly retail price [that] would be higher,"²⁷⁸ and Verizon's ability only to obtain a "cost-based rate of compensation" under the relevant statute.²⁷⁹

Refusing to make a sale at the market price (or even higher) does not make sense absent harm to the generic. It is consistent with the monopolist's conduct in *Aspen Skiing* (sacrificing profits) and *Otter Tail* (harming competitors) and readily distinguishable from *Trinko* (unprofitable price).

Drug samples also are far closer to the services available to the public under Aspen Skiing and Otter Tail than the "brand

 $^{272\,}$ Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 610–11 (1985).

²⁷³ Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 409 (2004) (emphasis in original).

²⁷⁴ Id. (emphasis in original).

^{275 410} U.S. 366 (1973).

²⁷⁶ Id. at 378.

²⁷⁷ Trinko, 540 U.S. at 410.

²⁷⁸ Id. at 409.

²⁷⁹ Id.

new" type of service in *Trinko* that "exist[ed] only deep within the bowels" of Verizon. For REMS programs that the FDA requires after the drug is already on the market, by definition the product is available. Even when a sample is requested before a drug is approved, the brand firm is in the business of producing drugs. And once it has manufactured the drug, providing a sample involves no additional effort. It is not as if the brand needs to embark on a separate process of creating a new product just to provide to the generics. The ready availability of samples offers additional evidence that the refusal to provide them to generics constitutes behavior that makes sense only by harming rivals.

In short, the denial of samples falls comfortably within the factual settings of cases in which courts have found liability. As the *Actelion* court recognized: "[I]f the defendants can prove that the plaintiffs are motivated not so much by safety concerns but instead . . . by the desire to use the REMS or REMS equivalent, to use exclusive distribution agreements[,] and to use a[n] otherwise legitimate refusal to deal together to maintain and extend a monopoly, then they may very well make out a Section 2 claim."²⁸¹

E. Shared REMS

The other setting in which REMS issues have arisen involves Single Shared REMS Programs, known as SSRS.²⁸² By offering a shared system, SSRS programs reduce the burdens on healthcare providers and manufacturers. For example, the REMS program covering opioids involves multiple companies.²⁸³ Such a joint effort against a public health problem would be much more difficult without coordination. As a result of the shared REMS program, more prescribers have received training on pain management and on the safe prescription of opioids.²⁸⁴

²⁸⁰ Id. at 410.

²⁸¹ Actelion v. Apotex transcript, supra note 49, at 117.

²⁸² FDAAA, 21 U.S.C. § 355-1 (i)(1)(B) (Supp. 2016).

²⁸³ See Approved REMS, supra note 28.

Plan, U.S. Food & Drug Admin., http://www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/UCM484714.htm [https://perma.cc/VW5F-U5UX] (last updated Sept. 13, 2016); see also Risk Evaluation and Mitigation Strategy (REMS) for Extended-Release and Long-Acting Opioid Analgesics, U.S. Food & Drug Admin., http://www.fda.gov/drugs/drugsafety/in formationbydrugclass/ucm163647.htm [https://perma.cc/T4P7-NBEV] (last updated Feb. 2, 2017) (noting that REMS is "one strategy among multiple national and state efforts to reduce the risk of abuse, misuse, addiction, overdose, and deaths due to prescription opioid analgesics").

Another example is provided by the SSRS for mycopheno-late-containing prescription medicines, which "weaken[] the body's immune system so it will not attack and reject a transplanted organ."²⁸⁵ The FDA required the shared program because the products were marketed by different sponsors, and a single REMS program that could be "used and shared by all of these sponsors" would "reduce the burden on the health care system."²⁸⁶ A single, shared system for the products would "make it easier for prescribers to participate in the REMS program" because there would "only be one education program for prescribers."²⁸⁷ And it would be easier for manufacturers, who could "maintain a single call center to support health care professionals and the REMS program."²⁸⁸

In short, shared REMS programs serve important public health purposes. And central to the programs is the alignment of brand and generic REMS. As an FDA official explained: "If we are approving a generic drug and there is a REMS in place for the innovator drug, the requirements are the same for the [generic] product." ²⁸⁹

Despite this need for coordination, on several occasions brands have delayed generic entry by failing to negotiate in good faith, claiming that generics "remain free at all times to

Questions and Answers: FDA Approves a Single Shared Risk Evaluation and Mitigation Strategy (REMS) for Mycophenolate-containing Medicines, U.S. FOOD & DRUG ADMIN., http://www.fda.gov/drugs/drugsafety/postmarketdrugsafetyin formationforpatientsandproviders/ucm318880.htm [https://perma.cc/4WS2-4RR9] (last updated July 9, 2015).

²⁸⁶ Id.

²⁸⁷ Id

²⁸⁸ Id. Another example is provided by the SSRS for transmucosal immediate-release fentanyl ("TIRF"), which relieves sudden and short-term pain in cancer patients. See Questions and Answers: FDA Approves a Class Risk Evaluation and Mitigation Strategy (REMS) for Transmucosal Immediate-Release Fentanyl (TIRF) Medicines, U.S. FOOD & DRUG ADMIN., http://www.fda.gov/drugs/drugsafety/in formationbydrugclass/ucm284717.htm [https://perma.cc/EGB9-FTR9] (last updated July 9, 2015). The FDA approved this shared program even though the TIRF medicines "already had individual REMS in place" to "reduce the burden on the healthcare system of having separate REMS programs in place for individual TIRF medicines." Id. The benefit of a single shared program was that "prescribers, pharmacies, distributors, and outpatients [would] only need to enroll in one REMS program" in order "to prescribe, dispense, or receive all drugs in the TIRF medicines class." Id.

Terry Toigo, Assoc. Dir. for Drug Safety Operations, U.S. Food & Drug Admin. Ctr. For Drug Evaluation & Research, *A Brief Overview of Risk Evaluation* & *Mitigation Strategies (REMS)*, https://collaboration.fda.gov/p97727926/?launcher=false&fcsContent=true&pbMode=normal [https://perma.cc/7PVG-EJ4P].

develop their own REMS program."²⁹⁰ One technique involves a claimed "absolute right to keep its REMS confidential,"²⁹¹ which purportedly means that the FDA is unable to "compel [the brand] to share its proprietary REMS program."²⁹² To the contrary, the REMS program is not confidential, appearing with full details including the program's elements, sample letters, patient guides, enrollment forms, and screenshots, on the FDA's website.²⁹³ Even if information subject to discussion between the FDA and brand before final approval is generally not available, the final implemented REMS program is public.

Brands also have delayed approval by employing IP.²⁹⁴ The statute provides that the SSRS requirement can be waived if "an aspect of the elements to assure safe use for the applicable listed drug is claimed by a patent that has not expired or is a method or process that, as a trade secret, is entitled to protection."²⁹⁵ The burden is on the generic to show that "it has sought a license for use of an aspect of the elements to assure safe use for the applicable listed drug" and that it "was unable to obtain a license."²⁹⁶ An FDA official confirmed that brands use "dilatory assertions that portions of the REMS are protected by . . . 'IP' rights or constitute trade secrets" to delay generic access.²⁹⁷ In every one of its attempts to mediate a joint SSRS program, the FDA was not successful, ultimately allowing the generic to create its own REMS.

The FDA has allowed a generic to create its own REMS program on thirteen occasions.²⁹⁸ Even though the agency has the power to release these parties from the SSRS requirement, it can only do so after showing that the burden of the program outweighs the benefit or that the REMS program includes IP.²⁹⁹ The FDA's power, in short, does not prevent prolonged negotiations that could delay generic approval. When a brand

 $^{^{290}\,}$ Reply in Support of Defendants' Motion to Dismiss at 6–11, In re Suboxone Antitrust Litig., 64 F. Supp. 3d 665 (E.D. Pa. 2014) (MDL No. 2445).

²⁹¹ Id. at 7.

²⁹² Id. at 6.

²⁹³ Approved Risk Evaluation and Mitigation Strategies (REMS): Tracleer, U.S. FOOD & DRUG ADMIN., http://www.accessdata.fda.gov/scripts/cder/rems/index.cfm?event=indvRemsDetails.page&REMS=61 [https://perma.cc/ZZL7-FS6C] (last updated Sept. 5, 2017).

²⁹⁴ SUDDEN PRICE SPIKES, supra note 61, at 116.

²⁹⁵ FDAAA, 21 U.S.C. § 355-1(i)(1)(B)(ii) (Supp. 2016). For the other exception, see *id.* § 355-1(i)(1)(B)(i) ("[T]he burden of creating a single, shared system outweighs the benefit of a single[] system.").

²⁹⁶ Id. § 355-1(j)(1)(B)(jj) (2012).

²⁹⁷ SUDDEN PRICE SPIKES, supra note 61, at 116.

²⁹⁸ Id.

²⁹⁹ See 21 U.S.C. § 355-1 (i)(1)(B).

manipulates the process to cause delay, the agency is not able to remedy the issue. As discussed above, 300 the FDA "only act[s] after substantial delay, 301 and even then, ha[s] to try and try and try and try, and then finally... declare defeat and ... go ahead and let the generics have their own system that is separate but equal. A leading FDA official stated simply that brands often use shared REMS programs to block[] generic competition. Generic competition.

The FDA's inability to act carves out a potential role for antitrust law. How should antitrust law be applied? The answer is more nuanced than the case of sample denials. For negotiation is not an on/off switch that automatically triggers (or fails to trigger) antitrust scrutiny. But in certain cases, the brand's refusal to negotiate in good faith will run afoul of the no-economic-sense test. Factors for a court to consider include how long the parties have been negotiating, how different the shared program is from the brand's already-existing REMS program, evidence of the brand firm's bad faith, evidence of the generic firm's good faith, and additional alleged anticompetitive behavior.³⁰⁴

One example that would appear to fail the no-economicsense test is provided by *In re Suboxone Antitrust Litigation*.³⁰⁵ In that case, the plaintiffs alleged that in a setting in which the FDA "contemplated rapid development of a shared REMS"³⁰⁶ since the brand's "own previously-approved Suboxone REMS could be amended to add generic manufacturers in a relatively short time,"³⁰⁷ the brand (1) "turned down numerous invitations to participate in meetings" and "refused to engage in sub-

³⁰⁰ See supra notes 255-58 and accompanying text.

³⁰¹ SUDDEN PRICE SPIKES, supra note 61, at 116.

³⁰² Id

³⁰³ Generic Drug User Fee Amendments of 2012, supra note 65, at 1:03:09 (testimony of Janet Woodcock, Dir., U.S. Food & Drug Admin., Ctr. For Drug Evaluation & Research).

Evidence relevant to these factors appears in examples offered in this section. For an argument that shared REMS do not require significant changes to brand REMS, see *CREATES Act Hearing, supra* note 4, at 2:17:10–46 (testimony of Beth Zelnick Kaufman) ("[O]nce a REMS is in place, that means the FDA and the innovator have already decided the details" of the program, with "[t]he mystery . . . gone" and "[a]ll of the secrets . . . out" and "on a piece of paper," which leaves only the task of "find[ing] a way to change that program . . . from a single-source supply to a multi-source supply," which generic firms have been doing "for 32 years since Hatch-Waxman").

^{305 64} F. Supp. 3d 665 (E.D. Pa. 2014).

 $^{^{306}\,}$ End Payor Plaintiffs' Consolidated Amended Class Action Complaint ¶ 51, In re Suboxone Antitrust Litig., 64 F. Supp. 3d 665 (E.D. Pa. 2014) (No. 2:13-md-02445-MSG).

³⁰⁷ Id. ¶ 53 (noting that FDA had recently approved brand REMS).

stantive discussions until the [g]enerics agreed to a number of [allegedly unfavorable] conditions"; (2) "refused to share non-public information from its REMS program until its demands were met"; (3) "refused to cooperate unless the [g]enerics agreed to provide Reckitt veto authority or a super-majority vote on all issues relating to the SSRS"; and (4) "[took] unreasonable positions and utilized delay tactics to keep [g]enerics off of the market for as long as possible." Another example is provided by the negotiation between Jazz Pharmaceuticals and generics concerning the narcolepsy drug Xyrem, for which the FDA waived the requirement of an SSRS given the parties' inability to agree to terms, which was "likely to further delay the approval" of a generic version of the drug. The FDA also has waived shared REMS after an unsuccessful three-year negotiation. The stantage of the shared REMS after an unsuccessful three-year negotiation.

Conduct similar to that in *Suboxone* and *Jazz* most likely would fail the no-economic-sense test. In particular, conduct could lack economic sense for reasons relating to safety, cost-sharing, and IP licensing. First, brands have highlighted safety concerns arising from generics' creation of their own REMS programs.³¹¹ For example, Jazz argued against a waiver of a shared system on the grounds that such a waiver would "impact patient safety" since "without access to all of the data, Jazz would lose the ability to ensure that the pharmacy has all of the data necessary to monitor for overlapping prescriptions, review for potentially interacting agents that are unknown to the prescriber, and review [indicators] regarding potential mis-

Rev., Oct. 2016, at 38, 48-50.

³⁰⁸ Suboxone, 64 F. Supp. 3d at 675, 687. See also Memorandum from U.S. Food & Drug Admin. on the Decision to Waive the Requirement for a Single, Shared System REMS for Buprenorphine-Containing Transmucosal Products (Feb. 22, 2013) (submitted to ANDA 090819 et al., Feb. 22, 2013) (referencing Subutex (buprenorphine) and Suboxone (buprenorphine and naloxone)).

³⁰⁹ Memorandum from Trueman W. Sharp, Deputy Dir., Office of Bioequivalence, to Abbreviated New Drug Applications (ANDAs) for Sodium Oxybate Oral Solution Products at 13 (Jan. 17, 2017) [hereinafter Sharp Memorandum].

310 Memorandum from U.S. Food & Drug Admin. on the Decision to Waive the Requirement for a Single, Shared System REMS for Alosetron Products at 12 n.41 (May 4, 2015). Guidance also could come from legislation such as the CREATES Act, which provides that negotiations for shared REMS must occur within 120 days. S. 3056, 114th Cong. § 3(b)(2)(B) (2016); see also id. § 3(b)(1)(D) (providing that if brands do not provide samples on "commercially reasonable, market-based terms," the generic could, in addition to obtaining the sample, receive attorneys' fees and other damages). Id. For a critique of the CREATES Act, see Erika Lietzan, A Second Look at the CREATES Act; What's Not Being Said, 17 FED. Soc'y

³¹¹ For a critical analysis of brands' safety-based claims, see *infra* subpart V.C.

use, abuse, or diversion."³¹² Brands wishing to exercise more control and oversight over generic REMS programs naturally would find it in their interest to negotiate in good faith to expeditiously complete a shared REMS. For brand firms that have voiced safety concerns, a failure to negotiate a shared REMS makes no economic sense other than by delaying generic entry.

Second is the potential for cost sharing. When multiple sponsors are involved, the FDA requires the parties to negotiate for shared REMS programs, which promise to "[r]educe[] [the] burden for different stakeholders" through a "single portal to access materials and other documentation and information about the program" and to allow "prescribers, pharmacies, and healthcare settings [to] complete certification and other administrative requirements once rather than for each individual drug."³¹³ As a benefit of a shared REMS system, the FDA also has pointed to the "[p]otential for cost sharing among all sponsors."³¹⁴ To the extent, then, that the brand delays negotiating the SSRS, it could increase its costs in a way that makes sense only because of delayed generic competition.

Third, similar to their denial of sales of samples in a manner that makes no economic sense, 315 brands could be leaving money on the table by not entering into profitable licensing arrangements with generics. One of the grounds on which the FDA can waive the requirement of a shared REMS is that the generic shows that "it has sought a license for use of an aspect of the elements to assure safe use for the applicable listed drug" but "was unable to obtain a license." If that attempt includes an offer to pay at least a reasonable royalty, a brand could be refusing to negotiate in good faith. This would not make sense if not for its effect in impairing generic competition.

A lack of good-faith negotiation also could form part of a larger scheme of anticompetitive behavior.³¹⁷ Such behavior,

³¹² Sharp Memorandum, *supra* note 309, at 18 (quoting Letter in opposition to potential waiver of the SSS requirement (Dec. 4, 2015)).

Elaine Lippmann, Office of Regulatory Policy, U.S. Food & Drug Admin., Ctr. for Drug Evaluation & Research, Address at the GPhA Fall Technical Conference: Development of Single, Shared System REMS 6 (Oct. 26, 2016).

³¹⁴ Id.

³¹⁵ See supra notes 264-71 and accompanying text.

³¹⁶ FDAAA, 21 U.S.C. § 355-1 (i)(1)(B)(ii) (Supp. 2016).

See, e.g., Cont'l Ore Co. v. Union Carbide & Carbon Corp., 370 U.S. 690, 699 (1962) ("[P]laintiffs should be given the full benefit of their proof without tightly compartmentalizing the various factual components and wiping the slate clean after scrutiny of each."); LePage's Inc. v. 3M, 324 F.3d 141, 162 (3d Cir. 2003) ("[C]ourts must look to the monopolist's conduct taken as a whole rather than considering each aspect in isolation."); In re Gabapentin Patent Litig., 649 F. Supp. 2d 340, 359 (D.N.J. 2009) ("If a plaintiff can allege that a series of actions,

together with some combination of patent-related fraud, sham litigation, settlements, "product hopping," and "citizen petitions," could increase the likelihood of an antitrust violation.³¹⁸ In settings in which evidence relating to a shared REMS alone is ambiguous, consideration of a more expansive array of the brand's behavior could provide useful guidance.

In short, brand conduct in the shared REMS setting can violate the antitrust laws just as the denial of samples can. This conclusion on antitrust liability in both settings is strengthened by the consideration, and rebuttal, of the primary justifications that brands have offered for their conduct.

V REBUTTAL OF JUSTIFICATIONS

Brand firms have vigorously contested antitrust liability for REMS-related behavior. This Part rebuts the four justifications on which the brands have most frequently relied. The first two contend, based on the caselaw, that there is no duty to deal and that, in any event, there is no prior course of dealing between the parties. The other two center on business arguments based on concerns about safety and product liability.

A. Duty to Deal

The brands' first justification, the most expansive one under the caselaw, is that they have no duty to deal with generics. Actelion contended that it "is under no duty to deal with or assist its would-be generic competitors," as the "well-settled rule of law is subject to narrow and rare exceptions, none of which applies" to the denial of samples. 319 Speaking even more

when viewed together, were taken in furtherance and as an integral part of a plan to violate the antitrust laws, that series of actions, as an overall scheme, may trigger antitrust liability."); *In re* Neurontin Antitrust Litig., MDL No. 1479, 2009 WL 2751029, at *15 (D.N.J. Aug. 28, 2009) ("If an antitrust plaintiff can allege that a series of actions, when viewed together, were taken in furtherance and as an integral part of a plan to violate the antitrust laws, that series of actions may trigger antitrust liability as an overall scheme."); Abbott Labs. v. Teva Pharms., 432 F. Supp. 2d 408, 428 (D. Del. 2006) ("Plaintiffs are entitled to claim that individual acts are antitrust violations, as well as claim[] that those acts as a group have an anticompetitive effect even if the acts taken separately do not."). See generally In re Suboxone Antitrust Litig., MDL No. 2445, 2017 WL 36371, at *9 (E.D. Pa. Jan. 4, 2017) (citing cases and finding that conduct during SSRS process "may be considered as one aspect of the overarching scheme claim").

³¹⁸ See HOVENKAMP, JANIS, LEMLEY, LESLIE, & CARRIER, IP AND ANTITRUST, supra note 203, ch. 15 (providing details on causes of action).

³¹⁹ Memorandum of Law in Support of Plaintiffs' Motion for Judgment on the Pleadings and to Dismiss Counterclaims at 2, Actelion Pharms. Ltd. v. Apotex, Inc., Civil Action No. 1:12-cv-05743 (D.N.J. Jan. 16, 2012), ECF No. 44-1.

broadly, it asserted that "[t]his right to choose with whom to do business—and to choose not to do business with a rival—is a cornerstone of America's free enterprise system, and is consistent with basic free market principles."³²⁰ Continuing the theme of hyperbole, Celgene asserted that even if its "insistence on appropriate procedures and guarantees were not motivated by the safety of fetuses and the survival of its business, antitrust law still would not require it to deal with its potential rivals."³²¹

To be sure, the *Trinko* Court was skeptical of refusal-to-deal cases, stating that "as a general matter, the Sherman Act 'does not restrict the long recognized right of [a] trader or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal.'"³²² On the other hand, the "high value" that the Court "placed on the right to refuse to deal with other firms does not mean that the right is unqualified."³²³ "Under certain circumstances," the Court continued, "a refusal to cooperate with rivals can constitute anticompetitive conduct and violate [Section] 2."³²⁴ While there might not be a general duty in many contexts, several factors presented by the combination of the unique pharmaceutical regulatory setting and conduct that fails the no-economic-sense test suggest an exception for REMS behavior.

First, the facts of REMS denials, with readily-available samples, resemble those of cases in which the Supreme Court has found liability. The Court in *Trinko* found that the defendants in the *Aspen Skiing* and *Otter Tail* cases offered ski lift tickets and power transmission, respectively, which were already available to the public.³²⁵ By contrast, Verizon was required to share unbundled network elements, a "brand new" service "exist[ing] only deep within [Verizon's] bowels" that it

³²⁰ Id. at 12.

Brief in Support of Defendant Celgene Corporation's Motion to Dismiss at 4, Mylan Pharms. Inc. v. Celgene Corp., 2014 U.S. Dist. LEXIS 182222 (D.N.J. May 25, 2014) (No. 2:14-cv-02094-ES-MAH); see also Koren Wong-Ervin, Does Aspen Skiing Apply to Intellectual Property Rights?, ABA SECTION OF ANTITRUST LAW IP COMMITTEE NEWSLETTER, Summer 2013, at 7 ("Forcing a patent holder to sell generic companies samples of its patented drug would be unprecedented.").

³²² Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 408 (2004) (quoting United States v. Colgate & Co., 250 U.S. 300, 307 (1919)).

 $^{^{323}\,}$ Id. (quoting Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 601 (1985)).

³²⁴ Id.

³²⁵ Id. at 410.

"offered not to consumers but to rivals, and at considerable expense and effort.³²⁶ For REMS programs that the FDA requires after the drug is already on the market, by definition the product is available. And even when a sample is requested before approval, the brand is in the business of producing drugs, and the provision of a sample after the drug is manufactured does not require additional effort.³²⁷

Second, the REMS-related conduct discussed above³²⁸ makes no economic sense absent the impairment of generic competition. The Court in *Aspen Skiing* found exclusionary conduct where a defendant was "willing to sacrifice short-run benefits and consumer goodwill in exchange for a perceived long-run impact on its smaller rival."³²⁹ In contrast, the *Trinko* Court denied liability where Verizon could obtain only a "costbased rate of compensation."³³⁰ Brands refusing to sell samples lose the opportunity to obtain at least a market (and sometimes significantly higher) price for samples.³³¹

Third is the ineffectiveness of the regulatory regime. The *Trinko* Court underscored the importance of regulation in the setting of the Telecommunications Act, which was effectively enforced through financial penalties, daily or weekly reporting requirements, and the suspension or revocation of long-distance approval.³³² In contrast, antitrust has a role to play given that the REMS regime is not working as intended, with an ineffective FDA unable to fix the problem and eager to punt competition issues to the FTC, carving out a role for antitrust.³³³

Finally, compelled dealing raises three concerns that the *Trinko* Court lamented but that are not present here. First, the Court worried that sharing "may lessen the incentive for the monopolist, the rival, or both to invest in [their] economically

³²⁶ Id.

³²⁷ See supra note 280 and accompanying text.

³²⁸ See supra Part IV.

³²⁹ Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 610–11 (1985).

^{330 540} U.S. at 409.

³³¹ See supra notes 264–71 and accompanying text; see generally HOVENKAMP, JANIS, LEMLEY, LESLIE, & CARRIER, IP AND ANTITRUST, supra note 203, ch. 15.03(B) ("While monopolists have no general duty to help their competitors, they do have an obligation to refrain from acts that have no purpose or effect except to exclude competition.").

³³² See Trinko, LLP, 540 U.S. at 412-14.

³³³ See supra notes 259–63 and accompanying text. For a discussion of Congress's attempts to avoid the blocking of generic competition and Senators' frustration with how REMS programs have been misused, see *supra* notes 55–61 and accompanying text.

beneficial facilities."334 But here there are not material effects on incentives that need to be accounted for since a central provision of the Hatch-Waxman Act involves generics experimenting on drugs before the end of the patent term and piggybacking on brand studies.335 The legislative history makes clear that "experimental activity does not have any adverse economic impact on the patent owner's exclusivity during the life of a patent" and that "prevention of such activity would extend the patent owner's commercial exclusivity beyond the patent expiration date."336 In addition, Congress anticipated that "the benefits to the government and the general citizenry [would] be substantial" from the experimental-use provision and that, as a result, "generic drugs [would] be able to be placed on the market between 18 months and 2 years earlier than without this provision," which would "assist in the reduction of health care costs," which was of particular "importan[ce] to the poor, the under-insured, and the elderly."337

The second concern, that sharing "requires antitrust courts to act as central planners, identifying the proper price, quantity, and other terms of dealing—a role for which they are ill suited,"³³⁸ also does not apply. A one-time sale of a sample does not implicate such planning, and even a shared REMS program will not require judicial coordination, at worst devolving into separate REMS controlled by the brand and generic.

Third, the concern that "compelling negotiation between competitors may facilitate the supreme evil of antitrust: collusion" is absent. Again, a one-time sale does not threaten such collusion. And the brands' and generics' different incentives—with brands seeking to delay generic entry and generics

³³⁴ Trinko, 540 U.S. at 408.

³³⁵ See Carrier, Unsettling Settlements, supra note 141, at 43–45 (discussing enhanced innovation incentives through patent term extensions, nonpatent market exclusivity, and an automatic 30-month stay of FDA approval).

³³⁶ H.R. Rep. No. 98-857, pt. 1, at 46 (1984), reprinted in 1984 U.S.C.C.A.N. 2647, 2679; see also id. ("Article 1, Section 8, Clause 8 of the Constitution empowers Congress to grant exclusive rights to an inventor for a limited time" and such a time "should be a definite time," followed by "immediate competition").

³³⁷ H.R. REP. No. 98-857, pt. 2, at 29-30 (1984), reprinted in 1984 U.S.C.C.A.N. 2686, 2713-14 (noting that "the nature of the interference with patent rights . . . is necessitated by the very nature of the industry" and that Congress "has merely done what [it] has traditionally done in the area of intellectual property law[:] balance the need to stimulate innovation against the goal of furthering the public interest").

³³⁸ Trinko, 540 U.S. at 408.

³³⁹ Id.

seeking expedited entry—significantly reduce the possibility of collusion. 340

B. Prior Dealing

Defendants have offered a second, narrower argument against compelling dealing with generics: that a refusal-to-deal claim requires a prior course of dealing between the parties. Celgene, for example, has contended that there is an "affirmative duty to deal with competitors" only when two requirements are satisfied, one of which is "a prior course of dealing between the parties."³⁴¹ And Actelion's counsel asserted that "it's fairly well established that . . . prior profitable course of dealing is th[e] dividing line . . . on a refusal to deal case[] between a legitimate refusal to deal . . . and the kind of fairly egregious conduct at the outer bounds of Section 2 liability."³⁴²

A careful reading of the caselaw, however, reveals that a prior course of dealing is not a prerequisite for a refusal-to-deal claim. The classic case of *Otter Tail*³⁴³ imposed a duty to deal where there was no prior course of dealing,³⁴⁴ with *Trinko*'s citation of the case affirming its continued validity.³⁴⁵ In addition, the course of dealing in *Trinko* involved (1) a voluntary relationship that was (2) "*presumably profitable*."³⁴⁶ Of course, prior dealing could show the abandonment of a profitable revenue stream in a voluntary relationship, offering evidence of a lack of economic sense. But such a set of facts is not needed for this conclusion. In other words, a previous, ongoing relationship is *sufficient*, but not *necessary*, to show conduct that lacks economic sense.

Several courts that have examined the issue in the context of REMS denials have understood prior dealing as one (but not the only) setting in which exclusionary conduct could be demonstrated. In its hearing on a motion to dismiss, the court in *Apotex v. Actelion* found that the classic *Aspen Skiing* case presented facts other than a prior course of dealing (including a

³⁴⁰ See supra note 141 and accompanying text.

³⁴¹ Transcript of Oral Opinion, *supra* note 85, at 10. Showing the broad acceptance of the no-economic-sense test, the other requirement was that "the alleged monopolist irrationally forsook short-term profits for long-term anticompetitive gain—in other words, its actions made 'no economic sense.'" *Id.*

³⁴² Actelion v. Apotex transcript, supra note 49, at 27.

³⁴³ Otter Tail Power Co. v. United States, 410 U.S. 366, 392-95 (1973).

³⁴⁴ See Creighton & Jacobson, supra note 202, at 53.

³⁴⁵ Transcript of Oral Opinion, supra note 85, at 10, 17.

³⁴⁶ Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 409 (emphasis in original).

"refusal to sell at retail") that provided evidence of anticompetitive conduct. Similarly, the court in *Mylan v. Celgene* stated that Third Circuit cases had found that prior dealing is "relevant but not dispositive" and that even though "Mylan essentially admits that it has not pled a prior course of dealing between the parties," it alleged a "plausible Section 2 claim" because it "pled other facts to demonstrate that the defendant's actions were motivated only by long-term anticompetitive gain." 349

The setting of denied samples shows how a prior-dealing requirement is not appropriate. The reason is that there typically will not be such a relationship between the parties. REMS programs involve new drugs that have not previously been on the market, precluding a preexisting relationship between the brand and generic. The generic, by definition, is seeking a sample of the drug to *enter the market*. Because the sale of samples is likely to be a one-time event, if the generic had previously engaged with the brand, it would not need a sample. Nor is the conclusion different for shared REMS systems. A generic attempting to use a single shared REMS also is seeking to enter the market for the first time, which precludes a prior relationship with the brand.

Generics' need for samples to engage in bioequivalence testing is at the core of the Hatch-Waxman Act, the FDAAA, and fifty state substitution laws. Requiring a prior course of dealing in a setting in which a generic is seeking samples so it can reach the market for the first time makes no sense.

In fact, a prior-dealing hurdle would privilege a particular set of facts. As Judge Posner has explained, it would be "perverse" to make the "encouraging gestures" of a prior course of dealing "the fulcrum of an antitrust violation." To the contrary, the "essential feature" of a refusal-to-deal case is "a monopoly supplier's discriminati[on] against a customer because the customer has decided to compete with it." A prior course

³⁴⁷ Actelion v. Apotex transcript, supra note 49, at 13–14.

³⁴⁸ Transcript of Oral Opinion, supra note 85, at 13, 17.

³⁴⁹ *Id.* at 15. To the contrary, the court in *Suboxone* neglected *Otter Tail* and restrictively interpreted *Aspen Skiing*, finding it to be "the only Supreme Court case recognizing a failure to deal as anticompetitive" and contending that it did not apply because of the absence of a "long-standing, preexisting course of dealing." *In re* Suboxone Antitrust Litig., 64 F. Supp. 3d 665, 687 (E.D. Pa. 2014).

350 Olympia Equip. Leasing Co. v. W. Union Tel. Co., 797 F.2d 370, 376 (7th Cir. 1986); *see generally* Federal Trade Comm'n's Brief as *Amicus Curiae*, Mylan

Pharms., Inc. v. Celgene Corp., supra note 263, at 13 (describing concerns with requirement based on prior course of dealing).

³⁵¹ Olympia Leasing, 797 F.2d at 377.

of dealing reveals that sales are possible—in fact that they occurred. But a request by a generic to buy a sample at the market rate removes the facts from a hypothetical setting and places them in the real-world context in which the brand has a clear opportunity for profit. A brand's refusal should not be immunized because of the absence of a particular set of facts in a setting in which those facts, by definition, are not likely to be present.

C. Safety

In addition to arguments based on the caselaw, defendants have offered business arguments based on concerns about generic safety and (as shown below³⁵²) increased exposure to product liability claims. Celgene, for example, contended that the sale of samples imposed safety concerns as the "ingestion of . . . two teratogenic drugs [which produce birth defects] by unknown, healthy subjects entails risk of fetal exposure, which is why Mylan discusses its safety measures at length" and "need not accept others' conclusions that . . . these measures are adequate."³⁵³ In a different case, Celgene "question[ed] the efficacy" of the generic's "study protocol's safety."³⁵⁴ And Actelion explained that it "has an obvious and legitimate commercial interest to make sure that its liability, reputational issues, and concerns are taken into account and are dealt with."³⁵⁵

In fact, brands' concerns that a generic's use of samples *automatically* poses a heightened risk for which they would be responsible are misplaced. Use does not occur in a vacuum. The FDA ensures the safety of not only brand drugs but also generics. The agency tightly regulates the use of samples, including through clinical trials.³⁵⁶ As a generic official has explained, "merely having a sample doesn't mean a company has unfettered discretion to use it improperly, to have poor clinical trials, [or] to expose their employees to risk" since the FDA "continues to monitor what happens to that sample."³⁵⁷ In addition, safety concerns are significantly reduced as many of

³⁵² See infra subpart V.D.

³⁵³ Brief of Celgene Corp., supra note 321, at 17.

³⁵⁴ Lannett Co. v. Celgene Corp., Civil Action No. 08-3920, 2011 WL 1193912, at *2 (E.D. Pa. Mar. 29, 2011).

³⁵⁵ Actelion v. Apotex transcript, supra note 49, at 100.

³⁵⁶ CREATES Act Hearing, supra note 4, at 1:49:11 (testimony of Beth Zelnick Kaufman); see also Actelion v. Apotex transcript, supra note 49, at 66 (generics must "submit adverse events reports to FDA").

 $^{^{357}}$ CREATES Act Hearing, supra note 4, at 1:49:11 (testimony of Beth Zelnick Kaufman).

the samples are used for lab testing rather than on humans.³⁵⁸ Roxane's attorney explained that generics "have been buying samples and using them for years and years and years, of both REMS-covered and non-REMS-covered drugs, and there has never been some parade of horribles in terms of a brand being forced to come in and monitor what we're doing."³⁵⁹ Finally, safety concerns are weakened when brands provide samples to noncompeting research organizations.³⁶⁰

In *Mylan v. Celgene*, to offer one example, the FDA approved the safety protocols that generic firm Mylan put in place for Revlimid and Thalomid.³⁶¹ Mylan submitted its Thalomid protocols to the FDA, which approved them and gave additional recommendations the generic needed to follow in its studies.³⁶² The FDA also approved Mylan's Revlimid protocols and then disclosed its approval to the brand.³⁶³

The FDA instituted such a notification process after generics had expressed concern that REMS programs were preventing competition.³⁶⁴ In particular, the agency was "aware of instances" in which a brand "refused to sell drug[s]" to generics "seeking to conduct the testing needed to obtain approval," with the brand "cit[ing] the REMS ETASU as justification."³⁶⁵ For that reason, generics can request that the FDA send a statement that makes clear that (1) "[t]he Agency has determined that the protocols, informed consent documents, and informational materials contain safety precautions comparable

³⁵⁸ Actelion v. Apotex transcript, supra note 49, at 58 ("The first round and the vast majority of the actual product that you would use as samples are for lab testing . . . in test tubes and dissolution studies" that do not "involve . . . patients," with only a "very small minority" used in the "in vivo study . . . give[n] to patients").

359 Id. at 65.

 $^{^{360}}$ $\,$ Id. at 110; In re Thalomid & Revlimid Antitrust Litig., Civil No.: 14-6997 (KSH) (CLW), 2015 WL 9589217, at *15 (D.N.J. Oct. 29, 2015).

Transcript of Oral Opinion, supra note 85, at 5–6, 8–9.

³⁶² Id. at 5-6.

 $^{^{363}}$ Id. at 8. Celgene refused to provide samples after the FDA's approval even though the company had previously required that Mylan obtain that approval.

Ed Silverman, FDA Tries to End Dispute Between Brand-Name and Generic Drug Makers, WALL St. J.: PHARMALOT (Dec. 4, 2014, 10:56 AM), http://blogs.wsj.com/pharmalot/2014/12/04/fda-tries-to-end-dispute-between-brand-name-and-generic-drug-makers/ [https://perma.cc/4JVG-JLSR]; see also Complaint for Declaratory Judgment ¶ 33, Actelion Pharm. Ltd. v. Apotex, Inc. (D.N.J. Oct. 17, 2013), 1:12-cv-05743 (Actelion contends that REMS program prevented sale because "[u]nder the FDA-mandated REMS program," it "may not distribute Tracleer to Apotex, Roxane, or . . . any other entity that does not specifically qualify under Tracleer's REMS").

³⁶⁵ HHS, FDA & CDER REPORT, supra note 46, at 2.

to those in the applicable REMS ETASU"³⁶⁶ and that (2) it "will not consider it a violation of REMS for the RLD sponsor to provide the designated potential ANDA applicant (or its agent) [with] a sufficient quantity of drug product to allow it to perform the testing necessary to support its ANDA and otherwise meet the requirements for ANDA approval."³⁶⁷

If brands are not satisfied with the FDA's oversight of drug samples, they are not without options. For starters, a brand's development of its own REMS program allows it to exercise control over the generic REMS program. The FDA has made clear that if it "approv[es] a generic drug and there's a REMS in place for the innovator drug, the requirements are the same for the ANDA product."368 Because brands thus have control over generic REMS through their own programs, they can implement the steps they believe are necessary to ensure that a drug's benefits outweigh its risks, with their requirements carrying over to generics.³⁶⁹

Brands also have control in the shared REMS setting. In fact, the lack of good-faith negotiation in this context, with the FDA unsuccessful in mediating an SSRS in all thirteen cases in which it attempted to negotiate a resolution, provides an indication that brands' safety-related concerns³⁷⁰ might not be wholly authentic. The agency has explained that it "approve[s] drugs with REMS if they are particularly risky" and that "[w]hen they go generic, the generics also need to have this risk system around them."³⁷¹ And the FDA has made clear that if

³⁶⁶ *Id.* at 4. For challenges in obtaining an FDA letter, see *Actelion v. Apotex* transcript, *supra* note 49, at 57, 67 (FDA sometimes "sat on . . . [letter] requests for years and never responded to them" and other times would not "review . . . protocol[s]" because they "already issued a guidance, and when there's a guidance already out there, [they] are not going to review individual one-off requests"); *id.* at 57 (same); *id.* at 75 ("The FDA does not have a formal process for approving generic companies' protocols. . . . The [agency] does not collect any fees. There are not any dedicated personnel. There are no timelines. There is no set process. Instead, there is a single staffer . . . [who is] very frustrated").

³⁶⁷ HHS, FDA & CDER REPORT, *supra* note 46, at 4. *See also In re* Thalomid & Revlimid Antitrust Litig., Civil No.: 14-6997 (KSH) (CLW), 2015 WL 9589217, at *15 (D.N.J. Oct. 29, 2015) (finding "plausible inference" that brand's reliance on distribution programs was "pretextual" since it "continued to refuse to deal" even after generics provided FDA letters indicating that agency would not take action if Celgene provided samples); *compare Actelion v. Apotex* transcript, *supra* note 49, at 20–21 (Actelion "would sell" sample upon receiving FDA letter) *with id.* at 45 (generic contends that after receipt of FDA letter, Actelion responded that "[t]his changes nothing" and "you don't get [the sample]").

³⁶⁸ Toigo, supra note 289, at 42:00.

³⁶⁹ See Brief Overview, supra note 17, at 4.

³⁷⁰ See supra notes 352-55 and accompanying text.

³⁷¹ SUDDEN PRICE SPIKES, supra note 61, at 115 (quoting Dr. Woodcock).

generics and brands cannot successfully negotiate shared REMS, the programs will be "equal." 372

Safety issues are even less relevant for brands' creation of their own restricted-distribution protocols not required by the FDA. In these cases, even if the FDA does not believe that the plan is necessary since the drug's benefits outweigh its risks, brands still can use the systems to prevent generics from obtaining the drug.³⁷³ The agency has not been successful in addressing this problem. It has "done everything [it] can," including writing letters making clear that "REMS does not require" restricted programs and "refer[ring] the[] [programs] to [the Federal Trade Commission]."³⁷⁴ Despite this, the agency "still continue[s] to get complaints from generic companies that they cannot get a hold of the drug to make the comparison they need to do."³⁷⁵

In short, (1) the requirement that generic REMS satisfy the same requirements as brand REMS, (2) the FDA's active role in monitoring generics and providing notifications of safety protocols to brands, and (3) brands' frequent lack of good-faith negotiations concerning shared REMS demonstrate that safety is not a legitimate justification for refusing to provide samples or cooperate in shared REMS programs.³⁷⁶

D. Product Liability

Brand firms also have defended their refusal to provide samples to generics on the grounds of product liability.³⁷⁷ Celgene, for example, has contended that its sale of samples would impose heightened risks, stating that it "would face in-

³⁷² *Id.* at 116. See also Lippmann, supra note 313, at 16 ("FDA may waive the requirement for a SSS and permit the ANDA to use a 'different, comparable aspect' of the ETASU") (quoting 21 U.S.C. § 505-1(i) (Supp. 2016)) (emphasis in original); *id.* at 17 (generic REMS have "[s]ame goals" and "[s]ame ETASU," which "[c]ontain[s] the same elements" and "[m]ust achieve [the] same level of safety"); Prometheus Labs., Inc., No. FDA-2013-P-0572, at 6 (Oct. 7, 2013) (stating that brand and generic firms in SSRS "have been subject to the same ETASU, implementation system, and assessments").

³⁷³ See Sudden Price Spikes, supra note 61, at 115; U.S. Dep't of Health & Human Servs., Food & Drug Admin., Ctr. for Drug Evaluation & Research, Transcript of Risk Evaluation and Mitigation Strategy (REMS) Public Meeting 268 (2010) (asserting that generics cannot determine if restricted distribution system is required by FDA).

³⁷⁴ See SUDDEN PRICE SPIKES, supra note 61, at 115

³⁷⁵ Id.

 $^{^{376}}$ Safety-based defenses also are not supported by caselaw that rejects the undermining of the competition regime. See infra notes 389–96 and accompanying text.

³⁷⁷ A related argument is that brands would suffer reputation harms from generic conduct. See, e.g., Fabish, supra note 261.

creased exposure to products liability suits for sales to generic ANDA filers," as "[s]ome courts have accepted the notion that a branded drug manufacturer may be liable for injuries caused by the generic drug it did not sell." Celgene also worried that "Mylan makes lengthy allegations regarding its willingness to indemnify Celgene" while noting that "Celgene is not required to accept these risks even with indemnification." In a separate case, Celgene complained that a proposed generic insurance policy "has inadequate limits of liability and does not cover human clinical trials." Relatedly, in the SSRS context, brand firm Reckitt "reportedly turned down numerous invitations to participate in meetings with the Generics . . . until the Generics agreed to a number of conditions . . . including 'an upfront agreement that all manufacturers would share the costs of product liability for future potential lawsuits." 381

Most fundamentally, such claims are not consistent with the Hatch-Waxman Act, which antitrust must be "attuned to" and take "careful account" of.³⁸² As discussed above,³⁸³ generic access to samples during the patent term was an essential aspect of the regime, allowing generics to avoid replicating clinical studies. Allowing brands to deny samples based on product-liability (or safety) justifications would undermine the carefully balanced tradeoff between competition and innovation at the heart of the Hatch-Waxman Act. In particular, it would give brands protection beyond the powerful incentives they received, including patent term extensions, nonpatent market exclusivity, and an automatic thirty-month stay for filing a lawsuit.³⁸⁴

Nor is the centrality of samples to the Hatch-Waxman Act diminished in any way by the FDAAA, as this legislation never anticipated a separate testing regime for drugs subject to REMS.³⁸⁵ Excuses based on product liability or safety could, in contravention of the statute, lead to the "block[ing] or de-

³⁷⁸ Brief of Defendant Celgene Corp., supra note 321, at 17.

³⁷⁹ Id.

³⁸⁰ Lannett Co. v. Celgene Corp., Civil Action No. 08–3920, 2011 WL 1193912, at *2 (E.D. Pa. Mar. 29, 2011).

³⁸¹ In re Suboxone Antitrust Litig., 64 F. Supp. 3d 665, 675 (E.D. Pa. 2014).

³⁸² Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 411 (2004).

³⁸³ See supra notes 226-35 and accompanying text.

Carrier, Unsettling Settlements, supra note 141, at 43-45, 62.

Tucker et al., *supra* note 221, at 77. Relatedly, ETASU measures were designed to "minimize the burden on the health care delivery system" and "not be unduly burdensome on patient access to the drug." FDAAA, 21 U.S.C. § 355-1(f)(2)(C, D) (Supp. 2016).

lay[ing]" of generic competition. 386 The FDAAA also did not envision a redefinition of responsibilities by which brands could shield themselves from product-liability or safety claims. In fact, the legislative history reveals a concern that REMS programs could be used to preempt state product-liability lawsuits. 387 The drafters explained that "[t]he additional regulation of pharmaceutical products proposed in this legislation is an effort to provide consumers with increased protection, not an effort to provide pharmaceutical manufacturers with immunity from liability when their products harm consumers." 388

If a refusal to provide samples could be justified on product-liability or safety grounds, a central pillar of the Hatch-Waxman Act would be undermined. For a brand firm could always offer such excuses, preventing access to the samples on which the Act was based. Such arguments also are undercut by Supreme Court decisions rejecting attempts to undermine the competition regime. In National Society of Professional Engineers v. United States, 389 the Court considered an ethics code that prohibited competitive bidding to "minimiz[e] the risk that competition would produce inferior engineering work endangering the public safety."390 The Court made clear that such a ban "imposes the [association's] views of the costs and benefits of competition on the entire marketplace" and that any attempt to justify such a ban "on the basis of the potential threat that competition poses to the public safety and the ethics of its profession is nothing less than a frontal assault on the basic policy of the Sherman Act."391 The Court concluded that recognition of an exception for projects affecting safety "would be tantamount to a repeal of the statute" and that courts "cannot indirectly protect the public against this harm by conferring monopoly privileges on the manufacturers."392

³⁸⁶ See supra notes 248-52 and accompanying text.

³⁸⁷ H.R. REP. No. 110-225, at 197 (2007).

³⁸⁸ Id. See also 153 Cong. Rec. S11831–32 (daily ed. Sept. 20, 2007) (statement of Sen. Kennedy) ("By enacting this legislation, we do not intend to alter existing state law duties imposed on a drug manufacturer to obtain and disclose information regarding drug safety hazards either before or after a drug receives FDA approval or labeling" since "[w]e do not believe that the regulatory scheme embodied in this act is comprehensive enough to preempt the field or every aspect of state law.").

^{389 435} U.S. 679 (1978).

³⁹⁰ Id. at 681.

³⁹¹ Id. at 695.

³⁹² Id. at 695-96.

Similarly, the Court in Federal Trade Commission v. Indiana Federation of Dentists³⁹³ rejected an attempt by dentists to refuse to submit x-rays to insurers for use in benefit determinations.³⁹⁴ The Court held that such a refusal, which would "lead to the reduction of costs through the selection of inadequate treatment," is not appropriate because "[t]he argument is, in essence, that an unrestrained market in which consumers are given access to the information they believe to be relevant to their choices will lead them to make unwise and even dangerous choices."³⁹⁵ Explaining the broad applicability of the Engineers decision, the Court found "no particular reason to believe that the provision of information [would] be more harmful to consumers in the market for dental services than in other markets."³⁹⁶

In addition to attempting to circumvent the Hatch-Waxman Act, brands' concerns about product liability overstate plaintiffs' success in holding them accountable for harms caused by generics. In this setting, plaintiffs' allegations take the form of a failure to warn consumers about drug risks.³⁹⁷ But as the American Law Reports ("ALR") explains, "[u]nder traditional liability theories, a manufacturer of a product is not liable for injuries to a user of another manufacturer's product."³⁹⁸ For that reason, "most courts hold that a manufacturer has no duty to warn consumers about the risks of using another manufacturer's product, and therefore have rejected actions seeking to hold a name brand manufacturer of a prescription drug liable for injuries sustained by a consumer of a generic version of the drug on theories of products liability."³⁹⁹ The ALR has collected cases in which consumers injured by

^{393 476} U.S. 447 (1986).

³⁹⁴ Id. at 465-66.

³⁹⁵ Id. at 463.

³⁹⁶ Id

³⁹⁷ In re Thalomid & Revlimid Antitrust Litig., Civil No.: 14-6997 (KSH) (CLW) 2015 WL 9589217, at *16 (D.N.J. Oct. 29, 2015). The bioequivalence testing itself typically does not expose brands to product liability claims because it "generally [does] not require[]...clinical (human) data." Abbreviated New Drug Application (ANDA): Generics, U.S. FOOD & DRUG ADMIN., https://www.fda.gov/Drugs/Devel opmentApprovalProcess/HowDrugsareDevelopedandApproved/ApprovalApplications/AbbreviatedNewDrugApplicationANDAGenerics/ [https://perma.cc/PEW 6-U45U] (last updated Feb. 27, 2017).

³⁹⁸ Kenneth Sills, Annotation, Liability of Name Brand Drug Manufacturer for Injury or Death Resulting from Use of Prescription Drug's Generic Equivalent, 56 A.L.R. 6TH 161 (2010), https://advance.lexis.com/api/permalink/4be255e7-0355-4edf-b732-0e79c5bfc37a/?context=1000516 [https://perma.cc/K2FW-ZW5Ll.

³⁹⁹ Id. at 2.

consuming a generic product were not able to hold the brand manufacturer liable in Alabama, 400 Arkansas, 401 California, 402 Colorado, 403 Florida, 404 Georgia, 405 Kentucky, 406 Louisiana, 407 Massachusetts, 408 Minnesota, 409 Nevada, 410 New York, 411 North Carolina, 412 Oklahoma, 413 Pennsylvania, 414 Texas, 415 Utah, 416 and West Virginia. 417 To similar effect, the Sixth Circuit, "[a]fter conducting a state-by-state . . . analysis [under *Erie R.R. Co. v. Tompkins*, 304 U.S. 64 (1938)] . . . conclude[d] that the highest courts in each of the 22 implicated states would not recognize Plaintiffs' misrepresentation claims under their respective state laws."418

⁴⁰⁰ Barnhill v. Teva Pharms., Civil Action No. 06-0282-CB-M, 2007 WL 5787186 (S.D. Ala. Apr. 24, 2007).

⁴⁰¹ Bell v. Pfizer, Inc., 716 F.3d 1087 (8th Cir. 2013); Fullington v. Pfizer, Inc., 720 F.3d 739 (8th Cir. 2013); Fields v. Wyeth, Inc., 613 F. Supp. 2d 1056 (W.D. Ark. 2009).

⁴⁰² LeBeau v. Roxane Labs., No. D039956, 2003 WL 21054640 (Cal. Ct. App. May 12, 2003).

⁴⁰³ Sheeks v. Am. Home Prods., No. 02CV337, 2004 WL 4056060 (Colo. Dist. Ct. Oct. 15, 2004).

⁴⁰⁴ Howe v. Wyeth, Inc., No. 8:09-CV-610-T-17AEP, 2010 WL 1708857 (M.D. Fla. Apr. 26, 2010).

⁴⁰⁵ Swicegood v. Pliva, Inc., 543 F. Supp. 2d 1351 (N.D. Ga. 2008).

Smith v. Wyeth, Inc., 657 F.3d 420, 423–24 (6th Cir 2011) ("The plaintiffs' argument—that the name-brand defendants' liability stems from the fact that the regulatory structure governing name-brand and generic drugs makes it foreseeable that patients and their physicians will rely on the name-brand labels to use and prescribe generic drugs—has been rejected by all but one of the courts that have considered it."); Franzman v. Wyeth, Inc., 451 S.W.3d 676 (Mo. Ct. App. E.D. 2014).

 $^{^{407}\,}$ Morris v. Wyeth, Inc., Civil Action No. 09-0854, 2009 WL 4064103 (W.D. La. Nov. 23, 2009).

⁴⁰⁸ Kelly v. Wyeth, Inc., No. Civ.A.MICV200303314B, 2005 WL 4056740 (Mass. Super. Ct. 2005).

⁴⁰⁹ Mensing v. Wyeth, Inc., 588 F.3d 603 (8th Cir. 2009).

⁴¹⁰ Moretti v. Wyeth, Inc., No. 2:08-cv-00396-JCM-(GWF), 2009 WL 749532 (D. Nev. Mar. 20, 2009).

⁴¹¹ Goldych v. Eli Lilly, 66 Fed. R. Serv. 3d 799 (N.D.N.Y. 2006).

⁴¹² Stoddard v. Wyeth, Inc., 630 F. Supp. 2d 631 (E.D.N.C. 2009).

⁴¹³ Schrock v. Wyeth, Inc., 601 F. Supp. 2d 1262 (W.D. Okla. 2009).

⁴¹⁴ Colacicco v. Apotex, Inc., 432 F. Supp. 2d 514 (E.D. Pa. 2006).

⁴¹⁵ Cousins v. Wyeth Pharm., Inc., Civil Action No. 3:08-CV-0310-N, 2009 WL 648703 (N.D. Tex. Mar. 10, 2009).

⁴¹⁶ Beutella v. A.H. Robins Co., No. 980502372, 2001 WL 35669202 (Utah Dist. Ct. Dec. 10, 2001).

 ⁴¹⁷ Meade v. Parsley, Civil Action No. 2:09-cv-00388, 2009 WL 3806716 (S.D. W. Va. Nov. 13, 2009).

⁴¹⁸ In re Darvocet, Darvon, & Propoxyphene Prods. Liab. Litig., 756 F.3d 917, 939 (6th Cir. 2014); see also id. ("Every circuit court of appeals that has addressed the issue is in accord" that generic consumers cannot sue brand manufacturers for injuries caused by generic drugs).

Several examples reveal the lack of product liability concern. In Cousins v. Wyeth Pharmaceutical, 419 the court rejected a product-liability claim against a brand manufacturer for injuries incurred by consuming a generic version, holding that there was no duty because (1) the brand firm "did not design, manufacture, or sell the [generic] product" to the consumer and thus "owed no legal duty" and (2) in the absence of such a duty there could be no liability in tort to the consumer.420 In Fields v. Wyeth, 421 the court rejected the argument that the brand should be held liable on the grounds that "it was foreseeable" that doctors prescribing the generic "would rely on information" provided by brands, as the court found that such an argument "attempts to create a duty" on the brand "irrespective of the company that produced" the drug. 422 In Foster v. American Home Products, 423 the court explained that "[t]here is no legal precedent for using a name brand manufacturer's statements about its own product as a basis for liability for injuries caused by other manufacturers' products, over whose production the name brand manufacturer had no control."424 Finally, rejecting the product-liability argument in the REMS setting, the court in In re Thalomid and Revlimid Antitrust Litigation⁴²⁵ made clear that "[t]he possibility that [a brand] could be liable for a generic drug's harm is . . . not a legitimate justification that would support its refusal to supply generic manufacturers with samples."426

Brand liability under a failure-to-warn theory implicates labeling, but brands and generics "have different federal drug labeling duties." As the Supreme Court made clear in Wyeth v. Levine, "through many amendments to [pharmaceutical] regulations, it has remained a central premise of federal drug regulation that the manufacturer bears responsibility for the content of its label at all times" and that "[i]t is charged both with crafting an adequate label and with ensuring that its warnings remain adequate as long as the drug is on the mar-

^{419 2009} WL 648703.

⁴²⁰ Id. at *2.

^{421 613} F. Supp. 2d 1056 (W.D. Ark. 2009).

⁴²² Id. at 1060.

^{423 29} F.3d 165 (4th Cir. 1994).

⁴²⁴ *Id.* at 170; see id. ("The premarketing approval scheme Congress established for generic equivalents of previously approved drugs cannot be construed to create liability of a name brand manufacturer when another manufacturer's drug has been consumed.").

⁴²⁵ Civil No. 14-6997 (KSH) (CLW), 2015 WL 9589217 (D.N.J. Oct. 29, 2015).

⁴²⁶ Id. at *16.

⁴²⁷ PLIVA, Inc. v. Mensing, 564 U.S. 604, 613 (2011).

ket." 428 In contrast, a generic is "responsible for ensuring that its warning label is the same as" that of the brand. 429 Because, by law, a generic's labeling must be identical to that of the brand drug, 430 a brand controls its own liability. 431

If there were any question remaining as to brands' concerns with product liability, it would be dispelled by brands' refusal to accept generics' proposals to indemnify them for product liability claims. Similar to insurance and self-insurance, generic indemnification can serve a vital role in managing brand risk. But the cases reveal brands' lack of interest in such risk management.

In *Mylan v. Celgene*, for example, Mylan agreed, over the course of a five-year negotiation for the sale of Thalomid, to indemnify Celgene for liability resulting from Mylan's studies. ⁴³³ Even at the time of this Article, eight years after the parties signed an indemnification agreement in April 2009, the sale had not yet occurred. And for the sale of Revlimid, Mylan offered Celgene an executed indemnification agreement and alleged that it "requested the purchase of limited Revlimid samples for bioequivalence testing, offering to pay market value," to which Celgene responded with a "voluminous information request" and rejection of "Mylan's offer to enter into an indemnification agreement, which included nearly every concession to terms Celgene requested" during earlier negotiations on Thalomid. ⁴³⁴

^{428 555} U.S. 555, 570–71 (2009). See, e.g., 21 C.F.R. § 201.80(e) (2015) (requiring brand to revise label "to include a warning as soon as there is reasonable evidence of an association of a serious hazard with a drug"); 21 C.F.R. § 314.80(b) (2015) (imposing responsibility for post-marketing surveillance on brand); Supplemental Applications Proposing Labeling Changes for Approved Drugs, Biologics, and Medical Devices, 73 Fed. Reg. 49,605 (Sept. 22, 2008) (to be codified at 21 C.F.R. pts. 314, 601, and 814) (noting that brands "continue to have a responsibility under Federal law . . . to maintain their labeling and update the labeling with new safety information").

⁴²⁹ Mensing, 564 U.S. at 613; see 21 U.S.C. § 355(j)(2)(A)(v) (2012).

^{430 21} U.S.C. § 355(j)(2)(A)(v) (2012).

 $^{^{431}}$ The brand also would not be responsible under theories based on the manufacturing of a generic drug. *E.g.*, *In re* Thalomid & Revlimid Antitrust Litig., Civil No.: 14-6997 (KSH) (CLW), 2015 WL 9589217, at *16 (D.N.J. Oct. 29, 2015); Conte v. Wyeth, Inc., 85 Cal. Rptr. 3d 299, 317 n.16 (2008).

This refusal also casts doubt on safety-related concerns. See Kellie Lerner, REMS and Antitrust: Latest Litigation Lessons, ROBINSKAPLAN, June 3, 2015, http://www.robinskaplan.com/resources/articles/rems-and-antitrust [https://perma.cc/FZ97-ALM5] ("[A] brand company's refusal to agree to an indemnification would appear to mitigate any argument that its refusal to deal stems from safety concerns.").

⁴³³ Transcript of Oral Opinion, supra note 85, at 6.

Plaintiff Mylan Pharms.' Brief, supra note 268, at 13-14.

In short, brands have used concerns related to refusals to deal, a prior course of dealing, safety, and products liability as justifications for their refusals to sell samples to generics and participate in shared REMS. These justifications are not supported. If brands' justifications do not apply, there is no reason for them to deny samples that it makes economic sense to provide or refuse to participate in shared REMS programs that would make sense and address their purported business concerns. In other words, there is no economic reason for this conduct in a setting in which generic competition is a foundation of the regulatory regime. This is a hallmark of a monopolization violation.

CONCLUSION

An oft-discussed topic today is high drug prices resulting from the absence of generic competition. A linchpin to reduced prices is generics' ability to access a sample to demonstrate the equivalence needed to enter the market. Through abuse of a regulatory regime intended for a different purpose, brands are denying necessary samples and not participating in good faith in shared REMS programs. Just as concerning, they are justifying this behavior with rationales at odds with the caselaw, regulations, and economic realities of the industry.

While other pharmaceutical conduct has received more attention, it is time to focus the spotlight on sharing. For antitrust law is well-equipped—in fact is critical given Congress's inaction and the FDA's ineffectiveness—to remedy anticompetitive behavior. In the process, it promises to reduce drug prices and restore the intended balance of innovation and competition in the pharmaceutical industry.