

Arizona Legal Studies

Discussion Paper No. 12-24

Refusals to Deal, Essentials Facilities, and Price Squeezes

Barak Orbach Raphael Avrahim

The University of Arizona James E. Rogers College of Law

July 2012

Refusals to Deal, Essentials Facilities, and Price Squeezes

Barak Orbach*

Raphael Avraham**

"In the absence of any purpose to create or maintain a monopoly, the [Sherman Act] does not restrict the long recognized right of trader or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal; and, of course, he may announce in advance the circumstances under which he will refuse to sell."

United States v. Colgate & Co. (1919)¹

Antitrust refusal to deal, essential facility, and price squeeze claims, and the doctrines that accommodate such claims are analytically peculiar. First, the claims seek to establish duties to deal—mandates—even with competitors, while antitrust is designed to restrict anticompetitive collaborations, not to enforce cooperation. Second, the claims are strongly associated with fairness perceptions and at least implicitly stress competitive unfairness, whereas their primary justification is market efficiency. Third, both fairness and efficiency may be desirable goals for public policies, but antitrust laws do not offer a regulatory framework to advance such goals through duties to deal. Forth, the claims and judicial rules that accommodate them have the intuitive appeal of rules of thumb, but they are too simplistic to address many common economic settings. This Chapter offers a general framework for the analysis of refusal to deal, essential facility, and price squeeze claims, or more broadly, alleged antitrust duties to deal.

1. Introduction

Unrestricted freedom includes the freedom to harm. Competition laws impose constraints on the freedom of contract to prevent certain competitive harms. In this Chapter, we examine whether, under certain circumstances, competition laws—to which we casually refer as "antitrust laws"—should impose on a market participant a duty to

^{*} Professor of Law. The University of Arizona College of Law. www.orbach.org.

^{**} Regulatory State Fellow and recipient of the 2011 E. Thomas Sullivan Award, the University of Arizona College of Law.

¹ United States v. Colgate & Co., 250 U.S. 300, 307 (1919).

conduct business. More specifically, the Chapter presents the economics of refusal to deal, essential facility, and price squeeze claims under antitrust laws.

A refusal to deal is a unilateral or collective unwillingness to trade with a market participant. The practice may entail anticompetitive effects when it blocks access to inputs that are valuable to the production of some product. Put differently, antitrust concerns may arise in situations of refusals to deal in intermediate products (goods or services). A refusal to deal may be explicit, but may also take the form of unfavorable contractual terms that a profitable firm cannot accept.

An *essential facility* is an asset, the access to which is an intermediate product needed to operate in certain markets. A firm's facility is essential when "it is both critical to [another firm's] competitive vitality and [that other firm] is essential for competition in the marketplace." (Areeda, 1989, p. 852).

A *price squeeze* occurs when "a vertically integrated firm 'squeezes' a rival's margins between a high wholesale price for an essential input sold to the rival and a low output price to consumers for whom the two firms compete" (Hovenkamp and Hovenkamp, 2009, p. 273). In other words, a price squeeze describes a situation of a vertically integrated firm that possesses market power in a market for intermediate products and "simultaneously raise[s] the wholesale price of inputs and cut the retail price of the finished good." Price squeezes are, therefore, unfavorable contractual terms that may be unacceptable for a profitable firm. As such, they may constitute a non-explicit form of refusals to deal. Moreover, since "for antitrust purposes, there is no meaningful distinction between price and nonprice components of a transaction," for analytical purposes, price squeeze claims can represent unfavorable contractual terms.

Refusal to deal, essential facility, and price squeeze claims share a common core element: A collective or unilateral selective exercise of control over necessary inputs that undermines the economic viability of certain market participants. This common element often serves as the normative pretext of the claims, which are presented as unfair exclusions. In essence, each claim can be framed as an argument regarding unfavorable prices, where an unequivocal refusal to deal means a price set at infinity.

When the challenged practice is a concerted action of several market participants, its framing as a conspiracy, or a "boycott," against another market participant appears to that party—and possibly to others—as unfair (Minda, 1993). When the challenged practice is a unilateral action, then the exercise of market power by a single firm is perceived to be unfair. Of course, antitrust laws prohibit combinations in restraint of trade and exclusionary unilateral conduct, but neither all collaborations among competitors, nor all unilateral actions that adversely affect rivals, are illegal under antitrust laws. Indeed, many such practices are vital for healthy competition.

Fairness perceptions frequently establish "market entitlements" that can impose constraints on profit seeking (Kahneman et al., 2006; Blinder et al., 1998). When such market entitlements emerge, lawmakers and courts occasionally accept their normative

² Pacific Bell Telephone Co. v. Linkline Communications, Inc., 555 U.S. 438, 442 (2009).

³ *Id* at 439

rationale and incorporate them into statutes and doctrines (Orbach, 2012). Fairness perceptions have indeed influenced the law and scholarship of refusals to deal, essential facilities, and price squeezes. For example, in *Alcoa*, Judge Learned Hand employed fairness concepts to define when price squeezes violate Section 2 of the Sherman Act, setting three conditions: (1) a vertically integrated firm with monopoly power in a market for intermediate products, (2) the firm's price for the intermediate product is "higher than a 'fair price," and (3) the firm's price for finished products is so low that its competitors cannot match the price and still make a "living profit." In the same spirit, the essential facility doctrine "comes as closes as antitrust ever does to condemning 'no fault' monopolization." (Areeda & Hovenkamp, vol. IIIB, p. 192; Orbach and Rebling, 2012). Indeed, to many judges, it seems "axiomatic . . . that antitrust law should prevent unfairness in commercial dealings" (Areeda & Hovenkamp, vol. IIIB, p. 100). Fairness perceptions may explain the existence of claims and legal entitlements, but they do not offer sound foundations for antitrust policies. We are not dismissive of the power of fairness perceptions; yet, we do not include them in our analysis.

For simplicity, we refer to the business techniques that trigger refusal to deal, essential facility, and price squeeze claims as "exclusionary refusals to deal." The term as used in this Chapter refers to business practices that may exclude a firm from the market because of a refusal to deal or unfavorable contractual terms. In antitrust, exclusion may be illegal, and this is also the nature of exclusionary refusals to deal (Hovenkamp, 2005; Hovenkamp, 2012). Under some conditions an exclusionary refusal to deal may be illegal, but the term itself does not necessarily mean illegality. The purpose of our inquiry is to examine the circumstances of illegality.

2. The Market for Intermediate Products

2.1 Key Elements

Under what conditions may a seller engage in an exclusionary refusal to deal? Consider the market for intermediate products depicted in *Figure 23-1*. Intermediate products may include shipping services, car bodies, replacement parts, advertisement space, and other goods and services that constitute inputs in the production of other goods and services. An intermediate product has some positive value for firms that use it for the production of finished goods and services. The value is high when the intermediate product is a critical input in production and the buyer has no market alternatives. A critical intermediate product may be associated with a facility, but this is not a prerequisite. For example, local circumstances may turn bananas and access to bridges into critical inputs for the operation of railroads. Bananas represent ordinary inputs—cargo in the case of railroads. By contrast, access to bridges symbolizes access to critical

⁴ United States v. Aluminum Company of America, 148 F.2d 416, 437 (2d Cir. 1945) (*Alcoa*).

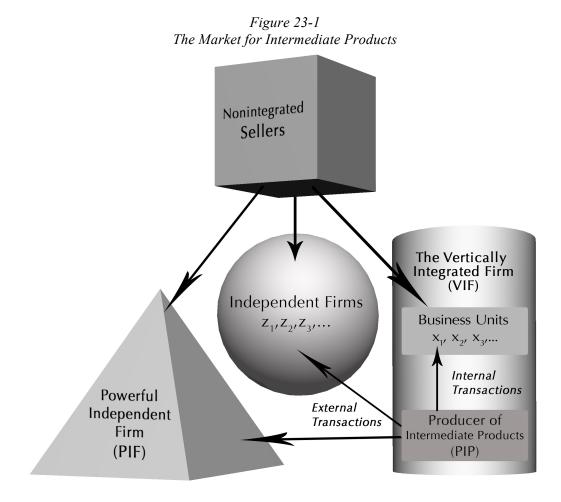
 $^{^{5}}$ Of course, when misused, the value of an intermediate product is zero or negative. We do not address such instances in this Chapter.

⁶ See, e.g., International Railways of Central America v. United Brands Co., 532 F.2d 231 (2d Cir. 1976).

facilities.⁷ Thus, in our framework, the meaning of "essential facility" is high-value intermediate products and barriers to entry in the market for those intermediate products.

Barriers to entry are, of course, only one possible imperfection in markets for intermediate products. The ordinary sources of market inefficiencies—transaction costs, inadequate information, and bounded rationality—may impair trade and production in many ways. In our general framework, we need not identify specific sources of market inefficiency; rather, we refer to resulting market imperfections, and primarily to market power.

In a market for intermediate products, two types of sellers operate: nonintegrated sellers and vertically integrated firms (VIFs). The buyers of intermediate products may include "independent firms" and VIFs. Nonintegrated sellers sell their entire inventory to buyers. A vertically integrated firm (VIF) integrates a producer of an intermediate product (PIP) and at least one business unit that produces a product with PIP's intermediate product. A VIF may sell excess intermediate products to independent firms in external transactions.



⁷ See, e.g., United States v. Terminal Railroad Association of St. Louis, 224 U.S. 383 (1912).

2.2 Nonintegrated Sellers

Exclusionary refusals to deal are often presented as phenomena that concern vertical integration. However, nonintegrated sellers may also in engage in exclusionary refusals to deal. In the abstract, buyer competition improves the bargaining position of nonintegrated sellers, and therefore such sellers supposedly have no incentives to engage in practices that reduce competition among buyers. Nonetheless, market imperfections may create such incentives. Exclusive dealing, collusion, and raising rivals' costs (RRC) illuminate settings in which nonintegrated sellers act on such incentives.

Consider first exclusive dealing, requirements, and exclusive distributorship contracts. In markets for intermediate products, exclusive dealing and requirements agreements commit buyers to specific sellers, whereas exclusive distributorship agreements bind sellers to specific buyers. Thus, directly or indirectly, these agreements establish "exclusionary refusal to deal," as the committed buyers and sellers cannot deal with others.

An exclusive dealing agreement requires a retailer (or a distributor) to purchase certain products only from a particular manufacturer. A requirements agreement stipulates that a manufacturer would buy certain inputs from a particular supplier. And an exclusive distributorship agreement commits a supplier to sell its entire production to a particular buyer. Exclusive dealing, requirements, and exclusive distributorship agreements offer the party that commits itself certain benefits for the exclusivity it assumes, which are generally contractual terms that are unavailable to others.

Exclusive dealing, requirements, and exclusive distributorship agreements are common in practice and used to enhance efficiencies—they may reduce transaction costs, improve information flow, and assist in overcoming other sources of market inefficiencies (Marvel, 1982; Klein & Murphy, 2008). For their efficiencies, they are generally lawful under antitrust law. Thus, exclusive dealing, requirements, and exclusive distributorship agreements are market mechanisms that utilize restrictions but tend to have procompetitive effects.

Collusions also utilize restrictions, but of course intend to suppress competition. A collusion in which sellers of intermediate goods reduce the competition among their buyers requires internal payments to compensate the sellers for the loss of business. In such situations, sellers offer buyers advantages over their rivals and the buyers pay sellers for these advantages. The payment may be a portion of the buyers' increased profit, enforcement of the collusion among the sellers, or another form of payment. Antitrust law bans collusions, but in practice, verifying the relevant facts may be too costly for effective enforcement.

RRC refers to situations in which the relationships between a powerful buyer and its suppliers may prompt the suppliers to refuse to deal with the buyer's rivals or offer

⁸ See, e.g., Standard Oil Co. of California v. United States (Standard Stations), 337 U.S. 293 (1949); Tampa Elec. Co. v. Nashville Coal Co., 365 U.S. 320 (1961); United States v. Dentsply International, Inc., 399 F.3d 181 (3d Cir. 2005).

⁹ See, e.g., JTC Petroleum Co. v. Piasa Motor Fuels, Inc., 190 F.3d 775 (7th Cir. 1999) (Posner, J.); Grantiz and Klein, 1996.

them unfavorable terms and conditions (Salop and Scheffman, 1983; Krattenmaker and Salop, 1986). For example, a powerful independent firm (PIF)—a large purchaser of intermediate products—may be in the position to demand from nonintegrated sellers contractual terms that are substantially more favorable than those available to other buyers. ¹⁰ Krattenmaker and Salop (1986) explained the technique:

[A] firm may gain the ability to raise price by contracting with input suppliers for the suppliers' agreements not to deal with the purchasing firm's competitors on equal terms. We call these agreements 'exclusionary rights contracts.' Under certain conditions, such contracts for exclusionary rights can have the effect of raising rivals' costs by restraining the supply of inputs available to rivals, thereby giving the purchaser power to raise prices in its output market. Courts should inquire whether the firm that purchases an exclusionary rights agreement thereby places its competitors at such a cost disadvantage that the purchaser can then exercise monopoly power by raising its price

Exclusive dealing arrangements, tying contracts, group boycotts, and refusals to deal all commonly involve an exclusionary right.

(pp. 223-224, 228).

As the passage suggests, exclusive dealing may be an RRC technique and, under certain circumstances, may also be an illegal collusion. We need not explore the relationships between collusion and exclusion. Our goal here is merely to point out that nonintegrated sellers may have incentives to discriminate among buyers in ways that may result in exclusion.

To illustrate, consider the rebates and drawbacks Standard Oil received from railroads during the 1870s. Before pipe infrastructure was developed, oil shipping was an intermediate product oil companies purchased from railroads. For more than a century, scholars and historians have been grappling with the question of why railroads gave Standard Oil favorable rates (Granitz & Klein, 1996; Klein, 2012; Priest, 2012). While some details related to the events may always be disputed, it is generally agreed that John D. Rockefeller took advantage of the railroads' collusion to secure favorable rates and build the Standard Oil's monopoly.

Similarly, in *JTC Petroleum*, ¹¹ six asphalt applicators allegedly colluded with three asphalt producers to exclude a competitor. Judge Richard Posner pointed out that "it might seem to make no sense from the producers' standpoint to shore up a cartel of their customers." He therefore offered two possible theories for the producers' willingness to enter into an agreement for a refusal to deal with a customer. First, because "the producers [had] nowhere else to turn to sell their product, . . . the applicator defendants [were possibly] able to coerce them into helping to police their cartel by threatening to buy less product from them or pay less for it." Second, "and more plausibly," according to Judge Posner, "the cartelists [were possibly] paying the producers to perform the

¹⁰ See, e.g., United States v. Griffith, 334 U.S. 100 (1948).

¹¹ JTC Petroleum Co. v. Piasa Motor Fuels, Inc., 190 F.3d 775 (7th Cir. 1999) (Posner, J.).

policing function, rather than coercing them, by threats, to do so." Thus, Judge Posner concluded that the collusion of nonintegrated sellers with buyers might have given rise to exclusionary refusal to deal.

RRC is not only a strategy employed by powerful buyers, but also by nonintegrated sellers. Nonintegrated sellers may use the threat of refusal to deal (or unfavorable contractual terms) to enforce discipline among their buyers in order to raise the costs of other nonintegrated sellers. To illustrate, consider the facts of *Lorain Journal*. In *Lorain Journal*, a publisher whose daily newspapers reached 99% of the families in Lorain, Ohio, "refused to accept local advertisements in the Journal from any Lorain County advertiser who advertised or who [the publisher] believed to be about to advertise" with the local radio station. The U.S. Supreme Court concluded that the "publisher's attempt to regain its monopoly . . . by forcing advertisers to boycott a competing radio station violated § 2 [of the Sherman Act]." 13

In sum, although buyer competition generally serves nonintegrated sellers, market imperfections may present such sellers with incentives to engage in "exclusionary refusals to deal."

2.3 The Vertically Integrated Firm

We now turn to the vertically integrated firm (VIF). The standard analysis of vertical integration provides that VIFs exist to mitigate market inefficiencies, including the costs of opportunistic behavior (Coase, 1937; Blair & Kaserman, 1983; Grossman & Hart, Joskow, 2010; 1986; Klein et al., 1978). VIFs benefit from the stability of supply, economization of transaction costs, and mitigation of costs associated with the divergence of interests in contractual relationships, such as agency and hold-up problems. The price and other contractual terms of internal transactions are expected be better than those of external transactions. Market power enables a VIF to increase the differences between internal and external transactions. When a VIF holds substantial market power—the so-called "monopoly power" (Orbach & Rebling, 2012)—it may possess the power to engage in exclusionary refusal to deal.

Alongside internal efficiencies, vertical integration influences VIFs' incentives in the market for intermediate products. While nonintegrated sellers tend to benefit from competition among their buyers, for VIFs, such competition may undermine profitability. A buyer of a VIF's intermediate products may also be a business rival of the VIF's internal business units. Thus, VIFs may have strong incentives to distinguish between internal and external transactions, and possibly to refuse to deal with rivals. *Kodak* and *Aspen Skiing* illustrate some of the conflicts that VIFs may have with rivals that purchase intermediate products they sell.

¹² Lorain Journal Co. v. United States, 342 U.S. 143 (1951).

¹³ Id. at 186

¹⁴ For example, General Motor's 1926 acquisition of Fisher Body, GM's supplier of car bodies, enriched the literature on contracts and the theory of the firm. *See*, *e.g.*, Casadesus-Masanell & Spulber, 2000; Coase, 2000; Freeland, 2000; Klein, 2000.

Kodak's Aftermarkets. ¹⁵ Until the late 1990s, Eastman Kodak operated in the photocopying and micrographic equipment markets as a VIF, integrating the production of equipment, replacement parts, and service. In the early 1980s, small independent firms began servicing Kodak copying and micrographic equipment. In 1985 and 1986, Kodak revised its policies to limit the availability of replacement parts to make it more difficult for independent firms to compete with Kodak in servicing Kodak equipment. Replacement parts were intermediate products that service firms—Kodak and "independent service organizations" (ISOs)—used, and Kodak controlled the market.

In 1987, eighteen ISOs filed a lawsuit against Kodak. After lengthy litigation, in August 1997, the Ninth Circuit upheld a jury verdict against Kodak. In addition to the treble damages, ISOs were granted a 10-year injunction requiring Kodak to sell replacement parts at nondiscriminatory prices. The final remedy required Kodak to sell its intermediate products to independent firms, and supposedly required Kodak to equate the terms of the internal and external transactions for the intermediate products. The controversy over *Kodak* is over the question of whether the exclusion of ISOs could have harmed consumers, considering Kodak's small market share in the equipment market.

Aspen Skiing. ¹⁶ In Aspen Skiing, the intermediate product was all-Aspen lift tickets for the four ski facilities in Aspen that were offered to the public between the early 1960s and mid-1970s. Beginning in the 1977-1978 season, the firm that owned three out of the four facilities refused to continue offering the joint tickets. In a unanimous decision, the Supreme Court held that the firm's "decision to terminate the all-Aspen ticket was . . . a decision by a monopolist to make an important change in the character of the market." Accordingly, the Court ruled that the firm violated Section 2 of the Sherman Act by refusing to continue offering joint lift tickets, and affirmed the order instructing continuation of the joint offering. Using our framework, the large firm acted as a VIF that for a certain period had a financial arrangement with a buyer regarding the intermediate product. At some point the VIF decided to terminate the arrangement and use the lift tickets exclusively internally.

Kodak and Aspen Skiing highlight the strategic advantage that market power in the market for intermediate products may confer on VIFs. This strategic advantage, in turn, may provide motivations for vertical integration to eliminate competition. It also offers arguments against vertical integration and various business decisions in the market for intermediate products. One question with which courts have struggled is whether the way a VIF formed or acquired market power is a relevant factor, and specifically whether a VIF that possesses market power but had not violated antitrust laws should have any duties—"no fault liability." We address this point in Section 3.2.

2.4 Summary of the Economic Framework

Our analysis of the market for intermediate products identified three primary settings in which a firm may engage in exclusionary refusal to deal: (a) VIFs are likely to

¹⁵ Eastman Kodak Co. v. Image Technical Services, Inc., 504 U.S. 451 (1992); Image Technical Services, Inc. v. Eastman Kodak Co., 125 F.3d 1195 (9th Cir. 1997).

¹⁶ Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585 (1985).

¹⁷ *Id.* at 604.

differentiate between internal and external transaction and may refuse to deal with rivals; (b) nonintegrated sellers and PIFs may use exclusionary refusals to deal to raise rivals' costs; and (c) a collusion among nonintegrated sellers and buyers of intermediate products may result in exclusionary refusal to deal.

Exclusionary refusals to deal, therefore, concern VIFs and nonintegrated firms. They may raise competitive concerns, but they may also enhance market efficiencies.

3. Legal Analysis

Using our analysis of the market for intermediate products, we now turn to the laws that govern exclusionary refusal to deal. Refusal to deal, essential facility, and price squeeze claims have the intuitive appeal of rules of thumb. At the abstract they may appear logical, but they lack the level of details that reality demands. The legal rules that govern these claims are not always much better. This Section examines and critiques the present law that applies to refusal to deal, essential facility, and price squeeze claims.

3.1 Concerted Refusals to Deal

Concerted refusals to deal refer to a collective unwillingness of a set of market participants to include another market participant in certain commercial activities. Market participants may engage in concerted refusal to deal to eliminate competition or enforce collusion, but may also do so to preserve efficiency or for reasons that should be outside the purview of antitrust law. Nonetheless, concerted refusals to deal are legally "stigmatized" as "group boycotts" (Minda, 1993). Under current U.S. antitrust law, concerted refusals to deal are classified as "the supreme evil of antitrust" and are illegal per se.²⁰

The per se illegality of concerted refusals to deal is generally unwarranted as it is stated because the rule bans common legitimate business settings (Bauer, 1979; Richman, 2009), and its conceptual rigidity fails courts in its application. The per se rule supposedly assumes that *refusals* to deal are identified acts and that *concerted* refusals to deal can be properly defined. Both premises are misguided.

To start with, a "refusal to deal" may be framed as an express unwillingness to conduct business, but as stated at the outset, unfavorable contractual terms may, in effect, form refusals to deal. The practical difference between express refusal to deal and unacceptable contractual terms is the costs of verification by courts and agencies. A judicial inquiry into the reasonableness of contractual terms defeats the purpose of per se rules. Thus, the framing of refusals to deal may undermine the effectiveness of the per se rule, confuse courts, and increase business uncertainty.

¹⁸ Although analytically powerful sellers and buyers are symmetric, antitrust law is generally stricter with powerful sellers than buyers (Kirkwood, 2012).

¹⁹ For an analysis of legal rules that rely on rules of thumb see Sunstein (2010).

²⁰ Klor's, Inc. v. Broadway-Hale Stores, Inc., 359 U.S. 207 (1959); NYNEX Corp. v. Discon, Inc., 525 U.S. 128 (1998). In *Trinko*, the U.S. Supreme Court identified collusion as "the supreme evil of antitrust." Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 408 (2004).

To illustrate the potential vagueness of "refusal to deal," consider Indiana Federation of Dentists. 21 A group of dentists formed a trade association and "styled itself" as a 'union' in the belief that this label would stave off antitrust liability." The group, the Indiana Federation of Dentists (IFD) administered among its members a collective refusal to submit x-rays to insurance companies, under the theory that this practice would increase the scope of reimbursements by insurers. IFD, however, invited the insurance companies to visit dentists' offices to review claims for benefits, and therefore did not bar trade with any party. The U.S. Supreme Court held that the "policy of the Federation with respect to its members' dealings with third-party insurers resembles practices that have been labeled 'group boycotts': the policy constitute[d] a concerted refusal to deal on particular terms with patients covered by group dental insurance."²² However, the Court "decline[d] to resolve th[e] case by forcing the Federation's policy into the 'boycott' pigeonhole and invoking the *per se* rule." Deciding to evaluate the restraint under the rule of reason, the Court held that "[a] refusal to compete with respect to the package of services offered to customers, [is] no less than a refusal to compete with respect to the price term of an agreement."23 Thus, the Court considered a collusion regarding contractual term as a form of refusal to deal but chose to analyze the agreement under the rule of reason.

Second, legitimate vertical contractual agreements, such as exclusive dealing and exclusive distributorship contracts, may include refusal-to-deal provisions (Marvel, 1982; Klein & Murphy, 2008). The per se prohibition against concerted refusals to deal supposedly has no exemptions, and as such does not accommodate common and efficient business practices. To illustrate, consider *Klor's*, in which the U.S. Supreme Court declared: "Group boycotts, or concerted refusals by traders to deal with other traders, have long been held to be in the forbidden category." *Klor's* involved two retailers: Klor's, a small appliances retailer, and Broadway-Hale, a chain of department stores, one branch of which was next door to Klor's and also sold appliances. Broadway-Hale used its "monopolistic' buying power" to persuade manufacturers and distributors of well-known appliance brands "either not to sell to Klor's or to sell to it only at discriminatory prices and highly unfavorable terms." For the Supreme Court, these facts sufficed to conclude that Broadway-Hale and the distributors conspired to boycott Klor's.

The facts used in *Klor's* to infer the existence of collusion in violation of Section 1 of the Sherman Act profoundly differ from the facts of *Interstate Circuit*, a classic textbook case for the meaning of "agreement" under Section 1. In *Interstate Circuit*, a powerful local first-run theater chain warned movie distributors that it would "not agree to purchase produce to be exhibited in its 'A' theatres at a price of 40ϕ or more for night admission, unless distributors agree that in selling their product to subsequent runs, that this 'A' product will never be exhibited at any time or in any theatre at a smaller

²¹ F.T.C. v. Indiana Federation of Dentists, 476 U.S. 447 (1986).

²² *Id.* at 458.

²³ *Id.* at 459.

²⁴ *Klor's*, 359 U.S. at 212.

²⁵ *Id.* at 209.

admission price than 25ϕ for adults in the evening."²⁶ The manager of the theater circuit "sent to each [distributor] a letter on the letterhead of Interstate, each letter naming all [distributors] as addressees, in which he asked compliance with" its demands.²⁷ The Supreme Court inferred from the letter and subsequent actions that the manager formed an illegal cartel. Using our framework, a powerful firm formed a cartel by warning nonintegrated sellers that it would refuse to deal with them if they, in turn, do not refuse to deal with its rivals when they act competitively.

Third, many legitimate market mechanisms may be framed as horizontal agreements that established refusals to deal. To illustrate, consider *Neeld v. National Hockey League*: A one-eyed hockey player brought action against a professional hockey league arguing that its bylaws, which precluded a player with only one eye from participating, constituted a concerted refusal to deal.²⁸ A more important antitrust case, *Northwest Stationers* dealt with an exclusion of a member of a wholesale purchasing cooperative.²⁹ The cooperative expelled the member for violating one of its rules (a failure to disclose change in control). The Supreme Court ruled that the per se ban on concerted refusals to deal applied only to "form[s] of concerted activity characteristically likely to result in predominantly anticompetitive effects." The Court held that wholesale purchasing cooperatives did not have such traits. Applying the rule of reason, the Court concluded that the challenged disclosure rule was among the reasonable rules "[w]holesale purchasing cooperatives must establish and enforce . . . in order to function effectively."³⁰

Finally, the per se rule has been used inconsistently to restrict strikes and protests. In *Claiborne Hardware*, the Supreme Court held that a civil rights boycott of white merchants was constitutionally protected and did not violate antitrust laws. Writing for the Court, Justice Stevens noted: "Concerted action is a powerful weapon. History teaches that special dangers are associated with conspiratorial activity. And yet one of the foundations of our society is the right of individuals to combine with other persons in pursuit of a common goal by lawful means." ³¹

By contrast, in *Superior Court Trial Lawyers Association*, the Supreme Court held that a strike of lawyers intending to force the City Council to raise the hourly rate of pay for court-appointed criminal defense work constituted illegal concerted refusal to deal.³² The *Trial Lawyers* Court pointed out that "the undenied objective of [the trial lawyers'] boycott was an economic advantage for those who agreed to participate," while "[t]hose who joined the *Claiborne Hardware* boycott sought no special advantage for themselves. They were black citizens . . . who had been the victims of political, social,

²⁶ Interstate Circuit v. United States, 306 U.S. 208, 217 n3 (1939).

²⁷ *Id.* at 215.

²⁸ Neeld v. National Hockey League, 594 F.2d 1297 (9th Cir. 1979).

²⁹ Northwest Wholesale Stationers, Inc. v. Pacific Stationery & Printing Co., 472 U.S. 284 (1985).

³⁰ *Id.* at 296-97.

³¹ N.A.A.C.P. v. Claiborne Hardware Co., 458 U.S. 886, 932-33 (1982).

³² F.T.C. v. Superior Court Trial Lawyers Association, 493 U.S. 411 (1990).

and economic discrimination for many years. They sought only the equal respect and equal treatment to which they were constitutionally entitled." The Court considered this distinction "decisive." But, the economic characterization of this distinction is not so decisive: the Court's description of benefits associated with strikes is somewhat simplistic. Strikes and protests may be purely for economic interests. It is far from clear that the *Trial Lawyers*' strike was merely for financial motives. Antitrust, therefore, may not be the appropriate legal vehicle to address strikes and protests (Greene, 2010). If a strike may be an illegal concerted refusal to deal, then by extension, a monopoly newspaper publisher in a conservative town that refuses to accept advertising for X-rated films may violate an antitrust duty to deal. The latter is not an antitrust concern, and the former should not be either.

In sum, concerted refusals to deal may establish profitable collusion mechanisms. They are *supposedly* illegal per se, but courts have been struggling with the application of this rule. Cooperation among competitors, including agreements that include refusals to deal, may enhance efficiencies and often raise no competitive concerns. The per se illegality of concerted refusals to deal is too broad and inconsistent with many ordinary business practices.

3.2 Unilateral Exclusionary Refusals to Deal

3.2.1 The General Rule

Our analysis of the market for intermediate products showed that a single firm may be in the position to engage in exclusionary refusal to deal, and may have incentives to do so. Specifically, the analysis stressed that vertical integration is not a necessary condition for exclusionary refusals to deal. Rather, nonintegrated firms may also engage in exclusionary refusals to deal for various reasons. We opened this Chapter with a famous quote from *Colgate*:

In the absence of any purpose to create or maintain a monopoly, the [Sherman Act] does not restrict the long recognized right of trader or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal; and, of course, he may announce in advance the circumstances under which he will refuse to sell.³⁵

This quote states the general rule: A single firm has no duty to deal with others, let alone a duty to cooperate with competitors. For example, in *Official Airline Guides*, the Second Circuit examined "the question whether a monopolist publisher of flight schedules not itself an air carrier ha[d] some duty . . . not to discriminate unjustifiably between certificated air carriers and commuter airlines so as to place the latter at a significant competitive disadvantage." Relying on *Colgate*, the court held that "even a

³³ *Id.* at 426.

³⁴ America's Best Cinema Corp. v. Fort Wayne Newspapers, Inc., 347 F. Supp. 328, 333 (N.D. Ind. 1972).

³⁵ United States v. Colgate & Co., 250 U.S. 300, 307 (1919).

³⁶ Official Airline Guides, Inc. v. F. T. C., 630 F.2d 920, 921 (2d Cir. 1980).

monopolist" has the right to discriminate among customers "as long as [it] has no purpose to restrain competition or to enhance or expand his monopoly, and does not act coercively." The U.S. Supreme Court has reaffirmed this general rule on many occassions. For example, in *Linkline*, citing *Colgate*, the Court stated once again: "As a general rule, businesses are free to choose the parties with whom they will deal, as well as the prices, terms, and conditions of that dealing."

U.S. courts, however, recognize the existence of exceptions to this general rule, although they do not clearly define or explain them. In *Trinko*, for example, the Court acknowledged that such exceptions exist and stressed their narrow scope:

Under certain circumstances, a refusal to cooperate with rivals can constitute anticompetitive conduct and violate § 2 [of the Sherman Act]. We have been very cautious in recognizing such exceptions, because of the uncertain virtue of forced sharing and the difficulty of identifying and remedying anticompetitive conduct by a single firm.³⁹

In 2009, relying on *Trinko*, the *Linkline* Court referred to "limited circumstances in which a firm's unilateral refusal to deal with its rivals can give rise to antitrust liability,"⁴⁰ but again did not list those circumstances or explain their rationales.

3.2.2 The Legal Insignificance of Essential Facilities and Price Squeezes

As stated at the outset, unilateral refusal to deal, essential facility, and price squeeze claims share a common core element: A selective use of control over intermediate products that results in exclusion of specific market participants. Our framework highlighted this common element, and now we turn to its legal implications.

In our framework, essential facility claims refer to intermediate products associated with access to a critical infrastructure. In this framework, such intermediate products are not distinguished from other inputs. The framework, therefore, provides no justifications for essential facility claims. Several U.S. "Supreme Court cases [are often] invoked in support [of the essential facility doctrine but] do not speak of it and can be explained without reference to it." (Areeda, 1989, p. 841). In *Trinko*, the Supreme Court clearly stated that "the 'essential facilities' doctrine [was] crafted by some lower courts, [but we] have never recognized such a doctrine." Thus, under present U.S. antitrust law, access to essential facilities are treated like intermediate products. Essential facility claims have no independent existence.

³⁷ *Id.* at 927-28.

³⁸ *Linkline*, 555 U.S. at 448.

³⁹ Trinko, 540 U.S. at 408.

⁴⁰ *Linkline*, 555 U.S. at 448.

⁴¹ *Trinko*, 540 U.S. at 411.

⁴² Cotter (2010) provides a general review of the doctrine in the U.S. and the EC and concludes that the "essential facilities doctrine remains controversial, and its precise application even in fora in which it is cognizable remains subject to interpretation. Although intuition may suggest that social benefits will flow from compelling a monopolist to share its property with potential competitors or customers, these

Our framework also did not distinguish between unilateral refusals to deal and price squeezes; rather, it presented price squeezes as unfavorable contractual terms that may be unacceptable and, hence, equivalent to refusals to deal. In *Linkline*, the U.S. Supreme Court examined the legality of price squeezes under antitrust law and determined that "[i]f there is no duty to deal [in the market for intermediate products] and no predatory pricing [for the finished product], then a firm is certainly not required to price *both* [products] in a manner that preserves its rivals' profit margins." Thus, under present law, price squeezes are treated as unfavorable contractual terms that may be equivalent to unilateral refusals to deal.

3.2.3 The Duty to Deal

We now reach our central question: Under what circumstances may (or should) antitrust laws impose on a firm a duty to deal? Although all courts recognize the existence of such circumstances, no clear rules define them. Several classic cases, such as *Aspen Skiing* and *Kodak*, stress various forms of specific investments made in the market in reliance on a firm's dealing with others. In *Kodak*, the dissent rejected the possibility that specific investments could change anything in the analysis of the market for intermediate products. 45

In imperfect markets, where transaction costs, inadequate information, and bounded rationality impair production and trade, specific investments of some market participants may place others in a strategic position. Under such conditions, unilateral refusals to deal and price squeezes may be particularly costly since exiting the market entails losses. Again, *Aspen Skiing* and *Kodak* are classic examples of such settings. In both cases, the U.S. Supreme Court was persuaded that, under the circumstances, the refusal to deal intended to increase the profit of a VIF and harm consumers. More specifically, in both cases, the Court was unsatisfied with the justifications that each VIF provided for its choice to revise existing policies. In *Aspen Skiing*, the Court stressed the VIF's "failure to offer any efficiency justification whatever for its pattern of conduct." In *Kodak*, the Court refused to grant the VIF summary judgment because "[f]actual questions existe[d] . . . about the validity and sufficiency of each claimed justification."

Thus, the general proposition is supposedly that in markets for intermediate products, sellers may have the duty to continue doing business with buyers that made specific investments, relying on their mutual trade.⁴⁸ We use our framework to examine this proposition.

benefits may be illusory if the long-run costs to dynamic efficiency are taken into account. . . . [A]t least within the EC, the doctrine now appears to be firmly rooted." p. 174.

⁴³ *Linkline*, 555 U.S. at 452.

⁴⁴ See also Otter Tail Power Co. v. United States, 410 U.S. 366 (1973).

⁴⁵ Eastman Kodak, 504 U.S. at 487 (Scalia, J., dissenting).

⁴⁶ Aspen Skiing, 472 U.S. at 608. For a thorough analysis of this point see Priest and Lewinsohn (2007).

⁴⁷ Eastman Kodak, 504 U.S. at 483.

 $^{^{48}}$ For price squeezes of firms with specific investments see Hovankamp and Hovenkamp (2009).

We begin by restating a basic observation: VIFs may have sound economic reasons to distinguish between internal and external transactions, and possibly not to conduct external transactions. While pricing external transactions for competitors, VIFs consider the potential revenues from the trade and other potential benefits. For example, in pricing replacement parts for independent service providers, an equipment manufacturer considers both the revenues from sales and the need to service its equipment. This analysis may change over time with the general economic landscape and the VIF's business model. For example, an equipment manufacturer may conclude that providing all repair services to equipment owners would enhance the value of its brand and consumers' confidence in the equipment's reliability. For similar considerations, a nonintegrated seller may change its business model, vertically integrate with a service provider, or enter into vertical agreements with select buyers that have adverse effects on others.

Reality may offer many other settings in which sellers of intermediate products have good reasons to revise their policies and refuse to deal with buyers that made specific investments or "squeeze" them. Under existing U.S. precedent, such exclusionary refusals to deal are *not* illegal. However, a seller of intermediate products may have a duty to deal if it changes patterns of trade with buyers that made specific investments, but have no good reasons to do so. The rationale for this duty is market efficiency, because concerns regarding specific investments establish the duty.

We conclude our discussion of the duty to deal with five observations. First, again, we stress that U.S. courts recognize the duty to deal but do not define it or clearly explain its rationale. We rely on the existing case law to infer such rationale. Second, the motivations for and framing of exclusionary refusals to deal appear to be related to fairness perceptions. Exclusionary refusals to deal elicit sentiments of unfairness among excluded firms, but fairness perceptions have little to do with efficiency analysis. Third, our analysis of the present law resulted in a duty that is *inconsistent* with the stated goal of antitrust law—"consumer welfare" (Orbach, 2011). Fourth, courts are unlikely to effectively handle efficiency evaluations, and have no tools to design a long-term and effective remedy for a duty to deal. Fifth, to the extent efficiency is a reason for a duty to deal, it should also be imposed on buyers in the market for intermediate products.

In light of the analysis and these observations, we are skeptical of the antitrust duty to deal. If exists, such a duty takes the form of a *duty to keep dealing* intended to preserve market efficiencies.

3.3 Industry Consortia

The origins of the so-called essential facility doctrine are in the seminal *Terminal Railroad* case.⁴⁹ Together with other precedents, *Terminal Railroad* apparently established a rule regarding industry consortia's control of critical infrastructure.

In 1889, railroad tycoon Jay Gould organized the Terminal Railroad Association of St. Louis (TRRA) to consolidate control over railway transportation entering and leaving St. Louis and, specifically, transportation across the Mississippi River between St. Louis and Illinois. TRRA was a consortium consisting of fourteen of the twenty-four

⁴⁹ Terminal Railroad. 224 U.S. 383: Reiffen & Kleit. 1990.

railroad companies that converged at St. Louis. Its members controlled "about one third of the railroad mileage of the United States." At the time, St. Louis was the fourth largest city in the United States and significant volume of trade was concentrated there. Trains could cross the river on the Eads Bridge (then, the world's longest bridge) and ferries of the Wiggins Ferry Company. TRRA acquired the Eads Bridge, then the Wiggins Ferry Company, and later also the Merchants' Bridge, which was built to create an alternative to the Eads Bridge. For railroads, transportation across the Mississippi River between St. Louis and Illinois was an intermediate product. Thus, through vertical integration, TRRA obtained control over a market for intermediate products. The U.S. Supreme Court determined that TRRA was "a terminal company and something more," which "operate[ed] to the disadvantage of the commerce which must cross the river at St. Louis, and of nonproprietary railroad lines compelled to use its facilities."⁵¹ The Court was reluctant, however, to dissolve the vertical integration. Instead, it required that TRRA (1) be open to "joint ownership and control of the combined terminal properties" with any existing or future railroad, and (2) set "just and reasonable terms [for the use of the terminal facilities] . . . as nearly an equal plane as may be with respect to expenses and charges as that occupied by the proprietary companies."

Two factual features in *Terminal Railroad* set it apart from ordinary cases of unilateral refusal to deal. First, several large competitors jointly held the monopolist, and, second, the competitors operated in a network industry. In *Associated Press*,⁵² relying heavily on the economic implications of these features, the Supreme Court created a duty to deal for industry consortia, which Philip Areeda summarized as follows:

(1) whenever competitors jointly create a *useful facility*, (2) that is essential to the *competitive vitality of rivals*, (3) and (perhaps) essential to the *competitive vitality of the market*, (4) and admission of rivals is *consistent* with the *legitimate* purposes of the venture, then (5) the collaborators must admit rivals on *relatively equal* terms. (Areeda, 1989, p. 844).

This rule regarding industry consortia may still apply, despite the Supreme Court's firm statement regarding single firm's "essential facility" in *Trinko*. In many ways, the rule is a specific application of concerted refusal to deal.

4. Conclusion

Fourteen years before Congress passed the Sherman Act, the U.S. Supreme Court handed down a landmark decision in regulation: *Munn v. Illinois*. In *Munn*, Chief Justice Morrison Waite adopted a seventeenth century essay of Lord Chief Justice Hale regarding the duties of businesses whose properties are "affected with a publick interest." Writing for the Court, Chief Justice Waite declared: "[W]e find that when private property is 'affected with a public interest, it ceases to be *juris privati only*." Dissenting,

⁵⁰ Terminal Railroad, 224 U.S. at 400.

⁵¹ *Id.* at 406.

⁵² Associated Press v. United States, 326 U.S. 1 (1945).

⁵³ Munn v. Illinois, 94 U.S. 113 (1876).

Justice Stephen Johnson Field stressed the ambiguity of the distinction between businesses that are affected and those that are not affected with a public interest, and warned that the distinction "gives unrestrained license to legislative will." *Munn* established the "affected with a public interest" doctrine, empowering the state to regulate businesses clothed with public interest. In 1934, the Supreme Court expressly abandoned the doctrine, stating that "[i]t is clear that there is no closed class or category of businesses affected with a public interest." The doctrine, however, has never died—litigating parties occasionally invoke it and courts may sometimes rely on it (Orbach, 2012).

Refusal to deal, essential facility, and price squeeze claims are antitrust reflections of the affected with a public interest doctrine. One of their intuitive justifications is that public interests may justify antitrust regulation of private property. This is the spirit of antitrust duties to deal, especially under the so-called the essential-facility doctrine.

A standard economic analysis of market inefficiencies may support regulatory duties to deal. Such duties tend to be controversial regardless of their economic underpinnings. The U.S. Supreme Court's 2012 landmark health-care decision illuminates this point. In that case, the Court addressed objections to "individual mandates" that require individuals to purchase minimum essential health insurance coverage. While debating the individual mandates, five Justices also criticized the federal law that prohibits insurance companies from denying coverage to individuals with preexisting conditions or charging unhealthy individuals higher premiums than healthy individuals. In essence, it was a case about "duties to deal."

Our analysis showed that antitrust laws do *not* provide good independent justifications to impose duties to deal. Such duties may be justified and better suited in alternative regulatory regimes. (Orbach, 2012). Under certain conditions, the preservation of market efficiencies, rather than fairness, may warrant a *duty to keep dealing* with buyers (or sellers) in the markets for intermediate products.

Finally, our analysis also concluded that the per se illegality of concerted refusals to deal is unwarranted. The present legal rule is intuitive for naked collusions, but is counterintuitive, and indeed does not serve well, other horizontal and vertical business agreements that include refusals to deal.

We conclude were we began: Competition laws impose constraints on the freedom of contract to prevent certain competitive harms. A duty to deal requires strong justifications that antitrust laws generally do not seem to provide.

References

America's Best Cinema Corp. v. Fort Wayne Newspapers, Inc., 347 F. Supp. 328, 333 (N.D. Ind. 1972).

⁵⁴ Nebbia v. New York, 291 U.S. 502, 533 (1934).

⁵⁵ National Federation of Independent Business v. Sebelius, 132 S.Ct. 2566 (2012).

Areeda, Phillip. 1989, "Essential Facilities: An Epithet in Need of Limiting Principles," Antitrust Law Journal 58: 841-852.

Areeda, Phillip E. and Herbert Hovenkamp, "Antitrust Law," New York, NY: Wolters Kluwer.

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

Associated Press v. United States, 326 U.S. 1 (1945).

Baker, Jonathan B. (2012), "Exclusion As a Core Competition Concern," Antitrust Law Journal (forthcoming).

Bauer, Joseph P. (1979), "Per Se Illegality of Concerted Refusals to Deal: A Rule Ripe for Reexamination," Columbia Law Review 79: 685-717.

Blair, D. Roger and David L. Kaserman (1983), Law and Economics of Vertical Integration and Control," New York, NY: Academic Press.

Blinder, Alan S., Elie Canetti and David Lebow (1998), "Asking about Prices: A New Approach to Understanding Price Stickiness," New York, NY: Russell Sage Foundation Publications.

Casadesus-Masanell, Ramon and Daniel F. Spulber (2000), "The Fable of Fisher Body," Journal of Law & Economics 43: 67-104.

Coase, Ronald H. (1937), "The Nature of the Firm," Economica 4: 386-405.

Coase, Ronald H. (2000), "The Acquisition of Body Fisher by General Motors," Journal of Law & Economics 43: 15-32.

Cotter, Thomas F. (2010), "The Essential Facilities Doctrine," in Keith N. Hylton, Antitrust Law and Economics, Cheltenham, UK: Edward Elgar.

Eastman Kodak Co. v. Image Technical Services, Inc., 504 U.S. 451 (1992).

F.T.C. v. Indiana Federation of Dentists, 476 U.S. 447 (1986).

F.T.C. v. Superior Court Trial Lawyers Association, 493 U.S. 411 (1990).

Freeland, Robert F. (2000), "Creating Holdup Through Vertical Integration: Fisher Body Revisited," Journal of Law & Economics 43: 33-66.

Grantiz, Elizabeth and Benjamin Klein (1996), "Monopolization by "Raising Rivals' Costs": The Standard Oil Case," Journal of Law and Economics 39: 1-47.

Greene, Hillary (2010), "Antitrust Censorship of Economic Protest," Duke Law Journal 59: 1037-1104.

Grossman, J. Sanford and Oliver D. Hart (1986), "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration," Journal of Political Economy 94: 691-719.

Hovenkamp, Herbert (2005), "Exclusion and the Sherman Act," University of Chicago Law Review 72: 147-163.

Hovenkamp, Erik N. and Herbert Hovenkamp (2009), "The Viability of Antitrust Price Squeeze Claims," Arizona Law Review 51: 273-303.

Image Technical Services, Inc. v. Eastman Kodak Co., 125 F.3d 1195 (9th Cir. 1997).

Intergraph Corp. v. Intel Corp., 195 F.3d 1346 (Fed. Cir. 1999).

International Railways of Central America v. United Brands Co., 532 F.2d 231 (2d Cir. 1976).

Interstate Circuit v. United States, 306 U.S. 208, 215 (1939).

Joskow, Paul L. (2010), "Vertical Integration," Antitrust Bulletin 55: 545-586.

Kahneman, Daniel, Jack L. Knetch, and Richard Thaler (1986), "Fairness as a Constraint on Profit Seeking: Entitlements in the Market," American Economic Review 76: 728-741.

Kirkwood, John B. (2012), "Powerful Buyers and Merger Enforcement," Boston University Law Review (forthcoming).

Klein, Benjamin (2000), "Fisher-General Motors and the Nature of the Firm," Journal of Law & Economics 43: 105-142.

Klein, Benjamin (2012), "The 'Hub-and-Spoke' Conspiracy that Created the Standard Oil Monopoly," Southern California Law Review 85: 459-497.

Klein, Benamin, Robert G. Crawford, and Armen A. Alchian (1978), "Vertical Integration, Appropriate Rents, and the Competitive Contracting Process," Journal of Law & Economics 21: 297-326.

Klein Benjamin and Kevin M. Murphy (2008), "Exclusive Dealing Intensifies Competition for Distribution," Antitrust Law Journal, 75: 433-466.

Klor's, Inc. v. Broadway-Hale Stores, Inc., 359 U.S. 207 (1959).

Krattenmaker Thomas G. and Steven C. Salop (1986), "Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price," 96: 209-293.

Lorain Journal Co. v. United States, 342 U.S. 143 (1951).

Marvel, Howard P. (1982), "Exclusive Dealing," Journal of Law & Economics 25: 1-25.

Minda, Gary (1993), "The Law and Metaphor of Boycott," Buffalo Law Review 41: 807-931.

Munn v. Illinois, 94 U.S. 113 (1876).

N.A.A.C.P. v. Claiborne Hardware Co., 458 U.S. 886 (1982).

National Federation of Independent Business v. Sebelius, 132 S.Ct. 2566 (2012).

Nebbia v. New York, 291 U.S. 502 (1934).

Neeld v. National Hockey League, 594 F.2d 1297 (9th Cir. 1979).

Northwest Wholesale Stationers, Inc. v. Pacific Stationery & Printing Co., 472 U.S. 284 (1985).

NYNEX Corp. v. Discon, Inc., 525 U.S. 128 (1998).

Official Airline Guides, Inc. v. F. T. C., 630 F.2d 920 (2d Cir. 1980).

Orbach, Barak (2011), "The Antitrust Consumer Welfare Paradox," Journal of Competition Law & Economics 7: 133-164.

Orbach, Barak (2012), "Regulation: Why and How the State Regulates," New York, NY: Foundation Press.

Orbach, Barak, and Grace Campbell Rebling (2012), "The Antitrust Curse of Bigness," Southern California Law Review 85: 605-655.

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

Pacific Bell Telephone Co. v. Linkline Communications, Inc., 555 U.S. 438 (2009).

Priest, George L. (2012), "Rethinking the Economic Basis of the Standard Oil Refining Monopoly: Dominance Against Competing Cartels," Southern California Law Review 85: 499-558.

Priest, George L. and Jonathan Lewinsohn (2007), "Aspen Skiing: Product Differentiation and Thwarting Free Riding as Monopolization," in Eleanor M. Fox and Daniel A. Crane eds., Antitrust Stories, New York, NY: Foundation Press.

Reiffen, David and Andrew N. Kleit (1990), "Terminal Railroad Revisited: Foreclosure of an Essential Facility or Simple Horizontal Monopoly?," Journal of Law & Economics 33: 419-438.

Richman, Barak D. (2009), "The Antitrust of Reputation Mechanisms: Institutional Economics and Concerted Refusals to Deal," 95 Virginia Law Review 95: 325-387.

Salop Steven C. and David T. Scheffman (1983), "Raising Rivals' Costs," American Economic Review 73: 267-271.

Standard Oil Co. of California v. United States (Standard Stations), 337 U.S. 293 (1949).

Sunstein, Cass R. (2010), "Moral Heuristics and Risk," in Sabine Roeser (2010), Emotions and Risky Technologies, New York, NY: Springer.

Tampa Elec. Co. v. Nashville Coal Co., 365 U.S. 320 (1961).

United States v. Aluminum Co. of Am., 148 F.2d 416 (2d Cir. 1945).

United States v. Colgate & Co., 250 U.S. 300, 307 (1919).

United States v. Dentsply International, Inc., 399 F.3d 181 (3d Cir. 2005).

United States v. Griffith, 334 U.S. 100 (1948).

United States v. Grinnell Corp., 384 U.S. 563 (1966).

United States v. Terminal Railroad Association of St. Louis, 224 U.S. 383 (1912).

United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001).

Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398 (2004).