Monopolization, Exclusion, And The Theory Of The Firm

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Section 2 of the Sherman Act penalizes those firms that "monopolize" or "attempt to monopolize" any relevant market.[2] Unfortunately, the term "monopolize" does not define itself. In one sense "monopolization" is any conduct that leads to or protects monopoly. Still, the statute does not purport to forbid the mere status of monopoly, and such a definition of "monopolize" would sweep quite broadly. After all, firms may take over a market, or protect a monopoly they already have, in a variety of ways. At one extreme, firms can kill their competitors or destroy their factories. At the other extreme, firms can build a better mousetrap or reduce the cost of building an average mousetrap. Finally, a firm that produces a better mousetrap can devise some method for minimizing the cost of distributing the trap to consumers.

Each of these tactics can create or protect monopoly. In that sense, then, each such tactic "monopolizes" the market in question. Nonetheless, any rational society would want to distinguish between the various tactics that might produce or protect a monopoly. The innovative firm that invents the better mousetrap may harm its rivals but also does society a great service. The injured rival that burns down the innovator's factory or slanders its product does not. A defensible definition of "monopolize" would presumably distinguish between the two.[3]

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[2]*See* 15 U.S.C. 2 (1890).

[3]In short, one tactic makes society better off, and one does not.

For nearly a century, antitrust courts have maintained just such a distinction.[4] In particular, early decisions held that "normal" or "ordinary" conduct does not offend the Sherman Act, including Section 2, even if such conduct leads to or protects monopoly.[5] More recently, courts have relied upon a slightly different formulation, condemning only that conduct which they deem "exclusionary."[6]

Neither formulation is particularly illuminating on its face. For one thing, business practices do not announce themselves as "normal" or "abnormal." Moreover, an inquiry into whether a practice is "exclusionary" merely restarts the inquiry into the meaning of "monopolize." After all, the firm that invents a better mousetrap "excludes" its competitors from the market just as surely as the firm that employs force or other tortious tactics.

Current law seeks additional precision by drawing a distinction between two different sorts of conduct that can "exclude" rival firms from the marketplace. On the one hand, "internal" conduct, including decisions on product design, marketing strategies, refusals to buy or sell, and pricing and output, are treated as "competition on the merits" and presumed lawful, even if they drive

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[4]*See* Brooke Group, Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 223 (1993) (Section 2 does not forbid aggressive pricing by a monopolist that preserves its dominant position); American Tobacco Co. v. United States, 221 U.S. 106 (1911) (Section 2 only forbids monopoly obtained or maintained by unnatural means).

[5]United States v. International Harvester Co., 274 U.S. 693, 753-54 (1927) (Section 2 does not make mere size an offense); United States v. United Shoe Machinery Co., 247 U.S. 473 (1918) (Section 2 does not forbid normal conduct that preserves a monopoly); *American Tobacco Co.*, 221 U.S. at 178-81 (Section 2 only forbids "undue" restraints that lead to or protect monopoly). *See also* Standard Oil Co. v. United States, 221 U.S. 1, 62 (1911) (Sherman Act forbids only unreasonable restraints of trade and does not forbid "monopoly in the concrete"); United States v. Joint Traffic Ass'n, 171 U.S. 505, 567-68 (1898) (Section 1 of the Sherman Act does not forbid "indirect" restraints of trade or "ordinary contracts and combinations"); nn. ____, *infra* and accompanying text.

[6]*See* Eastman Kodak Co. v. Image Technical Servs., Inc., 504 U.S. 451 (1992); United States v. Microsoft, 253 F.3d 34 (D.C. Cir. 2001). *See also* nn. ______ *infra* and accompanying text.

competitors from the marketplace. This presumption is extremely robust: plaintiffs can only rebut it by showing that, for instance, a particular price is below some measure of cost, or that the practice produces no plausible benefits. Thus, the vast majority of internal conduct, including above-cost pricing, is simply lawful *per se,* even if such conduct has led, or will lead, to a monopoly by excluding rivals. On the other hand, external conduct, that is, agreements or other practices that contractually constrain other firms, are presumed *unlawful* whenever they impair or tend to impair significantly the opportunities of rivals. While this presumption is rebuttable, defendants that seek to do so face a heavy burden. Not only must defendants show that the challenged arrangement produces significant benefits; they must also show that the practice is no broader than necessary to achieve those benefits. Thus, even where such conduct produces more benefits than harm, courts will still condemn it if plaintiffs adduce a "less restrictive means" of achieving the objective in question. This distinction between "internal" and "contractual" exclusion corresponds roughly to a distinction between property and contract. While conduct that takes place "within" the firm and excludes rivals involves the exercise of a single entity's property rights, contractual exclusion involves agreements with one or more other firms.

This article offers a critique of antitrust's distinction between "internal" and "contractual" exclusion as well as the preference for property-based "competition on the merits" on which this distinction rests. In particular, the article shows that antitrust's modern distinction between "competition on the merits" on the one hand, and contractual exclusion, on the other reflects the undue influence of neoclassical price theory, the economic paradigm that dominated the study of industrial organization for most of the 20th century. Price theory, it is shown, produced a theory of the firm and related model of "workable competition" that naturally gave rise to a distinction between "internal" and "contractual" exclusion.

Built on the perfect competition model, price theory treats the business firm as a sort of "black box," an impersonal entity that takes in inputs and transforms them into outputs. In this way, the firm performs a crucial function: the allocation of resources from input markets to output markets. By its nature this process involves the generation of wealth, as firms transform raw materials and other inputs into finished products — property — desired by consumers. The process of transformation, *e.g.*, the amount and type of inputs required to produce a given output, depends upon technology, which determines the firm's production function. After transforming inputs into a finished product, the firm of price theory relies upon "the market" — an impersonal, exogenous institution — to transfer the property's title to consumers.

While price theory began with the model of perfect competition, it also recognized certain narrowly-defined departures from the model's assumptions. These departures gave rise to the theory of "workable competition," under which activities internal to the firm, such as innovation and replication, alter production technology. Such changes in technology, in turn, led to improved product quality or productive efficiencies, usually in the form of economies of scale. These improvements manifested themselves by changing the nature or price of the property that the firm could sell to purchasers. Except in extraordinary circumstances, then, price theory and its workable competition model presume these property-based activities beneficial, even if such practices exclude one or more competitors from the marketplace.

Contractual exclusion fares far worse under price theory's conception of the firm and derivative workable competition model. In the world of workable competition, firms can rely upon costless markets to purchase and sell inputs and outputs. Efficiencies are technological in origin and arise and end within the boundaries of the firm. Once a firm produces a product and transfers title by selling the item to a consumer or other firm, there is no price-theoretic rationale for the firm to exercise contractual influence over the item or its purchasers by, for instance, forbidding purchasers to buy from others. Within the price-theoretic framework, then, any contract that reaches "beyond" the firm and interferes with the opportunities of rivals is presumed an artificial and unlawful "barrier to entry," obtained through the coercive exercise of market power. Far from furthering workable competition, such conduct actually thwarts "competition on the merits" and is thus presumptively anticompetitive within price theory's workable competition paradigm.

For more than three decades, price theory and its narrow version of "workable competition" exercised significant influence over enforcement agencies and courts, and this influence gave rise to the "inhospitality tradition" of antitrust law. While price theory and the inhospitality tradition it bred had its most noteworthy influence over antitrust's treatment of "contracts, combinations and conspiracies" analyzed under Section 1 of the Sherman Act, monopolization doctrine did not escape this influence.

The most telling manifestation of the influence of the workable competition model on monopolization doctrine was United States v. United Shoe Machinery.[7] There, a district court employed a Harvard economist as a special law clerk, who prepared a lengthy report that doubled as a dissertation.[8] Relying on this report, the court announced a distinction between "competition

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[7]*See* United States v. United Shoe Machinery Co., 110 F. Supp. 295 (D. Mass. 1953), *aff'd* United Shoe Machinery v. United States, 347 U.S. 521 (1954) (*per curiam*).

[8]CARL KAYSEN, UNITED STATES V. UNITED SHOE MACHINERY CORPORATION (1956).

based on pure merit," on the one hand, and "unnatural" contractual exclusion, on the other. The court recognized that both sorts of conduct made entry by rivals more difficult. Nonetheless, the former conduct was "normal" and "natural" and the result of "inevitable economic laws." The latter was "conscious business policy" and thus raised barriers to entry "unnecessarily." The Supreme Court affirmed the decision, which rested implicitly on a distinction between property and contract, and this distinction still forms the basis for the law of monopolization today.[9]

Price theory's own monopoly over industrial organization did not last forever. Just as price theory reached its peak, a competitor emerged in the form of Transaction Cost Economics ("TCE"). TCE offered a new explanation for the very existence of firms and, thus, a new lens for examining all forms of conduct — internal and external — that might be deemed "exclusionary" for purposes of Section 2. In particular, TCE dispensed with price theory's "technological" conception of the firm and instead suggested that the firm is a special form of contract that arises to avoid the cost of transacting, that is, relying upon the market to conduct economic activity. TCE also revealed that "the firm" is not the only sort of contract that can reduce transaction costs and thus overcome market failure. Instead, many contractual practices that price theory deemed inconsistent with workable competition were in fact methods of reducing the cost of relying upon "the market" to conduct economic activity in the same way that reliance on the firm itself reduces such costs. Given its conclusion that "the firm" is just one more non-standard contract, TCE suggests that any line between "contractual" and property-based forms of exclusion is illusory and based upon a misconception of the economic distinction between firms and markets. In fact, TCE suggested that

[9] *See* nn. _____, *infra* and accompanying text (examining *United Shoe Machinery* decision and its influence on subsequent law).

many non-standard contracts, including the firm, can create the economic equivalent of property rights by concentrating the costs and benefits of particular activities in a "single owner," even in cases in which the firm no longer retained title to its inputs or output. By creating such "contractual property," parties can overcome market failures and thus enhance society's welfare by producing a more efficient allocation of resources.

While the Supreme Court has on occasion invoked TCE in litigation under Section 1 of the Sherman Act, courts have not internalized the lessons of TCE when developing monopolization doctrine. To the contrary, as the recent *Microsoft* case illustrates, monopolization doctrine has been comparatively impervious to the teachings of TCE, even within "expert" enforcement agencies. As a result, monopolization doctrine has remained relatively unchanged since the 1950s. Rational administration of the antitrust laws requires courts supervising monopolization litigation to learn the lessons of TCE and apply them when developing antitrust doctrine under Section 2.

Part I of this article reviews the law of monopolization as it has evolved since Congress passed the Sherman Act in 1890. Using the celebrated recent decision in United States v. Microsoft as an example, this part shows that modern monopolization law as articulated by courts and the enforcement agencies rests upon a distinction between "competition on the merits" and "internal" exclusion, on the one hand, and contractual exclusion, on the other. This distinction, it is shown, corresponds roughly to a distinction between property and contract. Part II argues that modern law's distinction between "internal" and "contractual" exclusion rests upon neoclassical price theory, its theory of the firm, and the derivative model of "workable competition," the latter of which formed the basis for antitrust policy for several decades after World War II. Part III examines a competing economic paradigm, Transaction Cost Economics ("TCE"), which arose in response to price theory in the 1960s. TCE, it is shown, offers a novel theory of the firm that suggests benevolent explanations for exclusionary contracts that price theory deemed "monopolistic." In particular, TCE suggests that many contractual restraints can be characterized as efforts to create the equivalent of property rights that align the interests of otherwise independent trading partners and thus reduce the cost of relying upon market transacting to conduct economic activity. Part IV examines TCE's implications for monopolization doctrine, concluding that courts should abandon their hostility to contractual exclusion and treat such agreements with the same deference they currently accord activities that are "internal" to the firm. In particular, proof that a restraint produces significant benefits by overcoming a market failure should immunize the conduct from antitrust challenge.

I. Definition of "Monopolize" Under Section 2

A. *General Monopolization Standards*

Section 1 of the Sherman Act forbids any "contract, combination or conspiracy" that "restrains trade or commerce."[10] Section 2 of the Act makes it unlawful to "monopolize" or "attempt to monopolize" "any part" of the trade or commerce of the United States.[11] One could read this second section to ban any conduct that allows a firm to gain or preserve a dominant selling position over some product, regardless of the economic effect of that dominance or the social benefits of the conduct that creates or preserves it. Still, the earliest decisions interpreting this section rejected such a "no fault" approach to the statute.[12] Most importantly, in United States v.

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[10] *See* 15 U.S.C. 1 (1890).

[11] *See* 15 U.S.C. 2 (1890).

[12] *Compare* Eleanor M. Fox, *Monopoly And Competition: Tilting The Law Towards A More Competitive Economy*, 37 W. & L. L. Rev. 49 (1980) (advocating "no conduct" approach to monopolization doctrine, whereby proof of monopoly would itself establish liability under Section 2); John J. Flynn, *Statement to the Federal Trade Commission*, 48 Antitrust L. J. 845 (1979) (same).

American Tobacco Co., the Supreme Court reaffirmed the so-called "Rule of Reason" announced in Standard Oil v. United States and implicitly applied in earlier decisions under Section 1.[13] Just as Section 1 of the Act did not reach "normal" or "ordinary" contracts, so too did Section 2 recognize a safe harbor for ordinary and normal conduct that "advanced" or "furthered" trade, even if that conduct might lead to or protect a monopoly.[14] Thus, in the same way that Section 1 only bars "undue" restraints, Section 2 forbids only those restraints or practices that can only be explained by the possession or expectation of market power.[15] A broader proscription, the Court said, would interfere with liberty of contract and the rights of property and at the same time bring commerce to a halt.[16] Put another way, the Court held that the statute does not forbid what modern scholars call

[13]*See* United States v. American Tobacco Co., 221 U.S. 106, 177-81 (1911). *See also* Standard Oil Co. v. United States, 221 U.S. 1 (1911) (Sherman Act forbids only "unreasonable" restraints of trade).

[14]*See American Tobacco*, 221 U.S. at 177-81. *See also Standard Oil*, 221 U.S. at 59-64 (Section 1 of the Sherman Act forbids only unreasonable restraints); United States v. Joint Traffic Association, 171 U.S. 505, 568 (1898) ("The act of Congress must have a reasonable construction, or else there would scarcely be an agreement or contract among businessmen that could not be said to have, directly or indirectly, some remote bearing upon interstate commerce, and possibly to restraint it."), *quoting* United States v. Hopkins, 171 U.S. 578, 600 (1898); *Joint Traffic*, 171 U.S. at 567-68 (Sherman Act does not outlaw "ordinary contracts and combinations" protected by liberty of contract); Addyston Pipe & Steel Co. v. United States, 175 U.S. 211 (1899) (liberty of contract does not protect the sort of direct restraints of interstate trade forbidden by the Sherman Act); *id.* at 235-38 (finding restraint in question "direct" because it raised prices above the level "competition" would produce); Cline v. Frink Dairy Co., 274 U.S. 445, 460-61 (1927) (Taft, C. J.) (*Standard Oil* simply reaffirmed the principles announced in *Joint Traffic* and *Addyston Pipe*); Alan J. Meese, *Liberty and Antitrust in the Formative Era*, 79 Boston U. L. Rev. 1, 43-67 (1999) (formative era case law defined as "direct" those restraints that would be "unreasonable" under *Standard Oil*); Robert H. Bork, *The Rule of Reason and the Per Se Concept: Price Fixing And Market Division*, 74 YALE L. J. 775, 802-805 (1965) (same).

[15]*See* Alan J. Meese, *Price Theory, Competition, and the Rule of Reason*, 2003 Ill. L. Rev. 77, 83-89 (detailing Rule of Reason's prohibition of "undue" restraints).

[16]*See American Tobacco Co.*, 221 U.S. at 180 (*Standard Oil* court exercised "the duty to interpret which inevitably arose from the general character of the term restraint of trade [which] required that the term restraint of trade should be given a meaning which would not destroy the individual right to contract and render difficult and not impossible any movement of trade in the channels of interstate commerce.").

the "efficient monopolist."[17] As William Howard Taft would put things shortly after *American Tobacco*, the Sherman Act does not protect inefficient firms from rivals that enjoy lower costs or produce better products.[18] Subsequent decisions would reach similar results.[19]

American Tobacco's invocation of the Rule of Reason and its economic criterion for liability implied that courts would employ economic theory to determine whether, in fact, a challenged practice was "undue" on the one hand, or "normal," on the other.[20] This, of course, was the practice

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[17] *See, e.g.*, Herbert Hovenkamp, *The Monopolization Offense*, 61 Oh. St. L. J. 1035 (2001); Robert H. Bork, *Legislative Intent And The Policy Of The Sherman Act*, 9 J. L. & Econ. 7, 26-31 (1966) (showing that legislative history of the Act indicates no intent to punish firms that achieve monopoly via superior skill).

[18] *See* WILLIAM HOWARD TAFT, THE ANTITRUST ACT AND THE SUPREME COURT, 124 (1914) (Sherman Act is not designed to "destroy the larger businesses whose capital and large plants enable them to produce goods more cheaply, in order that small plants that cannot produce them as cheaply may live."); *id*. at 126 ("It is possible for the owners of a business of manufacturing and selling useful articles of merchandise so as to conduct their business as not to violate the inhibitions of the anti-trust law and yet to secure to themselves the benefit of the economies of management and of production due to the concentration under one control of large capital and many plants. If they use no other inducement than the constant low price of their product and its good quality to attract custom, and their business is a profitable one, they violate no law.").

[19] *See* United States v. International Harvester Co., 274 U.S. 693, 753-54 (1927) ("The law, however, does not make the mere size of a corporation, however impressive, or the existence of unexerted power on its part, an offense, when unaccompanied by unlawful conduct in the exercise of its power."); United States v. United Shoe Machinery Co., 247 U.S. 473 (1918); Standard Oil Co. v. United States, 221 U.S. 1 (1911) (The Sherman Act does not forbid "monopoly in the concrete"). *See also* Brooke Group, Ltd. v. Brown & Williamson Tobacco Co., 509 U.S. 209, 223-24 (1993) (Section 2 of the Sherman Act does not forbid above-cost pricing by a monopolist); Cargill, Inc. v. Monfort of Colorado, Inc., 479 U.S. 104, 116 (1986) ("It is in the interest of competition to permit dominant firms to engage in vigorous competition, including price competition.")

[20] *See* Meese, *Price Theory, Competition, and the Rule of Reason*, 2003 Ill. L. Rev. at 89-92 (explaining how early Rule of Reason decisions presumed that application of test would require courts to apply evolving economic theory); Bork, *The Rule of Reason*, 74 YALE L. J. at 805 ("It should be stressed that [*Standard Oil*'s] test was phrased wholly in economic terms, giving no evidence of concern for possibly competing values. A corollary of this value choice is that the law should develop according to the progress of economic thought. The law is, therefore, neither made inflexible by controlling precedent nor required to change only through abrupt shifts of basic doctrine. Thus a court could alter the law without repudiating the theory underlying prior decisions by explaining that those decisions had misconceived the economic effect of particular agreements or practices. This characteristic is, of course, inherent in Peckham's and Taft's statements of the rule of reason, as it is in any law governed by economic analysis.").

of common law courts applying the Rule of Reason to contracts that allegedly restrained trade, and *Standard Oil* had expressly endorsed this approach when announcing its Rule of Reason.[21] Economic theory is not static, of course, and common law courts applying the Rule of Reason sometimes altered doctrine to reflect changed understandings of the economic impact of challenged restraints.[22] In the same way, courts applying "reason" when evaluating trade restraints naturally employ the most plausible theory, even if that theory may differ from that in place when the statute

[21] *See Standard Oil*, 221 U.S. at 57-58 (noting that, during the late 19th Century, American courts and legislatures adjusted common law restrictions in response to changed understandings of the economic effects of various agreements); *id.* at 55-56 ("development of more accurate economic conceptions and the changed conditions of society" caused repeal of overbroad English statutes and adjustment in English common law).

[22] *See* Gibbs v. Consolidated Gas Co., 130 U.S. 396, 409 (1889) (stating that the original rules governing restraints of trade were "made under a condition of things and a state of society, different from those which now prevail, [with the result that] the rule laid down is not regarded as inflexible, and has been considerably modified."); Skrainka v. Scharringhausen, 8 Mo. App. 522, 525 (1880) ("It is not that contracts in restraint of trade are any more legal or enforceable now than they were at any former period, but that courts look differently at the question as to what is a restraint of trade."); Diamond Match Co. v. Roeber, 13 N.E. 419, 421-22 (N.Y. 1887); Kellog v. Larkin, 3 Pin. 123, 139-41 (Wis. 1851). *See also Standard Oil*, 221 U.S. at 51-58 (describing common law's evolving treatment of trade restraints); United States v. Addyston Pipe & Steel Co., 85 F. 271, 280-82 (6th Cir. 1898).

was passed.[23] While the principle animating the Rule of Reason remains constant, applications change, as courts "translate" the principle in light of new information.[24]

B. ***The Early Years: The Intent Test***

Courts did not always share current law's strong preference for "competition on the merits" and hostility toward contractual exclusion. Instead, for several decades courts abjured any formalistic distinction between "internal" and contractual exclusion. In *American Tobacco* itself,

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[23]*See* State Oil v. Khan, 522 U.S. 3, 15-22 (1997) (relying upon changed economic perceptions to overrule per se ban on maximum resale price maintenance); Business Electronics Corp. v. Sharp Electronics, 485 U.S. 717, 732 (1988) ("The Sherman Act adopted the term 'restraint of trade' along with its dynamic potential. It invokes the common law itself, and not merely the static content that the common law assigned that term in 1890."); *Klor's, Inc.*, 359 U.S. at 211 (Sherman Act empowered courts to ban contracts "which new times and economic conditions would make unreasonable"); Dr. Miles Med. Co. v. John D. Park & Sons, 220 U.S. 373, 406 (1910) ("with respect to contracts in restraint of trade, the earlier doctrine of the common law has been substantially modified in adaptation to modern conditions."); *Trans-Missouri Freight*, 166 U.S. at 327-29. *See also* HOVENKAMP, ENTERPRISE AND AMERICAN LAW, at 268 ("One of the great myths about American antitrust policy is that courts began to adopt an 'economic approach' to antitrust problems only in the 1970s. At most, this "revolution" in antitrust policy represented a change in economic models. Antitrust policy has been forged by economic ideology since its inception."); Michael S. Jacobs, *An Essay on the Normative Foundations of Antitrust Economics*, 74 N.C. L. Rev. 219, 226 (1995) ("In almost every era of antitrust history, policymakers have employed economic models to explain or modify the state of the law and the rationale for its enforcement.").

[24]*See* Meese, *Rule of Reason*, 2003 Ill. L. Rev. at 91-92, 141-45 (collecting and discussing decisions that invoke evolving economic theory to support doctrinal changes); Lawrence Lessig, *Fidelity In Translation*, 71 TEX. L. REV. 1165, 1247-51 (1993) (describing such an approach to interpretation and application of the Sherman Act); *see also* Alan J. Meese, *Tying Meets The New Institutional Economics* 146 U. PENN. L. REV. 1, 91-93 (1997) (arguing that the Supreme Court should "translate" tying doctrine in light of recent changes in economic theory).

The evolving judicial treatment of horizontal price-fixing provides a quintessential example of this approach. When Congress passed the Sherman Act, common law courts generally enforced such agreements, at least those that set a "reasonable" price. *See* HOVENKAMP, ENTERPRISE AND AMERICAN LAW, at 288-93. Such an approach reflected the "political economy" of the day, which assumed that markets were invariably populated by numerous sellers and characterized by low barriers to entry. In such a world, horizontal price fixing could only produce prices above the "natural" level if cartelists took steps to thwart entry by others. *See* Meese, *Liberty and Antitrust*, 79 B.U. L. Rev. at 17-18. Indeed, some early decisions under the Sherman Act refused to void cartels that did not seek to limit the output of strangers to the agreement. *See* United States v. Nelson, 52 F. 646 (C.C. Minn. 1892). Nonetheless, the Supreme Court rejected this approach to price fixing, voiding such agreements regardless whether defendants interfered with the actions of others. *See Dr. Miles,* 220 U.S. at 404-409*; Addyston Pipe,* 175 U.S. at 238-45.

for instance, the Court found that the defendant had offended the statute "not alone because of the dominion and control of the tobacco trade which already exists," but also because the evidence established a "wrongful purpose" behind the acquisition of that dominion.[25] That evidence included a variety of disparate tactics, including numerous acquisitions and combinations, price wars, the purchase of factories for the purpose of shutting them down, and consistent imposition of covenants not to compete on individuals that sold assets to the firm.[26] Taken together, the Court said, these tactics exhibited "conscious wrongdoing" and the "intention to use the power of the combination as a vantage ground to further monopolize the trade in tobacco."[27]

Moreover, in the decades following *American Tobacco*, courts continued to focus on the "intent" of the alleged monopolizer without evincing any particular hostility toward contractual exclusion. In its first case against the United Shoe Machinery Company, for instance, the government claimed that the defendant had monopolized the market for shoe machinery, first by merging with several competitors, and then by pursuing a variety of exclusionary practices.[28] These practices included a policy of leasing its machines instead of selling them outright and requiring lessees to purchase repair and maintenance service from the defendant instead of independent firms.[29] The Court first rejected the claim that the formation of the defendant from several

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[25] *See American Tobacco*, 221 U.S. at 182-83.

[26] *See American Tobacco*, 221 U.S. at 182-83.

[27] *See American Tobacco*, 221 U.S. at 183.

[28] 247 U.S. 32 (1918).

[29] *United Shoe Machinery*, 247 U.S. at 48-65 (describing and evaluating these practices). *See also* nn. _____, *infra* and accompanying text (describing subsequent litigation against United Show Machinery under Section 2 of the Sherman Act).

independent firms was itself an act of unlawful monopolization.[30] Turning to the various purportedly exclusionary practices, the Court did not mention any distinction between "competition on the merits" and contractual exclusion. Thus, the Court found that the leases adopted by the defendants did not offend the Act, emphasizing that each of the numerous firms that had combined to create the defendant had employed such practices independently, when none was even arguably a monopolist.[31] The Court also noted that the lease terms helped ensure that lessees used various machines "in proper relation" to assure efficient production.[32] Finally, the Court found that the provisions requiring lessees to employ the defendant's services helped assure that the breakdown of one or two machines did not interrupt the flow of the process of shoe production.[33] These considerations, the Court said, likely explained why shoe manufacturers had entered such leases voluntarily.[34] Other decisions of the era took a similar, intent-driven approach, discerning "intent" from a fact-based inquiry into a defendant's conduct.[35]

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[30] *See United Shoe Machinery*, 247 U.S. at 38-47.

[31] *See United Shoe Machinery*, 247 U.S. at 63. The Court also noted that, in some instances, the terms of the leases were more favorable to lessees after the formation of the defendant. *See id.* at 63.

[32] *See United Shoe Machinery*, 247 U.S. at 64 ("Sets of machines are necessary to the equipment of a factory, and their best results are obtained when used in proper relation.").

[33] *See United Shoe Machinery*, 247 U.S. at 64 ("The breakdown of some of these machines will in many of the factories block the entire flow of the work.").

[34] *See United Shoe Machinery*, 247 U.S. at 65 ("We must assume that they were entered into by the lessees upon a calculation of their value — the efficiency of the machine balanced against the restrictions upon the conditions of their use. The lessees had the alternative of the choice of other machines, for other machines were sold side by side with those the leases covered.").

[35] *See* United States v. Griffith, 334 U.S. 100, 107 (1948) (holding that possession of a monopoly violates Section 2 if "coupled with the purpose or intent to exercise that power"); United States v. United States Steel Corp., 251 U.S. 417 (1920); United States v. Corn Products Refining Co., 234 Fed. 964 (S.D. N.Y. 1916) (Hand, J.); United States v. International Harvester Co., 214 Fed. 987 (D. Minn. 1914); United States v. E.I. du Pont de Nemours, 188 Fed. 127 (D. Del. 1911). Two scholars summarized the case law of

Reliance on an intent standard naturally begged the question: intent to do what? Given the normative premises embraced in *American Tobacco*, intent simply to obtain or maintain a monopoly could not suffice.[36] Nor, for that matter, would it suffice to show that the defendant possessed the intent to injure or exclude a rival.[37] Instead, the question was whether the defendant had the "intent" to obtain or maintain monopoly power by relying upon practices that were not "ordinary" or "normal."[38] In the end, then, courts applying the intent test generally found the requisite intent based upon an evaluation of the possible justifications — or lack thereof — for the challenged conduct.[39]

C. *Modern Law*

Nearly a century later, courts and scholars still embrace *American Tobacco's* foundational construction of the Act. Under current law, then, a plaintiff alleging unlawful monopolization must establish two elements: first, that the defendant possesses monopoly power in a properly defined relevant market, and second, that the defendant has acquired or maintained that power by means of

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this era as follows: "[These cases] revolved about an intent to monopolize, revealed by mergers, conspiracy, and a wide-ranging variety of practices aimed clearly at driving out competitors, often involving fraud and bad faith and sometimes verging on coercion, as well as by the success of the practices in most of the cases." *See* CARL KAYSEN and DONALD F. TURNER, ANTITRUST POLICY: AN ECONOMIC ANALYSIS, 106 (1959). *See also*, *e.g.*, REPORT OF THE ATTORNEY GENERAL'S COMMITTEE TO STUDY THE ANTITRUST LAWS, 43-56 (1955) (concluding that Supreme Court precedent made proof of "intent to monopolize a prerequisite to liability under Section 2").

[36] *See* nn. _____ - _____, *supra* and accompanying text.

[37] *See* nn. _____ - _____, *supra*, and accompanying text.

[38] *See* nn. _____- ______, *supra* and accompanying text.

[39] *See* United States v. Reading Co., 226 U.S. 324, 370 (1912) ("Of course, if the necessary result [of a practice] is materially to restrain trade . . . . the intent with which the thing was done is of no consequence."); DIRLAM AND KAHN, FAIR COMPETITION, at 49-55; *id.* at 65 ("The test of intent [in monopolization cases] is not a test of the purity of a company's motives, but an evaluation of its conduct.").

"exclusionary conduct."[40] By itself, this test is not particularly illuminating; any number of practices can make it more difficult — even impossible — for rivals to enter or remain in the marketplace.[41] Following *American Tobacco* courts have held that it is not enough for a plaintiff to show that a firm has "excluded" its competitors from the marketplace in the ordinary sense of that word.[42] Instead, plaintiffs must show that a practice excludes competitors from the market "on some basis other than efficiency."[43] Under this test, conduct constitutes "unlawful exclusion" if it only makes sense if the defendant possesses or will possess market power.[44] While courts recognize that efficient conduct may in some cases exclude rivals and result in monopoly, they tolerate such behavior on the grounds that more intrusive regulation would chill beneficial behavior, destroy wealth, and slow progress.[45]

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[40] *See, e.g.*, Verizon Communications, Inc. v. Law Offices of Curtis V. Trinko, 124 S.Ct. 872, 878-79 (2004); Eastman Kodak v. Image Technical Services, 504 U.S. 451 (1992); Aspen Skiing v. Aspen Highlands Skiing Corp., 472 U.S. 585 (1985); United States v. Grinnell Corp., 384 U.S. 563 (1966); United States v. United Shoe Machinery Corp., 110 F. Supp. 295, *aff'd per curiam*, 347 U.S. 521 (1954) (*per curiam*); United States v. Griffith, 334 U.S. 100 (1948). *See also* United States v. Microsoft, 253 F.3d 34, 58-59 (D.C. Cir. 2001).

[41] *See* PHILLIP AREEDA AND HERBERT HOVENKAMP, 3 ANTITRUST LAW, ¶ 651c, pp. 78-79 (2002); Hovenkamp, *Monopolization Offense*, 61 Oh. St. L. J. at 1036-37; Thomas A. Piraino, Jr., *Identifying Monopolists' Illegal Conduct Under The Sherman Act*, 75 N.Y.U. L. Rev. 809, 821-25, n. 82 (2000) ("No market is unlimited and every business knows that by increasing its market share it is excluding competitors from a portion of the market.").

[42] *See* Spectrum Sports v. McQuillan, 506 U.S. 447, 458-59 (1993) (hard competition that injures rivals does not itself offend Section 2); *Aspen Skiing*, 472 U.S. at 605 (mere negative impact on rivals does not render conduct exclusionary for Section 2 purposes); *id*. at 605-606 (court must consider conduct's impact on consumers when determining whether activity is properly deemed "exclusionary").

[43] *See, e.g.*, *Aspen Skiing*, 472 U.S. at 605 (conduct is exclusionary for Section 2 purposes if it "exclude[s] rivals on some basis other than efficiency"). *See also Eastman Kodak*, 504 U.S. at 483 (plaintiff must show the defendant's "use of monopoly power" to exclude rivals from the marketplace) (*quoting* United States v. Griffith, 334 U.S. 100, 107 (1948)).

[44] *See Aspen Skiing*, 472 at 605; *Eastman Kodak*, 504 U.S. at 483.

[45] *See Brooke Group*, 509 U.S. at 223 (pricing at or above cost constitutes "competition on the merits," beyond scrutiny under the antitrust laws); *Spectrum Sports*, 506 U.S. at 458-59 (Sherman Act tolerates hard competition unless such tactics interfere with proper workings of the market); *Cargill, Inc.*,

Stated at this level of generality, current law makes perfect sense and constitutes a faithful implementation of *American Tobacco*'s safe harbor for efficient monopolies. Over time, however, courts have developed a series of subsidiary rules that give greater content to this generalization. In particular, courts have drawn a distinction between what is best termed "internal" conduct, on the one hand, and contractual conduct, on the other.[46] Internal or "unilateral" conduct consists of activity that takes place within the boundaries of a single firm and does not require cooperation with other firms or individuals. Such conduct includes activities like research and development, the creation

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479 U.S. at 116-117 (penalizing above-cost pricing by a monopoly would produce a "perverse" result by depriving consumers of low prices). *See also* Copperweld, Corp. v. Independence Tube Corp., 467 U.S. 752, 767-68 (1984) (undue scrutiny of single-firm conduct could "dampen the competitive zeal of a single aggressive competitor"); *id*. at 771 ("Subjecting a single firm's every action to judicial scrutiny for reasonableness would threaten to discourage competitive enthusiasm that the antitrust laws seek to prompt."); *ALCOA*, 148 F.2d at 430 ("The successful competitor, having been urged to compete, must not be turned on when he wins."); *Trinko*, 124 S.Ct. at 879 (explaining that the possession of monopoly power is an important element of the free enterprise system because the prospect of exercising such power "attracts business acumen in the first place"); *id*. at 882-83 (explaining that overbroad enforcement of Section 2 could chill beneficial conduct); John E. Lopatka and William H. Page, *Monopolization, Innovation, and Consumer Welfare*, 69 GEORGE WASHINGTON UNIVERSITY L. REV. 367, 387-92 (2001) (explaining how overly intrusive monopolization standards could chill beneficial conduct); Hovenkamp, *The Monopolization Offense*, 61 Oh. St. L. J. at 1039-41 (competition on the merits is beyond antitrust scrutiny because it benefits consumers); Piraino, *Monopolists' Illegal Conduct*, 75 N.Y.U. L. Rev. at 824-25 ("To punish a firm simply because it has achieved a monopoly is to discourage superior business performance.").

Two scholars have summarized current law and its policy premises as follows:

> "[Current law reflects] a uniquely American, market-affirming response to power: to end dominance when attained in unapproved ways, yet to give dominance wide latitude when it is inevitable or earned by merit. The response assumes that strong incentives promote efficiency, and that power, unless bolstered either by unfairly aggressive conduct or by government support, will erode under the pressure of market developments. Moreover, where supra competitive pricing accompanies power, erosion of the power is thought to be more likely because high prices signal the need and promise a reward for entry."

See LAWRENCE A. SULLIVAN AND WARREN GRIMES, THE LAW OF ANTITRUST: AN INTEGRATED HANDBOOK, 73 (2000). *See also* Piraino, *Monopolists Illegal Conduct*, 75 N.Y.U. L. Rev. at 827-28.

[46] *See Aspen Skiing Co*., 472 U.S. at 600 ("The central message of the Sherman Act is that a business entity must find higher profits through internal expansion — that is, by competing successfully rather than arranging treaties with its competitors.").

of new products, realization of economies of scale, acquisition and enforcement of patents, refusal to share technology with rivals, and pricing decisions.[47] Contractual conduct, on the other hand, consists of practices like the negotiation and enforcement of exclusive dealing contracts, tying contracts, and even provisions requiring dealers or distributors merely to prefer a manufacturer's product.[48] It can even include a firm's decision to lease its products instead of selling them outright.[49]

Under existing precedents, courts apply radically different levels of scrutiny to internal and contractual conduct, respectively. To be precise, the standards governing proof of a *prima facie* case as well as the rebuttal of that case are quite forgiving to internal exclusion and at the same time hostile to contractual exclusion. Internal conduct is presumed lawful, and courts only allow plaintiffs to rebut this presumption in rare instances.[50] So, for instance, a firm may, consistent with Section

[47]*See* Conwood Co., L.P. v. U.S. Tobacco, 290 F.3d 768, 783 (6th Cir. 2002) (realization of economies of scale cannot offend Section 2); Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263, 274-75, 281-82 (2d Cir. 1979) (realization of economies of scale or technological innovations cannot violate Section 2).

[48]*See Grinnell Corp.*, 384 U.S. at 578 (finding five year exclusive contracts inconsistent with Section 2); Lepage's, Inc. v. 3M, 324 F.3d 141, 154-64 (3d Cir. 2003) (finding exclusive dealing contracts and so-called "bundling discounts" *prima facie* unlawful under Section 2); *Conwood Co., L.P.*, 290 F.3d at 783-88; *Microsoft*, 253 F.3d at 68-71 (holding that contracts requiring AOL and other Internet Access Providers to prefer Microsoft's internet browser violated Section 2). *Cf.* Microsoft Corp. v. United States, 56 F.3d 1448, 1451-52 (D.C. Cir. 1995) (explaining that Microsoft initially obtained its monopoly by lawful means, and thus did not violate Section 2 in doing so).

[49]*See Grinnell*, 384 U.S. at 578 (holding that defendant's lease only policy was "coercive" exclusionary conduct that offended Section 2); United States v. United Shoe Machinery Corp., 110 F. Supp. 295 (D. Mass. 1953), *aff'd* 347 U.S. 521 (1954) (finding that lease-only policy violated Section 2); *In re Xerox Corp*., 86 F.T.C. 364, 367-68 (1975) (consent decree forbidding defendant's lease-only policy as alleged violation of Section 2).

[50]*Aspen Skiing Co*., 472 U.S. at 600-601 (Sherman Act requires firms to obtain new customers through "competition," defined as internal expansion); *Conwood Co., L.P.*, 290 F.3d at 783 (realization of economies of scale cannot violate Section 2).

2, create a better product, invent a more efficient production process, refuse to purchase from a supplier, refuse to sell to rivals, or adopt innovative means of promotion or quality control.[51] Courts and the enforcement agencies characterize such behavior as "competition on the merits," even if it creates or preserves a monopoly by excluding competitors.[52] Courts have recognized only one sure exception to this safe harbor, namely, prices that are below a firm's costs, and thus presumptively "predatory."[53] Even below-cost pricing is not automatically unlawful; courts still allow firms,

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[51]*See*, *e.g.*, *Trinko*, 124 S.Ct. at 879-880 (without more, mere refusal to deal does not violate Section 2); Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 223 (1993) (above-cost pricing is "competition on the merits" even if it drives less efficient competitors out of business); Atlantic Richfield v. U.S.A. Petroleum, 495 U.S. 328 (1990) (above-cost pricing cannot cause "antitrust injury" compensable under the antitrust laws); *Aspen Skiing*, 472 U.S. at 596-97 (approving jury instruction stating that monopolists may enjoy economies of scale); Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.3d 263, 279-88 (2d Cir. 1979) (introduction and promotion of new product by a monopolist almost never offends Section 2). *See also* Nynex Corp. v. DISCON, Inc., 525 U.S. 128, 137-38 (1998) ("freedom to switch suppliers lies close to the heart of the competitive process that the antitrust laws seek to encourage."); *Microsoft*, 56 F.3d at 1452 (noting that Microsoft earned its monopoly by means of perfectly lawful conduct and marketing practices).

[52]*Brooke Group*, 509 U.S. at 223 (above-cost pricing is "competition on the merits" even if it drives less efficient competitors out of business); *Aspen Skiing*, 472 U.S. at 605, n. 32 (Section 2 does not forbid "competition on the merits," even if such competition protects or leads to a monopoly); *id*. at 600 (equating "competing successfully" with "internal expansion"). *See also* Cargill, Inc. v. Monfort of Colorado, Inc., 479 U.S. 104, 116 (1986) (antitrust laws encourage even monopolists to engage in vigorous price competition); *Berkey Photo, Inc.*, 603 F.2d at 281-82 ("[A] monopolist is permitted, and indeed encouraged, by § 2 to compete aggressively on the merits [and] any success that it may achieve through the process of invention and innovation is clearly tolerated by the antitrust laws."); *In re Intel Corp*., 1999 FTC Lexis 145; nn. ____, *infra* and accompanying text (describing Department of Justice's invocation of "competition on the merits" in the *Microsoft* litigation); AREEDA AND HOVENKAMP, 3 ANTITRUST ¶ 651c, 78 (defining competition on the merits as "aggressive but non predatory pricing, higher output, improved product quality, energetic market penetration, successful research and development, cost-reducing innovations and the like"). As shown below, this language is unchanged from Professor Areeda's 1978 treatise. *See* nn. ____, *infra* and accompanying text. *See also* Hovenkamp, *Monopolization Offense*, 61 Oh. St. L. J. at 1040 (embracing identical language to describe "competition on the merits").

[53]*See Brooke Group*, 509 U.S. at 222-227 (detailing standards governing analysis of predatory pricing claims). *See also* United States v. AMR Corp., 335 F.3d 1109 (10th Cir. 2003) (rejecting predatory pricing suit because government failed to allege that defendant set prices below relevant measure of cost); HOVENKAMP, FEDERAL ANTITRUST POLICY, 353-60 (discussing lower courts' application of various cost-based tests for predatory pricing).

including monopolists, to justify such exclusionary conduct and thus avoid liability in many instances.[54] Other forms of unilateral conduct are lawful unless a plaintiff can show that the conduct: 1) severely hampers a rival's ability to compete *and* 2) is inexplicable absent a hypothesis that it will protect or create market power.[55] Under this test proof that even severely exclusionary conduct produces some modest benefits suffices to insulate the behavior from Section 2 liability.[56]

Various forms of contractual exclusion receive much stricter scrutiny. According to courts and the enforcement agencies, proof that a monopolist has entered an agreement that excludes its rivals from a significant portion of the marketplace gives rise to a *prima facie* case, regardless whether the challenged agreement actually drives the aggrieved competitors from the market.[57] Nor

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[54] *See*, *e.g., Microsoft*, 253 F.3d at 68 (suggesting that Microsoft's policy of giving its internet browser away for free did not constitute predatory pricing under Section 2).

[55] *See Aspen Skiing*, 472 U.S. at 593-94 (finding refusal to deal that severely hampered a rival unlawful where the defendant offered no beneficial explanation for the conduct); Alaska Airlines, Inc. v. United Airlines, Inc., 948 F.2d 536, 544 (9th Cir. 1991) (refusal to deal must foreclose rival from entire market to violate Section 2); Twin Laboratories, Inc. v. Weider Health & Fitness, 900 F.2d 566, 567-69 (2d Cir. 1990) (same). *See also* Transport, Inc. v. Starter Sportswear, Inc., 964 F.2d 186, 189-90 (2d Cir. 1992) (Marshall, J.) (assertion of legitimate business justification itself precludes Section 2 liability for refusal to deal).

[56] *See Transport*, 964 F.2d at 189-90; Foremost Pro Color v. Eastman Kodak Co., 703 F.2d 534, 544-45 (9th Cir. 1983); *Berkey Photo, Inc.*, 603 F.2d at 279-88; Telex Corp. v. IBM, 510 F.2d 894 (10th Cir. 1975). *See also Microsoft*, 253 F.3d at 67 (rejecting challenge to particular aspect of Windows design where Microsoft invoked modest efficiency justification).

[57] *See Eastman Kodak*, 504 U.S. at 483-84 (finding tying contract that denied competitors access to certain portion of the copier service market was presumptively unlawful under Section 2); *Aspen Skiing Corp*., 472 U.S. at 600-608 (holding that defendant's creation of travel packages that excluded competitor from consideration were presumptively unlawful); *Grinnell*, 384 U.S. at 578 (holding that five year exclusive contracts and lease only policies violated Section 2); *Lepage's*, 324 F.3d at 157-59 (finding exclusive dealing arrangements presumptively unlawful even though "victim" of such contracts remained a significant force in the marketplace); *Microsoft*, 253 F.3d at 70-71 (holding that primary dealing contracts that deprived rival of access to part of "one of two major distribution channels" were presumptively unlawful even though aggrieved rival retained 30 percent share of the relevant market and had access to market through numerous alternative channels of distribution); *In re Intel Corp*., 1999 FTC LEXIS 145 (approving consent decree that voided agreements between Intel and its customers that purportedly raised customers' costs of producing competing product). *Cf.* William Page & John Lopatka, *Antitrust on Internet Time: Microsoft and the Law*

is there any requirement that the plaintiff show that such exclusion has produced or will produce actual consumer harm.[58] While this presumption is rebuttable, defendants that seek to overcome it face an uphill climb. First, the monopolist must demonstrate to a court's satisfaction that the challenged arrangement produces significant benefits for consumers.[59] Second, a challenged practice that does, in fact, produce significant benefits is nonetheless unlawful if it is broader than necessary to produce the benefits in question.[60] Under this approach, practices that produce significant benefits and even enhance consumer welfare are nonetheless unlawful if a court determines that the defendant could have achieved the benefits in question in a different manner.[61] Application of such a "less restrictive alternative" test rests upon the implicit assumption that the benefits produced by such restraints necessarily coexist with the anticompetitive harm presumed once a plaintiff has made out

and Economics of Exclusion, 7 Sup. Ct. Econ. Rev. 157, 211-13 (1999) (outlining numerous alternate channels of distribution that were open to Netscape despite Microsoft's tactics).

[58]*See* Jonathan B. Baker, *Promoting Innovation Competition Through The Aspen/Kodak Rule*, 7 Geo. Mas. L. Rev. 495, 502 (1999) (concluding that Supreme Court precedent does "not consider effect on competition in determining whether the monopolization offense [can] be found" but instead relies on impact of conduct on rivals). *See also* nn. _____, *infra* and accompanying text (explaining that *Microsoft* decision did not require proof of actual harm to consumers).

[59]*See Eastman Kodak*, 504 U.S. at 483-84; *Microsoft*, 253 F.3d at 58-59 (outlining standards governing a defendant's attempt to justify a *prima facie* unlawful practice).

[60]*See Eastman Kodak*, 504 U.S. at 484-86 (rejecting proffered justification for contractual exclusion where defendant could purportedly achieve legitimate objectives via less restrictive means); *Aspen Skiing Corp*. 472 U.S. at 605 (where conduct excludes rivals from a portion of the market, court should consider whether such exclusion is broader than necessary); *Microsoft*, 253 F.3d at 64-72 (finding agreements that interfered with rival's access to the market unlawful where defendant failed to proffer a justification that explained the full extent of the exclusion).

[61]*See* Meese, *Price Theory and The Rule of Reason*, 2003 Ill. L. Rev. at 112-13 (explaining that application of less restrictive alternative test under Section 1 of the Sherman Act requires courts to ban some restraints because they do not sufficiently enhance society's welfare).

a *prima facie* case.[62] Practices that fail this test, it is said, constitute an exercise of monopoly power, raise barriers to entry, interfere with "competition on the merits" and thus "monopolize" in violation of Section 2.[63]

The distinction between "internal" and "contractual" exclusion corresponds roughly to the distinction between "property" and "contract."[64] On the one hand, conduct is "internal" for purposes of Section 2 if it involves the monopolist's creation or disposition of its own property, which is at that point "within" the boundaries of the firm, before the passage of title. On the other hand, conduct is "contractual," and thus subject to more severe scrutiny, if, before it has taken title, or after title has passed, the monopolist is attempting to influence the manner in which a supplier or customer disposes of *its* property. Thus, a firm that creates intellectual or other property is presumptively engaged in "internal" competition on the merits.[65] So is a firm that offers to sell its property at a

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[62] *See Microsoft*, 253 F.3d at 59 (assuming that benefits and harms of such conduct coexist); AREEDA AND HOVENKAMP, 3 ANTITRUST LAW, ¶ 658f, pp. 135-36 (same). *See also* Meese, *Rule of Reason*, 2003 Ill. L. Rev. at 167-69 (showing that application of less restrictive alternative test in Rule of Reason litigation rests on assumption that a restraint's benefits coexist with harms); PHILIP AREEDA, 7 ANTITRUST LAW ¶ 1502 (1986) (same).

[63] *See Microsoft,* 253 F.3d at 62 (finding that unjustified licensing restriction that prevented OEMs from encouraging consumers to use competing browsers interfered with "competition on the merits"); *Eastman Kodak*, 504 U.S. at 483 (finding that tying contracts and related practices constituted a "use of monopoly power" to foreclose competition); *Aspen Skiing Corp*., 472 U.S. at 605, n. 32 (practices that are more restrictive than necessary to produce benefits are "exclusionary" and unlawful under Section 2). *See also* Piraino, *Monopolists' Illegal Conduct*, 75 N.Y.U. L. Rev. at 827-28 (Sherman Act distinguishes between "lowering prices, developing new products, and expanding output," and the use of monopoly power to interfere with competition).

[64] *See generally* RUDOLPH PERITZ, THE RULE OF REASON IN ANTITRUST LAW: PROPERTY LOGIC IN RESTRAINT OF COMPETITION, 40 Hastings L.J. 285 (1989) (contending that the Supreme Court's approach to vertical restraints has reflected greater deference to restraints that purport to exercise a manufacturer's property rights).

[65] *See* Einer Elhauge, *Defining Better Monopolization Standards*, 56 Stan. L. Rev. 253, 294-305 (2003) (relying upon property logic to justify very relaxed review of refusals to deal and other internal conduct).

particular price or refuses to buy or sell at all.[66] By contrast, a firm that enters a contract prohibiting another from selling its property to the firm's competitors is seeking to influence the disposition of someone else's property and is thus engaged in contractual exclusion.

D. *Application: The Microsoft Case*

Some scholars have argued that current monopolization law is unduly hostile to actual or would-be monopolists.[67] Despite this criticism both courts and the enforcement agencies continue to adhere to the distinction between contractual exclusion and "competition on the merits."[68] Indeed, current law recently received a ringing endorsement from both quarters in United States v. Microsoft.[69] Consideration of this decision will illustrate the distinction between internal and contractual exclusion as well as the disparate treatment that these two categories of conduct currently receive.

In 1981, Microsoft purchased and then licensed an operating system, known as MS-DOS, to IBM, which manufactured personal computers (PCs) based on Intel processors.[70] Microsoft continually upgraded the system, ultimately changing its name to "Windows." In the meantime, IBM had decided to "clone" its personal computers, allowing other PC manufacturers to manufacture PCs

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[66] *See DISCON*, 525 U.S. at 137 (refusal to purchase from a particular supplier a fundamental aspect of a free market).

[67] *See* Frank H. Easterbrook, *On Identifying Exclusionary Conduct*, 61 Notre Dame L. Rev. 972 (1986) (criticizing result in *Aspen Skiing Corp.*); Ronald A. Cass and Keith A. Hylton, *Preserving Competition: Economic Analysis, Legal Standards, And Microsoft*, 8 Geo. Mas. L. Rev. 1 (1999) (contending that Section 2 should only forbid conduct with no plausible benefits).

[68] *See* nn. _____, *supra* and accompanying text (examining case law maintaining this distinction). *See also In re Intel*, 1999 LEXIS 145 (distinguishing contractual limits on rivals from competition on the merits).

[69] *See* 253 F.3d 34 (D.C. Cir. 2001); 87 F. Supp. 2d 30 (D.D.C. 2000).

[70] *See* United States v. Microsoft, 84 F. Supp. 2d 9, 13 (D.D.C 1998).

of similar design, also based on Intel processors. Over time, IBM and IBM-compatible PCs slowly gained the predominant share of the PC market, and Windows, the predominant IBM-compatible operating system, slowly obtained a dominant position in the market for operating systems for IBM-compatible PCs.[71]

Microsoft did not obtain its monopoly at random.[72] For one thing, the firm continually upgraded the quality of its operating system.[73] Moreover, the firm partnered with a PC maker — IBM — that had the good sense to allow other firms to clone its version of the PC.[74] Further, the firm invested hundreds of millions of dollars annually to encourage Independent Software Vendors — ISVs — to produce software applications compatible with Windows.[75] Finally, and perhaps most importantly, the consumption of operating systems is characterized by so-called "network effects."[76]

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[71] *See Microsoft*, 56 F.3d at 1452 (reporting government's belief that Microsoft obtained its monopoly because IBM chose "for its PCs the operating system introduced by Microsoft ("MS-DOS"), which, with Microsoft's successful exploitation of that advantage, led Microsoft to obtain an installed base on millions of IBM, and IBM-compatible, PCs."). *See also Microsoft*, 84 F. Supp. 2d at 13 (finding that IBM's decision to pre-install MS-DOS on its PCs made Microsoft the dominant supplier of operating systems for Intel-based PCs.).

[72] *See Grinnell Corp.*, 384 U.S. at 571 (Monopoly obtained by means of "historic accident" does not violate Section 2).

[73] *See Microsoft*, 84 F. Supp. 2d at 21 (finding that "Microsoft continually releases 'new and improved' versions of its PC operating system"). *Cf.* John E. Lopatka and William H. Page, *Monopolization, Innovation, and Consumer Welfare*, 69 G.W.U. L. Rev. 367, 392 (2001) (arguing that a monopolist of durable products like operating systems must continually upgrade its products if it hopes to maintain a profit stream).

[74] Moreover, unlike Apple, IBM sold personal computers to the largest customer in the United States — the United States government, because the latter owned nuclear weapons, and this ownership offended Apple's main shareholders.

[75] *See Microsoft*, 84 F. Supp. 2d at 21 (finding that Microsoft invests "hundreds of millions of dollars each year inducing ISVs to write applications for Windows").

[76] David Evans and Richard Schmalensee, *A Guide to the Antitrust Economics of Networks*, 10 Antitrust 36 (1996) (concluding that network externalities can arise when increasing demand for a product "spurs the demand for [and production of] complementary products."). *See also* Mark A. Lemley & David

In particular, the value that one consumer places on a certain operating system depends in significant part on the number of other consumers that employ the same system. For, as more consumers employ a particular operating system, ISVs are more likely to write applications that are compatible with the operating system in question.[77] Thus, as an operating system manufacturer gains a larger share of the market, more ISVs write applications compatible with its system, thus further enhancing its advantage over its competitors.[78] Microsoft realized the full benefits of these so-called network effects, as consumers increasingly turned to Windows because of the large pool of applications compatible with it.[79] Thus, Microsoft obtained its monopoly because it provided consumers with a product they preferred.[80]

By the mid-1990s, Microsoft faced a potential challenge to its dominance of the operating system market in the form of Netscape and its Navigator web browser. Netscape itself possessed a monopoly share of the browser market, located as it was on over 80 percent of the nation's PC desktops.[81] Not content to serve as the world's leading browser, Netscape resolved to alter its product so as to perform some of the functions then-performed by operating systems. In particular,

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McGowan, *Legal Implications of Network Economic Effects*, 86 Cal. L. Rev. 479 (1998).

[77] *See* Kenneth G. Elzinga and David E. Mills, *PC Software*, 44 Antitrust Bull. 739, 757 (1999) ("All else the same, a platform with many users is more attractive to applications software developers than one with a small following. Consequently the number and variety of application programs written to run on a given platform is greater if that platform supports many users.").

[78] *See Microsoft*, 84 F. Supp. 2d at 19-21 (finding that the production of Microsoft Windows is characterized by such network effects).

[79] *See Microsoft*, 84 F. Supp. at 20-21.

[80] *See* nn. ____, *infra* and accompanying text (recounting position of the Department of Justice that Microsoft obtained its monopoly legally).

[81] *See Microsoft*, 84 F. Supp. 2d at 98-99 (finding that Netscape's market share was above 80% in 1997).

Netscape resolved to transform its browser into so-called "middleware," capable of performing some functions normally performed by operating systems.[82] To do so, the firm planned to include "application program interfaces," that is, software that allowed applications to communicate directly with a PC, essentially bypassing the PC's operating system. Had Netscape been successful, it is said, an ISV would have been able to write one, Netscape-compatible version of its application which would then run on any PC that contained Netscape.[83] In such an environment, consumers could theoretically have chosen an operating system without regard to the number of applications compatible with it, thereby undermining the chief basis for Windows' dominance.

In 1995, Microsoft introduced its own internet browser, Internet Explorer ("IE"). While the first generation of IE did not approach Navigator's quality, Microsoft invested substantial resources in enhancing IE's quality, at one time employing over a thousand programmers in its effort to improve the browser.[84] These investments soon paid off; by 1997 most independent reviewers opined that IE was equal to or superior to Netscape's Navigator.[85] At the same time, Microsoft took steps to physically integrate its browser and operating system, ultimately creating an environment in which "browser functionality" was simply one of the many features of the Windows operating system.[86]

[82] *See Microsoft*, 84 F. Supp. 2d at 17-18 (defining middleware).

[83] *See Microsoft*, 84 F. Supp. 2d at 28-29.

[84] *See Microsoft*, 84 F. Supp. 2d at 43 (finding that Microsoft increased the number of developers working on IE from "five or six in early 1995 to more than one thousand in 1999").

[85] *See Microsoft,* 84 F. Supp. 2d at 43-44.

[86] *See Microsoft*, 84 F. Supp. 2d at 50-53.

Microsoft also engaged in vigorous price competition. Whereas Netscape had initially charged a significant sum for its browser, Microsoft gave IE away for free.[87] Moreover, the firm expended massive sums in advertising and promotion, even going so far as to pay some Internet Service Providers ("ISPs") a bounty for each new customer they enrolled.[88] Finally, the firm also paid numerous PC makers — also known as original equipment manufacturers ("OEMs") — to promote IE.[89]

In addition to these "internal" or "unilateral" tactics, Microsoft also entered a variety of contractual arrangements with firms that distributed internet browsers to ultimate consumers. For instance, the firm entered contracts that required OEMs that purchased Windows also to purchase IE, and to install it on PCs shipped to consumers.[90] These contracts did not preclude OEMs from also installing other browsers, however, and some OEMs felt perfectly free to do so.[91] The firm also entered exclusive or primary dealing arrangements with Internet Access Providers ("IAPs") like America Online ("AOL"), and a handful of ISPs like MindSpring.[92] These contracts either prevented these firms from distributing Netscape and other browsers, or placed a ceiling on the proportion of

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[87]*See Microsoft*, 84 F. Supp. 2d at 49.

[88]*See Microsoft*, 84 F. Supp. 2d at 45 (finding the Microsoft spent $30 million per year advertising Internet Explorer). *See also Microsoft*, 84 F. Supp. 2d at 45 (describing Microsoft's agreement to pay AOL a bounty for each customer the firm converted to Internet Explorer).

[89]*See Microsoft*, 84 F. Supp. 2d at 45.

[90]*See Microsoft*, 84 F. Supp. 2d at 49-50.

[91]*See* nn. _____, *infra* and accompanying text.

[92]*See Microsoft*, 84 F. Supp. 2d at 14 (explaining the distinction between IAPs and ISPs).

such browsers that IAPs or ISPs could distribute.[93] At the same time, however, the contracts left Netscape free to rely upon thousands of other ISPs to distribute its browser.[94]

In 1998, the government filed suit against Microsoft, claiming that the firm had monopolized the market for PC operating systems based on Intel chip technology.[95] In so doing, the government relied heavily upon the distinction between internal exclusion, on the one hand, and contractual exclusion, on the other. Thus, the government made no attempt to challenge Microsoft's initial acquisition of a 95% share of the relevant market. Nor did it claim that Microsoft violated Section 2 by continually improving its browser, promoting it, or reaping the benefits of the network effects that made entry by rivals unusually difficult. Indeed, when defending an earlier consent decree against the firm, the government emphasized that Microsoft had obtained its monopoly through competition on the merits, and not any conduct that was exclusionary within the meaning of Section 2.[96]

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[93]*See Microsoft*, 84 F. Supp. 2d at 49-50.

[94]*See* Page and Lopatka, *Antitrust on Internet Time*, 7 S. Ct. Rev. at 222-25.

[95]*See* Page & Lopatka, *Antitrust on Internet Time*, at 176-83 (describing theory of government's complaint).

[96]*See* Brief for the United States of America in United States v. Microsoft, at 4, Microsoft, 56 F.3d 1448 (No. 95-5037) (arguing that Microsoft obtained its initial monopoly without engaging in unlawful conduct); Affidavit of Kenneth Arrow, Expert For The United States in United States v. Microsoft, 95-5037, at 11 ("the six-fold growth in the installed base [of consumers using PC systems] is primarily the result of the extraordinary commercial success of the IBM-compatible PC platform, in which Microsoft's product development [*i.e.*, operating system] and marketing played a part.").

It should be noted that the government did challenge Microsoft's decision to physically integrate its browser with the Windows operating system. *See Microsoft*, 253 F.3d at 64-67 (describing and evaluating this challenge under relaxed standards governing product designs).

Instead, the government focused its fire on the claim that Microsoft had "maintained" its monopoly by entering various contracts the government deemed "exclusionary."[97] So, for instance, the government challenged the firm's practice of entering contracts requiring PC manufacturers who purchased the firm's operating system also to purchase and install the firm's internet browser.[98] The government also challenged contracts between Microsoft and IAPs like AOL requiring the latter to favor Internet Explorer when responding to consumer requests for internet browsers.[99] Finally, the government challenged Microsoft's agreements with ICPs and ISVs, whereby these latter firms agreed to provide preferential treatment to Internet Explorer over Navigator and other browsers.[100]

None of these contracts, either alone or in conjunction with others, completely excluded alternative browsers from the relevant market. On the contrary, the agreements left Netscape free to distribute its product through any number of alternative channels.[101] Indeed, the government did

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[97] *See, e.g.*, Alan J. Meese, *Don't Disintegrate Microsoft (Yet)*, 9 Geo. Mas. L. Rev. 761, 772-75 (2001) (summarizing the government's case against Microsoft). It should be noted that, early in the litigation, the government also claimed that Microsoft's practice of giving its internet browser away for free was predatory, since it represented below-cost pricing. *See* Plaintiffs' Joint Response to Microsoft's Motion For Summary Judgment and Reply In Support of Motion for Preliminary Injunction, 7-8 (Microsoft No. 98-1232). The district court rejected this argument, holding that Microsoft's inclusion of its browser in Windows at no extra charge enhanced competition in the browser market and thus produced significant consumer benefits. *See* 84 F. Supp. 2d at 110-111. The government abandoned this argument on appeal, and the Court of Appeals went out of its way to conclude that such below-cost pricing was not "exclusionary" for Section 2 purposes. *See Microsoft*, 253 F.3d at 68 ("The rare case of price predation aside, the antitrust laws do not condemn even a monopolist for offering its product at an attractive price, and we therefore have no warrant to condemn Microsoft for offering either IE or the IEAK free of charge or even at a competitive price.").

[98] *See Microsoft*, 253 F.3d at 58-62 (describing and evaluating this challenge).

[99] *See Microsoft*, 253 F.3d at 67-71 (describing and evaluating this challenge).

[100] *See Microsoft*, 253 F.3d at 71-72 (describing and evaluating this challenge).

[101] *See* Page and Lopatka, *Antitrust on Internet Time*, 7 S. Ct. Econ. Rev. at 211-13 (outlining various distribution channels that remained open to Netscape despite Microsoft's practices); *id.* at 222-227 (arguing that Microsoft's various agreements with firms that distributed internet browsers did not significantly impact

not even argue that the agreements would have this effect, as Netscape was still a significant force in the market several years after Microsoft had introduced its own browser.[102] Nor did the government attempt to establish just how much such practices raised Netscape's costs of distribution.[103] Finally, the government did not attempt to establish the extent to which Netscape's downfall was the result of the purportedly exclusionary agreements that it challenged, as opposed to Microsoft's admittedly procompetitive, "internal" conduct.[104]

Nonetheless, in various briefs filed in the district and appellate courts, the government took the position that the agreements were presumptively unlawful, simply because they "*tend[ed]* to impair rivals' opportunities."[105] In so doing, the government drew a distinction between "competition on the merits," on the one hand, and "exclusionary conduct," on the other.[106]

Netscape's costs of distribution).

[102]*See* Elzinga, *et al.*, *Remedy or Malady*, 9 Geo. Mas. L. Rev. at 673 (reporting that Netscape possessed a 29% share of the browser market in 2000).

[103]*See* Page and Lopatka, *Antitrust on Internet Time*, 7 S. Ct. Econ. Rev. at 210-13, 222-227 (arguing that challenged provisions resulted in "trivial" increase in Netscape's marginal costs of distribution).

[104]*See* Meese, *Don't Disintegrate Microsoft*, 9 Geo. Mas. L. Rev. at 790-92 (concluding that the trial court failed to delineate effect that anticompetitive tactics had on Netscape's market share). *See also Microsoft,* 253 F.3d at 67-68 (finding that Microsoft's tactic of giving its browser away for free and providing bounties to Internet Access Providers that convinced consumers to use the firm's browser were procompetitive promotional tactics); *Microsoft*, 84 F. Supp. 2d at 110-111 ("The debut of Internet Explorer and its rapid improvement gave Netscape an incentive to improve Navigator's quality at a competitive rate. The inclusion of Internet Explorer with Windows at no separate charge increased general familiarity with the Internet and reduced the cost to the public of gaining access to it, at least in part because it compelled Netscape to stop charging for Navigator. These actions contributed to improving the quality of Web browsing software, lowering its cost, and increasing its availability, thereby benefitting consumers."); *id.* at 102 (finding that, by 1998, Internet Explorer was comparable in quality to Netscape's Navigator); *id.* (finding that Netscape's share of the browser market would have declined even in the absence of Microsoft's unlawful tactics, but that the unlawful tactics accelerated the decline).

[105]*See* Plaintiffs' Joint Proposed Conclusions of Law, at 16 (emphasis added).

[106]*See* Brief for Appellees United States And The State Plaintiffs at 47-51; Plaintiffs' Joint Proposed Conclusions of Law at 8 ("Section 2 of the Sherman Act prohibits a firm with monopoly power from

Competition on the merits, the government argued, took the form of internal activities, such as efforts to reduce production costs and improve product quality.[107] These efforts were lawful *per se*, regardless whether they excluded rivals from the marketplace and helped Microsoft maintain its monopoly.[108] By contrast, Microsoft's various contracts with OEMs, IAPs, ISPs, and ICPs limited consumer choice and the discretion of these firms, and thus, the government said, were presumptively unlawful because they raised barriers to entry and tended to inhibit merits-based competition.[109]

The government did not, it should be noted, claim that the challenged contracts were *ipso facto* unlawful.[110] Instead, it acknowledged the possibility that Microsoft could overcome the

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maintaining that monopoly power through means that go beyond competition on the merits."); *id.* at 15 ("The Supreme Court has used the language of 'exclusionary' or 'anticompetitive' or 'predatory' to label the unlawful conduct and to distinguish it from competition on the merits reflected in *Grinnell*'s reference to 'superior product, business acumen, or historic accident.'"), *quoting* United States v. Grinnell Corp., 384 U.S. 563, 571 (1966).

[107] *See* Plaintiffs' Joint Proposed Conclusions of Law, at 15 (referring to "competition on the merits" as involving "superior product, business acumen, or historic accident"), *quoting Grinnell*, 384 U.S. at 571; *id*. at 15 (contending that apparently exclusionary conduct can only be justified "as necessary to further legitimate goals of lowering prices, improving quality, or in other ways promoting or expanding consumer choice."); *id*. (any act that limits consumer choice is "telling evidence" that the defendant is not engaged in "competition on the merits").

[108] *See* Plaintiffs' Joint Proposed Conclusions of Law, at 15. *Cf*. nn. ____ -____, *supra* and accompanying text (describing government's concession in earlier litigation that Microsoft obtained its monopoly through lawful "internal" conduct).

[109] Plaintiffs' Joint Proposed Conclusions of Law, at 15 (any act that contractually limits consumer choice is "telling evidence" that the defendant is not engaged in "competition on the merits"); Plaintiffs' Response to Microsoft's Motion for Summary Judgment, at 10-11 (contending that "Microsoft's exclusionary agreements with PC manufacturers and Internet Service Providers and Internet Content Providers have raised barriers to competition and effectively foreclosed competitors from significant distribution channels.").

[110] It should be noted that the government did argue that the requirement that OEMs purchase IE as a condition of receiving Windows was unlawful *per se* under Section 1 of the Sherman Act. *See* Plaintiffs' Joint Proposed Conclusions of Law at 53-60. *See also* Jefferson Parish Hospital District No. 2 v. Hyde, 466 U.S. 2 (1985) (holding that ties imposed by firms with market power are unlawful *per se*).

presumption against them.[111] Still, this possibility was, under the standard the Government propounded, more illusory than real. In particular, the government argued that Microsoft could only prevail if it demonstrated that each of the challenged exclusionary agreements furthered "competition on the merits" and was no broader than necessary to achieve tangible competitive benefits.[112]

One could, of course, attribute the government's position to result-oriented zealous advocacy. And there was certainly some of that. Nonetheless, the government's position had substantial basis in Supreme Court decisions, and, more importantly, both the District Court and the D.C. Circuit completely endorsed the government's account of the law of monopolization and its application of that law to the facts of the case.[113] For instance, both courts held that Microsoft's primary dealing arrangements with IAPs and ISPs were presumptively unlawful because they foreclosed rivals from *one* of the two most important channels for distributing Internet Browsers.[114] This was so, the courts

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[111]*See* Plaintiffs' Joint Proposed Conclusions of Law at 16.

[112]*Id*.

[113]*See*, *e.g.*, *Microsoft*, 253 F.3d at 58-59 (endorsing general standards applied by the District Court in evaluating Section 2 claims); *id*. at 68-71 (finding that primary dealing contracts were *prima facie* unlawful under Section 2 because they foreclosed rivals from a "significant" portion of the market); *id*. at 69 (holding that primary dealing contracts are *prima facie* unlawful where they "significantly limit . . . the opportunities for other traders to enter."); *Microsoft*, 87 F. Supp. 2d at 38 ("If the evidence reveals a significant exclusionary impact in the relevant market, the defendant's conduct will be labeled 'anticompetitive' — and liability will attach — unless the defendant comes forward with specific procompetitive business motivations that explain the full extent of its business conduct."). *See also* Hovenkamp, *Monopolization Offense*, 61 Oh. St. L. J. at 1047-49 (concluding that the *Microsoft* court properly articulated and applied monopolization law).

[114]*See Microsoft*, 253 F.3d at 70-71; *Microsoft*, 87 F. Supp. 2d at 41-42; *id*. at 42 (contracts with IAPs and ISPs were presumptively unlawful whether viewed "separately or together" with contracts affecting the OEM channel). *See also* Microsoft, 84 F. Supp. 2d at 47 (finding that the OEM and IAP distribution channels were the most efficient channels for distributing internet browsers). It should be noted that the District Court did not attempt to calculate the relative costs of relying upon different distribution channels. *Cf*. Thomas Krattenmaker and Steven Salop, *Anticompetitive Exclusion: Raising Rivals Costs to Achieve Power Over Price*, 96 Yale L. J. 209 (1986) (proof that restraint produces significantly higher costs for rivals a necessary but not sufficient condition for such restraints to be anticompetitive).

said, despite the fact that Netscape remained free to rely upon thousands of ISPs to distribute its browser.[115] Neither the D.C. Circuit nor the District Court explained how (partial) exclusion from one such channel could harm consumers to such an extent that it should suffice to establish a *prima facie* case.[116] Moreover, both courts held that Microsoft's contractual requirement that OEMs install Internet Explorer and display the Internet Explorer icon on the PC desktop were themselves *prima facie* unlawful, even though the restrictions left OEMs contractually free to install and display competing browsers as well.[117] Indeed, OEMs Apple and IBM testified at trial that they felt perfectly free to install competing browsers.[118] Here again, neither court explained how this restriction could, by itself, raise Netscape's costs to such an extent as to harm competition.[119] Instead, the D.C. Circuit simply held that OEMs were one of two important channels for browser distribution, and that the restriction effectively prevented "many" OEMs from preinstalling a second browser.[120] The court

[115]*See* Page and Lopatka, *Antitrust on Internet Time*, 7 S. Ct. Econ. Rev. at 222-25.

[116]To be sure, the court went on to find that Microsoft's technological integration of Internet Explorer with Windows, combined with certain licensing restrictions, effectively excluded Netscape from the other important distribution channel, namely, OEM PC manufacturers. *See Microsoft*, 253 F.3d at 60-67. However, the court's analysis of the exclusive and primary dealing arrangements does not mention this finding and instead treated the exclusion of rivals from one important channel as sufficient to give rise to a *prima facie* case. *See Microsoft*, 253 F. 3d at 70-71. *Compare id.* at 72 (finding that relatively small foreclosure worked by agreements with Independent Software Vendors established *prima facie* case because other arrangements had blocked larger distribution channels).

[117]*See Microsoft*, 253 F.3d at 60-61.

[118]*See Microsoft*, 253 F.3d at 60-61. *See* Page and Lopatka, *Antitrust on Internet Time*, 7 S.Ct. Econ. Rev. at 213 (questioning claim that requirement that OEMs install IE would preclude OEMs from installing Netscape).

[119]*See Microsoft*, 253 F.3d at 61 (finding that these restrictions were "anticompetitive" simply because the OEM channel is "one of the two primary channels for distribution of browsers").

[120]*See Microsoft*, 253 F.3d at 61.

did not say "how many" OEMs were so-restricted, or whether they were sufficiently important market participants to affect Netscape's browser share in a meaningful way.[121]

Perhaps most importantly, the District Court found that Microsoft's quality improvements and low prices themselves would have eroded Netscape's market share.[122] Still, the District Court declined to find that Microsoft's contractual tactics, and not these improvements in IE's quality and low prices, reduced Netscape's market share so much as to thwart its middleware strategy.[123] On appeal, the D.C. Circuit held that no such finding was necessary.[124] In particular, relying upon the leading treatise in antitrust law, the court held that the government did not have to show that Netscape would have evolved into a *bona fide* competitor to Microsoft but for the challenged agreements because it was appropriate that "the defendant is made to suffer the consequences of its own undesirable conduct."[125] This argument was entirely circular, however, as it begged the question

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[121]*See Microsoft*, 253 F.3d at 61 (conceding that IBM and Apple, for instance, felt free to install second browsers despite these provisions).

[122]*See Microsoft*, 84 F. Supp. 2d at 98 (finding that Microsoft's lawful tactics would have eroded Netscape's share of the relevant market somewhat).

[123]*See* Elzinga, *et al*., *Remedy or Malady*, 9 Geo. Mas. L. Rev. at 672-79; Meese, *Don't Disintegrate Microsoft*, 9 Geo. Mas. L. Rev. at 781-94.

[124]*Microsoft*, 253 F.3d at 78-80.

[125]*See Microsoft*, 253 F.3d at 79, *citing* AREEDA AND HOVENKAMP, 3 ANTITRUST LAW ¶ 651c, at 78. *See also id*. at ¶ 651d2 (contending that conduct that "clearly injures rivals and has no business justification" presumptively harms consumers); nn. ____, *infra* and accompanying text (documenting Professor Areeda's significant influence in the federal courts). It should be noted in this connection that the district court fastidiously avoided any finding that Netscape's middleware strategy in fact posed a significant competitive threat to Microsoft. *Microsoft*, 84 F. Supp. 2d at 18 ("It remains to be seen, though, whether there will ever be a sustained stream of full-featured applications written solely to middleware APIs. In any event, it would take several years for middleware and the applications it supports to evolve from the *status quo* to a point at which the cost to the average consumer of choosing non-Intel compatible PC operating system falls so low as to constrain the pricing of the latter system."). Thus, the record in the case contains no actual finding that Microsoft's conduct had an actual anticompetitive effect. *See also* Lopatka and Page, *Monopolization, Innovation, and Consumer Welfare*, 69 Geo. Wash. Univ. L. Rev. at 369 ("The court did not find that

it was answering, namely, whether the contracts in question *should* be deemed "undesirable" simply because they "foreclosed" Netscape from portions of particular market channels.[126] In short, the most important antitrust decision of the past decade embraced the distinction between internal exclusion, or "competition on the merits," on the one hand, and contractual exclusion, on the other.[127] Several scholars have endorsed the approach taken by the enforcement agencies and the courts.[128]

Indeed, in one sense the test announced by the D.C. Circuit was *more* hostile to Microsoft than that advanced by the government. Recall that the government had assumed that Microsoft could justify arrangements deemed *prima facie* unlawful by showing that the restrictions were no broader

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Microsoft's monopoly would have vanished before trial but for Microsoft's exclusionary practices. Rather, it held that Microsoft's practices delayed the emergence of competing platform technologies that might eventually have threatened Microsoft's dominance.").

[126]*Cf. Brooke Group Ltd.*, 509 U.S. at 225 (Sherman Act does not forbid "an act of pure malice by one competitor against another" absent some showing of actual consumer harm); *Aspen Skiing Co.,* 472 U.S. at 605 (negative impact on rival does not itself prove harm to competition sufficient to establish *prima facie* case under Section 2).

[127]*See Microsoft,* 253 F.3d at 56 ("This case is not about Microsoft's initial acquisition of monopoly power. It is about Microsoft's efforts to maintain this position through means other than competition on the merits."); *id*. at 62 (finding that contractual limitations on OEM's ability to promote competing browsers "has a substantial effect in protecting Microsoft's market power, and does so through a means other than competition on the merits, it is anticompetitive."). *See also* nn. ______, *supra* and accompanying text; Eleanor Fox, *What is Harm to Competition? Exclusionary Practices and Anticompetitive Effect*, 70 Antitrust L. J. 371, 390 (2002) (*Microsoft* decision dispenses with any requirement of actual anticompetitive effects). *See also* Piraino, *Monopolists' Unlawful Conduct*, 75 N.Y.U. L. Rev. at 812 (describing importance of the *Microsoft* case).

[128]Hovenkamp, *Monopolization Offense*, 61 Oh. St. L. J. at 1047-49; John J. Flynn, *Standard Oil and Microsoft—Intriguing Parallels or Limping Analogies*, 46 Antitrust Bull. 645 (2001); Piraino, *Monopolists' Illegal Conduct*, 75 N.Y.U. L. Rev. at 862-71; Steven C. Salop and R. Craig Romaine, *Preserving Monopoly: Economic Analysis, Legal Standards, and Microsoft*, 7 Geo. Mas. L. Rev. 617 (1999). *See also* AREEDA AND HOVENKAMP, 3 ANTITRUST LAW, ¶ 651d2 (courts should condemn conduct that injures rivals without justification).

than necessary to achieve significant competitive objectives.[129] While such a showing was *necessary* to avoid liability under the test propounded by the D.C. Circuit, it was not sufficient.[130] According to this court, proof that a restriction produced benefits did not undermine the initial conclusion that it was "anticompetitive," with the result that the court should balance the restraint's benefits against its harms.[131] Thus, even if a restraint was the least restrictive means of producing significant benefits, the plaintiff would still be free to show that the benefits of such a restraint were outweighed by the harms.[132]

II. Price Theory, Competition on the Merits, and Contractual Exclusion

As explained above, courts applying Section 2 of the Sherman Act initially employed a fact-based inquiry into a defendant's "intent," a test that, on its best days, ultimately involved an assessment of the welfare implications of the practices under review.[133] Still, as explained earlier, the intent test is dead and buried, replaced by a standard that distinguishes between "internal" conduct, or "competition on the merits," on the one hand, and "contractual" exclusion, on the

[129] *See* nn. ______, *supra* and accompanying text.

[130] *See* nn. ______, *supra* and accompanying text.

[131] *See Microsoft*, 253 F. 3d at 59; *id*. at 61 (finding that license restrictions were "anticompetitive" and that the court should "balance" anticompetitive effects against procompetitive benefits).

[132] *See Microsoft*, 253 F. 3d at 59 (stating that a plaintiff could prevail by establishing that "the anticompetitive harm of the conduct outweighs the procompetitive benefit"); *id*. (characterizing analysis under Section 2 as a "balancing approach" under the rubric of the rule of reason). *See also, e.g.*, Capital Imaging Associates, P.C. v. Mohawk Valley Med. Associates., Inc., 996 F.2d 537, 543 (2d Cir. 1993) (articulating Rule of Reason balancing test); Alan J. Meese, *Price Theory Competition, and the Rule of Reason*, 2003 Ill. L. Rev. 77 (2003).

[133] *See* nn. ______, *supra* and accompanying text.

other.[134] In particular, plaintiffs challenging the latter can establish a *prima facie* case with relative ease, while defendants who seek to rebut such a case face a heavy burden of doing so. The demise of the intent test begs an obvious question: what accounts for that demise and, more importantly, the test that resulted. This section argues that modern monopolization law, particularly the distinction between "internal" and "contractual" exclusion, derives from neoclassical price theory, the economic paradigm that dominated the study of industrial organization during the second half of the 20th century. Part A of this section examines price theory, its theory of the firm, and the "workable competition" that it spawned. Part B explains how this conception of the firm and the workable competition model came to influence monopolization law during the 1950s and continues to do so today.

A. *Workable Competition, Exclusion, And The Theory Of The Firm*

For decades economists embraced a uniform approach to analyzing microeconomic problems, namely, neoclassical price theory.[135] Not surprisingly, price theory and its assumptions dominated the subject of industrial organization, that is, the study of how firms organize themselves and conduct their activities. Indeed, during this period industrial organization was not so much a separate subject as it was applied price theory.[136] Price theory and the industrial organization

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[134] *See* United States v. Aluminum Corporation of America, 148 F.2d 416 (2d Cir. 1945) (Hand, J.) (rejecting intent test); nn. ______, *supra* and accompanying text.

[135] *See* OLIVER E. WILLIAMSON, ECONOMIC INSTITUTIONS OF CAPITALISM, 7 (1985) (describing dominance of price theory from 1940 into the 1970s).

[136] *See* R.H. Coase, *Industrial Organization: A Proposal for Research*, 61-64 in POLICY ISSUES AND RESEARCH OPPORTUNITIES IN INDUSTRIAL ORGANIZATION (V. Fuchs, ed. 1972) (arguing that, as of 1972, Industrial Organization consisted simply of applied price theory). Indeed, after reviewing two of the period's leading industrial organization texts, Professor Coase concluded that "essentially, [both authors] consider the subject of industrial organization as applied price theory." *See id.* at 62; GEORGE STIGLER, THE ORGANIZATION OF INDUSTRY, 1 (1968) (portraying industrial organization as "price or resource allocation

paradigm that it produced offered a unified, coherent methodology for analyzing the causes and consequences of commercial activities, including trade practices pursued by actual or potential monopolists.

Like physicists who imagine a world without friction, price theorists began with the model of "perfect competition," an atomistic world in which numerous firms sold homogenous products and no individual or firm could unilaterally influence prices, output, or any other terms of trade.[137] First formalized in the 1920s, this model had antecedents dating from the late 19th century.[138] The model rested upon several interrelated assumptions, assumptions that combined to portray a world in which firms and individuals could costlessly rely upon the market to conduct economic activity.[139]

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theory"); JOE S. BAIN, INDUSTRIAL ORGANIZATION, 25-27 (1968) (same). *See also* RICHARD CAVES, AMERICAN INDUSTRIAL STRUCTURE, CONDUCT, PERFORMANCE, 14 (1967) ("The subject of 'industrial organization' applies the economist's models of price theory to the industries in the world around us.").

[137] *See* TIBOR SCITOVSKY, WELFARE AND COMPETITION, 16-19, 29-246 (1951) (relying upon perfect competition model to analyze behavior of consumers and firms); JOE S. BAIN, PRICING, DISTRIBUTION, AND EMPLOYMENT: ECONOMICS OF AN ENTERPRISE SYSTEM, 95-135 (1948) (same); GEORGE J. STIGLER, THE THEORY OF COMPETITIVE PRICE, 24 (1942) (analogizing assumptions of the perfect competition model to physicists' assumption of a world without friction); FRANK H. KNIGHT, RISK, UNCERTAINTY, AND PROFIT, (1921) (analogizing unrealistic assumptions in economics to assumption of "theoretical mechanics," "which is built upon the assumption of perpetual motion at every stage."); *see also* Louis Makowski and Joseph M. Ostroy, *Perfect Competition and the Creativity of the Market*, 39 J. Econ. Lit. 479 (2001) (detailing historical development of the perfect competition model and contending that model ultimately rested on core assumption that all firms are price takers).

[138] *See, e.g.*, A.C. PIGOU, WEALTH AND WELFARE (1912); JOHN BATES CLARK, THE DISTRIBUTION OF WEALTH: A THEORY OF WAGES, INTEREST, AND PROFIT (1899); ALFRED MARSHALL, PRINCIPLES OF ECONOMICS (1890). *See also* George J. Stigler, *Perfect Competition: Historically Contemplated*, 65 J. Pol. Econ. 1, 11 (1957) (concluding that Professor Knight was the first to completely formalize the theory of perfect competition); Makowski and Ostroy, *Perfect Competition and the Creativity of the Market*, 39 J. Econ. Lit. at 482-96 (describing historical development of perfect competition model and its assumptions); FRANK M. MACHOVEC, PERFECT COMPETITION AND THE TRANSFORMATION OF ECONOMICS, 159-81, 268-71 (1995) (same).

[139] *See* KNIGHT, RISK, UNCERTAINTY, AND PROFIT, 76-86 (detailing various assumptions of the perfect competition model).

For one thing, the perfect competition model assumed that purchasers had perfect information about the items they bought, or that firms could convey such information, and buyers could absorb it, without cost.[140] Moreover, perfect competition assumed that bargaining and enforcement costs were non-existent, with the result that trading partners could negotiate complete contracts governing every aspect of their relationship, contracts that courts would easily enforce.[141]

The perfect competition model also assumed away a common economic phenomenon, namely, opportunism directed against consumers or trading partners.[142] Thus, a firm could rely upon

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[140]*See* STIGLER, THEORY OF COMPETITIVE PRICE, at 21-22; KNIGHT, RISK, UNCERTAINTY, AND PROFIT, at 77 (assuming perfect knowledge by rational economic actors); *id*. at 78 (assuming "perfect, costless intercommunication" between economic actors). *See also* Makowski and Ostroy *Perfect Competition and the Creativity of the Market*, 39 J. Econ. Lit. at 493-96 (detailing model's informational assumptions); MACHOVEC, PERFECT COMPETITION AND THE TRANSFORMATION OF ECONOMICS, at 241-49 (same) (detailing development of these assumptions); Stigler, *Perfect Competition: Historically Contemplated*, 65 J. Pol. Econ. at *passim* (same).

[141]*See* WILLIAMSON, ECONOMIC INSTITUTIONS, at 7 (explaining that price-theoretic paradigm assumed that judicial enforcement of well-specified contracts would prevent opportunism); Langlois, *Contract, Competition, And Efficiency*, 55 BROOKLYN L. REV. at 835 ("The traditional economic theory of the firm feeds off of . . . the 'classical' theory of contract. Briefly put, classical contracting involves homogenous goods traded among anonymous transactors with all the (possibly contingent) terms explicitly spelled out in advance."); Kenneth Arrow, THE ORGANIZATION OF ECONOMIC ACTIVITY: ISSUES PERTINENT TO THE CHOICE OF MARKET VERSUS NONMARKET ALLOCATION, *in* PUBLIC EXPENDITURES AND POLICY ANALYSIS, 59, 60 (1970) ("the existence of vertical integration may suggest that the costs of operating competitive markets are not zero, *as is usually assumed in our theoretical analysis*.") (emphasis added).

Frank Knight, who first formalized the perfect competition model, had this to say about the model's assumptions regarding the cost of contracting:

> "We must also assume complete absence of physical obstacles to the making, execution, and changing of plans at will; that is, there must be perfect mobility in all economic adjustments, no costs involved in movements or changes. To realize this ideal, all elements entering into economic calculation – efforts, commodities, etc., must be continuously variable, divisible without limit . . .The exchange of commodities must be virtually instantaneous and costless."

See KNIGHT, RISK, UNCERTAINTY, AND PROFIT, at 76-79. *See also* STIGLER, THEORY OF COMPETITIVE PRICE at 22-23 (absent perfect knowledge, "perfect competition" depends upon enforcement of contracts, protection of private property, and prevention of fraud).

[142]*See* WILLIAMSON, at 30 (defining opportunism as "self-interest seeking with guile").

trading partners to perform economic activities as though they had the firm's own interests at heart. Some scholars simply assumed away opportunism by fiat.[143] Others were more precise, arguing that the combination of perfect information and perfect contracting would prevent opportunism.[144] Still others assumed that firms could combat opportunism by adopting "less restrictive" provisions that did not limit rivalry.[145] Taken together, these various assumptions ensured that reliance upon the market to conduct economic activity — transacting — was costless.[146]

For perfect competition, "the market" was a collection of firms, each of whom interacted by means of spot market contracting. Within this mileu, "the firm" was the basic, fundamental unit of analysis; economists did not concern themselves with how firms organized themselves, what

[143]Makowski and Ostroy, *Perfect Competition and the Creativity of the Market*, 39 J. Econ. Lit. at 490-91 (detailing tendency of some devotees of perfect competition to assume away possibility of opportunism by fiat); Samuel Bowles and Herbert Gintis, *The Revenge of Homo Economicus: Contested Exchange and the Revival of Political Economy*, 7 J. Econ. Perspectives 83 (1993) (contending that price theory and the perfect competition model rested upon assumption that all market actors behaved as "Victorian gentlemen").

[144]*See* KNIGHT, RISK, UNCERTAINTY AND PROFIT, at 78-79 ("We formally exclude all preying of individuals upon each other. . . . [we] exclude fraud or deceit and theft or brigandidge"); *id.* at 78 (stating that such exclusion was implicit in the assumption of rationality and perfect information). *See also* STIGLER, THEORY OF COMPETITIVE PRICE, at 23 (explaining that complete knowledge assumption of perfect competition model ensured that fraud would not occur and that parties would know whether trading partners would perform obligations); WILLIAMSON, ECONOMIC INSTITUTIONS, at 7 (explaining that availability of perfect contracting would prevent opportunism).

[145]*See* Donald F. Turner, *The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusals to Deal*, 75 HARV. L. REV. 655, 699 (1962) (requirement that dealer use its best efforts within an area of "primary responsibility" will assure effective promotion by dealers); KAYSEN AND TURNER, ANTITRUST POLICY, at 158 (automobile manufacturer could rely upon warranties and dealer good faith to ensure that dealers employed appropriate replacement parts); DIRLAM AND KAHN, FAIR COMPETITION, at 185 (contending that manufacturers can achieve benefits of exclusive dealing by other means).

[146]*See* Coase, *The Firm, The Market, and The Law*, at 6 (noting that "the concept of transaction costs . . . is largely absent from current economic theory"). By "current economic theory," of course, Coase meant "price theory." *See* n. ______, *supra*. *See also* Stigler, *Perfect Competition: Historically Contemplated*, 65 J. Pol. Econ. at 5-6 (explaining that perfect competition equates "competition" with "the market.").

occurred within them, *etc.*[147] Thus, scholars employing the perfect competition model generally took the firm for granted, treating the entity as a black box, an indivisible unit that performed unique technological and allocational functions.[148] To this end, the firm purchased inputs on the market and transformed them into a product, which it sold in impersonal markets.[149] How much a firm produced

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[147]*See* ALFRED R. OXENFELDT, INDUSTRIAL PRICING AND MARKET PRACTICES, 8-35 (1951) (describing various attributes and types of firms, without considering why firms exist in the first place); SCITOVSKY, WELFARE AND COMPETITION, at 109-180 (discussing behavior of the firm without examining rationale for its existence); BAIN, PRICING, DISTRIBUTION, AND EMPLOYMENT, at 10-94 (same); STIGLER, THEORY OF COMPETITIVE PRICE, at 102-115 (same). *See also* Ronald H. Coase, *The Institutional Structure of Production*, 82 Am. Econ. Rev. 713, 714 (1992) (arguing that, in the realm of price theory, the "economist does not interest himself in the internal arrangements within organizations but only in what happens on the market, [that is] the purchase of factors of production and the sale of the goods that these factors produce."); Harold Demsetz, *The Theory of the Firm Revisited*, 4 J.L. Econ. & Org. 141, 143 (1988) ("A firm in the theory of price is simply a rhetorical device adopted to facilitate discussion of the price mechanism."); Harold Demsetz, *The Structure of Ownership and the Theory of the Firm*, 26 J. L. & Econ. 375, 377 (1983) ("It is a mistake to confuse the firm of economic theory with its real-world namesake. The chief mission of neoclassical economics [*i.e.*, price theory] is to understand how the price system coordinates the use of resources, not to understand the inner workings of real firms."). *See also* George J. Stigler, *The Place of Marshall's Principles in the Development of Economics*, in CENTENARY ESSAYS ON ALFRED MARSHALL, (J. Whitaker ed.) (1990) ("The very purpose of the study of the firm [under price theory and the perfect competition model] is to deduce from its behavior the properties of industry demands for inputs and supplies of outputs."); Lionnel Robbins, *The Representative Firm*, 38 Econ. J. 387, 389-90 (1928) (explaining that the representative business firm in Marshall's "Principles of Economics" was an economic construct, independent of legal structure).

[148]In 1948, a leading price theorist described the business firm as follows, with no elaboration on its purposes.

> "In a money exchange economy such an enterprise operates by buying and selling. It purchases materials, equipment, land and labor, combines them in a finished product, and sells them to a buyer."

BAIN, PRICING, DISTRIBUTION, AND EMPLOYMENT, at 10. Another discussed, "the nature of costs and the production function" without explaining why firms exist. *See* STIGLER, THEORY OF COMPETITIVE PRICE, 102-115. *See also* SCITOVSKY, WELFARE AND COMPETITION, at 109-121 (devoting entire chapter to description of the activities of "the firm" without explaining why entity arises in the first place).

[149]*See* Coase, *Institutional Structure of Production*, 82 Am. Econ. Rev. at 714 (noting that price theory treated the firm as a black box); Richard N. Langlois, *Contract, Competition, and Efficiency*, 55 Brooklyn L. Rev. 831, 834 (1989) ("the economist's firm — at least until recently — was a black box, a production function that took in inputs and transformed them into outputs."). *See also* R. H. Coase, *Nature of the Firm*, 4 Economica 386, 388 (1937) (stating that contemporary economic thought treated firms as

and at what cost was determined by the firm's "production function," a mathematical representation of the relationship between the costs of various inputs and the firm's output.[150] This relationship, in turn, was solely a function of production technology, exogenous to the market or related institutions, which determined the number and combination of inputs — including labor — required to produce a given quantum of output.[151] In essence, then, the firm of price theory was a sort of calculating machine. This machine observed the price set by "the market" for its product, observed the price set by "the market" for its inputs (including labor), and set its own level of output accordingly.[152] Where the other assumptions of perfect competition obtained, this process would

"islands of conscious power in this ocean of unconscious [market] cooperation like lumps of butter coagulating in a pail of buttermilk.").

[150]*See* Richard N. Langlois, *Transaction Costs, Production Costs, and the Passage of Time*, 2-4 (Steven G. Medema ed., 1998) (describing technological focus of so-called "Pigouvian Price Theory"); WILLIAMSON, ECONOMIC INSTITUTIONS, at 7-8. *See also* KELVIN LANCASTER, MODERN MICROECONOMICS, 88 (1974) ("A general statement of all outputs that can be obtained from all efficient input combinations is called the *production function*.") (emphasis in the original); SCITOVSKY, WELFARE AND COMPETITION, at 113-121 (explaining concept of production function); STIGLER, THEORY OF COMPETITIVE PRICE, at 109-112 (same).

[151] LANCASTER, MODERN MICROECONOMICS, at 71-76 (nature of available production processes determined by technology); SCITOVSKY, WELFARE AND COMPETITION, at 113 ("The production function represents the scope and limitations of production as determined by technical conditions, which the economist cannot change and must be accepted as a given."); *id.* at 113-21; STIGLER, THEORY OF COMPETITIVE PRICE, 109-110 ("Production functions are descriptive of techniques or systems of organization of productive services, and they are therefore taken from disciplines such as engineering and industrial chemistry: to the economic theorist they are data of analysis."); *id.* at 109-115; Oliver E. Williamson, *Technology and Transaction Cost Economics*, 10 J. Econ. Rev. & Org. 355 (1988).

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> Underlying economics is technology. As far as we are concerned, the technical expert has completed his job when he has handed on to the economist, accountant, or cost engineer the *physical relationship between output and various inputs*. This relationship is called the "production function." The production function tells us how much output we can hope to get if we have so much labor *and* so much capital *and* so much land, etc.

SAMUELSON, ECONOMICS, at 547; MACHOVEC, PERFECT COMPETITION AND THE TRANSFORMATION OF ECONOMICS, at 16 (explaining that, under price theory's model of perfect competition, "the only acceptable lead to consumption and production decisions that maximized the welfare society could realize from its limited resources.[153]

Perfect competition's conception of the firm implied a particular theory of firm scope. This theory purported to explain a given firm's choice between purchasing an item or service "on the market" or producing the item itself, *i.e.*, vertical integration. According to the model, firms made each "make or buy" decision by comparing the cost of internal (self) production to the price the firm would have to pay for the same item on the "open market."[154] These relative costs, in turn, depended upon production technology. So, for instance, a firm would choose to "buy" a particular item from an outside supplier if: 1) the firm's own needs were relatively modest and 2) technology and market demand were such that outside suppliers could realize significant economies of scale in producing

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behavior of firms is to mechanically reallocate capital in response to a new set of perfect information emissions — provided like manna from heaven, indiscriminately and simultaneously — to the roboticized helmsmen of each firm."); COASE, THE FIRM, THE MARKET, AND THE LAW, at 3 ("The firm to an economist . . . is 'effectively defined as a cost curve and a demand curve, and the theory [of the firm] is simply the logic of optimal pricing and input combination.'"), *quoting* Mark Slater, forward to EDITH PENROSE, THE THEORY OF THE GROWTH OF THE FIRM, ix (2d ed. 1980); Demsetz, *Theory of the Firm Revisited*, 4 J.L. Econ & Org. at 143 ("[under conventional price theory] tasks normally to be expected of management . . . are performed without error and costlessly, as if by a free and perfect computer."). *See also* SCITOVSKY, WELFARE AND COMPETITION, at 109-142 (describing behavior of "the firm" in this manner); BAIN, PRICING, DISTRIBUTION, AND EMPLOYMENT, at 10 (same). *See generally* HAYEK, MEANING OF COMPETITION, at 92-94.

[153] SCHERER, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE, at 12-19 (describing theory of general competitive equilibrium and allocational consequences of such an equilibrium); SCITOVSKY, WELFARE AND COMPETITION, at 339-65 (explaining that perfect competition would result in allocative and productive efficiency and thus maximize social welfare). *See also* Edward S. Mason, *The Current Status of the Monopoly Problem in the United States*, 62 Harv. L. Rev. 1265, 1266-67 (1949) (stating that perfect competition was only desirable because it produced a certain end — the maximization of economic welfare).

[154] *See* Stigler, *The Division of Labor is Limited by the Extent of the Market*, 59 J. Pol. Econ. at 187-89. *See also* JOE BAIN, INDUSTRIAL ORGANIZATION, 168 (1959) (rivalry will cause firms to choose efficient level of vertical integration based upon relative costs of internal production and reliance upon the market).

the item.[155] If, by contrast, there were no economies of scale, and if technology were such that locating two physical activities "under the same roof" reduced the cost of production, a firm would choose to conduct both activities itself. The classic example given by price theorists was the integration of iron manufacture with steel manufacture to reduce fuel costs associated with reheating iron to transform it into steel.[156] Given the assumptions of the model, there was no other legitimate rationale for vertical integration. Absent some explanation rooted in technological efficiencies, then, vertical integration was presumed to be an attempt to acquire or protect market power.[157]

To be sure, price theorists did not believe that the real world mimicked the world imagined by perfect competition; neither did they believe that perfect competition was in fact desireable in all

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[155]*See* Stigler, *The Division of Labor is Limited by the Extent of the Market*, 59 J. Pol. Econ. at *passim* (arguing that vertical integration depends upon the extent of the market and the resulting opportunities for specialization by firms and their suppliers). Similarly, a future disciple of Stigler's concluded that there were two beneficial purposes of vertical integration: "enabling the firm so-organized to bypass a monopoly at one level, or . . . enabling the achievement of internal efficiencies." *See* Robert H. Bork, *Vertical Integration and the Sherman Act: The Legal History of an Economic Misconception*, 22 U. Chi. L. Rev. 157, 200 (1954).

[156]Several leading texts of the price-theoretic era employed this example to illustrate the sort of technological economies that vertical integration might produce. *See, e.g.*, F.M. SCHERER, INDUSTRIAL STRUCTURE AND ECONOMIC PERFORMANCE, 70 (1970); JOE S. BAIN, INDUSTRIAL ORGANIZATION, 381 (1968); CARL KAYSEN AND DONALD F. TURNER, ANTITRUST POLICY, 120 (1959); JOEL DIRLAM AND ALFRED KAHN, FAIR COMPETITION: THE LAW AND ECONOMICS OF ANTITRUST POLICY, 23 (1954); STOCKING AND WATKINS, MONOPOLY AND FREE ENTERPRISE, 64-65.

[157]*See, e.g.*, WILLIAMSON, ECONOMIC INSTITUTIONS, at 366 (according to neoclassical price theory, "efforts to reconfigure firm and market structures that violated 'natural' boundaries were believed to have market power origins."); Meese, *Rule of Reason*, 2003 Ill. L. Rev. at 115-119 (explaining how neoclassical price theory treated integration as monopolistic absent a showing that such integration produced technological efficiencies); WILLIAM G. SHEPHARD, MARKET POWER & ECONOMIC WELFARE, 37 (1970) ("The cost advantages in a firm may be of two types: technical and pecuniary. Only technical economies represent a genuine improvement in social efficiencies."); BAIN, INDUSTRIAL ORGANIZATION, at 381 ("The trained observer tends to form a considerable suspicion from casual observation that there is a good deal of vertical integration which, although not actually uneconomical, is also not justified on the basis of any cost savings. This is apparently true in particular of the integration of distributive facilities by manufacturing firms. In most cases the rationale of the integration is evidently the increase of market power of the firms rather than a reduction in cost.").

respects.[158] For instance, economists recognized the existence of negative and positive externalities that might cause markets to fail to achieve the optimum allocation of resources.[159] Moreover, economists recognized that consumers in any given market possessed heterogeneous preferences, and that firms might seek to satisfy these preferences by producing differentiated products.[160] Such differentiation, in turn, could confer a small degree of market power on the firm that catered to consumer preferences.[161] Finally, economists recognized that firms often strove to improve their products or discover new (technological) methods of production, thus altering the production function and lowering costs.[162] These efforts could lead firms to expand significantly, sometimes

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[158]*See* Mason, *The Monopoly Problem*, 62 Harv. L. Rev. at 1267 ("None of the markets encountered [in antitrust litigation] meet the tests of pure competition."); Mason, *Monopoly in Law and Economics*, 47 Yale L. J. at 35 (economic theory properly recognizes the existence of "monopoly elements in the practices of almost every firm"). *See also* KNIGHT, RISK, UNCERTAINTY, AND PROFIT, at 9 (remarking that the real world economy "is obviously not at all completely or perfectly competitive").

[159]*See* SHEPHERD, MARKET POWER & ECONOMIC WELFARE, at 28; KAYSEN AND TURNER, ANTITRUST POLICY, at 13, n. 12; SAMUELSON, ECONOMICS, at 743-44, n. 1; SCITOVSKY, WELFARE AND COMPETITION, at 181-87. *See also* K. WILLIAM KAPP, THE SOCIAL COSTS OF PRIVATE ENTERPRISE (1950); A.C. PIGOU, THE ECONOMICS OF WELFARE (1932).

[160]*See* BAIN, PRICING, DISTRIBUTION, AND EMPLOYMENT, at 242-47; MILLER, UNFAIR COMPETITION, at 114-117; Mason, *Monopoly in Law and Economics*, 47 Yale L. J. at 36-37.

[161]*See* SAMUELSON, ECONOMICS, at 495-97; BAIN, PRICING, DISTRIBUTION, AND EMPLOYMENT, at 242-47 (concluding that monopolistic competition created by product differentiation confers a relatively small degree of market power on firms producing such products); EDWARD CHAMBERLIN, THE THEORY OF MONOPOLISTIC COMPETITION (1933); Frank H. Knight, *Demand and Supply and Price*, in THE ECONOMIC ORGANIZATION, 67, 90-92 (1933).

[162]STOCKING & WATKINS, MONOPOLY AND FREE ENTERPRISE, 54-61; SCITOVSKY, WELFARE AND COMPETITION, at 331-33; BAIN, PRICING, DISTRIBUTION, AND EMPLOYMENT, at 84-85 ("In most industries, a very small firm is quite inefficient; as the firm becomes larger it tends to become more efficient, reaching a minimum cost per unit of output at some particular scale."); STIGLER, THEORY OF COMPETITIVE PRICE, at 132-42; MILLER, UNFAIR COMPETITION, at 8 (explaining that real world competition "may consist in an endeavor to organize and utilize factors more effectively in producing goods and services, thus involving a rivalry in technological processes as well as in economy in the use and organization of men and materials.") It should be noted that Professor Miller's fulsome definition of competition did not include non-standard contracts. *See id.* at 199-200 (tying contracts only useful where seller has a "strong monopoly position"); *id.* at 210 (exclusive dealing arrangements only useful where there is "some element of monopoly control").

by merger, taking advantage of (technological) economies of scale.[163] Some industries were thus populated by only a few sellers, with the result that firms in these industries could often exercise some power over price.[164]

The market power associated with product differentiation and economies of scale resulted in a misallocation of society's resources, as firms with such power reduced output below the level that would obtain in a world of perfect competition.[165] Despite this power, however, economists believed that such practices were often beneficial on balance. For instance, product differentiation often catered to true distinctions in consumer preferences and thus produced significant benefits that could outweigh any losses occasioned by the exercise of market power.[166] Moreover, price theorists

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See also W.H.S. Stevens, Unfair Competition, 5-8 (1917) (contending that legitimate competition included efforts to alter production processes so as to lower costs).

[163] Kaysen and Turner, Antitrust Policy, at 128-29 ("From the standpoint of both buyers and sellers, mergers may promote efficiency. Where the appropriate scale of operations or degree of integration of the firm changes, mergers may provide the most economical method of reshaping the structures of existing firms to the new cost conditions.").

[164] *See* George J. Stigler, *The Extent and Bases of Monopoly*, 32 Amer. Econ. Rev. 1, 8-13 (1942) (noting an "incompatability of competition and continuing economies of scale" and examining the extent to which such economies do require market power).

[165] *See* Bain, Pricing, Distribution, and Employment, at 146-56.

[166] *See* Scherer, Industrial Market Structure and Economic Performance, at 22 (describing existence of product differentiation as a potentially beneficial departure from perfect competition); Dirlam and Kahn, Fair Competition, at 32 ("Product differentiation, for example, is often a means of competition that serves the public by providing minimum assurances of quality and by catering to a real consumer desire for product improvement or variation."); Oxenfeldt, Industrial Pricing and Market Practices, at 881 (perfect competition may not give desireable results in a world with "rapidly changing consumer tastes [and] a strong desire for diversity of products"); Miller, Unfair Competition, at 117; Mason, *Monopoly in Law and Economics*, 47 Yale L. J. at 36 (concluding that economists should not oppose all instances of product differentiation despite the resulting market power). *See also* Edward Chamberlin, *Product Heterogeneity and Public Policy*, 40 Amer. Econ. Rev. 85 (1950); Bain, Pricing, Distribution and Employment, at 246-47 & n. 2 (concluding that welfare consequences of market power produced by product differentiation are minor and outweighed at least in part by the "advantages of variety to consumers"); Knight, *Demand and Supply and Price*, at 91-92 (explaining that a seller's "monopoly" over its own brand is constrained by competition from other branded goods).

recognized that gains associated with economies of scale and the accompanying reduction in production costs would often outweigh any allocative loses produced by any resulting market power, with the result that some such departure from perfect competition was necessary to realize net efficiencies and maximize social welfare.[167] In these circumstances, it was said, "workable competition" was the best society could hope for, since any attempt to impose perfect competition by regulatory fiat would deprive society of significant efficiencies of production and the benefits of product differentiation.[168] Indeed, many economists who recommended a policy of breaking up large

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[167] *See, e.g.*, KAYSEN AND TURNER, ANTITRUST POLICY, at 5-8; OXENFELDT, INDUSTRIAL PRICING AND MARKET PRACTICES, at 88 ("pure and perfect competition may not give desireable results in a world characterized by rapid technological change and important economics of large scale production"); STOCKING AND WATKINS, MONOPOLY AND FREE ENTERPRISE, at 53-61, 108; *id.* at 13 ("Pure competition can scarcely be realized in a machine age."); DIRLAM AND KAHN, FAIR COMPETITION, at 33 ("Rarely does the cause of effective competition demand an attack on an industry because of the fewness of the firms that make it up."); Mason, *Workable Competition Versus Workable Monopoly*, at 387 ("Some power there has to be, both because of the inescapable limitations of the process of atomization and because power is needed to do the job the American public expects of its industrial machine."); MILLER, UNFAIR COMPETITION, at 411 ("it would not be feasible to pulverize industry sufficiently to approximate pure competition" because doing so would "interfere [ ] with the attainment of the optimal scale of plant and rate of operation"). *See also* BAIN, PRICING, DISTRIBUTION, AND EMPLOYMENT, at 84 (stating that, "in most industries, a small firm is quiet inefficient"); *id.* at 153 (concluding that comparison of output levels in monopolized and competitive industries is "idle" because monopolized industries often realize economies of scale and thus may produce more output than a competitive industry).

In 1968 Professor Williamson formalized this insight, showing that a merger to monopoly that produced a slight reduction in production costs would result in a net improvement in social welfare. In particular, Williamson showed that such a firm would realize efficiencies on each unit of its output, while any allocative losses would only impact output at the margin. *See* Oliver Williamson, *Economies as an Antitrust Defense: The Welfare Tradeoffs*, 58 Amer. Econ. Rev. 18 (1968).

[168] *See* BAIN, INDUSTRIAL ORGANIZATION, at 13-17 (defining concept of workable competition and endorsing use of this standard as guide to public policy toward industry); Mason, *Workable Competition vs. Workable Monopoly*, at *passim*; MILLER, UNFAIR COMPETITION, at 404-22 (detailing author's call for policies that furthered "workable competition"); J. M. Clark, *Toward A Concept of Workable Competition*, 30 Am. Econ. Rev. 241 (1940). *See also* Jesse Markham, *An Alternative Approach to the Concept of Workable Competition*, 40 Amer. Econ. Rev 349, 361 (1950) ("An industry may be judged to be workably competitive when, after the structural characteristics of its market and the dynamic forces that shaped them have been thoroughly examined, there is no clearly indicated change that can be effected through public policy measures that would result in greater social gains than social losses."); GEORGE STOCKING, WORKABLE COMPETITION AND ANTITRUST POLICY (1961) (collecting a series of articles written by the author during the 1950s applying the workable competition model to various antitrust questions); OXENFELDT, INDUSTRIAL

firms to combat market power recognized an exception for those industries in which such deconcentration would eliminate significant economies of scale.[169] For most price theorists, then, "workable competition," and not "perfect competition," was the chief *desiradatum* of public policy toward industry.[170]

Still, while economists who embraced "workable competition" recognized and even endorsed certain departures from perfect competition, these same scholars nonetheless embraced the other assumptions of the perfect competition model when addressing industrial organization problems.[171]

PRICES AND MARKET PRACTICES, at 88-90 (contending that concept of "workable competition" was a more useful benchmark for public policy than perfect competition, while at the same time seeking more useful mechanisms for identifying such markets).

[169] *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 113; STOCKING AND WATKINS, MONOPOLY AND FREE ENTERPRISE, at 552-53; Mason, *Workable Competition Versus Workable Monopoly*, at 387 ("There is no reason, however, to tolerate positions of market power that can be lessened by appropriate antitrust action unless it can be shown that this lessening substantially interferes with the job to be done [by the firm]."); MILLER, UNFAIR COMPETITION, at 411-12.

[170] *See* BAIN, INDUSTRIAL ORGANIZATION, at 15-17 (endorsing workable competition as standard to guide public policy); George Stocking, *On the Concept of Workable Competition as an Antitrust Guide*, 2 Antitrust Bull. 3, 5-21 (1956) (describing rise of workable competition model and its widespread acceptance by economists interested in antitrust policy); Mason, *Workable Competition Versus Workable Monopoly*, at 382-88 (embracing workable competition as appropriate antitrust benchmark); MILLER, UNFAIR COMPETITION, at 411-415 (same); Clark, *Workable Competition*, 30 American Econ. Rev. at *passim*.

[171] *See* F. A. Hayek, *The Meaning of Competition*, in INDIVIDUALISM AND ECONOMIC ORDER 94 (1948) (asserting that most assumptions of the perfect competition model "are equally assumed in the discussion of the various 'imperfect' or 'monopolistic' markets, which throughout assume certain unrealistic 'perfections.'"); KNIGHT, RISK, UNCERTAINTY, AND PROFIT, at 10-11 (describing "evil results" that flow from failure of economists to recognize real world departures from various assumptions of the perfect competition model); Langlois, *Transaction Costs, Production Costs, and the Passage of Time*, at 2 (noting that Joan Robinson and Edward Chamberlin, who pioneered the theory of oligopoly, relied upon various other assumptions of the perfect competition model). *See also* KAYSENAND TURNER, ANTITRUST POLICY, at 7 ("the rigorous model of the perfectly competitive market is the appropriate starting point of any definition [of competition relevant to antitrust policy]."); *id.* at 8 ("though the model of [perfectly] competitive market structure is not usable as such in our definition of competition, other concepts of the model are."). While Professors Turner and Kaysen recognized that the perfect competition model could not provide the final definition of competition relevant to antitrust policy, they nonetheless assumed that any practice that a firm would not adopt in a perfectly competitive market reflected an exercise of market power that had to be justified. *Id.* at 8. *See also* n. ____, *infra*.

For instance, the concept of workable competition added nothing to perfect competition's theory of the firm.[172] If anything, workable competition's recognition of technology as a source of firm growth served to bolster perfect competition's technological conception of the firm. Moreover, economists working within the workable competition tradition continued to embrace perfect competition's assumptions that knowledge flowed freely between firms and consumers, bargaining costs were non-existent, and opportunism irrelevant.[173] In this frictionless world, firms could costlessly identify and transact with suppliers or customers.

Modified in this way, price theory implied a particular model of legitimate "competition," a model that helped economists interpret the causes and origins of various business practices employed by monopolists and other firms.[174] In particular, price theory and the workable

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[172] *See* nn. ____, *supra* and accompanying text (explaining that perfect competition model lacked theory explaining the existence of firms).

[173] *See* nn. ____, *supra* (detailing these assumptions of the perfect competition model). For instance, one scholar who recognized the presence of product differentiation nonetheless assumed away opportunism when analyzing certain non-standard contracts. *See, e.g.*, Comanor, *Vertical Territorial and Customer Restrictions*, 81 HARV. L. REV. at 1430 (asserting that "unrestricted market" would provide sufficient pre-sale promotional services by dealers). Other scholars claimed that managerial talent was widely available and that firms could easily replicate technological innovations by their competitors. *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 7-8; STOCKING AND WATKINS, MONOPOLY AND FREE ENTERPRISE, at 12. Another scholar whose work recognized the existence of product differentiation and economies of scale nonetheless assumed that bargaining and information costs were so low that manufacturers could readily bargain with dealers and others over the latters' promotional obligations. *See* Donald Turner, *The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusals to Deal*, 75 HARV. L. REV. 655, 699 (1962) (requirement that dealer use its best efforts within an area of "primary responsibility" will assure effective promotion by dealers); Turner, *Tying Arrangements Under the Antitrust Laws*, 72 HARV. L. REV. at 66-67; KAHN & DIRLAM, FAIR COMPETITION at 185-86 (arguing that parties can achieve various benefits of exclusive dealing without relying upon contractual limits on freedom of action). *See also* MILLER, UNFAIR COMPETITION, at 199 (concluding that tying contracts are necessarily the result of market power).

[174] *See* Edward S. Mason, *Market Power and Business Conduct: Some Comments*, 46 Am. Econ. Rev. 471, 475-76 (1956) (economists rely upon models to interpret the purposes and effects of business practices). *Cf.* THOMAS KUHN, THE STRUCTURE OF SCIENTIFIC REVOLUTION, 114-17 (1970) (explaining that paradigm shifts cause reinterpretation of previously-observed phenomena).

competition model implied a distinction between activity that took place "within" a firm's boundaries, on the one hand, and a firm's contractual relations with other market actors, on the other. As noted above, the firm of price theory — whether in perfect or workable competition — performed one function: allocating resources by purchasing inputs and transforming them into outputs.[175] As such, the firm realized all possible (technological) efficiencies internally, in the process of transforming inputs to outputs.[176]

Given the assumptions of price theory and its model of workable competition, the process of allocation and transformation performed by firms was "efficient" or beneficial in an almost tautological sense.[177] Similarly, the workable competition model also recognized as "efficient" a firm's efforts to alter its production technology or product quality through research and development. These efforts to alter the firm's production function, as well as the realization of economies of scale

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[175]*See* nn. ____, *supra* and accompanying text (explaining perfect competition's theory of the firm); nn. ____, *supra* and accompanying text (explaining that workable competition model did not alter perfect competition's theory of the firm).

[176]*See* Langlois, *Contract, Competition, and Efficiency*, 55 Brooklyn L. Rev. at 834 ("The economists's firm — at least until recently — was a black box, a production function that took in inputs and transformed them into outputs."); *id*. at 835 (describing traditional theory's failure to recognize benefits of non-standard contracting); Oliver E. Williamson, *Delimiting Antitrust*, 76 Geo. L. J. 271, 272 (1987) (describing the "prevailing practice [under price theory] of describing the firm as a production function whose natural boundaries were defined by technology. Economic inputs were thus transformed by the production technology into economic outputs. Organizational considerations [that might explain the boundaries of firms] were effectively suppressed."); WILLIAMSON, ECONOMIC INSTITUTIONS OF CAPITALISM, at 371 (describing price-theoretic view that "true economies take a technological form, [and] hence are fully realized within firms. [Hence], according to the price-theoretic paradigm, there was nothing to be gained by introducing nonstandard terms into market-mediated exchange."); Coase, *The Firm, The Market, and The Law*, at 3 ("The firm to an economist . . . 'is effectively defined as a cost curve and a demand curve, and the theory [of the firm] is simply the logic of optimal pricing and input combination.'"), *quoting* MARTEN SLATER, FORWARD TO EDITH T. PENROSE, THE THEORY OF THE GROWTH OF THE FIRM, ix (2d ed. 1980). *See also* SCITOVSKY, WELFARE AND COMPETITION, at 159-71 (describing "efficiency of the firm" as involving use of available technology to combine inputs into outputs at lowest possible cost).

[177]*See* SCITOVSKY, WELFARE AND COMPETITION, at 148-80 (examining the general efficiency of firms and resulting economic activity in a perfect competition model).

implied by existing technology, all took place "within" the firm, and involved the firm's disposition of its own property.[178] Moreover, the workable competition model treated these as legitimate competitive activities, likely to enhance social welfare.[179] From the perspective of the world outside the firm, these actions manifested themselves in two ways: enhanced product quality, and/or lower production costs, both of which were determined by the time of purchase and sale. Thus, the firm realized all efficiencies within its boundaries, before purchasers took title to its product.[180] While such activities could in some cases create a monopoly, the benefits of these efforts would more than

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[178] *Cf.* nn. _____, *supra* and accompanying text (explaining how distinction between "internal" and external exclusion corresponds to distinction between property and contract).

[179] *See* nn. _____, *supra* and accompanying text. *See also* DIRLAM AND KAHN, FAIR COMPETITION, at 32 (product differentiation generally beneficial); Mason, *Workable Competition versus Workable Monopoly*, 384 ("The pure competition of the economic theorist is a concept divorced from time and space and independent of technological or other considerations."); *id.* at 387-88 (competition policy should encourage innovations that lead to economic growth); BAIN, PRICING, DISTRIBUTION, AND EMPLOYMENT, at 84-87 (treating realization of economies of scale as a social benefit); MILLER, UNFAIR COMPETITION, at 8 ("Competition is a very complex phenomenon. It may take any one of several forms. It may become a rivalry in buying factors of production of better quality or in buying factors on more favorable terms. It may consist in an endeavor to organize and utilize factors as in economy in the use and organization of men and materials. It may take the form of rivalry in attracting customers. This in turn may be done in various ways: by price competition, by informative or competitive advertising, by differentiation of product or of many ancillary terms and conditions of sale, or finally by effective choice and control of the channels of distribution."). It should be noted that Professor Miller's fulsome definition of competition did not include nonstandard contracts. *See id*. at 199-200 (explaining that tying contracts only arise where seller has a "strong monopoly position"); *id*. at 210 (explaining that exclusive dealing arrangements only arise where there is "some element of monopoly control"); STEVENS, UNFAIR COMPETITION at 5 ("In an economic sense fair competition signifies a competition of economic or productive efficiency. In other words, an organization is entitled to remain in business as long as its production and/or selling costs enable it to compete in a free and open market.); *id*. at 7 ("Unfortunately, competition has not always been so conducted that the logical results of the competitive process have appeared. Efficient concerns have by no means always survived. All too frequently they have been destroyed, not by superior efficiency, but by methods against which their own efficiency afforded little or no protection. . . . Such artificial arrangements are clearly unjustifiable from an economic standpoint."). *See also*, *e.g.*, KAYSEN AND TURNER, ANTITRUST POLICY, at 83-86 (treating entrepreneurial innovation and related technological progress as an unalloyed good).

[180] *See* n. ____, *supra* (collecting authorities treating "efficiencies" as arising within a firm's boundaries).

outweigh the social costs of any resulting market power and resulting marginal misallocation of resources.[181] Public policy should therefore take a "hands off" attitude toward such practices.

The price-theoretic assumptions that solidified workable competition's property-based, technological conception of the firm gave rise to a concomitant suspicion of contracts that reached beyond it. In the frictionless world of price theory, where information costs, bargaining costs, and opportunism were non-existent, there was simply no reason for a firm to influence the disposition or use of a product once it left the firm's boundaries and became someone else's property.[182] Nor was there any reason for a firm to place any contractual limitations on the activities of its suppliers. As a result, price theory and the workable competition model recognized only "standard contracts," that is, (spot) agreements of purchase and sale that simply mediated passage of title from supplier to manufacturer or manufacturer to consumer (or dealer).[183] By contrast, price theorists saw no beneficial purpose for so-called "nonstandard" contracts, agreements that reached "beyond" the boundaries of the firm and controlled the discretion of suppliers before the firm held title to property or the discretion of customers after the firm parted with title to the property that was the object of the underlying transaction.[184] Such contracts, including complete vertical integration, were viewed

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[181] *See* nn. ____, *supra* and accompanying text. *See also*, *e.g.*, Mason, *Workable Competition Versus Workable Monopoly*, at 387.

[182] *See* nn. ____, *supra* and accompanying text (explaining how perfect competition and workable competition models assumed away bargaining costs, information costs, and opportunism).

[183] *See* WILLIAMSON, ECONOMIC INSTITUTIONS, at 23 (defining "classical market exchange — whereby a product is sold at a uniform price to all consumers without restriction."); Langlois, *Contract, Competition, and Efficiency*, 55 Brooklyn L. Rev. at 834-35 (same). *See also* SCITOVSKY, WELFARE AND COMPETITION, at 109-188 (discussing behavior and market activities of firms without once mentioning non-standard contracts).

[184] *See* WILLIAMSON, ECONOMIC INSTITUTIONS, at 23-25 (distinguishing between "classical market exchange" and "nonstandard contracting"); Langlois, *Contract, Competition, and Efficiency*, 55 Brooklyn L. Rev. at 835 (same).

as a departure from the sort of moment-to-moment atomistic rivalry implied by the perfect competition model and its descendant, workable competition.[185] Because these non-standard agreements had no apparent efficiency purposes, price theorists presumed that such arrangements reflected a firm's use of market power to acquire more power or to protect the power it already possessed, usually by raising barriers to entry.[186] These price-theoretic assumptions formed the basis

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[185]*See* nn. _____, *supra* and accompanying text.

[186]*See* Meese, *Rule of Reason*, 2003 Ill. L. Rev. at 115-119, 122-23 (examining price theory's interpretation of non-standard contracts as expression of monopoly power); Williamson, *Delimiting Antitrust*, 76 GEO. L.J. at 272 (explaining that applied price theory tradition of industrial organization took boundaries of the firm as a "natural" given and viewed any attempt to change those boundaries by partial or complete vertical integration as suspect); WILLIAMSON, ECONOMIC INSTITUTIONS, at 370-71; Langlois, *Contract, Competition, and Efficiency*, 55 Brooklyn L. Rev. at 835 ("[Price theory] has only two categories, competitive and "other," and anything that does not fit into the competitive box must be *ipso facto* anticompetitive. As a result, economists had, at least until recently, a tendency to brand as undesirable any non-standard forms of contract. We can see this tendency at work in the area of vertical arrangements. . . . From the perspective of the classical theory of contract, all of these arrangements are very much nonstandard; and, through the lens of the theory of perfect competition, all these arrangements are inexplicable. It is thus an easy leap to categorize these nonstandard contracts as inefficient and reflective of 'monopoly power.'"). *See also* Christopher S. Yoo, *Vertical Integration and Media Regulation in the New Economy*, 19 Yale J. Regulation 171, 186-87 (2002) (discussing Harvard School's hostility toward complete vertical integration).

Professor Coase summarized this price-theoretic milieu as follows:

> "[I]f an economist finds something — a business practice of one sort or other — that he does not understand, he looks for a monopoly explanation. And as we are very ignorant in this field, the number of ununderstandable practices tends to be rather large, and the reliance on monopoly explanation frequent."

See R. H. Coase, *Industrial Organization: A Proposal for Research*, 67 in R.H. COASE, THE FIRM, THE MARKET AND THE LAW (Chicago 1990). *See also* JOE BAIN, INDUSTRIAL ORGANIZATION, 332 (1959) (concluding that concentrated "market structure . . . is to some extent created by conduct, although the conduct in question generally is feasible because of certain basic environmental and structural characteristics of industries that various sellers can exploit to their advantage") (emphasis added). Despite the qualification ("generally"), Professor Bain offered no account of how or why such contracts would arise absent an already concentrated market structure. *Id*. at 381 ("The trained observer tends to form a considerable suspicion from casual observation that there is a good deal of vertical integration which, although not actually uneconomical, is also not justified on the basis of any cost savings. This is apparently true in particular of the integration of distributive facilities by manufacturing firms. *In most cases the rationale of the integration is evidently the increase of market power of the firms rather than a reduction in cost*.") (emphasis added). Another for hostility to any number of non-standard contracts, each of which, it was said, was inconsistent with workable competition.[187] The end result was an economic interpretation of firm behavior that privileged property-based conduct over conduct involving the negotiation and enforcement of non-standard contracts.

scholar educated at Harvard assumed that any practice other than the "efficient organization of production" reflected the exercise of market power. *See* MILLER, UNFAIR COMPETITION, at 8 ("In a purely competitive market competition becomes simply a matter of efficiency in organization of production and the correct determination of the quantity to be produced. But such conditions are rare. It is doubtful whether there is any market in which neither the demand nor the supply is significantly affected by monopolistic or monopolistic forces."); *id*. at 199 (tying contracts necessarily the result of market power); *id*. at 210 (exclusive dealing contracts necessarily the result of market power). *See also* OXENFELDT, INDUSTRIAL PRICING AND MARKET PRACTICES, 210-14 (describing various non-standard contracts, including tying, exclusive dealing, and full line forcing, and concluding that such agreements were necessarily the result of unequal "bargaining power"); George J. Stigler, *Mergers and Preventative Antitrust Policy*, 104 U. Penn. L. Rev. 176 (1955) ("The [Clayton Act's] prohibitions upon price discrimination and tying-clauses apparently were adopted in part to prevent the appearance or spread of monopoly, but it is evident that both types of policies can arise only when monopoly power is already possessed."); WATKINS, PUBLIC REGULATION OF COMPETITION PRACTICES IN COMPETITIVE BUSINESS ENTERPRISES, at 220-22 (tying contracts necessarily the result of market power).

[187] *See e.g.*, BAIN, INDUSTRIAL ORGANIZATION, at 363-65 (defining tying and exclusive dealing contracts as "predatory" practices that thwart effective competition); MILLER, UNFAIR COMPETITION, at 199 ("A tying arrangement is a successful business practice only in the circumstance that the seller has a strong monopoly position in one or more products."); *id*. at 210 ("exclusive dealing arrangements . . . are useful only in markets where there are some elements of monopoly control in the manufacture of the product."); Alfred E. Kahn, *A Legal and Economic Appraisal of the "New" Sherman and Clayton Acts*, 63 Yale L.J. 293, 324, n. 160 (1954) (same); W. Arthur Lewis, *Notes on the Economics of Loyalty*, 9 Economica 333 (1942); STEVENS, UNFAIR COMPETITION, at 75 (tying contracts are necessarily expressions of monopoly power); *id*. at 90-91 (exclusive dealing contracts are necessarily result of economic power). *See also* WATKINS, PUBLIC REGULATION OF COMPETITION PRACTICES IN BUSINESS ENTERPRISES, at 220-25 (tying contracts are necessarly the result of market power, but not always anticompetitive); Meese, *Rule of Reason*, 2003 Ill. L. Rev. at 115-23 (collecting other authorities to same effect). *See also* Commanor, *Vertical Territorial and Customer Restrictions*, 81 Harv. L. Rev. at 1430 (vertical distribution restraints are generally anti-competitive); James M. Ferguson, *Tying Arrangements and Reciprocity: An Economic Analysis*, 30 L. & Contemp. Probs. 522, 558-64 (1965) (tying arrangements are generally anticompetitive); Derek C. Bok, *The Tampa Electric Case and the Problem of Exclusive Arrangements under the Clayton Act*, 1961 S. Ct. Rev. 267, 307-308 (exclusive dealing contracts are generally anticompetitive); DIRLAM AND KAHN, LAW AND ECONOMICS OF ANTITRUST POLICY, at 181-87 (same); Donald F. Turner, *The Validity of Tying Arrangements under the Antitrust Laws*, 72 Harv. L. Rev. 50, 66-67 (1958) (same).

Price theory, its theory of the firm and the workable competition model were not the exclusive province of economists in ivory towers. Instead, this model also influenced the policy prescriptions of legal scholars and policymakers interested in antitrust regulation.[188] In particular, workable competition's account of legitimate "competition" provided a benchmark against which economists and others evaluated the causes and consequences of non-standard contracts when determining whether such agreements offended the antitrust laws.

The classic articulation of this approach can be found in the work of two Harvard scholars, Carl Kaysen and Donald Turner. Both were economists, and one, Turner, was on the Faculty at Harvard Law School.[189] Both studied economics under Edward Mason, an economist and Dean of Harvard's School of Public Administration, during the late 1940s and early 1950s.[190] A leading price theorist, Dean Mason had authored several articles on antitrust policy beginning in the 1930s, articles that reflected and helped articulate price theory's workable competition approach.[191] In 1950, he created a working group, supported by the Merrill Foundation, charged with "formulat[ing] a standard of workable competition."[192]

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[188]*See* Coase, *Industrial Organization*, at 66-67 (describing particular influence that price–theoretic approach to industrial organization had on antitrust policy).

[189]*See* Kingman Brewster and Donald F. Turner, *Antitrust at Harvard*, 7 Harv. L. Sch. Bull. 6 (April 1956).

[190]Richard A. Posner, *The Chicago School of Antitrust*, 127 U. Penn. L. Rev. 925, 928 (1979) (stating that the position of the Harvard School "is well conveyed in the writings of Edward Mason.").

[191]*See, e.g.*, Edward S. Mason, *Market Power and Business Conduct: Some Comments*, 46 Am. Econ. Rev. 471, 475-76 (1956); Edward S. Mason, *The Current Status of the Monopoly Problem in the United States*, 62 Harv. L. Rev. 1265, 1266-67 (1949); Edward Mason, *Monopoly in Law and Economics*, 47 Yale L.J. 34 (1937). *See also* EDWARD MASON, ECONOMIC CONCENTRATION AND THE MONOPOLY PROBLEM (1957) (collecting numerous essays by Mason on industrial organization and antitrust policy).

[192]*See* The New York Times, July 10, 1950, p. 31.

Together Turner and Kaysen co-authored the generation's definitive text on the economics of antitrust policy.[193] Supported by the Merrill Foundation, the book grew out of several years of discussions in Mason's working group, and Mason even went so far as to claim that the book was in fact the result of a group effort.[194] The book, which began with a thirteen-page preface by Mason, expressly invoked price theory's perfect competition model as both a normative and a descriptive benchmark.[195] As a result, the authors advocated only the elimination of those practices that distorted the allocation of resources and destroyed wealth, without creating any overriding benefits.[196] Such practices were, they said, market failures properly subject to regulation under the neoclassical paradigm.[197] At the same time, the authors recognized two desirable departures from perfect competition: economies of scale and product differentiation.[198] While both could lead to

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[193] *See* CARL KAYSEN and DONALD TURNER, ANTITRUST POLICY: AN ECONOMIC AND LEGAL ANALYSIS (1959); *see also* THOMAS S. KUHN, *The Essential Tension*, in THE ESSENTIAL TENSION, 225, 230-32 (1977) (explaining how paradigms are reified in textbooks).

[194] *See* KAYSEN AND TURNER, ANTITRUST POLICY, at v-vi (describing influence of working group discussions on authors' conclusions); *id*. at xix ("Although this volume has been written by the two authors whose names are appended, the study is, in an important sense, the product of the discussion of a group of lawyers and economists, extending over several years. The authors would be the first to admit that the contribution of the group to the formulation of the ideas here presented has been large."). *See also* New York Times, July 10, 1950, p. 31 (reporting Mason's launch of a five year study in "an attempt to formulate a standard of workable competition").

[195] *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 7.

[196] *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 11-13. *See also* Turner, *The Scope of Antitrust and other Regulatory Policies*, 82 Harv. L. Rev. 1207 (1969).

[197] *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 12 (characterizing antitrust regulation as involving the elimination of externalities) (*citing* A.C. PIGOU, THE ECONOMICS OF WELFARE).

[198] *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 7-8 (invoking perfect competition as a regulatory benchmark but recognizing exceptions for economies of scale and product differentiation); *id.* at 8 ("though the model of [perfectly] competitive market structure is not usable as such in our definition of competition, other concepts of the model are.").

market power, each also produced benefits that would offset the harm associated with such power.[199] The authors proposed a straightforward test to implement their policy of wealth maximization: any business practice that would not be adopted by a similar firm operating in a perfectly competitive market necessarily reflected the possession and exercise of market power.[200] Unless the practice merely enhanced product differentiation or created economies of scale, the arrangement should fall to antitrust regulation.[201]

While Kaysen and Turner provided uniquely a systematic view of the antitrust field, their reliance on the perfect competition baseline, altered to recognize economies of scale and product differentiation, was nothing new. Instead, this test reflected the principles of workable competition previously laid down by other scholars, including Mason, to whom both scholars acknowledged a significant intellectual debt.[202] Indeed, nineteen years earlier, another of Mason's former students had opined, in a project that began as a Ph.D. thesis, that any practice other than the "efficient

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[199] *See id*. at 7-8.

[200] *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 8 ("where firms can persistently behave over substantial periods of time in a manner which differs from the behavior that the competitive market would impose on competitive firms facing similar cost and demand conditions, they can be identified as possessing market power."); *id*. at 75 (same).

[201] *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 75-82 (outlining policy directed at prohibiting "unreasonable market power" not derived from economies of scale or product differentiation).

[202] *See* STOCKING AND WATKINS, MONOPOLY AND FREE ENTERPRISE, at 108 ("The effectiveness of competition is apt to vary directly with the number of sellers up to the maximum consistent with the economies of scale."); BAIN, INDUSTRIAL ORGANIZATION, at 332 (concluding that concentrated "market structure . . . is to some extent created by conduct, although the conduct in question generally is feasible because of certain basic environmental and structural characteristics of industries that various sellers can exploit to their advantage.") (emphasis added). Despite the qualification ("generally"), Professor Bain offered no account of how or why such contracts would arise absent an already concentrated market structure. Another Harvard Scholar assumed that any practice other than the "efficient organization of production" reflected the exercise of market power. *See* MILLER, UNFAIR COMPETITION, at 8.

organization of production" reflected an exercise of market power and should be banned so as to further workable competition.[203]

For Kaysen and Turner, invocation of this modified perfect competition heuristic spelled doom for non-standard contracts, which limited rivalry, raised barriers to entry, produced no cognizable benefits, and thus, it was said, exercised or created market power to the detriment of consumers.[204] Antitrust policy should intervene in the market to eradicate such "anticompetitive" practices when feasible, and such intervention would eliminate market imperfections, render each industry as "competitive" as possible, and assure optimal prices, output and quality.[205] Many

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[203]*See* MILLER, UNFAIR COMPETITION, at 8 ("In a purely competitive market competition becomes simply a matter of efficiency in organization of production and the correct determination of the quantity to be produced. But such conditions are rare. It is doubtful whether there is any market in which neither the demand nor the supply is significantly affected by monopolistic or monopolistic forces."); *id*. at 199 (tying contracts necessarily the result of market power); *id*. at 210 (exclusive dealing contracts necessarily the result of market power). *See also id*. at xii ("This study was originally undertaken as a doctoral thesis submitted at Harvard University, but it has subsequently undergone extensive revision not only in detail but in general structure as well. I am deeply indebted to Professor E. S. Mason, who first suggested the study to me, for advice and encouragement at all stages.").

[204]*See* KAYSEN AND TURNER, ANTITRUST POLICY, at 157-59 (arguing that tying contracts necessarily reflect an exercise of market power); *id.* at 156-57 (concerted refusals to deal are nearly always anticompetitive and thus should be unlawful *per se*). Other economists agreed. It should be noted that Professors Kaysen and Turner made no attempt to explain those tying contracts imposed in apparently competitive markets. Such arrangements, they said, "were random small transactions of no consequence." *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 159. *Cf*. KUHN, STRUCTURE OF SCIENTIFIC REVOLUTION, at 52-65 (scientists treat phenomena inexplicable under current models as "anomalies").

[205]*See* KAYSEN AND TURNER, ANTITRUST POLICY, at 12-13 (*citing* A. C. PIGOU, ECONOMICS OF WELFARE); *see also* JOE BAIN, INDUSTRIAL ORGANIZATION 464 (1959) (public policy should encourage "workably competitive markets" and "reasonably good economic performance" by, *inter alia*, banning predatory and exclusionary conduct); *id.* at 465-67; *id.* at 15 ("workable (reasonably satisfactory) competition is revealed by, and is the result of whatever gives rise to, reasonably satisfactory or workable market performance — performance that enhances the aggregate economic welfare to a reasonable degree. Ideal performance is found in adaptations of enterprises to their markets which enhance to the maximum possible degree the attainment of overall economic objectives relating to employment, efficiency, income distribution, and so on. "Workable" performance generally refers to adaptations of enterprises to their markets which reasonably approximate the ideal, or do not embody gross and important discrepancies from it."); *id.* at 15 (describing as "ideal" economic performance that produces prices equal to cost, *i.e.*, perfect competition).

economists had previously expressed similar views, and other antitrust scholars would follow suit, arguing that courts should condemn various non-standard contracts as "anticompetitive" attempts to create, protect, or exercise market power.[206] Instead of imposing such agreements, it was said, manufacturers should rely upon an unrestricted market to purchase and distribute their products.[207]

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[206] *See* nn. _____, *supra* (collecting authorities predating Kaysen and Turner). Other classic exemplars of this approach include: LAWRENCE SULLIVAN, ANTITRUST (1977); William Commanor, *White Motor And Its Aftermath*, 81 HARV. L. REV. 1419 (1967); EARL W. KINTNER, AN ANTITRUST PRIMER (1964); LOUIS SCHWARTZ, FREE ENTERPRISE AND ECONOMIC ORGANIZATION (1959); JOE BAIN, INDUSTRIAL ORGANIZATION (1959); JOEL DIRLAM & ALFRED KAHN, FAIR COMPETITION (1954); GEORGE W. STOCKING AND MYRON W. WATKINS, MONOPOLY AND FREE ENTERPRISE (1951); JOHN PERRY MILLER, UNFAIR COMPETITION (1940). *See also* Jacobs, *The Normative Foundations Of Antitrust Economics*, 74 N. C. L. Rev. at 226-27 (contending that "Harvard School" of industrial organization dominated antitrust thought in the 1960s).

Indeed, even Professor Clark, praised by Professor Hayek for embracing an expansive definition of "competition," defined competition in a manner that seemed to exclude contractual limits on the discretion of firms, *i.e.*, non-standard contracts.

> "Competition between business units in the production and sale of goods is the effort of such units, acting independently of one another (without concerted action), each trying to make a profitable volume of sales in the face of the offers of identical sellers of identical or closely similar products."

See JOHN MAURICE CLARK, COMPETITION AS A DYNAMIC PROCESS, 13 (1961). *See also* Hayek, *The Meaning Of Competition*, at 92; J.M. Clark, *Toward A Concept Of Workable Competition*, 30 Amer. Econ. Rev. 241 (1940) (arguing that the perfect competition model did not provide a useful benchmark for judging the efficacy of competition in actual markets).

[207] *See* Derek C. Bok, *The Tampa Electric Case And The Problem of Exclusive Arrangements Under The Clayton Act*, 1961 S. CT. REV. 267, 307-308 ("If a strong and legitimate business need for exclusive selling actually does exist, it is strange that dealers will not follow this policy without being compelled to do so by contract, for the advantages that result should benefit them as well as the firms from which they buy. Perhaps an occasional dealer will be too inept or short sighted to perceive his best interests, but such men could presumably be replaced for demonstrable inefficiency without resorting to the widespread use of restrictive contracts."); DIRLAM AND KAHN, THE LAW AND ECONOMICS OF ANTITRUST POLICY, at 181-87 ("It is difficult to see why many of the mutual benefits and socially beneficial consequences of exclusive dealing require coercion [*i.e.*, contractual requirement] for their achievement."). Others argued that purchasers were capable of deciding for themselves whether to purchase a product that a seller wished to "tie" to a main product. *See, e.g.*, James M. Ferguson, *Tying Arrangements and Reciprocity: An Economic Analysis*, 30 L. & CONTEMP. PROBS. 522, 558-64 (1965); Donald F. Turner, *The Validity of Tying Arrangements Under the Antitrust Laws*, 72 HARV. L. REV. 50, 66-67 (1958); Alfred E. Kahn, *A Legal and Economic Appraisal of the "New" Sherman and Clayton Acts*, 63 YALE L.J. 293, 324, n. 160 (1954); William B. Lockhart & Howard R. Sacks, *The Relevance of Economic Factors in Determining Whether Exclusive Arrangements Violate Section 3 of the Clayton Act*, 65 HARV. L. REV. 913, 946 (1952); Louis B. Schwartz,

Like the workable competition model, Kaysen and Turner's approach did more than justify the condemnation of non-standard agreements. The modified perfect competition heuristic also created a safe harbor for any number of internal or unilateral practices, even those that might lead to the acquisition of market power.[208] So, for instance, the authors argued that a monopoly achieved through internal expansion that realized economies of scale should be beyond the reach of antitrust regulation, even though some market power would result.[209] Moreover, the authors argued that mergers between firms with a combined twenty percent share of a relevant market should be unlawful, *unless* the merging parties could show that the transaction created efficiencies, in the form of economies of scale, that could not be achieved through other means.[210] Finally, while the authors advocated the dissolution of firms in concentrated industries characterized by oligopolistic interdependence, they recognized an exception for those industries where high concentration was necessary to realize economies of scale.[211] Like the workable competition model and previous

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Potential Impairment of Competition — The Impact of Standard Oil Co. of Calif. v. United States, 98 U. PA. L. REV. 10, 27 (1949) ("The efficiency of uniting two products in use [should] be judged by the end user."). Still others assumed that dealers would provide optimal level of advertising and promotional services absent any vertical restraints. *See, e.g.*, Comanor, *Vertical Territorial and Customer Restrictions*, 81 HARV. L. REV. at 1430 (recognizing free rider problem but asserting that "unrestricted market" would provide sufficient pre-sale promotional services by dealers).

[208] *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 58 ("We would therefore make no direct attempt to eliminate market power derived from economies of scale, valid patents, or the introduction of new processes, products, or marketing techniques."). *See also* nn. _____, *supra* and accompanying text (explaining how workable competition model counselled a "hands off" approach to such practices).

[209] *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 113. *See also* Turner, *Antitrust and Other Regulatory Policies*, 82 Harv. L. Rev. at 1217-1225 (monopoly obtained and maintained through economies of scale should be beyond antitrust attack).

[210] *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 133-34.

[211] *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 113. *See also* Turner, *Proper Scope of Antitrust and Other Economic Regulatory Policies*, 82 Harv. L. Rev. at 1228-31.

scholars, then, the authors drew a clear line between property-based "internal" conduct, on the one hand, and contracts that extended the firm's reach beyond its own boundaries, on the other.[212]

Many have attributed the "workable competition" model to a "Harvard School" of industrial organization.[213] It is certainly true that Harvard economists played a prominent role in developing, articulating and applying the workable competition model. Still, Harvard scholars were not the exclusive practitioners of price theory and "workable competition;" other scholars also embraced price theory and applied it to industrial organization. For instance, it was Frank Knight of the University of Chicago who first formalized the perfect competition model.[214] Moreover, Knight's student, George Stigler, would author a text on price theory that embraced the technological conception of the firm.[215] Later, he would opine that a firm could only obtain agreement to a tying contract by exercising market power.[216] Even Robert Bork, who would lead the charge against antitrust's inhospitality tradition, fell prey to price theory. In 1954, for instance, he would argue that vertical integration could achieve two purposes: the evasion of taxes or other regulations, or the

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[212] *See* nn. _____, *supra* and accompanying text (explaining how model of workable competition drew this distinction).

[213] *See* Christopher S. Yoo, *Vertical Integration and Media Regulation in the New Economy*, 19 Yale J. Reg. 171 (2002); Michael S. Jacobs, *An Essay on the Normative Foundations of Antitrust Policy*, 74 N.C. L. Rev. 219 (1995); Richard A. Posner, *The Chicago School of Antitrust Analysis*, 127 U. PENN. L. REV. 925, 928 (1979) (arguing that hospitable, "Chicago" approach to antitrust rests upon rigorous application of price theory).

[214] *See* FRANK KNIGHT, RISK, UNCERTAINTY, AND PROFIT, 76-86 (1921).

[215] *See* GEORGE J. STIGLER, THE THEORY OF COMPETITIVE PRICE, 109-110 (1941).

[216] *See* George J. Stigler, *Mergers and Preventive Antitrust Policy*, 104 U. Penn. L. Rev. 176 (1955). At the time, Stigler was teaching at Columbia. After moving to Chicago Stigler would opine that ties were likely efforts to engage in price discrimination. Such discrimination, of course, depended on the assumption that the firm inducing the tie had market power. *See* George J. Stigler, *A Note on Block Booking*, 1963 S. Ct. Econ. Rev. 152.

realization of "internal efficiencies."[217] Thus, price theory's influence on industrial organization and antitrust policy was more pervasive than sometimes portrayed.

B. *Price Theory And Workable Competition In The Courts*

1. Early Influence

As explained earlier, courts have implemented Section 2's ban on monopolization by drawing a distinction between "normal" competitive practices, on the one hand, and "undue" or "unreasonable" restrictions, on the other.[218] More precisely, modern monopolization doctrine requires courts to determine whether a practice that excludes rivals from the marketplace does so on "some basis other than efficiency."[219] Finally, this "Rule of Reason" implies that courts would look to economic theory to determine whether a contract or other practice was "undue," on the one hand, or "normal," on the other.[220]

Given these doctrinal premises, it should come as no surprise that price theory's conception of legitimate competition came to influence antitrust jurisprudence. And, in fact, by the 1930s, even before the full articulation of the workable competition model, courts began to reach results consistent with the price-theoretic paradigm, ultimately producing the so-called inhospitality tradition of antitrust.[221] A prime exemplar of such influence can be found in the Court's treatment

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[217]Robert H. Bork, *Vertical Integration and the Sherman Act*, 22 U. CHI. L. REV. 157, 200 (1954) (describing the benefits of vertical integration as "bypassing a monopoly at one level, or . . . enabling the achievement of internal efficiencies").

[218]*See* nn. ____, *supra* and accompanying text.

[219]*See* nn. ____, *supra* and accompanying text. *See also*, *e.g.*, *Aspen Skiing*, 472 U.S. at 605.

[220]*See* nn. ____, *supra* and accompanying text.

[221]*See* Frank H. Easterbrook, *Is There A Ratchet in Antitrust Law*? 60 Tex. L. Rev. 705, 715 (1982) (describing so-called inhospitality tradition of antitrust law).

of tying contracts, in cases not arising under Section 2. The Court initially subjected such agreements to friendly Rule of Reason treatment.[222] In the 1930s, however, the Court abruptly changed course, holding that such agreements were unlawful *per se* whenever obtained by a firm with market power.[223] Indeed, as early as 1949, the Court cited the work of a former student of Edward Mason for the proposition that firms could only obtain agreement to such a contract by exercising pre-existing market power to coerce customers to accept it.[224] While the nominal requirement of market power could have screened out a meaningful subset of cases, courts found such power whenever the market for the tying product departed from perfect competition, rendering the requirement barely relevant.[225] The Court showed similar hostility to exclusive dealing contracts,

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[222]*See* Pick Mfg. Co. v. General Motors Corp., 80 F.2d 641 (7th Cir. 1935), *aff'd*. 299 U.S. 3 (1936) (affirming decision by lower court that tying contract imposed by General Motors did not violate Section 3 of the Clayton Act); FTC v. Gratz, 253 U.S. 421 (1920) (reversing decision by Federal Trade Commission that tying contract was an unfair method of competition). *See also* Victor H. Kramer, *The Supreme Court and Tying Arrangements*, 69 Minn. L. Rev. 1013 (1985) (recounting Supreme Court's evolving treatment of tying contracts).

[223]*See* International Salt Co. v. United States, 332 U.S. 392 (1947); IBM v. United States, 298 U.S. 131 (1936). *See also* MACHOVEC, PERFECT COMPETITION AND THE TRANSFORMATION OF ECONOMIC THEORY, at 268-76 (explaining that economists did not articulate and embrace the perfect competition model until the early 1920s).

[224]*See* Standard Oil of California v. United States, 337 U.S. 293, 306 (1949)(*citing* JOHN PERRY MILLER, UNFAIR COMPETITION, 199 (1941)). *See also* Times-Picayune Co. v. United States, 345 U.S. 594, 605 (1953)(same) (*citing* MILLER, UNFAIR COMPETITION, at 199).

[225]So, for instance, courts held that sellers had sufficient economic power whenever they possessed a product with "unique attributes" that was "attractive to consumers," *i.e.*, whenever the market in question was characterized by product differentiation. *See* United States v. Loew's, Inc., 371 U.S. 38, 45 (1963); *id.* at 46-48 (possession of a copyright creates presumption of economic power); United States v. Paramount Pictures, Inc., 334 U.S. 131 (1948) (same); *Chicken Delight*, 448 F.2d at 49-50. Indeed, as suggested in the text, courts even went so far as to find that the existence of such contracts itself implied the "power" to impose them. *See Fortner*, 394 U.S. at 504; *Loew's, Inc.*, 371 U.S. at 49 (fact of market foreclosure confirmed presumption that copyright conferred economic power); *Northern Pacific R. Co.*, 356 U.S. at 8 ("the very existence of this host of tying arrangements is itself compelling evidence of the defendant's great power"). *Cf. id.* at 6-7 (no "economic power" would be present if "one of a dozen food stores in a community were to refuse to sell flour unless the buyer also took sugar"). In short, any departure from perfect competition (including the very existence of tying contracts) was deemed evidence of economic

voiding any such agreement that foreclosed competing manufacturers from a "substantial" portion of the market, which the Court defined as seven percent or more.[226] According to the Court, such contracts placed a "clog on competition," as they tempered moment-to-moment intra-dealer rivalry and gave rise to barriers to entry.[227] In short, judicial characterization of non-standard contracts mimicked workable competition's theory of legitimate competition.[228]

While price theory exercised significant influence over doctrines governing concerted action, monopoly law remained relatively impervious to price-theoretic influences, at least as a rhetorical matter. Even after workable competition logic had come to dominate Section 1, many courts continued to invoke the metaphor of "intent" or "deliberateness" when determining whether a firm

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power. *See* Meese, *Tying Meets The New Institutional Economics*, 146 U. Penn. L. Rev. at 34-35 (recounting Court's very relaxed definition of "economic power" during this period).

[226]*See Standard Oil of California*, 337 U.S. at *passim* (exclusive dealing contracts necessarily "substantially lessen[ed] competition" where manufacturer bound 6.7% of region's dealers); United States v. Richfield Oil Corp., 99 F. Supp. 280 (S.D. Cal. 1951), *aff'd*. 343 U.S. 922 (1952) (finding exclusive dealing contract that bound 6% of region's dealers unlawful). It should be noted that each of these decisions arose under Section 3 of the Clayton Act, which forbids exclusive dealing contracts that "substantially lessen competition." *See* 15 U.S.C. § 20.

[227]*See Standard Oil*, 337 U.S. at 314.

[228]*See* Meese, *Price Theory, Competition, and the Rule of Reason*, 2003 Ill. L. Rev. at 124-34. Lower courts also embraced price-theoretic rhetoric to justify hostility toward non-standard contracts. For instance, one court voided tying contracts because they purportedly interfered with an open competitive market.

> "The economic merit in tying rivets to machines and an economic justification for such tying will not suffice to prevent the operation of the statute. The Clayton Act is intended *to preserve competitive conditions*. The *open market* not the court should be the forum for the presentation of claims as to the merits of tied articles. The lessees are quite capable of judging for themselves *in an atmosphere of competition* whether or not the rivets of one manufacturer will work in the machines of another."

Judson L. Thompson MFG. Co. v. F.T.C., 150 F.2d 952, 958 (1st Cir. 1945) (emphases added).

had "monopolized" in violation of Section 2.[229] Others, however, rejected "intent" as a relevant standard, without offering any coherent substitute. Indeed, the most important decision of the time, United States v. Aluminum Company of America ("ALCOA"), which rejected an intent-based standard, was *internally* incoherent.[230] There, the United States alleged that ALCOA had monopolized the market for aluminum ingot in contravention of Section 2. The government focused its efforts on showing that Alcoa "intended" to maintain its monopoly.[231] The district court disagreed, and the United States appealed to the Supreme Court, which could not muster a quorum. Acting on behalf of the Court, a Second Circuit panel reversed the trial court and found that ALCOA had, in fact, maintained its monopoly power in an unlawful manner.[232] On the one hand, the court seemed to opine that courts should not condemn firms that obtained monopolies "honestly," without engaging in predatory or exclusionary tactics.[233] On the other hand, the court did exactly that, condemning the defendant simply because it had continually expanded to meet the needs of

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[229] *See* REPORT OF THE ATTORNEY GENERAL'S NATIONAL COMMITTEE STUDY OF THE ANTITRUST LAWS, 43-56 (1955); *id.* at 55 (summarizing monopolization law as of 1955 as requiring an inquiry into the defendant's intent).

[230] *See* 148 F.2d 416 (2d Cir. 1945) (L. Hand, J.).

[231] *See ALCOA*, 148 F.2d at 432 ("By far the greatest part of the fabulous record piled up in the case at bar, was concerned with proving such as intent.").

[232] See *ALCOA*, 148 F.2d at 429-30.

[233] *See ALCOA*, 148 F.2d at 430:

> "A market may, for example, be so limited that it is impossible to produce at all and meet the cost of production except by a plant large enough to supply the whole demand. Or, there may be changes in taste or in cost which drive out all but one purveyor. A single producer may be the survivor out of a group of active competitors, merely by virtue of his superior skill, foresight, and industry. In such cases, a strong argument can be made that, although the result may expose the public to the evils of monopoly, the Act does not mean to condemn the resultant of those very forces which it is its prime object to foster: finis opus coronat. The successful competitor, having been urged to compete, must not be turned on when he wins."

prospective customers.[234] In so doing, the court dispensed with any requirement that the government establish nefarious intent, stating that the only "intent" that was relevant was intent to perform forbidden acts.[235] Unfortunately, the decision left potential defendants to guess which acts were, in fact "forbidden."[236]

Shortly after *ALCOA*, the Supreme Court also suggested that a plaintiff could prevail in monopolization litigation without showing nefarious intent.[237] At the same time, the Court avoided any endorsement of the actual result in that decision, holding simply that a monopolist could not "use . . . monopoly power, however lawfully obtained, to foreclose competition, to gain a competitive advantage, or to destroy a competitor."[238] The Court did not, however, suggest any overarching

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[234] *See ALCOA*, 148 F.2d at 430 ("It would completely misconstrue Alcoa's position in 1940 to hold that it was the passive beneficiary of a monopoly, following an involuntary elimination of competitors by automatically operative economic forces."); *id*. at 431 ("It was not inevitable that [Alcoa] should always anticipate increases in the demand for ingot and be prepared to supply them. Nothing compelled it to keep doubling and redoubling its capacity before others entered the field.").

[235] *See ALCOA*, 148 F.2d at 431 ("We disregard any question of intent. . . . no intent is relevant except that which is relevant to any liability, criminal or civil: *i.e.*, an intent to bring about the forbidden act.").

[236] *See* AREEDA AND HOVENKAMP, 3 ANTITRUST, ¶ 611b, p. 21 (arguing that there is "an internal inconsistency" in *ALCOA's* definition of exclusionary conduct); *id*. at 613d, p. 23 (concluding that rationale of *Alcoa* is unclear and that decision can be read any number of ways); Stanley D. Robinson, *Recent Antitrust Developments—1979*, 80 Columbia L. Rev. 1, 3 (1980) ("A literal application of [*ALCOA*'s] language would, ironically enough, jeopardize any efforts by a monopolist, no matter how pure the origin of its power, to engage in competitive activity."); Mason, *Status of the Monopoly Problem*, 62 Harv. L. Rev. at 1273 ("Although [the *Alcoa*] decision broke new legal ground, it is from an economist's point of view, marred by what is at best very dubious economics . . . . the evidence concerning intent to exclude others is difficult to distinguish from ordinary, intelligent competitive action."); *id.* at 1275 (it would appear extremely difficult to distinguish between a progressive embracing 'of each new opportunity' and what would ordinarily be considered desirable competitive performance."). *See also* Berkey Photo v. Eastman Kodak Co., 603 F.3d 263, 273 (2d Cir. 1979) ("the cryptic *Alcoa* opinion is a litigant's wishing well, into which, it sometimes seems, one may peer and find nearly anything he wishes.").

[237] *See* United States v. Griffith, 334 U.S. 100, 105-06 (1948) (citing *ALCOA*).

[238] *Griffith*, 334 U.S. at 107.

framework for discerning whether, in fact, a monopoly was abusing its power. That task would befall a Harvard economist.

2. *United Shoe Machinery* And "Competition on the Merits"

Monopolization doctrine did not remain immune from price-theoretic influences for long. In a case that would remake monopolization doctrine, the United States brought suit in 1949 against the United Shoe Machinery Corporation, claiming that the firm had "monopolized" the market for shoe machinery. In what the trial court termed a "scattershot" case, the government challenged any number of United's practices, including its large research operation, acquisitions of minor competitors and patents, price discrimination, refusal to share technology with rivals, and the practice of introducing new products in response to competitive challenges.[239] The government also challenged the firm's practice of leasing many of its machines instead of selling them outright, as well as various lease terms. In particular, the government objected to provisions requiring lessees to pay cancellation fees if they returned the machines before the end of the leases, as well as so-called "full capacity clauses," which required lessees to employ United's machines ahead of others when there was not work sufficient to occupy both machines.[240] Finally, the government challenged the firm's practice of requiring lessees to purchase replacement parts as well as repair and maintenance services from United.[241]

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[239]*See* Complaint in United States v. United Shoe Machinery Co., ¶¶ 27-95 (D. Mass No. 7198). *See also* United States v. United Shoe Machinery Co., 110 F. Supp. 295, 314 (D. Mass. 1953) (chiding government for "unforgivably unselective tactics pursued in this case.").

[240]*See* Complaint, ¶ 64.

[241]*See* Complaint, ¶ 89 (describing requirement that lessees also purchase replacement parts from United); *id*. at ¶ 22 (describing requirement that lessees also purchase maintenance service from United).

The next year, in an unprecedented move, the trial judge contacted a Harvard economist — Edward Mason — in search of a law clerk to help sort through the government's case.[242] Mason recommended Carl Kaysen, a former student and assistant professor at Harvard who had not yet written his dissertation.[243] Judge Wyzanski treated Kaysen as a sort of special master and tasked him with preparing a report containing both factual findings and recommendations on liability and remedy.[244]

Kaysen, it should be noted, was the consummate price theorist. While some students rebel against their teachers, Kaysen swallowed Mason's ideas hook, line, and sinker.[245] Indeed, while serving as Wyzanski's clerk, Kaysen continued to lecture at Harvard and participate in Mason's discussion group, which sought to develop a useful standard for implementing the concept of workable competition.[246] In addition to Mason, the group included other price theorists, like Joe

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[242]*See* Carl Kaysen, *In Memoriam: Charles E. Wyzanski*, 100 Harv. L. Rev. 713, 713-14 (1987) (recounting the author's appointment as a law clerk). *See also United Shoe Machinery*, 110 F. Supp. at 314 (chiding government for "unforgivably unselective tactics pursued in this case.").

[243]*See* Kaysen, *Charles E. Wyzanski*, 100 Harv. L. Rev. at 714.

[244]*See* Kaysen, *Charles E. Wyzanski*, 100 Harv. L. Rev. at 714-15. *See also* Carl Kaysen, *An Economist as the Judge's Law Clerk in Sherman Act Cases*, 12 A.B.A. Antitrust L. Proc. 43 (1958).

[245]*See* CARL KAYSEN, UNITED STATES V. UNITED SHOE MACHINERY CORPORATION, viii (1956) ("My debt to Dean Mason has been growing over ten years of association with him as a student and a colleague, and continues to grow. Whatever there is of value in the analytical scheme used here, and in my conception of applying economic analysis to the determination of the issues in an antitrust suit, I owe chiefly to his teaching.").

[246]*See* KAYSEN, UNITED SHOE MACHINERY, at viii. *See also* Edward S. Mason, *Market Power and Business Conduct: Some Comments*, 46 Amer. Econ. Rev. 471, n. * (1956) (describing "collaborative work with a group of economists and lawyers in Cambridge, Massachusetts, on a study of monopoly and competition financed by the Merrill Foundation for the Advancement of Financial Knowledge"); New York Times, July 10, 1950, p. 31 (reporting formation of Mason's working group). It should be noted that the Merrill Foundation also subsidized Professor Kaysen's subsequent text on antitrust law. *See* KAYSEN AND TURNER, ANTITRUST LAW, at vi.

Bain, Robert Bishop, and Morris Adelman, as well as Kingman Brewster, who taught Antitrust at Harvard at the time.[247] While Kaysen did not discuss the case in the working group, he did benefit greatly from the "general discussions" that took place there.[248] Less than a decade later, he would co-author a text that reified the group's conclusions.[249]

Kaysen applied a price theorist's model to the *United Shoe* case with a vengeance, relying upon price theory's conception of the firm and the concomitant workable competition model to sort through the government's scattershot case.[250] The result was a lengthy report, a case study of the shoe machinery market in general and United's position and conduct in it in particular. Indeed, chapters II-VIII of the report doubled as Kaysen's Ph.D. thesis, under Mason's supervision.[251] The episode seemed to confirm the quip of one Nobel Laureate that, if an economist wanted to determine whether

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[247]*See* KAYSEN, UNITED SHOE MACHINERY, at viii (describing various participants in the working group). The group would later include Donald Turner. *See* KAYSEN AND TURNER, ANTITRUST POLICY, at xix. Professor Bain, it should be noted, is often described as the leader of the Harvard School of Industrial Organization. *See* JOE BAIN, INDUSTRIAL ORGANIZATION (1959). *See also* Kenneth G. Elzinga, *Industrial Organization and Human Action*, 19 Cato Journal 233, 234 (1999) (calling Bain's work the most influential textbook on industrial organization during the 1950s and 1960s).

[248]*See* KAYSEN, UNITED SHOE MACHINERY, at viii ("The nature of my responsibilities to the Court precluded my discussion with [the members of the working group] the specific issues of the case, but our general discussions contributed greatly to my legal and economic education.").

[249]*See* nn. ____, *supra* and accompanying text.

[250]*See* John Shepard Wiley, Jr., Eric Rasmusen, and J. Mark Ramseyer, *The Leasing Monopolist*, 37 UCLA L. Rev. 693, 703 (1990) ("One cannot fault Judge Wyzanski for 'ignoring economics,' because in deciding the shoe case he had the very latest advice from the Harvard Department of Economics."). *Cf.* Mason, *Market Power and Business Conduct*, 46 Amer. Econ. Rev. at 475-76 (useful antitrust analysis requires the application of economic models to interpret causes and consequences of particular trade practices).

[251]*See* KAYSEN, UNITED SHOE MACHINERY, at viii.

a market was workably competitive, he or she hired a smart and diligent graduate student to author a dissertation about the industry.[252]

Kaysen began by rejecting wholesale the Government's intent-based template for evaluating the firm's conduct.[253] To him, the relevant question was quite simple: (1) did United Shoe have monopoly power and, if so (2) did the firm's performance and conduct reflect efforts to use or maintain that power.[254] In applying this second prong, he sought to distinguish between internal, technological activities, on the one hand, and external, contractual ones, on the other. In so doing, Kaysen rejected the claim by the United States that United had improperly acquired or enforced its patents.[255] He also rejected the government's claim that United's acquisitions reflected predatory conduct toward the acquired firms.[256] At the same time, however, Kaysen found that United's size and 75% share of the market were not compelled by technological considerations leading to

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[252]According to Stigler: "To determine whether any industry is workably competitive, therefore, simply have a good graduate student write his dissertation on the industry and render a verdict. It is crucial to this test, of course, that no second student be allowed to study the industry." *See* George Stigler, *Discussion on the Attorney General Report*, 46 Amer. Econ. Rev. 496, 505 (1956). *See also* Elzinga, *Industrial Organization and Human Action*, 19 Cato Journal at 237 ("Edward Mason's graduate students at Harvard marked their entrance to the field of Industrial Organization by doing a doctoral dissertation on the structure-conduct-performance of particular industries.").

[253]*See* KAYSEN, UNITED SHOE MACHINERY, at 16 ("The analysis of the present record in this case study does not follow the organization of the complaint."); *id.* at 335 ("Indeed, it is no exaggeration to say that an overall view of the market and United's position in it hardly emerged from the government's presentation of its case at all, so heavily was it pointed toward "intent."); *id.* at 335-38; *id.* at 343 ("In fact, the poor preparation of the government [at the remedy stage] arose from the fact that intent and conduct were uppermost in the minds of the lawyers who tried the government's case.").

[254]*See* KAYSEN, UNITED SHOE MACHINERY, at 16-17.

[255]*See* KAYSEN, UNITED SHOE MACHINERY, at 100-106.

[256]*See* KAYSEN, UNITED SHOE MACHINERY, at 16-19 (drawing general distinction between monopoly-based upon technical efficiency, on the one hand, and the "policy of firms in the market," such as exclusive dealing, on the other).

economies of scale.[257] Moreover, following price theory's conception of the firm and the workable competition model to their conclusion, Kaysen opined that United's lease-only policy, the content of its leases, and tying clauses were "coercive" devices that created barriers to entry and thus protected United's monopoly position.[258] In short, Kaysen found no redeeming virtues whatsoever in such agreements. Because United's monopoly was not the result of economies of scale, superior research or other such attributes, Kaysen said, the court should declare the firm in violation of the Act.[259]

Judge Wyzanski's opinion hewed closely to Kaysen's analysis on the question of liability.[260] Like Kaysen, he found that United possessed a monopoly in the market for shoe machinery.[261] Again

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[257]*See*, KAYSEN, UNITED SHOE MACHINERY, at 92-99 (rejecting the argument that United was a natural monopoly). Kaysen did not dismiss the existence of any economies of scale in the industry. Instead, he found that United Shoe was operating at well over the minimum efficient scale, with the result that there was room in the market for at least one other firm operating at minimum efficient scale. *See id.* at 97 ("In sum, the evidence on scale and efficiency in the provision of service, such as it is, suggests that a company of United's size may have advantages over smaller companies, but that these advantages are likely to be small and with respect to companies of, say, half United's size, non-existent.").

[258]*See* KAYSEN, UNITED SHOE MACHINERY, at 64-73, 100-112, 265-66, 275-78. *See also id*. at 275 (finding that the elimination of United's leasing practices would be the "most important single alteration in the operation of the shoe machinery market leading to an increase in the degree of competitiveness therein. . . . [together with other remedies], this change may be expected to lower significantly the existing barriers to competition.").

[259]*See* KAYSEN, UNITED SHOE MACHINERY, at 207-208 (summarizing conclusion that United Shoe's monopoly was not the result of superior performance or economies of scale); *id*. at 265-66 (summarizing conclusion that United Shoe's activities in the supplies market contributed to firm's market power without producing any offsetting social advantage).

[260]*See* Kaysen, *Charles Wyzanski*, 100 Harv. L. Rev. at 714, n. 2 ("The opinion follows my analysis fairly closely in the matter of liability."); Charles E. Wyzanski, Jr., *The Judicial View of Section 2 Litigation*, 10 S.W. U. L. Rev. 45, 49 (1978) ("I have often said, what is true, that Carl Kaysen wrote the music and I wrote the words.").

[261]*See United Shoe Machinery*, 110 F. Supp. at 338-41 (finding that United possessed a monopoly in the domestic shoe machinery market because its share of the market approached 85% and there were significant barriers to entry).

like Kaysen, he rejected the longstanding "intent" standard in favor of a more objective approach.[262] Mere monopoly power, however, did not suffice to establish liability, and the court discerned three possible tests for liability from the case law. Under the first test, the government could prevail only if it showed that United had engaged in a practice independently unreasonable under Section 1 of the Sherman Act.[263] According to the second, the government could prevail by showing that United had maintained its monopoly by means of an "exclusionary practice," regardless whether the practice was independently unlawful under Section 1.[264] The third standard was even more hostile to United Shoe, at least rhetorically, as it would have allowed the government to prevail unless United could affirmatively prove that it owed its monopoly "solely" to:

> "superior skill, superior products, natural advantages, (including accessibility to raw materials or markets), economic or technological efficiency, (including scientific research), low margins of profit maintained permanently and without discrimination, or licenses conferred by, and used within, the limits of law, (including patents on one's own inventions, or franchises granted directly to the enterprise by a public authority)."[265]

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[262] "So far, nothing in this opinion has been said of defendant's intent in regard to its power and practices in the shoe machinery market. This point can be readily disposed of by reference once more to [*Alcoa*]. Defendant intended to engage in the leasing practices and pricing policies which maintained its market power. That is all the intent which the law requires when both the complaint and the judgment rest on a charge of 'monopolizing', not merely 'attempting to monopolize'. Defendant having willed the means, has willed the end."

See 110 F. Supp. at 346.

[263] *See United Shoe Machinery*, 110 F. Supp. at 342 (opining that, under the first approach, "[a]n enterprise has monopolized in violation of Section 2 of the Sherman Act if it has acquired or maintained a power to exclude others as a result of using an unreasonable 'restraint of trade' in violation of Section 1 of the Sherman Act."), *citing* United States v. Columbia Steel Co., 334 U.S. 495, 525 (1948).

[264] *See United Shoe Machinery*, 110 F. Supp. at 342, *citing* United States v. Griffith, 334 U.S. 100, 106 (1948).

[265] *See United Shoe Machinery*, 110 F. Supp. at 342.

The court expressed a preference for the first standard, and opined that United had offended it.[266] Nonetheless, the Court could not stop there, given what it viewed as binding authority, *viz.*, the Supreme Court's early decision holding that United's leasing and tying practices did not offend Section 1.[267] At the same time, the court held that United had offended each of the second two standards. In particular, the court held that United possessed monopoly power and that its continued power was not attributable "solely to defendant's ability, economies of scale, research, natural advantages, and adaptation to inevitable economic laws," but also to its leasing practices and tying agreements.[268]

> "In one sense the leasing system and the miscellaneous activities just referred to. . . were natural and normal, for they were, in Judge Hand's words, 'honestly industrial.' They are the sort of activities that would be engaged in by other honorable firms. And, to a large extent, the leasing practices conform to the long-standing traditions in the shoe machinery business. Yet, they are not practices which can be properly described as the inevitable consequences of ability, natural forces, or law. They represent something more than the use of accessible resources, the process of invention and innovation, and the employment of those techniques of employment, financing, production, and distribution, which a competitive society must foster. They are contracts, arrangements, and policies which, *instead of encouraging competition based on pure merit*, further the dominance of a particular firm. In this

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[266] *See United Shoe Machinery*, 110 F. Supp. at 343 ("If the matter were *res integra*, this Court would adopt the first approach, and, as a preliminary step toward ruling upon § 2, would hold that it is a restraint of trade for a company holding an overwhelming share of the market, to distribute its more important products only by leases which have provisions that go beyond assuring prompt, periodic payments of rentals, which are not terminable cheaply, which involve discrimination against competition, and which combine in one contract the right to use the product and have it serviced.").

[267] *See United Shoe Machinery*, 110 F. Supp. at 343. *See also* United States v. United Shoe Machinery Co., 247 U.S. 32 (1918) (finding that lease provisions did not offend Section 1 the Sherman Act); United Shoe Machinery Co. v. United States, 258 U.S. 451 (1922) (finding that lease provisions violated Section 3 of the Clayton Act, but not Section 1 of the Sherman Act).

[268] *See United Shoe Machinery*, 110 F. Supp. at 343.

> sense they are unnatural barriers; they unnecessarily exclude actual or potential competition; they restrict a free market."[269]

The tying and leasing clauses, then, while "honestly industrial," went beyond "competition based on pure merit" and were "unnatural barriers" that excluded competitors "unnecessarily."[270]

Kaysen's report and the opinion that followed were both significant departures from then-extant monoplization standards. Both were also quintessential manifestations of price theory and its workable competition paradigm. Each drew a distinction between property-based "internal" activities, on the one hand, and "contractual" activities, on the other. Internal activities included "efficient design and improvement of machines," "prompt and knowledgeable service," "research and development," refusal to share the fruits of that research, and "economies of scale."[271] The court expressly found that such tactics made entry by competitors more difficult.[272] Nonetheless, they were "beyond criticism," as they constituted "superior skill, foresight, and industry."[273] By contrast, United's leases and tying contracts were conscious "business policies," "contracts, arrangements,

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[269] *See United Shoe Machinery*, 110 F. Supp. 344-45 (emphasis added). *See also id*. at 340, 344 (finding that tying contracts made entry by competitors more difficult by depriving market of independent service providers).

[270] *Id*. at 344-45. *Cf. Griffith*, 334 U.S. at 107-110 (holding that exclusive supply agreement was a "use" of monopoly power to foreclosure competition); Lorain Journal Co. v. United States, 342 U.S. 143 (1951).

[271] *See United Shoe Machinery*, 110 F. Supp. at 344; *id*. at 333 (finding that United had "never offered to license all, or its principal, shoe machinery patents.").

[272] *See United Shoe Machinery*, 110 F. Supp. at 344 ("To combat United's market control, a competitor must be prepared with knowledge of shoemaking, engineering skill, capacity to invent around patents, and financial resources sufficient to bear the expense of long developmental and experimental processes."). *See also* nn. ____, *supra* and accompanying text (explaining that production of high-quality products at low prices will exclude less efficient rivals).

[273] *See United Shoe Machinery*, 110 F. Supp. at 344. *See also* KAYSEN, UNITED SHOE MACHINERY, at 16-19 (monopoly maintained by means of economies of scale is unobjectionable).

and policies" which, instead of encouraging "competition based on pure merit," erected "unnatural" barriers to competition.[274]

In sum, then, *United Shoe* essentially announced a rule of *per se* liability for monopolists that engaged in *contractual* practices that impaired the competitive opportunities of rivals. By contrast, purely internal activities were *per se* lawful.[275] While other decisions of the era rested upon hostility toward non-standard contracts, none invoked in the concept "competition on the merits" or suggested the existence of a safe harbor for such activities.[276] Just as 19th century economists saw nature, even God himself, in the competitive market, so too did Judge Wyzanski rely upon a naturalistic conception of industrial practice to distinguish among various forms of conduct that might "exclude" a firm's rivals from the marketplace.[277] Thus, while both internal, property-based conduct and contractual conduct gave rise to barriers to entry that had an exclusionary impact, the latter barriers were "unnatural" and unnecessary, because they arose from contracts or agreements that reflected an exercise of market power. The former, by contrast, were natural competitive methods, even the result of "inevitable economic laws" to which United, a passive entity, merely "adapted."[278] Price

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[274]*See United Shoe Machinery*, 110 F. Supp. at 344-45 (courts should condemn monopoly that "arises because of the policy of firms in the market, *e.g.*, the acquisition of competitors, or the use of exclusive distribution agreements in situations in which distribution channels are scarce.").

[275]*See United Shoe Machinery*, 110 F. Supp. at 343-45.

[276]*See Griffith*, 334 U.S. at 107-110; *Lorain Journal*, 342 U.S. at 149-56.

[277]*See* Alan J. Meese, *Liberty and Antitrust in the Formative Era*, 79 B. U. L. Rev. 1, 15-16 (1999) (explaining how some 19th century political economists believed that God ordained economic laws associated with the classical paradigm).

[278]*See United Shoe Machinery*, 110 F. Supp. at 343. Judge Wyzanski drew a similar distinction in a subsequent passage. Speaking of United Shoe's leasing policies and tying arrangements he wrote:

> "Yet they are not practices which can properly be described as the inevitable consequences of ability, natural forces, or law. They represent something more than the use of accessible

theory, its theory of the firm, and the workable competition model were so taken for granted that some conduct appeared natural; only departures from this baseline were inherently suspect.

The approach announced in *United Shoe* was parallel to that taken by other courts under Section 1 of the Sherman Act and other antitrust statutes. Indeed, while the *United Shoe* opinion invoked the notion of "competition based on pure merit," the exact phrase "competition on the merits" would not appear for five years, and then in an opinion arising under Section 1 of the Sherman Act — Northern Pacific Railroad Co. v. United States, where Supreme Court reiterated the *per se* rule against tying contracts.[279] Where a seller exacted such contracts, the Court said, "*competition on the merits* with respect to the tied product is inevitably curbed."[280] This formulation followed naturally from earlier decisions which opined that a seller who wished to convince a purchaser of one product also to take another should rely upon the "intrinsic superiority" of the second *product*, which would cause "freely choosing buyers to select it over other products" without any contractual requirement.[281] Any contractual requirement, it was said, reflected an exercise of

> resources, the process of invention and innovation, and the employment of those techniques of employment, financing, production, and distribution, which a competitive society must foster."

Id. at 344. *See also id.* at 345 ("United is [only] denied the right to exercise effective control of the market by business policies that are not the inevitable consequences of its capacities or its natural advantages."); *id*. ("The law does not allow an enterprise that maintains control of a market through practices not economically inevitable, to justify that control because of its supposed social advantage.").

[279] 356 U.S. 1 (1958).

[280] *Northern Pacific Ry. Co*., 356 U.S. at 6 (emphasis supplied).

[281] Times Picayune Co. v. United States, 345 U.S. 594, 605 (1953) (claiming that "any intrinsic superiority of the 'tied' product would convince freely choosing buyers to select it over others, anyway."); *Standard Oil of California*, 337 U.S. at 306 (same).

market power.[282] Like *United Shoe*, then, the tying decisions rested on a price-theoretic vision of legitimate "competition," a vision that drew a distinction between "internal" and contractual activities that excluded or tended to exclude rivals from the market.[283] Other decisions would draw on similar price-theoretic visions of legitimate "competition" to justify bans on various non-standard contracts.[284]

To the modern eye, the paradigm announced in *United Shoe* may seem inevitably hostile to defendants. In the context of the times, however, the decision was not so one-sided. Recall that

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[282]*See Times Picayune Co.*, 345 U.S. at 613 (*citing* MILLER, UNFAIR COMPETITION, 199 (stating that exaction of a tying contract necessarily requires the tying seller to exercise market power)); *Standard Oil of California*, 337 U.S. at 306 (same) (*citing* MILLER, UNFAIR COMPETITION, at 199). Other Harvard-educated economists would subsequently agree with this assessment. *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 157 ("Tying implies some market power on the part of the seller practicing it. . . . The power frequently arises because of legal monopoly enjoyed by the seller in the tying good — a patent or a copyright — but it need not. Some power in the market for the tying product will suffice, whatever its basis."); Donald F. Turner, *The Validity of Tying Arrangements Under The Antitrust Laws*, 72 Harv. L. Rev. 50 (1958); BAIN, INDUSTRIAL ORGANIZATION, at 363-65 (contending that various non-standard agreements, including tying contracts, necessarily reflected the possession of market power); STEVENS, UNFAIR COMPETITION, at 55 (tying contracts necessary reflected exercise of market power). It should be noted that Professors Kaysen and Turner made no attempt to explain those tying contracts imposed in apparently competitive markets, where sellers lacked market power. Such arrangements, they said, "were random small transactions of no consequence." *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 159. *Cf.* KUHN, STRUCTURE OF SCIENTIFIC REVOLUTION, at 52-65 (scientists treat phenomena inexplicable under current models as "anomalies"). *See also* Meese, *Tying Meets The New Institutional Economics*, 146 U. Penn. L. Rev. at 12-15 (outlining so-called "Traditional" approach to tying, which rests on assumption that all ties are the result of market power).

[283]*See Meese, Price Theory, Competition, and the Rule of Reason*, 2003 Ill. L. Rev. at 119-34 (describing price-theoretic model of atomistic "competition" and the jurisprudence that it animated).

[284]*See* FTC v. Brown Shoe Co., 384 U.S. 316, 320-21 (1966) (finding that exclusive dealing contract involving one percent of the nation's shoe retailers offended "the central policy of the Sherman Act" that all market segments be open to all competitors); Brown Shoe Co. v. United States, 370 U.S. 294, 327-334 (1962) (finding vertical merger unlawful where transaction would "foreclose" other manufacturers from 2-3% of the nation's shoe stores); *In re* A.G. Spaulding & Bros., Inc., 56 F.T.C. 1125, 1168-69 (1960) (declaring vertical merger unlawful without regard to share of market actually foreclosed); Kennecot Copper Corp. v. United States, 231 F. Supp. 95, 104-105 (S.D. N. Y. 1964) (finding that merger between copper producer and one of ten manufacturers of "paper insulated copper wire" lessened competition by foreclosing other manufacturers from selling copper to the purchased firm). *See also* Meese, *Rule of Reason*, 2003 Ill. L. Rev. at 124-34 (collecting and discussing various decisions hostile to partial and complete vertical integration).

decisions like *ALCOA* seemed to suggest that liability arose whenever a monopolist aggressively embraced new opportunities, if only through property-based internal expansion and above-cost pricing.[285] Indeed, the United States condemned United Shoe on exactly these grounds, invoking *ALCOA* to argue that United's consistent embrace of new opportunities was indicative of an intent to monopolize.[286] Moreover, the United States challenged any number of practices, including internal activities such as the introduction of new machines in response to competitive challenges and aggressive research, development, and patenting.[287] At the same time, some scholars advocated a policy of active deconcentration, giving little or no regard for the efficiencies that such a policy would destroy.[288] *United Shoe* rejected these challenges, making it absolutely plain that activities

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[285]*See* nn. _____, *supra* and accompanying text. *See also Griffith*, 334 U.S. at 105-106 (embracing *ALCOA*'s rejection of intent standard without endorsing particular result).

[286]*See* Complaint ¶ 66 ("United has continuously sought to anticipate all demands of the shoe industry for improved or new machinery, and, where such demand seems to invite competition, to forestall such competition by manufacturing and distributing such machinery.").

[287]*See* Complaint, ¶ 66 ("In numerous instances United has adopted improvements, or purported improvements, in shoe machinery for the purpose of eliminating competition encountered by old and unimproved shoe machinery of United."); *id*. at ¶ 67 ("In all instances where new or improved shoe machinery of importance has been introduced by competitors of United, United has developed and introduced similar machinery of its own for the purpose of displacing from shoe factories such machinery of its competitors and preventing its installation."); *id*. at ¶¶ 68-71 (documenting four instances in which United introduced machinery in response to competitive challenges, each involving United's infringement of others' patents); *id*. at ¶¶ 73-82 (alleging that United "engrossed" thousands of patents related to shoe manufacture, mostly through internal research and development and resulting patent activities); *id*. at ¶ 75 (alleging that United employed a large staff of researchers to develop patentable inventions); *id*. at ¶ 76 (alleging that United refused to license the vast majority of its patents to competitors).

[288]*See* Eugene V. Rostow, *The New Sherman Act: A Positive Instrument of Progress*, 14 U. Chi. L. Rev. 567 (1946); Edward Levi, *The Antitrust Laws and Monopoly*, 14 U. Chi. L. Rev. 153, 183 (1946); George Hale, *Trust Dissolution: 'Atomizing' Business Units of Monopolistic Size*, 40 Columbia L. Rev. 615 (1940). *See generally*, William E. Kovacic, *Failed Expectations: The Troubled Past and Uncertain Future of the Sherman Act as a Tool For Deconcentration*, 74 Iowa L. Rev. 1105, 1132-39 (1989).

taking place within the firm are presumptively lawful, even if they should raise barriers to entry.[289] Thus, while *United Shoe* announced a rule of *per se* condemnation for certain forms of contractual exclusion, it simultaneously created a safe harbor for property-based internal activities, a result consistent with the views of numerous price theorists.[290]

The Supreme Court affirmed Judge Wyzanski's opinion, which set the tone for the way in which courts, enforcers, and various scholars would approach monopolization law for years to come.[291] Lower courts relied on the distinction between (internal) legitimate or "fair" competition, on the one hand, and "exclusionary" (contractual) conduct on the other.[292] In 1966 the Supreme

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[289] *See* Robinson, *Recent Antitrust Developments*, 80 Colum. L. Rev. at 4 (pointing out that the *United Shoe* opinion departed from *ALCOA* in a manner favorable to monopolists); nn. _____, *supra* and accompanying text.

[290] *See* STOCKING, WORKABLE COMPETITION AND ANTITRUST POLICY, at 379-81; Turner, *Scope of Antitrust and other Regulatory Policies,* 82 Harv. L. Rev. at 1217-21 (arguing that a monopoly based on unexpired patents or economies of scale should be unassailable); KAYSEN AND TURNER, ANTITRUST POLICY, at 44, 268 (endorsing approach of *United Shoe*); DIRLAM AND KAHN, FAIR COMPETITION, at 63 (same). Even before *United Shoe*, some scholars had advocated such a safe harbor for purely internal contracts. *See* Mason, *The Monopoly Problem*, 62 Harv. L. Rev. at 1273-75 (criticizing *Alcoa's* definition of exclusion as overbroad and unduly vague); *see also* Mason, *Workable Competition or Workable Monopoly*, at 387-88 (courts should tolerate market power where such concentration is dictated by economies of scale); MILLER, UNFAIR COMPETITION, at 411 (same).

[291] *See* United Shoe Machinery v. United States, 347 U.S. 521 (1954) (*per curiam*). *See also, e.g.*, LAWRENCE A. SULLIVAN, ANTITRUST (1977) 95-99 (concluding that holding of *United Shoe* revised *ALCOA* and correctly stated the law of monopolization). *See also* EARL W. KITNER, FEDERAL ANTITRUST LAW, 378-84 (1980) (treating *United Shoe* decision as correct statement of the law).

[292] *See, e.g.*, California Computer Products v. IBM, 613 F.2d 727, 742-43 (9th Cir. 1979); Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263, 274-75 (2d Cir. 1979); Telex Corp. v. IBM, 510 F.2d 894 (10th Cir. 1975) (Section 2 only forbids practices that constitute a "use" of monopoly power and thus does not reach internal conduct like innovation); American Football League v. National Football League, 323 F.2d 124, 131 (4th Cir. 1963) ("When one has acquired a natural monopoly by means that are neither exclusionary, unfair, nor predatory, he is not disempowered to defend his position fairly."); *id.*, *citing* Union Leader Corp. v. Newspapers of New England, Inc., 180 F. Supp. 125, 129 (D. Mass.) (Wyzanski, J.); Union Leader Corp. v. Newspapers of New England, Inc., 284 F. 2d 582, 586-87 (1st Cir. 1960); Cole v. Hughes Tool Co., 215 F.2d 924, 938 (10th Cir. 1954) (*en banc*) ("The Sherman Act was not directed against one 'who happens by his skill and energy to command an innocent and legitimate monopoly of a business.' One who gains a large portion of a market by manufacturing a better product and by furnishing better service to

Court reaffirmed this distinction in United States v. Grinnell Corp.[293] There the defendant had allegedly monopolized the market for so-called central station security services, whereby firms installed security alarms in private homes and then monitored the alarms from a central location.[294] At trial, Judge Wyzanski found that the defendant possessed a monopoly of such services.[295] Relying upon his previous decision in *United Shoe*, he held that this monopoly was unlawful unless obtained by:

> Superior skill, superior products, natural advantages, technological or economic efficiency, scientific research, low margins of profit maintained permanently and without discrimination, legal licenses, or the like.[296]

The Supreme Court affirmed. In language reminiscent of *United Shoe*, the Court held that such a monopoly would not offend Section 2 if obtained by "superior product, business acumen, or historic accident."[297] The defendant's conduct fell well outside this safe harbor, the Court said. In particular, the defendant had acquired and maintained its monopoly by *inter alia*, inducing subscribers to enter five year exclusive contracts and retaining title, *i.e.*, leasing, the alarm systems

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his customers, which constitutes legitimate competition, is not denounced by the Sherman Act."); *id*. at 932-33 (distinguishing leases from those involved in *United Shoe* on the ground that only the former deterred lessees from using competitor's products).

[293] *See* 384 U.S. 563 (1966).

[294] *See Grinnell*, 384 U.S. at 566-67 (describing central station security services).

[295] *See* 236 F. Supp. 244, 249-51 (D. R. I. 1964).

[296] *Id*. at 248.

[297] *See* 384 U.S. at 571. *Cf. United Shoe Machinery*, 110 F. Supp. at 344 (holding that various activities internal to the firm constituted "superior skill, foresight and industry" and thus did not violate Section 2).

installed in subscribers' homes.[298] These contractual devices, the Court said, were "substantial barriers to competition" as well as a manifestation of "coercive power" on the part of the defendant.[299] Like Judge Wyzanski, the *Grinnell* Court embraced a price-theoretic model of legitimate "competition," which involved moment-by-moment rivalry, without the mitigating influence of contract.[300] While the Court conceded that the agreements may have produced some benefits, it declined to allow the defendants to justify the arrangements, choosing instead to relegate such an analysis to the remedy stage.[301] Lower courts would draw a similar distinction between "competition on the merits" and other forms of exclusion.[302] Indeed, the Second Circuit Court of Appeals went so far as to reject the result in Learned Hand's *ALCOA* decision, holding that internal

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[298]*See* 384 U.S. at 578.

[299]*See* 384 U.S. at 578.

[300]*See* nn. ____, *supra* and accompanying text (explaining that price theory equated "competition" with moment-to-moment rivalry unconstrained by non-standard contracts).

[301]*See Grinnell*, 384 U.S. at 578:

> "On this record it appears that these practices constitute substantial barriers to competition and that relief against them is appropriate. The pros and cons are argued with considerable vehemence here. Again, we cannot resolve them on this record. The various aspects of this controversy may be explored by the District Court and suitable protective provisions included in the decree that deprives these two devices of the coercive power that they apparently have towards restraining competition and creating a monopoly."

[302]*See, e.g.*, *California Computer Products*, 613 F.2d at 742-43; *Berkey Photo*, 603 F.2d at 274-74 (distinguishing between taking advantage of economies of scale, on the one hand, and the "use of power" to impair competition on the merits, on the other). *See also* Hayes v. Solomon, 597 F.2d 958, 985 (5th Cir. 1979) ("an entrepreneur is not protected from 'competition on the merits,' the *summum bonum* of the Sherman Act"); Sargent-Welch Scientific Co. v. Ventron Corp., 567 F.2d 701, 709 (7th Cir. 1977) (proof that monopolist "used" its power necessary to liability under Section 2); Telex Corp. v. IBM, 510 F.2d 894 (10th Cir. 1975) (same); *Hughes Tool*, 215 F.2d at 938 (Section 2 does not forbid "gaining a large portion of a market by manufacturing a better product and by furnishing better service to customers").

expansion and the realization of economies of scale could not violate Section 2 of the Sherman Act.[303]

The enforcement agencies agreed with this approach. The Federal Trade Commission, for instance, embraced *United Shoe's* distinction between conduct that was "economically inevitable," on the one hand, and that which consisted of conscious "business policies" that excluded competitors, on the other.[304] So, for instance, requirements contracts entered by a monopolist were inherently suspect and thus unlawful absent a strong showing of justification.[305] By contrast, so-called internal conduct, including output decisions and refusals to share technology with rivals, was presumed lawful, even if it injured or excluded competitors.[306] Moreover, as explained earlier, the Department of Justice relied wholeheartedly upon this distinction when litigating the *Microsoft* case.[307]

C. *Price Theory's Continuing Influence On Monopolization Doctrine*

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[303] *See Berkey Photo*, 603 F.2d at 273-75; Robinson, *Antitrust Developments*, 80 Colum. L. Rev. at 6-12 (discussing *Berkey Photo*'s rejection of *ALCOA*).

[304] *In re Balfour*, 74 F.T.C. 345, 498-99 (1968) (relying upon *United Shoe* for the distinction between conduct that is "economically inevitable," on the one hand, and that which was the result of the firm's "free choice of business policies"); *id.* at 499-502 (finding that exclusive supply contracts and exclusive dealing arrangements violated this standard). *See also In re Borden, Inc.*, 92 F.T.C. 669 (1978).

[305] *In re Koppers*, 77 F.T.C. 1675, 1684 (1970) (holding that requirements contracts "are particularly suspect when used by a monopolist" and that such agreements were unlawful absent a "very strong justification").

[306] *See In re E.I. DuPont de Nemours & Co.,* 96 F.T.C. 653, 745-46 (1980) (invoking *United Shoe*'s distinction between "contracts, arrangements, and policies which instead of encouraging competition on pure merit, further the dominance of a particular firm. In this sense they are unnatural barriers; they unnecessarily exclude actual and potential competition; they restrict a free market.") (*citing United Shoe,* 110 F. Supp. at 344-45). *See also id.* at 746-48 (finding that defendant's continued expansion and refusal to license technology to competitors was not exclusionary conduct for Section 2 purposes).

[307] *See* nn. ____, *supra* and accompanying text.

The standard announced in *United Shoe* has survived to this day, nearly intact. As explained earlier, modern Section 2 precedents still draw a strong distinction between property-based "competition on the merits," on the one hand, and various forms of contractual exclusion, on the other.[308] Thus, a firm may realize economies of scale and underprice its competitors or, as in *United Shoe*, develop new products that rivals are unable to produce. Such low prices and high quality may well prevent less efficient competitors from participating in the relevant market and thus constitute "barriers to entry." Still, so long as its prices exceed it costs, the firm will be immune from liability under Section 2 or any other provision of the antitrust laws.[309] If, on the other hand, the same firm employs *contracts* that exclude its competitors from a "significant" portion of the market, courts will find the firm liable, unless the firm can satisfy the heavy burden of justifying its conduct to the satisfaction of a judge or jury, subject always to a less restrictive alternative test.[310]

This continued adherence by courts and the enforcement agencies to this distinction is not surprising in light of the continued scholarly support for it. As explained earlier in this paper, economic theory has always exercised some influence over antitrust doctrine.[311] Still, courts rarely absorb that theory directly from its source, as Judge Wyzanski did in *United Shoe*, but instead rely upon intermediaries, such as legal scholars and members of the practicing bar. So, for instance, when the Supreme Court relied upon transaction cost reasoning to repudiate the *per se* rule against non-price vertical restraints, it did not cite the seminal work of economists Lester Telser or Oliver

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[308] *See* nn. ____, *supra* and accompanying text.

[309] *See* nn. ____, *supra* and accompanying text.

[310] *See* nn. ____, *supra* and accompanying text.

[311] *See* nn. ____, *supra* and accompanying text.

Williamson.[312] Instead, the Court chose to rely upon the work of academic lawyers that applied these principles in scholarly articles directed at non-economists.[313]

The antitrust scholars with the most influence over courts and the enforcement agencies have repeatedly embraced price theory's conception of the firm and the distinction between "competition on the merits," on the one hand, and contractual exclusion, on the other. In their 1959 work on the economics of antitrust policy, Professors Kaysen and Turner endorsed the *United Shoe* formulation and condemned efforts to forbid efficient expansion through competition on the merits.[314] Almost two decades later, Professor Turner and Philip Areeda would author their monumental and influential treatise on antitrust law.[315] The two had this to say about the definition of "exclusion" appropriate for litigation under Section 2:

> "The first step in defining 'exclusionary' conduct is to state what is clearly not. Our concern about monopoly and ***the opportunities of rivals*** must not be allowed to obscure the objectives of antitrust law which seeks to protect the process of ***competition on the merits*** and the economic results associated with ***workable competition***. Accordingly, non-exploitive pricing, higher output, improved product quality, energetic market penetration, successful research and development, cost-reducing innovations, and the like are welcomed by the Sherman Act and not

[312] *See* Lester G. Telser, *Why Do Manufacturers Want Fair Trade*, 3 J. L. & Econ. 86 (1962); OLIVER WILLIAMSON, MARKETS AND HIERARCHIES (1975).

[313] *See* Continental T.V. v. G.T.E. Sylvania, 433 U.S. 36, 48 n. 13 (1977) (citing numerous articles by legal scholars critical of the *per se* rule against non-price vertical restraints); *id.* at 55 (citing work of Richard Posner for proposition that vertical restraints can overcome free riding by dealers). *See also* Andrew Gavil, *Sylvania and the Process of Legal Change: A First Look at the Powell Papers*, 17 Antitrust 9 (Fall 2002) (documenting impact of legal scholarship on Justice Powell decision and opinion in *Sylvania*; Business Electronic Corp. v. Sharp Electronics, 485 U.S. 717, 730 (1988) (relying upon work of Robert Bork for definition of "ancillary" restraint).

[314] *See* KAYSEN AND TURNER, ANTITRUST POLICY, at 44, 268; *id.* at 22 ("the Sherman Act has been interpreted and properly, we think—to leave room for legal monopolies, that is, for monopolies acquired solely by *competitive merit*.") (emphasis added).

[315] *See* DONALD TURNER AND PHILIP AREEDA, ANTITRUST LAW (1978); n. ___, *infra* (documenting significant influence of this treatise on the Supreme Court).

> therefore to be considered "exclusionary" for § 2 purposes even if monopoly results. We attempt no further catalogue of desirable behavior at this point, but rest for the moment on the desirability of behavior constituting ***competition on the merits*** — the superior skill, foresight and industry of which Judge Hand spoke. Antitrust law should not base the imposition of sanctions on the very conduct it would encourage. Behavior that is no more restrictive of rivals' opportunities than is reasonably necessary to effect ***competition on the merits*** is and should be approved by Sherman Act § 2. Such behavior is, after all, indispensable if the antitrust laws are to achieve their objective. Thus, "exclusionary"comprehends at the most the behavior that not only (1) tends *to* ***impair the opportunities of rivals***, but also (2) either does not further ***competition on the merits*** or does so in an unnecessarily restrictive way."[316]

This paragraph, with its repeated invocation of "competition on the merits" and reference to the "opportunities of rivals" and "workable competition" exemplifies the remarkable staying power of price theory's workable competition paradigm and, with it, the distinction between (internal) property-based "competition on the merits," on the one hand, and contractual "exclusion" on the other.[317] Indeed, the authors expressly noted that their formulation was consistent with that embraced by Carl Kaysen, announced by Judge Wyzanski, and affirmed by the Supreme Court in *United Shoe* a quarter century earlier.[318] At the same time, however, the passage suggests a slight departure from *United Shoe*'s apparent *per se* condemnation of exclusionary agreements.[319] To be precise, the passage does not condemn any and all conduct that is not "competition on the merits" so defined. Instead, the passage apparently recognizes that some (undefined) conduct not deemed "competition

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[316] *See* PHILIP AREEDA AND DONALD TURNER, 3 ANTITRUST LAW ¶ 626b, pp. 77-78.

[317] *See* Philip Areeda and Donald F. Turner, *Predatory Pricing and Related Practice, Under Section 2 of the Sherman Act*, 88 Harv. L. Rev. 697 (1975) (arguing that pricing above variable cost should not violate Section 2 of the Sherman Act).

[318] *See* AREEDA AND TURNER, 3 ANTITRUST LAW ¶ 626b, p. 78, n. 14 (endorsing *United Shoe* formulation).

[319] *See* nn. _____, *supra* and accompanying text. *See also* United States v. Grinnell Corp., 384 U.S. 563 (1966) (embracing similar approach).

on the merits" that "impairs the opportunities of rivals" might somehow "further" competition on the merits.[320] Still, the authors do not explain what sort of conduct that is not "competition on the merits" can nonetheless further this process. At any rate, the authors do not give "carte blanche" to this undefined conduct, concluding instead that such tactics should only be lawful if they are the least restrictive means of furthering such competition.[321] Other influential scholars agreed with this approach, adopting similar formulations during the same era.[322] Less than ten years later, the Supreme Court would quote the last two sentences of this paragraph as stating the appropriate definition of "exclusionary conduct" under Section 2.[323] Like the authors, the Court did not explain what it meant to "further" competition on the merits.

This passage is not simply a historical artifact.[324] Indeed, just one year ago Harvard University issued a revised version of the treatise, now authored by Professor Hovenkamp, who had served as Professor Areeda's co-author until the latter's untimely passing in 1992. The new treatise repeats the 1978 passage *verbatim*, as Professor Hovenkamp's considered judgment regarding the

[320]*See* AREEDA AND TURNER, 3 ANTITRUST LAW ¶ 626b, p. 78.

[321]*Id.* (approving of such conduct only if it does not limit rivalry "in an unnecessarily restrictive way"). *See also id.* at ¶ 651d2 (absent a business justification, proof that conduct injures rivals should establish a violation of Section 2).

[322]*See* LAWRENCE A. SULLIVAN, ANTITRUST, 99-105 (1977); *see also id.* at 101-102 (treating a monopolist that gains its position because of patents, early entry, or economies of scale as a "passive beneficiary of market conditions"); EARL W. KINTNER, AN ANTITRUST PRIMER: A GUIDE TO ANTITRUST AND TRADE REGULATION LAWS FOR BUSINESSMEN, 102-105 (1973); Robinson, *Antitrust Developments*, 80 Colum. L. Rev. at 10-13 (endorsing *Berkey Photo*'s distinction between "competition on the merits" and the "use of monopoly power" to exclude competition).

[323]*See* Aspen Skiing Corp. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 605, n. 32 (1985).

[324]*See* Richard S. Markovits, *The Limits To Simplifying Antitrust: A Reply To Professor Easterbrook*, 63 Tex. L. Rev. 41, 51 (1984) (claiming, incorrectly as it has turned out, that "the inhospitality tradition is dead, or at least dying.").

definition of "exclusionary conduct" applicable under Section 2 of the Sherman Act.[325] Many other scholars continue to embrace this formulation, although the agreement is by no means universal.[326]

Given this treatise's embrace of the *United Shoe* formulation, it is no surprise that courts continue to embrace the distinction between "competition on the merits," on the one hand, and contractual exclusion, on the other. By all discernible measures, Professor Areeda was the most influential antitrust scholar of his generation, and this influence continues to this day. Fifty different Supreme Court opinions cite his treatise or other work with approval; over one thousand decisions in the lower federal courts do the same.[327] Justice Breyer was on the mark when he quipped that most advocates would prefer to cite two paragraphs of Areeda on Antitrust in a Supreme Court brief instead of four Courts of Appeals and three Supreme Court Justices.[328]

III. Transaction Cost Economics and the Theory of the Firm

A. *A Revolution In Economic Theory*

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[325]*See* PHILLIP E. AREEDA AND HERBERT HOVENKAMP, 3 ANTITRUST LAW, ¶ 651c, pp. 78-79 (2002). *See also* Herbert Hovenkamp, *The Monopolization Offense*, 61 Ohio St. L. J. 1035 (2001). It should be noted in this connection that Professor Hovenkamp felt free to express his disagreement with other conclusions contained in the previous version of the treatise. *See* AREEDA AND HOVENKAMP, 3 ANTITRUST, ¶ 630a (expressing disagreement with treatise's 1978 treatment of proposals to break up inefficient monopolies).

[326]*See, e.g.*, SULLIVAN AND GRIMES, THE LAW OF ANTITRUST, at 100-103; Piraino, *Monopolists' Illegal Conduct*, 75 N.Y.U. L. Rev. at 844-48; Steven C. Salop and R. Craig Romaine, *Preserving Monopoly: Economic Analysis, Legal Standards, and Microsoft*, 7 Geo. Mas. L. Rev. 617 (1999); Jonathan Baker, *Promoting Innovation Competition Through The Aspen/Kodak Rule*, 7 Geo. Mas. L. Rev. 495 (1999). *See also* Elhauge, *Monopolization Standards*, 56 Stan. L. Rev. at 320-330 (advocating enhanced scrutiny of exclusionary contracts). Scholars seeking a more relaxed approach to such conduct include: John E. Lopatka and William H. Page, *Monopolization, Innovation, and Consumer Welfare*, 69 G. W. U. L. Rev. 367 (2001); Timothy J. Muris, *The FTC and the Law of Monopolization*, 67 Antitrust L. J. 693 (2000) (criticizing FTC's approach to monopolization law as unduly hostile to conduct that is potentially procompetitive).

[327]By contrast, the Supreme Court has cited the work of Judge Bork 17 times.

[328]*See Langdell's West Wing Renamed in Honor of Areeda*, Harvard Gazette, (April 25, 1996).

If price theory and its workable competition model were the only lens available for examining industrial behavior, then modern monopolization law would make perfect sense, resting, as it would, on economic science's best theory of the firm and the practices in which firms engage. However, price theory is not the only economic paradigm relevant to questions of industrial organization and antitrust policy. Indeed, just as price theory and its workable competition model had solidified their grip on antitrust policy, a competing economic paradigm began to emerge in the form of transaction cost economics ("TCE"). Price theory, it will be recalled, had treated "the firm" as the basic building block of the market and assumed that the main function of the firm was technological.[329] According to price theory, firms performed a unique role of allocation, calculation, and production within a market economy.[330] At the same time, price theory saw no rationale for a firm to employ contracts that reached beyond its boundaries and influenced the behavior of its trading partners before or after the firm held title to the product in question.

While price theory took the existence of firms as a given and then asked what they did, TCE began with a surprising question: why do firms exist in the first place?[331] In particular, Professor Coase, the founder of TCE, performed a unique thought experiment, imagining that *all* activities that take place within firms, *e.g.*, allocation, calculation, and production, instead take place on the market, through a series of costless transactions between independent individuals.[332] This

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[329] *See* nn. ____, *supra* and accompanying text.

[330] *See* nn. ____, *supra* and accompanying text.

[331] *See* Coase, *Nature of the Firm*, 4 Economica, at 390 ("Our task is to discover why a firm emerges at all in a specialized exchange economy.").

[332] *See* Ronald H. Coase, *Nature of the Firm: Influence*, 4 J. L. Econ. & Org. 33, 38 (1988) ("Let us start by assuming that we have an economic system without firms, difficult though it may be to conceive of such a thing. All transactions are carried out as a result of contracts between factors, with the services to be

experiment seemed to follow naturally, and ironically, from price theory's own tendency to assume away the costs of such transactions.[333] Given this hypothetical possibility, economists could no longer characterize firms as unique vehicles for allocation, calculation or production. To be sure, technology might be such that cost-minimizing production required individuals to employ particular assets in proximity, or even "under the same roof." The classic example of such technology-based integration given by price theorists had been the combination of iron manufacture with steel production to reduce fuel costs associated with reheating iron before converting it into steel.[334] Still, practitioners of TCE realized that, even where two or more activities took place in close proximity, no law of nature or technology required that the same individual or entity own all the assets related to the activities, or employ all of those individuals who preformed them. Instead, TCE's thought experiment revealed that one individual could own a blast furnace and produce iron, while another

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provided to each other specified in the contract and without any direction involved. . . . In such a system, the allocation of resources would respond directly to the structure of prices."); Coase, *Nature of the Firm*, 4 Economica at 388 ("Having regard to the fact that if production is regulated by price movements, production could be carried on without any organization at all, well might we ask, why is there any organization?"); Demsetz, *Theory of the Firm Revisited*, 4 J.L. Econ. & Org. at 145 ("Why do firms emerge as viable institutions when the perfect decentralization model amply demonstrates the allocative efficiency of the prices that emerge from impersonal markets?"). *See also* Steven N. S. Cheung, *Contractual Nature of the Firm*, 26 J. L. & Econ. 1, 4 (1983) ("If all the costs of transacting were zero, a customer buying a part would make a separate payment to each of the many contributing to its production."). *See also* Thomas S. Kuhn, *A Function for Thought Experiments*, *reprinted* in THE ESSENTIAL TENSION: SELECTED STUDIES IN SCIENTIFIC TRADITION AND CHANGE 240-65 (1977) (examining role of thought experiments in challenging assumptions behind existing models).

[333] *See* nn. _____, *supra* and accompanying text (documenting price theory's tendency to assume away these costs).

[334] Several leading texts of the price-theoretic era employed this example. *See, e.g.*, F.M. SCHERER, INDUSTRIAL STRUCTURE AND ECONOMIC PERFORMANCE, 70 (1970); JOE S. BAIN, INDUSTRIAL ORGANIZATION, 156-57 (1959); CARL KAYSEN AND DONALD F. TURNER, ANTITRUST POLICY, 120 (1959); JOEL DIRLAM AND ALFRED KAHN, FAIR COMPETITION: THE LAW AND ECONOMICS OF ANTITRUST POLICY, 23 (1954); STOCKING AND WATKINS, MONOPOLY AND FREE ENTERPRISE at 64-65.

owned the converter and other equipment necessary to transform that iron into steel, for instance.[335] Such separate ownership, of course, would not preclude the owners from agreeing to locate the assets in close proximity, even under the same roof.[336] Given this realization, the existence of the firm that owned and directed all such assets suddenly became a mystery, instead of an obvious manifestation of technological necessity.[337]

As its name suggests, TCE found the answer to this conundrum in the concept of transaction costs.[338] Unlike price theory, which ignored or assumed away information costs, bargaining costs, and opportunism, TCE recognized these costs as important determinants of the content of economic

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[335] *See* Victor P. Goldberg, *Production Functions, Transaction Costs and the New Institutionalism*, in ISSUES IN CONTEMPORARY MICROECONOMICS & WELFARE, 395, 396-97 (George R. Fiewel ed. 1985) (explaining that technical economies cannot explain boundaries of the firm because, absent transaction costs, such economies can "be achieved equally well if the factors of production are owned by independent individuals."); WILLIAMSON, MARKETS AND HIERARCHIES, 83-84 (1975) (concluding that technological considerations cannot explain vertical integration in the steel industry); Coase, *Nature of the Firm*, 4 Economica at 388 (explaining that individuals could theoretically rely on continuous market contracting to direct production). *See also* Coase, *Nature of the Firm*, 4 Economica at 388 ("In a department store, the allocation of the different sections to the various locations in the building may be done by the controlling authority or it may be the result of competitive price bidding for space. In the Lancashire Cotton industry a weaver can rent power and shop-room and can obtain looms and yarn on credit."); Polk Brothers, Inc. v. Forest City Enterprises, 776 F.2d 185 (7th Cir. 1985) (describing arrangement whereby separate firms operated stores in the same building). In the same way, two or more airlines might operate from the same terminal, employ the same ground crew, display similar trademarks, and operate under the same "code" for reservation purposes, even though both remain legally separate, with different owners. *See* Michael E. Levine, *Airline Competition in Deregulated Markets: Theory, Firm Strategy, and Public Policy*, 4 Yale J. On Reg. 393 (1987) (describing such partial contractual integration between otherwise independent firms).

[336] *See* n. ____ *supra*.

[337] *See* Coase, *Nature of the Firm*, 4 Economica at 388 ("Having regard to the fact that if production is regulated by price movements, production could be carried out without any organization at all, well might we ask, why is there any organisation?").

[338] *See* Coase, *Nature of the Firm*, 4 Economica at 390 ("The main reason why it is profitable to establish a firm would seem to be that there is a cost of using the price mechanism."). *See also* Coase, *The Nature of The Firm: Origin,* 4 J. L. Econ. & Org. 3, 17 (1988) ("The solution was to realize that there were costs of making transactions in a market economy and to incorporate them into the analysis. This was not done in economics at the time — nor, may I add, is it in most present day economic theory.").

activity.[339] To be sure, individuals could, *theoretically*, rely upon market contracting to replicate the activities that take place within firms. In the real world, however, such contracting was not without its costs.[340] Individuals must identify potential trading partners, determine the price and quality of the products or services they are offering, and negotiate agreements governing each transaction.[341] Moreover, when negotiating such agreements, individuals must anticipate and guard against the possibility that their trading partners will behave in an opportunistic fashion, thereby extracting a inordinate share of the fruits of the joint activity in question.[342] While price theory assumed that individuals could costlessly anticipate and defeat such behavior through perfect contracting, TCE's recognition of these costs implied the existence of opportunism in the "real world."[343]

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[339] *See* nn. _____ *supra* and accompanying text (explaining that price theory assumed away these costs of relying upon the market).

[340] *See* Coase, *Nature of the Firm*, 4 Economica at 390.

[341] *See* Coase, *Nature of the Firm*, 4 Economica at 390-1; Coase, *Nature of the Firm: Influence*, 4 J.L. Econ. & Org. at 38-42 (emphasizing these types of transaction costs). *See also* Coase, *The Firm, The Market, and The Law*, at 6 ("In order to carry out a market transaction it is necessary to discover who it is that one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiations leading up to a bargain, to draw up a contract, to undertake the inspection needed to make sure that the terms of the contract are being observed, and so on.").

[342] *See* WILLIAMSON, ECONOMIC INSTITUTIONS, at 7 (discussing role of opportunism in TCE); *id.* at 30 (defining opportunism as "self-interest seeking with guile"). *See also* Carl J. Dahlman, *The Problem of Externality*, 22 J. L. & ECON. 141, 144-47 (1979) ("These then, represent the first approximation to a workable concept of transaction costs: search and information costs, bargaining and decisions costs, policing and enforcement costs. . . . Policing and enforcement costs are incurred because there is a lack of knowledge as to whether one (or both) of the parties involved in the agreement will violate his part of the bargain. If there were adequate foreknowledge, these costs could be avoided.").

[343] *See* nn. ____, *supra* and accompanying text (explaining that price theory's propensity to assume away opportunism flowed naturally from its assumption that bargaining and information costs were zero). *See also* Dahlman, *Problem of Externality*, 22 J. L. & Econ. at 148 (explaining that "policing and enforcement costs are incurred because there is lack of knowledge as to whether one (or both) of the parties in the agreement will violate his part of the bargain: if there were adequate knowledge . . .these costs could be avoided."). *Cf.* KNIGHT, RISK, UNCERTAINTY, AND PROFIT, at 76-79 (perfect competition model assumes away information costs and thus fraud and opportunism).

According to TCE, individuals could avoid some of these costs by relying upon "the firm" to conduct economic activity.[344] So, for instance, a manufacturer could avoid the cost of continually bargaining with its independent suppliers of labor by hiring such individuals as employees, subject to the direction, within limits, of the employer.[345] Similarly, the firm could avoid the cost of negotiating over the use of a specialized piece of property by simply purchasing the item, owning it, and directing its employees to employ it in the manner that maximizes the firm's profits.[346] Finally, a manufacturer or other business entity could avoid the risk that independent contractors or property owners would behave in an opportunistic fashion by hiring employees and/or purchasing specialized assets, thereby reducing the costs that individuals would otherwise incur by relying upon market contracting to conduct all economic activity.[347]

TCE's new paradigm entirely undermined price theory's account of the firm and its concomitant distinction between "the firm" and "the market." According to price theory, firms performed a unique technological function, that is, the transformation of inputs purchased on the

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[344]*See* Coase, *Nature of the Firm*, 4 Economica at 390 ("The main reason why it is profitable to establish a firm would seem to be that there is a cost of using the price mechanism.").

[345]*See* Coase, *Nature of the Firm*, 4 Economica at 391 (characterizing "the firm" as a contract in which an employee "agrees to obey the direction of an entrepreneur within certain limits"); *id*. at 391 (assuming that "the firm" is characterized by a single contract empowering the owner to "direct" the activity of a given factor of production). *See also* Cheung, *Contractual Nature of the Firm*, 26 J. L. & Econ. at 410 (reliance upon "the firm" to conduct economic activity involves "direction by a visible hand"); Scott A. Masten, *A Legal Basis for a Firm*, 4 J. L. Econ. & Org. 181 (1988) (describing various ways in which organization of activity within a firm results in superior ability to control employees).

[346]*See* Benjamin Klein, Robert G. Crawford, & Armen Alchian, *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 J. L. & Econ. 297 (1978).

[347]*See* Klein, Crawford, and Alchian, *Vertical Integration and the Competitive Contracting Process*, 21 J. L & Econ. at 308-10 (contending that General Motors purchased its supplier of automobile bodies to avoid threats of opportunism by the supplier).

market into outputs sold there.[348] In this world, the only benign rationale for complete vertical integration was the ability to realize property-based technological efficiencies. TCE exploded this notion, showing, as it did, that individuals could realize technological efficiencies resulting from the use of related assets just as well through market contracting.[349] Consider, for instance, the classic example described earlier, namely, the integration of iron making and steel manufacture to realize thermal economies.[350] According to TCE, technological considerations simply cannot explain a steel company's decision to integrate backwards into iron production.[351] Instead, TCE saw the vertical integration of these two technologically-separate processes within a single firm as a method of reducing the transaction costs that would result from continuous contracting between two owners of technologically separate and specialized processes.[352]

Practitioners of TCE, then, put on a "different thinking cap" and thus saw the firm and complete vertical integration in an entirely new way.[353] For these scholars, the firm was anything

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[348]*See* nn. ____, *supra* and accompanying text.

[349]*See* Williamson, Economic Institutions, at 86-89; Goldberg, *Production Functions, Transactions Costs and the New Institutionalism*, at 396-97. *See also* Coase, *Nature of the Firm*, 4 Economica at 388 (explaining that individuals could theoretically rely on continuous market contracting to direct production).

[350]*See* nn. _____, *supra* and accompanying text. *See also*, *e.g.*, Bain, Industrial Organization, at 381.

[351]*See* Williamson, Economic Institutions, at 86-89 (concluding that most production processes are consistent with a variety of governance structures with the result that technological considerations cannot generally explain vertical integration); Williamson, Markets and Hierarchies, at 83-84 (contending that technological considerations do not explain vertical integration between iron and steel production). *See generally* Coase, *Nature of the Firm*, 4 Economica at *passim*.

[352]*See* Williamson, Economic Institutions, at 86-89; Williamson, Markets and Hierarchies, at 83-84.

[353]Herbert Butterfield, The Origins of Modern Science, 13 (1965) (explaining that scientific revolutions involve "the art of handling the same bundle of data as before, but placing them in a new system

but a technologically-determined production function. Instead, TCE recharacterized the firm as a governance structure designed for economic relationships otherwise beset by high transaction costs.[354] Moreover, while price theorists saw the firm as a single, monolithic entity, TCE recognized the firm as a collection of individuals, who voluntarily associate by contract with the party or parties that hold title to "the firm's" property and own the right to receive the revenues generated thereby.[355] To be sure, practitioners of TCE occasionally appear to posit a distinction between "market contracting" and the "direction" of activity "within" the firm.[356] Indeed, Professor Coase himself likened the "direction" of economic activity within the firm to central planning![357] Nonetheless, more discriminating analysis reveals that there is no such distinction. The power to "direct" economic activity "within" a firm, including the practical ability to dispose of firm property, is a creature of contracts that parties negotiate and enforce in "the market." While employers do "direct"

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of relations with one another by giving them a different framework, all of which means putting on a different kind of thinking cap for the moment.").

[354] *See* WILLIAMSON, ECONOMIC INSTITUTIONS, at 13 ("Rather than characterize the firm as a production function, transaction cost economics maintains that the firm is (for many purposes at least) more usefully regarded as a governance structure.").

[355] Armen Alchian and Harold Demsetz, *Production, Information Cost, and Economic Organization*, 62 Amer. Econ. Rev. 777 (1972).

[356] *See*, *e.g.*, WILLIAMSON, ECONOMIC INSTITUTIONS, at 76 (stating that complete integration allows firms to settle disputes or enforce policies "by fiat"); Cheung, *Contractual Nature of the Firm*, 26 J. L. & Econ. at 10 (reliance on "the firm" to conduct economic activity involves "direction by a visible hand."). It is noteworthy in this regard that Professor Areeda, a proponent of distinct treatment for unilateral and concerted intrabrand restraints, asserts that Professor Coase drew a distinction between "managing" activity within a firm, "as opposed to contract or market." *See* AREEDA, 7 ANTITRUST ¶ 1467 F & n. 47 (citing Coase, *Nature of the Firm*). Professor Areeda's mischaracterization of Coase's analysis reflects the sort of price-theoretic mind-set that drives antitrust's current distinction between "unilateral" and "concerted" action. *See also* AREEDA, 7 ANTITRUST ¶ 1462c, p. 223 (concluding that intrafirm activity does not constitute concerted action because it involves employer's "direction" of employees).

[357] *See* Coase, *Nature of the Firm*, 4 Economica at 389, n. 3.

employees in some sense, they do so pursuant to contracts that empower them to do so.[358] Indeed, Professor Coase equated "the firm" with a particular type of contract, namely, one in which an employee or other factor of production "agrees to obey the directions of an entrepreneur within certain limits."[359] Thus, the employee follows the directions of her superior because she has agreed to do so — at least until she resigns.[360] In this (very important) way, the employee is like a franchisee, who follows those instructions that the franchise contract empowers the franchisor to give.[361]

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[358]*See* WILLIAMSON, ECONOMIC INSTITUTIONS, at 78 (equating internal organization with "unified contracting"); Coase, *Nature of the Firm*, 4 Economica at 389 & n.3 (noting that "planning" that takes place within the firm is voluntary and pursuant to contract). *See also* Masten, *Legal Basis of the Firm*, 4 J.L. Econ. & Org. at 195 (parties could replicate the various control properties associated with the firm by contract).

[359]*See* Coase, *Nature of the Firm*, 4 Economica at 391; *id*. at 391 ("A factor of production (or the owner thereof) does not have to make a series of contracts with the factors with whom he is cooperating within the firm, as would be necessary, of course, if this cooperation were as a direct result of the working of the price mechanism. For this series of contracts is substituted one."). *See also* Coase, *Nature of the Firm: Meaning*, 4 J. L. Econ. & Org. at 28 (stating that the firm is "a special type of contract"); Cheung, *Contractual Nature of the Firm*, 26 J. L. & Econ. at 5 (a firm involves "a form of contract that binds the input owner to follow directions instead of determining his own course by continual reference to the market prices of a variety of activities he may perform").

[360]Some have suggested that the fact that most employees can resign at any time undermines the claim that firms possess special control attributes. *See* Alchian and Demsetz, *Economic Organization*, 62 Am. Econ. Rev. at 777. This argument does not seem convincing. To be sure, most employees are not contractually obligated to remain with their firms for a significant period. The same, of course, is true for franchisees and other "independent" firms that might supply distribution services. Nonetheless, employees differ from franchisees in that they are bound to follow the directions of their employer so long as they remain employees and thereby have the right to utilize the employer's property, including trademarks. By directing employees pursuant to such contracts, employers can prevent some forms of opportunism. *See* Klein, Crawford, and Alchian, *Vertical Integration*, 21 J. L. & Econ. at 302 (firm can prevent opportunism by firing employee that misuses property).

[361]*See* Queen City Pizza, Inc. v. Domino's Pizza, Inc., 124 F. 3d 430 (3d. Cir. 1997) (describing franchise contract allowing franchisor to specify exact ingredients for many franchise products); Martino v. McDonald's System, Inc., 625 F. Supp. 356 (N.D. Ill. 1985) (describing and evaluating requirement that McDonald's franchisees sell Coca-Cola instead of other brands).

As a result, TCE concludes that what economists and antitrust scholars deem "a firm," capable of "unilateral" action disposing of its own property, is in fact a "nexus of contracts" between various individuals that supply labor, capital, and other inputs in pursuit of an economic objective.[362] Moreover, within this framework, "unilateral" action by a completely integrated firm in fact involves certain forms of collaboration pursuant to a particular nonstandard contract that society chooses to treat as conduct of a single, artificial entity.[363] Such "unilateral" action also involves reliance in one guise or another upon background legal rules created and enforced by the State, rules that individual actors can always change by contract. For instance, the power of "a firm" to set the price of "its property" depends upon law that grants "the firm" title and allows those who act for this entity to negotiate contracts with employees that limit their pricing discretion.[364] By vesting some individuals with the residual product of the firm's activity, background rules assure that these individuals have incentives to exercise their control rights in a manner that enhances social welfare.[365]

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[362] *See* Coase, *Nature of the Firm: Influence*, 4 J. L. Econ. & Org. at 41 (stating that the "relationship" known as the firm "come[s] about only when the organizer has contracts with several factors whose activities he coordinates."); Cheung, *Contractual Nature of the Firm*, 26 J. L. & Econ. at 3 ("The word 'firm' is simply a shorthand description of a way to organize activities under contractual arrangements that differ from those of ordinary product markets."); Alchian and Demsetz, *Production, Information Costs, and Economic Organization*, 62 Am. Econ. Rev. at *passim*. *See also, e.g.* FRANK H. EASTERBROOK AND DANIEL R. FISCHEL, THE ECONOMIC STRUCTURE OF CORPORATE LAW, Ch. 1 (1990) (characterizing the modern corporation as a "nexus of contracts").

[363] *See* nn. ____, *supra*.

[364] *See* Alan J. Meese, *Intrabrand Restraints and the Theory of the Firm*, (February 2004 Working Paper).

[365] *See* Alchian and Demsetz, *Production, Information, and Economic Organization*, 62 Amer. Econ. Rev. at *passim*; YORAM BARZEL, ECONOMIC ANALYSIS OF PROPERTY RIGHTS, 8-9, 52-53, 78 (1989) (economic theory predicts that parties will maximize their joint welfare by allocating control rights to party or parties that reap the net rewards of the activity in question).

The realization that firms are particular types of contracts that exist solely to reduce transaction costs also helped economists and legal scholars interpret other methods of contractual organization short of complete vertical integration. After all, individuals do not merely choose between "the firm" and "the (spot) market" — there are any number of arrangements that are "in between." Franchising, sales agencies, consignments — all blend some elements of the firm (control) with elements of the market (independence), blurring the distinction between the two.[366]

Price theory's allocational and technological account of the firm provided no benign explanation for these intermediate forms of integration, instead treating all non-standard contracts as expressions of monopoly power or attempts to acquire it by, for instance, raising barriers to entry and interfering with "competition on the merits."[367] TCE, by contrast, offered a non-technological explanation for various forms of integration, whether complete or partial. Just as complete integration of economic activity within a firm can avoid the costs of transacting, TCE said, so too

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[366]*See*, *e.g.*, Coase, *Nature of the Firm: Meaning*, 4 J. L. Econ. & Org. at 27; Cheung, *Contractual Nature of the Firm*, 26 J. L. & Econ. at 19 ("The polar cases [between the firm and the market] are complicated by middlemen and subcontractors; agents contract among themselves; and any type of input may support a variety of contractual arrangements. We surmise that these very complications, which render 'the firm' ambiguous, have arisen from attempts to save transaction costs that were not avoidable in the polar cases."); Klein, Crawford, and Alchian, *Vertical Integration and the Competitive Contracting Process*, 21 J. L. & Econ. at 326 ("[The] primary distinction between transactions made within a firm and transactions made in the marketplace may be too simplistic. Many long term contractual relationships . . . blur the line between the market and the firm."). *See also* Coase, *Nature of the Firm*, 4 Economica at 392, n. 1 ("it is not possible to draw a hard and fast line which determines whether there is a firm or not. There may be more or less direction.").

[367]*See* nn. ____, *supra* and accompanying text. *See also, e.g.*, United States v. Grinnell Corp., 384 U.S. 563, 578 (1966) (finding that "lease only" policy and exclusive dealing contracts were "coercive" efforts to raise barriers to entry); F.T.C. v. Brown Shoe, 384 U.S. 316, 320, 321 (1966) (finding that exclusive dealing agreement involving 1% of the nation's shoe retailers offended the "central policy of the Sherman Act" by "tak[ing] away freedom of purchasers to buy in an open market").

can less complete forms of integration that take the form of market contracting.[368] While such arrangements do not involve the level of control associated with the complete ownership of property or the employer/employee relationship, the agreements creating such relationships can nonetheless vest in a buyer or seller enough authority to attenuate the transaction costs that pure market contracting might otherwise involve.[369] At the same time, partial integration may avoid some of the downsides of total integration.[370] For instance, by concentrating the costs and benefits of a particular activity in a single owner, partial integration may preserve the sort of high-powered incentives associated with the market.[371] In some instances, then, partial integration can produce the "best of both worlds:" control of the sort necessary to prevent opportunism coupled with the incentive and specialization benefits of the market.[372] Indeed Professor Williamson, the leading modern exponent

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[368]*See*, *e.g.*, WILLIAMSON, ECONOMIC INSTITUTIONS, at 23-30, 185-89, 190-95, 370-73; Klein, Crawford & Alchian, *Vertical Integration and Appropriable Rents*, 21 J. L. & Econ. at 302-307.

[369]*See*, *e.g.*, WILLIAMSON, ECONOMIC INSTITUTION OF CAPITALISM, 28-37. *See also* Klein, Crawford & Alchian, *Vertical Integration and Appropriable Rents*, 21 J. L. & Econ. at 302-307; Coase, *Nature of the Firm: Influence*, 4 J. L. Econ. & Org. at 42-46 (arguing that long term contracting can often reduce transaction costs and serve as a good substitute for complete integration); Coase, *Nature of the Firm: Meaning*, 4 J. L. Econ. & Org. at 28 (suggesting that franchising provides an example of a "mixed relationship" sharing attributes of the firm and the market).

[370]*See* nn. ____, *supra* and accompanying text.

[371]*Cf.* nn. ____, *supra* (complete integration eliminates high-powered incentives). *See also* Alan J. Meese, *Property Rights and Intrabrand Restraints*, 89 Cornell L. Rev. ___, ___ (2004) (explaining how reliance upon independent firms to distribute a firm's product can help create optimal distribution incentives); WILLIAMSON, ECONOMIC INSTITUTIONS, 158-59 (explaining how partial integration can preserve high-powered incentives). *See also* Charles J. Goetz & Robert E. Scott, *Principles of Relational Contracts*, 67 Va. L. Rev. 1089, 1094-95 (1981) (explaining that parties to a long-term contract will structure their relationship so as to replicate decisions of a single firm).

[372]*See*, *e.g.*, Williamson, *Law, Economics, and Organization*, at 21; *id*. at 23 ("How are [vertical restraints] to be understood? For starters, vertical market restrictions can be interpreted as a decision [to abjure complete integration] . . . . If most hazards can be relieved [through such partial integration] without incurring the added bureaucratic cost burdens (weakening of incentive intensity, added administrative costs) of unified ownership, then hybrid modes, of which franchising is an example, will be employed (provided that the contractual restrictions that accrue thereto are not treated as unlawful.")); WILLIAMSON, ECONOMIC

of TCE, concludes that partial integration is presumptively superior to complete integration. According to Professor Williamson, the various disadvantages of complete integration render such a strategy "the last resort," which actors should embrace only after various forms of partial integration fail.[373]

B. *TCE's New Version of (Contractual) Competition*

Economists and legal scholars applied the lessons of TCE to various antitrust problems, slowly undermining the intellectual basis for antitrust's inhospitality tradition in the process.[374] Perhaps most famously, TCE offered a beneficial explanation for intrabrand restraints such as minimum resale price maintenance or exclusive territories ancillary to a joint venture between

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INSTITUTIONS, at 157-58 (arguing that such considerations explain automobile manufacturers' decisions to rely on franchised dealers); Michael E. Levine, *Airline Competition in Deregulated Markets*: *Theory, Firm Strategy, and Public Policy*, 4 Yale J. on Reg. 393, 441 (1987) (arguing that such considerations explain airlines' decision to own only a portion of their commuter carriers); Paul H. Rubin, *The Theory of the Firm and the Structure of the Franchise Contract*, 21 J. L. & Econ. 223 (1978) (interpreting franchise contracts in this manner). *See also* Coase, *Institutional Structure of Production*, 82 Am. Econ. Rev. at 716 (transaction cost considerations can explain any number of commercial practices).

[373] *See* Williamson, *Law, Economics, and Organization*, at 21 ("[A]s added bureaucratic costs accrue upon taking a transaction out of the market and organizing it internally, internal organization is usefully thought of as the organization form of last resort: try markets, try hybrids, and have recourse to the firm only when all else fails."). *See also* nn. _____, *supra* and accompanying text.

[374] I do not mean to suggest that TCE arose exogenously, with no concern for antitrust problems. Quite the contrary, it appears that TCE arose in significant part to address antitrust problems for which price theory provided an inadequate solution. *See* OLIVER WILLIAMSON, MARKETS AND HIERARCHIES: ANALYSIS AND ANTITRUST IMPLICATIONS (1975); Lester G. Telser, *Why Should Manufacturers Want Fair Trade*?, 3 J. L. & Econ. 86 (1960) (examining why manufacturers might desire exemption from the Sherman Act in the form of so-called "Fair Trade" laws); Robert H. Bork, *The Rule of Reason and the Per Se Concept: Price Fixing and Market Definition*, 75 Yale L. J. 373 (1966) (relying upon Telser's analysis to advocate Rule of Reason scrutiny for exclusive territories ancillary to joint ventures or distribution arrangements). *See also* Robert H. Bork and Ward S. Bowman, *The Crisis in Antitrust*, 9 Antitrust Bull. 587, 594-99 (1964) (absence of meaningful concentration in most antitrust cases suggests that practices could not harm consumers and were in fact designed to create efficiencies).

horizontal competitors.[375] These restraints all restrict competition between various dealers selling a particular manufacturer's product after transfer of title. Such arrangements, it is said, were means of overcoming the failure in the market for distributional services caused by free riding by opportunistic dealers.[376] As a result, such restraints were analogous to a decision by a single firm to advertise its product while at the same time instructing its employees to charge a high enough price to cover the cost of such promotion.[377] While such restrictions eliminated *intra*brand competition, they could also enhance another, and more important form of rivalry: *inter*brand competition.[378]

By definition, of course, intrabrand restraints govern only a single brand of product: they are thus not "exclusionary" in any meaningful sense.[379] However, TCE also offered explanations for agreements such as tying contracts, long term leases, non-standard lease provisions, and exclusive dealing arrangements, each of which price theorists and courts had treated as exclusionary contracts

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[375]*See* United States v. Topco, Inc,. 405 U.S. 596 (1972) (declaring horizontal division of territories ancillary to legitimate joint venture unlawful *per se*); Simpson v. Union Oil Co., 377 U.S. 13 (1964) (minimum resale price maintenance a coercive practice and unlawful *per se*).

[376]*See* Lester G. Telser, *Why Should Manufacturer's Want Fair Trade*?, 3 J. L. & Econ. 86 (1960) (arguing that minimum resale price maintenance can combat dealer free-riding and thus ensure an optimal level of promotional services). *See also* Robert H. Bork, *The Rule of Reason and the Per Se Concept: Price Fixing and Market Division*, 75 Yale L. J. 373, 430-38, 453-56 (1966) (showing that territorial restraints ancillary to a legitimate joint venture could overcome free riding by firms that distribute the venture's brand). Other scholars have attempted to refine Telser's analysis. *See, e.g.*, Benjamin Klein and Kevin M. Murphy, *Vertical Restraints As Contract Enforcement Mechanisms*, 31 J. L. & Econ. 265 (1989); Howard P. Marvel and Stephen McCafferty, *Resale Price Maintenance and Quality Certification*, 15 Rand J. Econ. 346 (1984). *See also* Howard Marvel, *The Resale Price Maintenance Controversy: Beyond The Conventional Wisdom*, 63 Antitrust L.J. 59 (1994).

[377]*See* Bork, *Price Fixing and Market Division*, 75 Yale L. J. at 435-36.

[378]*See* Bork, *Price Fixing and Market Division*, 75 Yale J. at 430-38.

[379]*See*, *e.g.*, HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY, 441 (1999) (explaining the distinction between intrabrand and interbrand restraints).

not justified by any legitimate benefits.[380] So, for instance, some scholars argued that tying contracts could protect manufacturers or franchisors from opportunistic purchasing decisions by customers or franchisees.[381] Such agreements allowed franchisors to replicate the quality standards of vertically-integrated firms while retaining the incentive advantages of an independent franchise system.[382] Also, contracts requiring a purchaser or lessee of complex machinery also to purchase maintenance services from the manufacturer could allow the manufacturer continually to gather information about the operation of its product, thus facilitating further improvements in the good.[383] Without such a contractual requirement, purchasers or lessees might obtain their services from independent organizations, thus depriving the manufacturer of the knowledge it might otherwise generate if it provided the repair services itself.[384] Here again, tying contracts could replicate the

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[380]*See* nn. ____, *supra* and accompanying text (explaining judicial hostility to monopolists' use of such contracts).

[381]*See* Benjamin Klein & Lester F. Saft, *The Law and Economics of Franchise Tying Contracts*, 28 J. L. & ECON. 345 (1985) (arguing that franchise tying contracts can protect goodwill of the franchise system against opportunistic shirking by franchisees); Paul H. Rubin, *The Theory of the Firm and the Structure of the Franchise Contract*, 21 J. L. & ECON. 223 (1978). *See also* Alan J. Meese, *Tying Meets The New Institutional Economics: Farewell To The Chimera of Forcing*, 146 U. Penn. L. Rev. 1 (1997).

[382]*See* Rubin, *Structure of the Franchise Contract*, 21 J. L. & Econ. at 226; *id*. at 232. *Cf*. Goetz & Scott, *Principles of Relational Contracts*, 67 Va. L. Rev. at 1094-95 (parties to a contract will adopt provisions causing them to replicate decisions of a fully-integrated firm).

[383]*See* Meese, *Tying Meets The New Institutional Economics*, 146 U. Penn. L. Rev. at 65 (outlining this rationale).

[384]Meese, *Tying Meets The New Institutional Economics*, 146 U. Penn. L. Rev. at 65 (explaining why purchasers would not internalize the full benefits of the creation of such information, with the result that some contractual requirement would be necessary). To be sure, the manufacturer could enter contracts with each independent service provider requiring the latter to gather such information and transmit it to the manufacturer. However, such a solution would entail costs and risks over and above those associated with complete integration, *i.e.*, reliance upon employees to acquire such data. *See* Meese, *Tying Meets The New Institutional Economics*, 146 U. Penn. L. Rev. at 65. *See also* Masten, *Legal Basis for the Firm*, 4 J. L., Econ. & Org. at *passim* (arguing that certain legal attributes associated with the firm facilitate the production and dissemination of information within it).

purchasing decisions of a fully integrated firm, while at the same time preserving some of the benefits of market-based decision making by otherwise independent entities.

Other scholars focused on exclusive dealing contracts, showing that such agreements could encourage a firm to make investments specific to a particular relationship by preventing the firm's trading partner from dealing with others.[385] So, for instance, an automobile manufacturer could induce a manufacturer of automobile bodies to make investments that are only useful in the context of the relationship in question by promising not to deal with other auto body firms, thus excluding those firms from a portion of the marketplace.[386] In this way, the two firms could replicate the results produced by complete integration without incurring the incentive costs of such a drastic course.[387] Other manufacturers might employ such agreements to prevent opportunism by dealers. For instance, a manufacturer that makes promotional investments might fear that dealers will employ the manufacturer's trademark and associated goodwill to attract consumers while at the same time encouraging such customers to purchase products manufactured by others. By requiring a dealer to

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[385] *See* Benjamin Klein, *Vertical Integration as Organizational Ownership: The Fisher Body–General Motors Relationship Revisited*, 4 J. L. Econ. & Org. 199, 201 (1988). Some lawyers had suggested this rationale long before economists did. *See* Milton Handler, *Statement Before The Small Business Administration*, 11 Antitrust Bull. 417, 424-25 (1966) (suggesting that an exclusive buying provision can constitute "a vital *quid pro quo* to avoid placing the seller at the dealer's mercy."). *See also* United States v. Addyston Pipe & Tube Co., 85 F. 271 (1898) (Taft, J.) (recounting common law's willingness to enforce agreement preventing employee from working for other employers on the ground that such agreements induced employers to make investments in training employees bound by such agreements).

[386] *See* Klein, *Vertical Integration as Organizational Ownership*, 4 J. L. Econ. & Org. at 201 (employing this example).

[387] *See* Klein, *Vertical Integration as Organizational Ownership*, 4 J. L. Econ. & Org. at 204 (noting that complete vertical integration often involves "incentive-type costs"); Klein, *et al*., *Competitive Contracting Costs*, 21 J. L. & Econ. at 307 (complete vertical integration involves "ownership costs" that firms compare to transaction costs when choosing between long-term contracting and complete integration). *Cf*. Goetz & Scott, *Principles of Relational Contracts*, 67 Va. L. Rev. at 1094-95 (predicting that parties will adopt contracts governing their relationship that will induce them to replicate the behavior of a single, unified firm).

trade with it to the exclusion of other firms, a manufacturer could thereby protect its return on promotional investments.[388] At the same time, the manufacturer could realize the benefits of a decentralized approach to distribution, an approach that *requires* independent dealers to bear the risk that comes with purchase of the manufacturer's product.[389]

Scholars have also offered transaction cost explanations for leasing provisions such as those condemned in *United Shoe*.[390] For instance, two scholars have argued that the decision to lease machines instead of selling them outright ensured that United Shoe retained the requisite incentives to provide its customers with high quality machines, given the difficulty of discerning quality of the machines at the time of sale and the high cost of negotiating and enforcing warranties governing durable goods.[391] In short, TCE suggested explanations for any number of non-standard "exclusionary" contracts that economists had previously treated as necessarily "monopolistic."[392]

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[388] *See* Howard Marvel, *Exclusive Dealing*, 25 J. L. & Econ. 1 (1982) (contending that exclusive dealing contracts could prevent dealers from promoting inferior brands and thus free-riding on the manufacturer's promotional efforts). This explanation, of course, depends upon a claim that, absent some method of contractual control, dealers would find such a strategy rational. Such a strategy would be rational from a dealer's perspective if a manufacturer expended a significantly greater amount per unit of output on promotion than its competitors, with the result that a dealer could enhance its profits by steering customers toward products with lower wholesale prices, and thus higher dealer margins, than those of the manufacturer in question.

[389] *See* Meese, *Property Rights and Intrabrand Restraints*, 89 Cornell L. Rev. at ___ (forthcoming).

[390] *See* nn. ___, *supra* and accompanying text (describing *United Shoe* court's condemnation of the firm's leases).

[391] *See* Scott E. Masten and Edward A. Snyder, *United States* v. *United Shoe Machinery Corporation: On the Merits*, 36 J. L. & Econ. 33, 42-43, 67-68 (1993). *See also* John Shephard Wiley Jr., *et al.*, *The Leasing Monopolist*, 37 UCLA L. Rev. 693, 710 (1990) (offering a different transaction cost rationale for these agreements).

[392] *See* nn. ____, *supra* and accompanying text (detailing price-theorists' hostility toward non-standard contracts).

TCE's explanation for non-standard contracts undermined price theory's focus on the "passage of title" as an event that purportedly distinguished harmful restraints from "competition on the merits."[393] Indeed, like "competition on the merits," which rests upon a firm's possession and invocation of property rights, TCE's explanations for nonstandard contracts depended upon the exclusive, indeed, "exclusionary" effects of the agreements in question. For instance, exclusive dealing contracts protect a manufacturer's promotional investments by creating a sort of property right in the fruits of such expenditures, the same right possessed by fully integrated firms.[394] Similarly, agreements requiring franchisees to purchase certain inputs certainly exclude some rival sellers of such inputs from the market. Still, this exclusion can ensure that the franchisees that employ high quality inputs can reap the reward of doing so, without suffering at the hands of free riding fellow franchisees.[395] Although exclusionary, such agreements effectively grant a property right to those franchisees that maintain high quality standards.[396]

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[393] *See* nn. ____, *supra* and accompanying text (explaining that workable competition's interpretation of economic activity rested upon a distinction between property and contract and thus saw great significance in the passage of title).

[394] *See* Marvel, *Exclusive Dealing*, 25 J. L. & Econ. at 6-11 (characterizing exclusive dealing contracts in this manner). *See also* Richard A. Posner & William M. Landes, *Trademark Law: An Economic Perspective*, 30 J. L. & Econ. 265, 269-70 (1987) (explaining how enforcement of trademarks encourages investments in quality of products sold under the marks).

[395] *See* nn. ____, *supra*.

[396] *See* Rubin, *Structure of the Franchise Contract*, 21 J. L. & Econ. at 227-29 (arguing that franchise contracts empower franchisors to police shirking franchises, thus protecting incentives to enhance quality). *See also* Josef Windsperger, *The Nature of Franchising: A Property Rights Approach*, 2 Review of Economics 130 (1996).

Such contractual rights certainly create "barriers to entry" in some sense.[397] Still, this is true of all property, whether created by contract or positive law.[398] An automobile manufacturer can exclude potential rivals from its factory, and perhaps the whole market, because the law of real property empowers it to do so.[399] In the same way, a software firm can exclude potential rivals by relying upon the law of copyright. Nonetheless, society tolerates such barriers because they encourage desirable activities.[400] In the same way, contractual property may bar the entry of rivals in order to encourage socially useful activities by eliminating market failures that might otherwise occur.[401]

C. *TCE's New Model of Competition*

Transaction cost economics did more than provide new explanations for a variety of practices. It also implied an entirely different model of legitimate "competition" relevant to Section 2's distinction between "normal" "competition on the merits," on the one hand, and presumptively unlawful contractual exclusion, on the other.[402] Price theory's account of the firm and the workable

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[397]*See* Meese, *Property Rights and Intrabrand Restraints*, 89 Corn. L. Rev. at ___ (forthcoming).

[398]*See* Wesley J. Liebler, *Exclusion and Efficiency*, 11 Regulation 34, 38-39 (1987); Harold Demsetz, *Barriers to Entry*, 72 Am. Econ. Rev. 47 (1984). *See also* Richard N. Langlois, *Contract, Competition and Efficiency*, 55 Brooklyn L. Rev. 831 (1989).

[399]*See* Liebler, *Exclusion and Efficiency*, 11 Regulation at 38 (employing this example); Demsetz, *Barriers to Entry*, 72 Am. Econ. Rev. at 49 ("Even the operation of an unregulated market system presupposes the general recognition of property rights, but the *problem of defining ownership is precisely that of creating properly scaled legal barriers to entry. . . . . An owner of resources may be barred legally from using (his) resources simply to occupy and operate the facilities of someone already in the industry. He must first meet the cost hurdle of securing the "owner's permission."*") (emphasis supplied).

[400]*See* Demsetz, *Barriers to Entry*, 72 Am. Econ. Rev. at 48-49.

[401]*See* Liebler, *Exclusion and Efficiency*, 11 Regulation at 39; Demsetz, *Barriers to Entry*, 72 Am. Econ. Rev. at 48-49.

[402]*See* nn. ____ *supra* and accompanying text (explaining this distinction).

competition school equated legitimate "competition" with property-based technological rivalry between autonomous firms, unconstrained by non-standard contracts.[403] This rivalry took the form of quality improvements and price reductions and, when unconstrained, produced the best possible allocation of resources.[404] Although such rivalry did not constitute "pure" or "perfect" competition, it would produce the best results attainable in an imperfect world.[405] While mergers or internal expansion could enhance such competition by generating technological efficiencies, contracts that limited rivalry between otherwise independent firms produced no cognizable benefits. Such agreements created "unnecessary" barriers to entry, interfered with "competition on the merits" and were thus examples of the sort of "unlawful exclusion" that Section 2 condemned.[406] These agreements were inconsistent with "workable competition," and thus "market failures" that government should correct via the antitrust laws.[407]

According to the new paradigm, however, it was price-theoretic "competition on the merits" that would often lead to market failure and thus interfere with the best attainable allocation of resources. Instead of producing the most favorable mixture of price, output, and quality, reliance upon technological rivalry and standard "spot market" contracts to conduct economic activity often led to suboptimal results from the perspective of society and consumers.[408] Far from "destroying"

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[403] *See* nn. ____, *supra* and accompanying text.

[404] *See* nn. ____, *supra* and accompanying text.

[405] *See* nn. ____, *supra* and accompanying text.

[406] *See* nn. ____, *supra* and accompanying text.

[407] *See* nn. ____, *supra* and accompanying text.

[408] *See* nn. ____, *supra* and accompanying text.

useful competition and enhancing market power, then, complete vertical integration and various forms of non-standard contracting often promoted competition and consumer welfare by guiding the allocation of resources closer to the socially optimal result that a well-functioning market would produce in the absence of transaction costs.[409] An exclusive territory that induced dealers to provide appropriate services and information to consumers produced a better allocation of resources and more consumer satisfaction, while at the same time furthering rivalry between manufacturers.[410] Similarly, a franchisor's requirement that its franchisees purchase inputs from it could encourage investments in quality that consumers were willing to pay for, avoiding the suboptimal quality that unconstrained rivalry might otherwise produce and furthering rivalry between franchise systems and fully integrated competitors.[411] Finally, restrictions on dealers' or other firms' discretion to trade with other suppliers could ensure that unintegrated manufacturers made appropriate investments in promotion or other activities and thus facilitate rivalry with fully integrated firms.[412]

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[409]*See* William F. Baxter, *The Viability of Vertical Restraints Doctrine*, 75 Calif. L. Rev. 933, 947-48 (1987) (arguing that vertical restraints are forms of partial integration that overcome market failures and associated distortions of the allocation of resources); Oliver Williamson, *Assessing Vertical Market Restrictions: Antitrust Ramifications of the Transaction Cost Approach*, 127 U. PENN. L REV. 953, 988-89 (1979) ("allocative inefficiency is more apt to arise with respect to cost concerns, such as diseconomies of scale, failure to operate assets in a least cost way, and incurring of significant transaction costs. Organizational changes that give rise to cost savings in any of these respects will, if not accompanied by offsetting price distortions, invariably give rise to social gains."); Coase, *Industrial Organization: A Proposal for Research*, at 68 (arguing that non-standard contracts and other practices are often "a necessary element in bringing about a competitive situation"). *Cf.* KAYSEN AND TURNER, ANTITRUST POLICY, at 12-13 (arguing that courts should void anticompetitive arrangements, thus furthering "competition" in each industry and enhancing social welfare) *citing* PIGOU, THE ECONOMICS OF WELFARE.

[410]*See* Williamson, *Assessing Vertical Market Restrictions*, 127 U. PENN. L. REV. at *passim*; Robert H. Bork, *Resale Price Maintenance and Consumer Welfare*, 77 YALE L. J. 950 (1968); Bork, *Price Fixing And Market Division*, 75 YALE L. J. at 472-75.

[411]*See* Klein & Saft, *Law and Economics of Franchise Tying Contracts*, 26 J. L. & ECON. at 349-54.

[412]*See* Marvel, *Exclusive Dealing*, 25 J. L. & Econ. at *passim*. *Cf.* Goetz & Scott, *Principles of Relational Contracts*, 67 Va. L. Rev. at 1094-95 (explaining that contracting parties will adopt mechanisms

To be sure, each such contract restrains "competition" in one sense, by limiting the discretion of purchasers and thus "excluding" some sellers from at least a portion of the marketplace. In this way, such agreements raise barriers to entry and could help a firm acquire or maintain a monopoly. Still, such arrangements are explicable without any hypothesis of monopoly power and thus not *ipso facto* or even presumptively methods of "unnatural" exclusion as price theorists once believed.[413]

The realization that "exclusive" agreements can serve efficiency purposes required a redefinition of the sort of "workable competition" that price theorists thought desirable.[414] Even price theorists had recognized that atomized rivalry did not always produce the optimal utilization of resources from the perspective of society or consumers.[415] As a result, these theorists had argued that courts should allow certain practices, like mergers, internal expansion, and product differentiation that sometimes produced market structures inconsistent with perfect competition.[416] Each of these activities could make entry by rivals more difficult.[417] For instance, product differentiation involves a refusal to allow rivals to sell products under the innovator's trademark, thereby preventing entry.[418] Moreover, while price theorists treated such activities as "internal" or

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that induce parties to behave as though they are part of a single firm pursuing united objectives).

[413]*Cf.* nn. _____, *supra* and accompanying text (explaining that conduct is "normal" if explicable absent a hypothesis of monopoly power).

[414]*See* nn. _____, *supra* and accompanying text.

[415]*See* Mason, *Monopoly Problem*, 62 Harv. L. Rev. at 1266-1269. *See also* nn. ____, *supra* and accompanying text.

[416]*See* nn. _____, *supra* and accompanying text.

[417]*See* nn. ____, *supra* and accompanying text. *See also United Shoe Machinery*, 110 F. Supp. at 344 (explaining how *United*'s reputation for high quality made entry by rivals more difficult).

[418]*See* Liebler, *Exclusion and Efficiency*, 11 Regulation at 39; Demsetz, *Barriers to Entry*, 72 Am. Econ. Rev. at 49.

"unilateral" conduct, or the combination of two firms into one, TCE taught that such activities were simply the manifestation of a nexus of contracts.[419]

As a result, just as price theory itself treated certain "imperfect" practices as (workably) competitive, so too, it seems, does TCE and its theory of the firm mandate the recognition that at least some non-standard "exclusionary" contracts in fact further the ultimate goal of "workable competition" as defined by price theorists.[420] The competition that takes place in the real world and between various groups ultimately depends upon the institution of private contracts, many of which, including "the firm" itself, are "non-standard."[421] Innovation includes the discovery of new organizational forms and the application of old forms to new contexts.[422] These contracts *prevent* or attenuate market failure, moving the market toward what economists would deem a more "competitive" result. Indeed, as Professor Coase pointed out, many markets deemed "perfectly

[419]*See* nn. _____, *supra*, and accompanying text.

[420]*See* nn. _____, *supra* and accompanying text (showing that courts embraced this technological model of competition during the inhospitality era); *see also* nn. _____, *supra* and accompanying text (*Standard Oil* equated competition with "rivalry"). *Cf.* Mason, *Current Status of the Monopoly Problem In The United States*, 62 Harv. L. Rev. at 1266-71 (arguing that economists and courts should adopt a functional definition of competition).

[421]*See National Society of Professional Engineers*, 435 U.S. at 688; *Sylvania*, 433 U.S. at 53, n. 21; *Chicago Bd. of Trade*, 246 U.S. at 238; *Standard Oil*, 221 U.S. at 62. *Cf.* Hayek, *Meaning Of Competition*, at 96 (arguing that various activities inexplicable under price theory's model of competition are in fact necessary to achieving a competitive result).

[422]*See* Williamson, *Antitrust Lenses And Transaction Cost Economics*, in ANTITRUST, INNOVATION, AND COMPETITIVENESS, at 139-40 ("That the 'same technical facilities' produce with a 'great variety of costs' comes as no surprise if nontrivial cost consequences result when firms are organized and managed differently."); JOSEPH A. SCHUMPETER, CAPITALISM, SOCIALISM, AND DEMOCRACY, 84 (1943) (arguing that price competition is "a matter of comparative indifference" when compared to "the competition from a new commodity, the new technology, the new source of supply, [or] *the new type of organization*.") (emphasis added).

competitive" are in fact the end result of complex contracts limiting rivalry between competitors.[423] Such *contractual* competition cannot produce perfect results — no human institution ever can. Nonetheless, the result is superior to that which would obtain in a (real) world *without* non-standard contracting.[424] While such agreements exclude rivals from some portion of the marketplace, these

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[423]Speaking in particular about commodity exchanges, Professor Coase noted:

> "I refer to commodity exchanges and stock exchanges. These are normally organized by a group of traders (the members of the exchange) which owns (or rents) the physical facility within which transactions take place. All exchanges regulate in great detail the activities of those who trade in these markets (the times at which transactions can be made, what can be traded, the responsibilities of the parties, the terms of settlement, etc.), and they all provide machinery for the settlement of disputes and impose sanctions against those who infringe the rules of the exchange. *It is not without significance that these exchanges, often used by economists as examples of a perfect market and perfect competition, are markets in which transactions are highly regulated (and this quite apart from any government regulation that there may be). It suggests, I think correctly, that for anything approaching perfect competition to exist, an intricate system of rules and regulations would normally be needed.* Economists observing the regulations of the exchanges often assume that they represent an attempt to exercise monopoly power and aim to restrain competition. They ignore or, at any rate, fail to emphasize an alternative explanation for these regulations: that they exist in order to reduce transaction costs and therefore to increase the volume of trade."

See Coase, *The Firm, The Market, And The Law*, at 8-9 (emphasis added). *See also* Easterbrook, *Limits of Antitrust*, 63 TEX. L. REV. at 1 ("The goal of antitrust is to perfect the operation of competitive markets. What does this mean? A "competitive market" is not necessarily the one with the most rivalry moment-to-moment. The auction in which atomically small buyers and sellers continuously shout out bid and asked prices, the picture of 'perfect competition' found in economic texts, is a hypothetical construct. Every market entails substantial cooperation over some domain in order to facilitate competition elsewhere. . . . Markets themselves are organized. The Chicago Board of Trade, perhaps the closest of modern markets to the textbook ideal, has a sheaf of rules and cooperative arrangements that reduce the cost of competition."). *Compare* Anderson v. United States, 171 U.S. 604, 616 (1898) (sustaining rules ancillary to cattle exchange whose object was to "provide for the ready transaction of the business of the associates by obtaining a general headquarters for its conduct, and thus to ensure a quick and certain market for the sale or purchase of the article dealt in."); Hayek, *Meaning of Competition*, at 96 ("The whole *organization* of the market serves mainly the need of spreading the information on which the buyer is to act.") (emphasis added).

[424]*See* Hayek, *Meaning Of Competition*, at 100 ("The basis of comparison, on the grounds of which competition [in the real world] ought to be judged cannot be a situation which is different from the objective facts and which cannot be brought about by any known means. It ought to be the situation that would exist if competition were prevented from operating. Not the approach to an unachievable and meaningless ideal but the improvement upon the conditions that would exist without competition should be the test."). Applying Professor Hayek's wisdom, then, many decisions during the price-theoretic era "prevented

contracts do not depend upon the creation or enhancement of market power and thus do not produce the evils against which antitrust law is directed. From the perspective of the Sherman Act's Rule of Reason in general and Section 2's ban on undue restraints, such contracts "promote" and "enhance" the sort of real world "competition" that would "develop trade" and advance society's welfare.[425] Given this recognition of contractual competition, proof that a non-standard contract limits rivalry or excludes rivals from a portion of the market in no way indicates that it is "anticompetitive," monopolistic, or otherwise inconsistent with the goals of "workable competition."

D. *TCE's Influence Over Antitrust: Section 1*

TCE would soon come to influence antitrust policy and doctrine, at least under Section 1 of the Sherman Act. In particular, numerous scholars embraced TCE's teachings to the effect that non-standard contracts are presumptively efforts to economize on the transaction costs that result from reliance upon "the market" to conduct economic activity.[426] These scholars and other antitrust lawyers transmitted their views to the courts, who in turn modulated or rejected altogether certain *per se* rules against non-standard contracts in a manner that reflected this new academic consensus.[427] So, for instance, in 1977 the Supreme Court expressly invoked transaction-cost reasoning to justify the repudiation of recent precedent declaring vertical non-price distribution restraints unlawful *per*

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competition from operating."

[425] *See* Coase, *Industrial Organization: A Proposal for Research*, at 68. *See also* nn. ____ *supra* and accompanying text (explaining that *American Tobacco* decision held that "normal" conduct that "advanced trade" could not offend Section 2 of the Sherman Act).

[426] *See* Richard A. Posner, *Analysis of the Restricted Distribution, Horizontal Merger, and Potential Competition Decisions*, 75 Columbia L. Rev. 282 (1975); Robert H. Bork, *The Rule of Reason and the Per Se Concept: Price Fixing and Market Division*, 75 Yale L. J. 373 (1966).

[427] I tell this story in some detail in Meese, *Price Theory, Competition, and the Rule of Reason*, 2003 Ill. L. Rev. at 134-44.

se.[428] About a decade later, the Court again invoked scholar commentary to narrow the scope of the *per se* rule against horizontal price setting.[429] More recently, the Court invoked such reasoning in partial justification of its repudiation of the *per se* rule against maximum vertical price fixing.[430] At the same time, the Court moderated other *per se* rules without expressly invoking transaction cost reasoning.[431] In each case the Court adjusted or rejected earlier decisions in light of evolving economic theory, just as *Standard Oil* and *American Tobacco* anticipated.[432]

Still, TCE's influence on Section 1 doctrine is not complete. For instance, the Supreme Court has expressly declined to jettison the *per se* rule against minimum resale price maintenance, despite TCE's unchallenged conclusion that such agreements can in some instances minimize the

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[428]*See* Continental T.V. v. GTE Sylvania, 433 U.S. 36, 55-57 (1978) (relying upon academic commentary to reject *per se* rule against location clauses and other non-price vertical restraints). *See also* Business Electronics Corp. v. Sharp Electronics, 485 U.S. 717, 725-31 & nn. 3-4 (1988) (relying in part on academic commentary to reject *per se* rule against maximum resale price maintenance).

[429]*See* NCAA v. Bd. of Regents, University of Oklahoma, 468 U.S. 85 (1984) (relying in part on academic commentary to reject *per se* rule against horizontal price cooperation by sports league); *see also* Broadcast Music, Inc. v. CBS, 441 U.S. 1 (1979) (finding that horizontal price fixing ancillary to joint venture was subject to rule of reason analysis where such price fixing was necessary to the creation of a different product).

[430]State Oil v. Khan, 522 U.S. 3, 16-19 (1997) (invoking academic commentary to reject *per se* rule against maximum resale price maintenance).

[431]*See* Jefferson Parish Hospital Dist. No. 2 v. Hyde, 466 U.S. 2 (1985) (raising quantum of "market power" required to establish a *per se* unlawful tying contract).

[432]*See* nn. ____, *supra* and accompanying text (explaining how Rule of Reason announced in *Standard Oil* and *American Tobacco* required courts to alter doctrine in light of changing economic theory). *See also Khan*, 522 U.S. at 20-22 (explaining that common law nature of the Sherman Act empowers courts to adjust doctrine in light of advances in economic theory); *id*. (rejecting *per se* rule against maximum resale price fixing that had been "widely criticized since its inception"); Continental T.V. v. GTE Sylvania, 433 U.S. 36, 47-48 (1977) (relying upon "great weight" of scholarly criticism as rationale for departure from prior decision banning exclusive territories).

cost of relying on unfettered markets to conduct economic activity.[433] In the same way, the Court has continued to adhere to the *per se* rule against horizontal maximum price fixing, claiming that such contracts interfere with the "forces of a competitive market."[434]

TCE's influence seems particularly absent where so-called "exclusionary" contracts are involved. For instance, despite withering critiques, the Court has retained the *per se* rule against tying contracts, holding that any tie obtained by a firm with market power is *ipso facto* unlawful.[435] Moreover, the Court has not entertained a case involving an exclusive dealing contract for over 40 years.[436] Nor has the Court entertained any case involving a vertical merger or other form of vertical integration since the early 1970s.[437] As a result, precedent that is "on the books" shows little influence of the transaction cost paradigm when it comes to contracts that exclude rivals from a significant portion of the marketplace.

IV. TCE And Monopolization Doctrine

As explained earlier, modern monopolization law remains largely unchanged despite the TCE revolution.[438] Courts continue to embrace the distinction between "competition on the merits," on

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[433]*See Sylvania*, 433 U.S. at 51, n. 18. *See also Business Electronics Corp.*, 485 U.S. at 724-25 (adhering to *per se* rule against minimum rpm) (*dicta*); Monsanto v. Spray-Rite Service Co., 465 U.S. 752 (1984) (declining invitation of Amicus Curiae United States to reconsider *per se* ban on minimum rpm).

[434]*See* Arizona v. Maricopa County Medical Society, 457 U.S. 332, 346-47 (1982) (*quoting Albrecht*, 390 U.S. at 152). It should be noted that the enforcement agencies still adhere to this distinction. *See* Dept. of Justice and Federal Trade Commission Statements of Antitrust Enforcement Policy in Health Care, § 8B1.

[435]*See Jefferson Parish*, 466 U.S. at 15-16. *See also* Eastman Kodak v. Image Technical Services, 504 U.S. 452 (1992) (applying the *per se* rule).

[436] Tampa Electric Co. v. Nashville Coal Co., 365 U.S. 320 (1961).

[437]*See* Ford Motor Co. v. United States, 405 U.S. 562 (1972).

[438]*See* nn. ____, *supra* and accompanying text.

the one hand, and contractual exclusion, on the other. The former consists of "internal" behavior, like the invention of a new production process. The latter entails contracts that exclude at least some rivals from the marketplace.

Perhaps the survival of the *United Shoe* formulation despite the influence of TCE in various doctrinal contexts under Section 1 suggests that there is some truth in it, *i.e.*, that TCE is less relevant to questions arising under Section 2 than to those arising under Section 1. However, close analysis reveals that, despite its longevity, the *United Shoe* formulation does not withstand analysis under the transaction cost paradigm and its theory of the firm. Moreover, application of transaction cost reasoning should impel significant adjustments in monopolization doctrine.

A. *How TCE Undermines Modern Monopolization Law*

Consider again the definition of exclusionary conduct authored by Professors Areeda and Turner twenty-five years ago and recently repeated just one year ago by Professor Hovenkamp.[439]

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[439] The first step in defining 'exclusionary' conduct is to state what it is clearly not. Our concern about monopoly and *the opportunities of rivals* must not be allowed to obscure the objectives of antitrust law which seeks to protect the process of *competition on the merits* and the economic results associated with *workable competition*. Accordingly, non-exploitive pricing, higher output, improved product quality, energetic market penetration, successful research and development, cost-reducing innovations, and the like are welcomed by the Sherman Act, and not therefore to be considered "exclusionary" for § 2 purposes even if monopoly results. We attempt no further catalogue of desirable behavior at this point, but rest for the moment on the desirability of behavior constituting *competition on the merits* — the superior skill, foresight and industry of which Judge Hand spoke. Antitrust law should not base the imposition of sanctions on the very conduct it would encourage. Behavior that is no more restrictive of rivals' opportunities than is reasonably necessary to effect *competition on the merits* is and should be approved by Sherman Act § 2. Such behavior is, after all, indispensable if the antitrust laws are to achieve their objective. Thus, "exclusionary" comprehends at the most the behavior that not only (1) tends *to impair the opportunities of rivals*, but also (2) either does not further *competition on the merits* or does so in an unnecessarily restrictive way.

See 3 AREEDA AND HOVENKAMP, ANTITRUST ¶ 652 (emphases added). *See also* nn. ____, *supra* and accompanying text.

That discussion, it will be recalled, essentially endorses *United Shoe*'s distinction between property-based "competition based on pure merit," on the one hand, and "exclusionary" contracts, on the other.[440] Within price theory's workable competition model, the quoted passage makes perfect sense.[441] On the other hand, when viewed through the lens of the transaction cost paradigm, the discussion simply begs a whole variety of questions. Consider, for instance, the passage's assumption that "antitrust seeks to protect the process of *competition on the merits* and the economic results associated with *workable competition*."[442] At one level, this is an absolutely accurate statement: antitrust does, and always has, sought to protect what the two authors call "competition on the merits."[443] At another level, the statement simply begs the question raised by any academic discussion of exclusion, *i.e.*, should antitrust *only* protect competition on the merits? And, perhaps more importantly, how should antitrust treat those contracts — tying contracts, exclusive dealing, leasing and the like — that seem to price theorists, anyway, to "interfere" with what the authors call "the process of competition on the merits" and "workable competition?"[444]

The same sort of question is begged by the passage's claim that "competition on the merits" is "desirable," and that antitrust should not impose "sanctions on the very conduct it would

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[440] *See* nn. _____, *supra* and accompanying text.

[441] *See* nn. _____, *supra* and accompanying text (explaining link between neoclassical price theory, on the one hand, and *United Shoe* formulation, on the other).

[442] *See* 3 AREEDA AND TURNER, ANTITRUST LAW, ¶ 626b, p. 77 (emphases added).

[443] *See nn. ______ supra and accompanying text. See also e.g.*, Brooke Group, Ltd. v. Brown & Williamson Tobacco, 509 U.S. 209, 223 (1993) (holding that above-cost pricing is "competition on the merits" and thus lawful *per se*).

[444] *See* nn. ______, *supra* and accompanying text (explaining assumption by price theorists and others that non-standard restraints interfere with "competition on the merits").

encourage."[445] Again, this statement makes perfect sense so far as it goes. Certainly antitrust hopes to encourage (technological) "competition on the merits." But, is this *all* that the Act seeks to encourage? As Justice Holmes noted a century ago, the Sherman Act does not mention "competition" as a *desiradatum*.[446] Instead, Section 1 forbids contracts "in restraint of trade or commerce," while Section 2 forbids monopolization of "any part" of trade or commerce.[447] Thus, the statute reflects its constitutional moorings, by regulating ("making regular") interstate commerce.[448] Early caselaw agreed with Holmes's assessment, and recognized that some restraints were necessary to advance commerce and trade, even if they "excluded" some rivals from the market or a portion of it.[449] As a result, these courts held that the Act only banned "undue" contractual restrictions on competition, defining as undue those that reduced commercial activity and thus

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[445]*See* 3 Areeda and Turner, Antitrust Law, ¶ 626b, p. 77.

[446]*See* Northern Securities Co. v. United States, 193 U.S. 197, 403 (1904) (Holmes, J. dissenting) ("The court below argued as if maintaining competition were the expressed object of the act. The act says nothing about competition.").

[447]*See* 15 U.S.C. §§ 1-2.

[448]*See* Martin Sklar, The Corporate Reconstruction of American Capitalism, 105-117 (arguing that Congress rejected early drafts of the Sherman Act that banned restraints interfering with "free competition" for constitutional reasons). *See also* Randy Barnett, *The Original Meaning of the Commerce Clause*, 68 U. Chi. L. Rev. 101, 139-46 (2001) (explaining that Commerce Clause merely empowered Congress to "make regular" commerce among the several states).

[449]*See* nn. ______, *supra* and accompanying text. *See also* American Tobacco Co. v. United States, 221 U.S. 106, 179 (1911) (Sherman Act does not forbid "normal or ususal contracts" or "normal methods" that "further trade"); *id.* at 180 (ban on "normal" contracts or methods would "render difficult if not impossible any movement of trade in interstate commerce, the free movement of which it was the purpose of the statute to protect."); United States v. Addyston Pipe & Steel Co., 85 F. 271, 280-282 (6th Cir. 1898) (Taft, J.) (opining that various ancillary covenants are valid under the Sherman Act despite their exclusionary effect).

harmed consumers.[450] Any complete definition of the sort of "exclusion" condemned by the Act must include some manner for determining which contracts the Act seeks to "encourage," and which it does not.

Similar questions are begged by a previous paragraph in the same work, a paragraph quoted in the *Microsoft* decision.[451] Recall that the D.C. Circuit rejected any requirement that the United States prove that the firm's tactics had actually injured consumers.[452] Quoting the Areeda treatise, the court held that Microsoft should "suffer the uncertain consequences of its own undesirable conduct."[453] This of course simply begged the question why the conduct was "undesirable."

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[450]*See*, *e.g.*, *American Tobacco Co.*, 221 U.S. at 181 ("giving the statute a reasonable construction, the words 'restraint of trade' did not embrace all those normal and usual contracts essential to individual freedom, and the right to make which was necessary in order that the course of trade might be free."); Standard Oil Co. v. United States, 221 U.S. 1, 62 (1911) (Sherman Act rests on the assumption that "the operation of the centrifugal and centripetal forces resulting from the right to freely contract was the means by which monopoly would be inevitably prevented if no extraneous or sovereign power imposed it and no right to make unlawful contracts having a monopolistic tendency were permitted. In other words that freedom to contract was the essence of freedom from undue restraint on the right to contract."). *See also* United States v. United Shoe Machinery Co., 247 U.S. 33, 59-65 (1918) (finding that contractual restrictions on use of rival products were reasonable); Chicago Bd. of Trade v. United States, 246 U.S. 231, 238 (1918) ("But *the legality of an agreement or regulation cannot be determined by so simple a test, as whether it restrains competition*. Every agreement concerning trade, every regulation of trade, restrains. To bind, to restrain is of their very essence."); Whitwell v. Continental Tobacco Co., 125 F. 454, 460-61 (8th Cir. 1903) (Sanborn, J.) ("There is nothing in the [Sherman Act] which deprived any of the competitors of these rights [of contract]. If there had been, the law itself would have destroyed competition more effectually than any contracts or combinations of persons or of corporations could possibly have stifled it. The exercise of these undoubted rights is essential to the very existence of free competition, and so long as their exercise by any person or corporation in no way deprives competitors of the same rights, or restricts them in the use of these rights, it is difficult to perceive how their exercise can constitute any restriction upon competition or any restraint upon interstate trade.").

[451]*See* nn. _____, *supra* and accompanying text (describing *Microsoft* decision as exemplar of law's distinction between "competition on the merits," on the one hand, and contractual exclusion, on the other).

[452]*See* n. _____, *supra* and accompanying text.

[453]*See Microsoft*, 253 F.3d at 79, *quoting* AREEDA AND HOVENKAMP, 3 ANTITRUST LAW, ¶ 651c at 78. *See also* AREEDA AND HOVENKAMP, 3 ANTITRUST LAW, ¶ 651d2 (concluding that conduct that "clearly injures rivals" without a business justification should be condemned regardless of consumer harm).

TCE helps suggest some answers to the question that current law and the Areeda/Hovenkamp /Turner formulation both avoid. In particular, TCE offers an alternative explanation for many exclusionary agreements, an explanation more hospitable than that produced by price theory. To be sure, TCE does not rebut the obvious fact that some contracts can "exclude" competitors from the marketplace, and thus thwart "competition on the merits," as price theorists and courts have defined that term. At the same time, however, TCE suggests that many of these contracts produce significant benefits, benefits unrelated to any expectation of protecting or obtaining monopoly power. In other words, TCE suggests that many such contracts are "normal" or "ordinary" in the sense that courts used that term when they first gave meaning to the Act.[454] While such contracts may exclude competitors from the marketplace, they often do so "on the basis of efficiency," and not because of some expectation of market power.[455]

TCE's conclusion that many "exclusionary" contracts are in fact "normal" or "ordinary" has important implications for the law of monopolization. As explained earlier, even property-based "competition on the merits" is "exclusionary" in the most straightforward sense of that word. As one scholar has noted, nothing excludes potential competitors from the marketplace more effectively than low prices or high quality.[456] Nonetheless, courts have repeatedly and uniformly followed *United*

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[454]*See Standard Oil*, 221 U.S. at 58-61; *American Tobacco Co.*, 221 U.S. at 178-80. *See also United Shoe Machinery Co.*, 247 U.S. at 63 (holding that lease agreements were not "exclusionary" in part because they had been adopted in competitive markets and served useful purposes).

[455]*See Aspen Skiing*, 472 U.S. at 600-601 (Section 2 does not forbid conduct that excludes rivals on the basis of efficiency).

[456]*See* HOVENKAMP, FEDERAL ANTITRUST POLICY, at 553 ("Nothing is a more effective barrier to entry than a firm's capacity to produce a high quality product at a low price, or to provide improved service to consumers."); Piraino, *Monopolists' Unlawful Conduct*, 75 N.Y.U. L. Rev. at 818 (same); United States v. Aluminum Co. of America, 148 F.2d 416, 431 (2d Cir. 1945) ("[The defendant] insists that it never excluded competitors; but we can think of no more effective exclusion than progressively to embrace each

Shoe's holding that such "exclusion" — which the court attributed to "inevitable economic law" — is beyond the reach of Section 2.[457] Thus, a firm that invents a new product or more efficient production process can rely upon the law of property — intellectual or otherwise — to exclude competitors from access to important inputs, and courts will not examine such exclusion to determine whether it is "reasonable" on balance.[458] Indeed, in *United Shoe* itself, the court declined to scrutinize the defendant's refusal to share its technological improvements with competitors.[459] Instead, courts will only void "internal" conduct if there is no plausible legitimate purpose for it.

Given the teachings of TCE, the question naturally arises, *viz.*, why not apply the same logic to nonstandard contracts as courts currently apply to, say, a firm's creation of a new product, or, for that matter, the introduction of a new marketing campaign? Such contracts may well exclude rivals from the market, or at least a portion of it and thus, like other forms of property, create a "barrier to

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new opportunity as it opened, and to face every new-comer with new capacity already geared into a great organization, having the advantage of experience, trade connections and the elite of personnel."); *see also* Stearns Airport Equip. Co. v. FMC Corp.,170 F.3d 518, 531 (5th Cir. 1999) (explaining that without more, reputation cannot be deemed a "barrier to entry" for antitrust purposes); Advo, Inc. v. Philadelphia Newspapers, Inc., 51 F.3d 1191, 1202-03 (3d Cir. 1995) (same); United States v. Syufy Enters., 903 F.2d 659, 669 (9th Cir. 1990) (same); United States v. Waste Mgmt., Inc., 743 F.2d 976, 984 (2d Cir. 1984) ("We fail to see how the existence of good will achieved through effective service is an impediment to, rather than the natural result of, competition."). *See also* 3 AREEDA & HOVENKAMP, ANTITRUST ¶ 651c, p. 78.

[457]*See* nn. ______, *supra* and accompanying text. *See also Brooke Group, Ltd.*, 509 U.S. at 223; *Aspen Skiing Corp.*, 472 U.S. at 600-601; *Berkey Photo*, 603 F.2d at 274-76 (realization of technological economies or other benefits of large size does not offend Section 2). *Cf. United Shoe Machinery*, 110 F. Supp. at 343-45 (concluding that internal conduct that simply conforms to inevitable economic laws is not "exclusionary" for purpose of Section 2).

[458]*See, e.g.*, *Dupont*, 96 F.T.C. at 746-51 (holding that failure to license proprietary technology was not unlawful exclusion, even though it prevented the entry of competitors); *Berkey Photo*, 603 F.2d at 276-85 (rejecting claim that Kodak's invention of new camera and failure to disclose invention to rivals contravened Section 2). *See also National Lead Co.*, 332 U.S. at 359 (rejecting decree that required defendants to share technical know-how with competitors).

[459]*See* nn. _____, *supra* and accompanying text (discussing *United Shoe*'s holding on this score).

entry."[460] Then, so too may the creation of a new product or the campaign to promote it.[461] Given the teachings of TCE, it would seem that the two forms of conduct are identical for antitrust purposes, in that both exclude rivals but also have plausible efficiency purposes.

In response, one might argue that by necessity, firms *must* be able to invoke their property rights; otherwise, markets would cease to function.[462] Indeed, Professor Areeda once argued that Rule of Reason analysis of internal pricing, supply or purchasing decisions would overtax the legal system and unduly burden business firms.[463] At the same time, the creation of a new product or production process leaves rivals perfectly free to pursue their own innovations. In this way, it might be said, such "competition on the merits" can be distinguished from contractual practices like exclusive dealing, even if the latter are presumptively "normal" in the sense that firms would often enter them without any expectation of creating or maintaining monopoly power.[464] While both

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[460]Harold Demsetz, *Barriers to Entry*, 72 Amer. Econ. Rev. 47 (1982).

[461]*See* Elhauge, *Monopolization Standards*, 56 Stan. L. Rev. at 296 ("[I]t is precisely the prospect of being able to exclude rivals from one's property and charge a price above the marginal cost of using it that is necessary to encourage the prior investments that created the property.").

[462]*See United Shoe Machinery*, 110 F. Supp. at 344-45 (characterizing "competition based on pure merit" as involving "practices which can be described as the inevitable consequences of ability, natural forces, or law"); *id*. at 345 (treating contractual exclusion as involving "unnecessary" practices).

[463]*See* AREEDA, 7 ANTITRUST LAW, ¶ 1462a, p. 220 ("To see a firm's internal price or supplier decisions as a conspiracy at all may also be to see a restraint. And subjecting virtually every decision made within a firm to Sherman Act Section 1 scrutiny would not only overtax the physical limits of our antitrust enforcement institutions, it would also involve judges and commissioners with the daily business decisions of every firm."). *See also* AREEDA, 7 ANTITRUST LAW, ¶ 1464c, p. 236 ("conspiracies among unrelated units are *relatively* infrequent") (emphasis in the original); Coase, *The Institutional Structure of Production*, 82 Am. Econ. Rev. at 714 ("most resources in a modern economic system are employed within firms").

[464]*See* SULLIVAN, ANTITRUST, at 100 (arguing that courts should distinguish between conduct that merely "utilizes existing market opportunities," on the one hand, and "that which foreclos[es] . . . potential competitors as might have been alert enough to grasp an opportunity before the defendant had done so."); KAYSEN, UNITED SHOE MACHINERY, at 339 (suggesting that monopoly based upon superior skill is less likely to be permanent).

exclude rivals from the market presumptively based upon efficiency, only one, it might be said, leaves rivals a "fighting chance" to enter or remain in the market. A rival who falls prey to a better product or lower prices can blame itself for the failure; one excluded by a contract can point to the "coercion" inherent in such an arrangement.[465]

Nonetheless, TCE and its theory of the firm suggest that any such distinctions are more illusory than real. As an initial matter, consider the following: even so-called "unilateral" conduct by a single firm is almost always "concerted action" between numerous individuals working pursuant to a nexus of contracts.[466] These contracts, in turn, often provide the firm's owners with exclusive access to certain property or talents (human capital). According to TCE, then, what price theory calls (technological) "competition on the merits" is more than an exercise of property rights. It is also a sort of legal or social construction, which requires the negotiation and enforcement of any number of *agreements* between input owners that have the express purpose of excluding rivals from resources that the rivals would deem important, even necessary to effective competition. So, for instance, a shoe machinery corporation or software manufacturer that engages in extensive research and development will no doubt require its engineers or software writers to sign contracts that prevent them from "moonlighting" for a competitor and even from working for a competitor for a substantial

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[465] *Cf. Eastman Kodak*, 504 U.S. at 482 (offense of monopolization involves the "use of monopoly power to foreclose competition"), *quoting* United States v. Griffith, 334 U.S. 100, 107 (1948); *Eastman Kodak*, 504 U.S. at 483-86 (finding that tying contracts would constitute such an unlawful use of market power absent a showing of justification); *Microsoft*, 253 F.3d at 63 (holding that contractual restrictions on PC makers' use of competing browsers constituted a "use of Microsoft's market power" that raised barriers to entry); *Berkey Photo*, 603 F.2d at 274-76 (Section 2 requires courts to distinguish between mere possession of monopoly power, on the one hand, and "use" of that power to "tighten [the monopolist's] hold on the market").

[466] *See* nn. _____, *supra* and accompanying text (explaining TCE's conclusion that "the firm" is in fact a nexus of contracts between individuals). *See also* Coase, *Nature of the Firm*, 4 Economica at *passim*; Masten, *Legal Basis for the Firm*, 4 J. L. Econ. & Org. at *passim*.

period of time after they depart from their employer.[467] Such contracts may also prevent these employees from releasing trade secrets at any time during and following their employment. Indeed, even without such contractual limitations, background rules of tort law forbid rivals from inducing a firm's employees to switch employers in the middle of their contractual terms.[468] Similarly, once these engineers or software writers invent a new product or write a new piece of software, the firm can often rely upon property law, both "real" and "intellectual," to exclude those who seek to copy it.[469] Finally, the law of trademark allows mark owners to exclude from the use of the mark those individuals or firms that do not first obtain (contractual) consent of the owner.[470]

Each of these agreements or rules is "exclusionary" in the sense that it limits the opportunities of actual or potential rivals by depriving them of access to potential inputs. In some cases such limits are contractual, in others they are based on the positive law of property, law that parties can always waive by contract. For instance, while patent law allows parties to protect their intellectual property, such protection usually involves a contract, that is, an agreement between

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[467] *See* United States v. Addyston Pipe & Steel Co., 85 F. 271, 281 (6th Cir. 1898) (Taft, J.) ("It was of importance that business men and professional men should have every motive to employ the ablest assistants, and to instruct them thoroughly, but they would naturally be reluctant to do so unless such assistants were able to bind themselves not to set up a rival business in the vicinity after learning the details and secrets of their employers."); *id.* at 281-82 (holding that covenants not to compete by employees were presumptively reasonable and enforceable). *See also* Ronald J. Gilson, *The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Covenants Not To Compete*, 74 N.Y.U. L. Rev. 575 (1999).

[468] *See* RESTATEMENT OF TORTS (Second) § 766; Lumley v. Gye, 118 Eng. Rep. 749 (K.B. 1853).

[469] *See* nn. ____, *supra*. *See also United Shoe Machinery*, 110 F. Supp. at 344-45 (holding that United's acquisition and enforcement of patents did not offend Section 2).

[470] *See, e.g.*, RESTATEMENT OF THE LAW OF UNFAIR COMPETITION (THIRD) §§ 18-20. *See also* Demsetz, *Barriers to Entry*, 72 Am. Econ. Rev. at 49 (explaining that trademark law creates a barrier to entry by those who might otherwise sell their own products under a rival's mark); Liebler, *Exclusion and Efficiency*, 11 Regulation at 39.

employees and owners that the former will not waive the firm's right to such property without the latter's consent. Similarly, the institution of franchising rests upon the power of the franchise system to consent — or refuse to consent — to the use of the trademark by new franchisees.[471] By refusing to consent to such use, the franchisee system can deprive potential rivals of access to an important input — the ability to operate under the trademark of the franchise system. While often characterized as "unilateral" action, such consent — or withholding of consent — is in fact the result of a joint venture between numerous "independent" franchisees.[472] In the same way, Ford's refusal to allow General Motors or Isuzu to use its factory to produce pickup trucks may increase the cost of production that these firms must incur.[473] Viewed through the lens of price theory, such a refusal looks like a unilateral decision by Ford to deny others access to its property. If, however, one applies the transaction cost paradigm, one finds that the refusal is the product of an "agreement" between Ford's numerous owners, directors, officers, and employees, the latter of whom essentially "rent"

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[471]Paul Rubin, *The Theory of the Firm and the Structure of the Franchise Contract*, 21 J. L. & Econ. 223, 227-28 (1978).

[472]*See* Alan J. Meese, *Farewell To The Quick Look: Reconstructing The Scope and Content of the Rule of Reason*, 68 Antitrust L. J. 469, 491-92 (2001) (explaining that operation of a franchise system constitutes a continuing horizontal agreement between actual or potential competitors); WILLIAMSON, ECONOMIC INSTITUTIONS, at 181-82 (characterizing franchise contract as joint venture between otherwise independent firms); HOVENKAMP, FEDERAL ANTITRUST POLICY, at 205 ("[R]estauranteurs scattered across a wide area might develop joint menus, building plans, and methods of doing business, and then promote their 'chain' nationally. This national name recognition will enable them to reach traveling customers that might otherwise avoid a local restaurant about which they know nothing. The *Topco* case . . . involved such a venture."). *See also* Chicago Professional Sports Ltd. Partnership v. NBA, 95 F. 3d 593, 598 (7th Cir. 1996)(explaining that cooperation between franchisees is horizontal in nature).

[473]*See* Liebler, *Exclusion and Efficiency*, 11 Regulation at 38 ("[E]xclusionary rights take the form of legal barriers to entry; their purpose and effect is to raise others' (including rivals') costs of using goods protected by the barriers. Ford Motor Company, for example, cannot use a General Motors plant without incurring the cost of getting the latter's permission."); Demsetz, *Barriers to Entry*, 72 Am. Econ. Rev. at 49 (same).

capital from Ford.[474] Each such provision raises the costs of rivals; sometimes these increases will be trivial, but sometimes they will be substantial. More importantly, what courts call "competition on the merits" is in fact the result of numerous contracts between input owners that necessarily exclude competing firms from particular resources and thus create "barriers to entry."[475]

Put another way, application of TCE and its theory of the firm reveal that the "exclusionary impact" of property rights is ultimately the result of contracts among various input owners. At the same time, "exclusionary agreements" between "independent firms" create potentially beneficial contractual property rights and are thus economically indistinguishable from the unilateral or internal conduct of an integrated firm exercising its own property rights.

Here the *Microsoft* case — the most important monopolization decision in decades — provides a useful example.[476] Assume for a moment that the firm is vertically integrated into the manufacture of personal computers, which the firm distributes through a separate division.[477] Assume further that the firm has a large share of the PC market, say, 50%, and chooses to develop a new browser — Internet Explorer. Assume further that the firm offers that browser for free to all

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[474]*Cf.* KUHN, SCIENTIFIC REVOLUTION, at 114-17 (paradigm shifts cause individuals to reinterpret previously-observed phenomena); BUTTERFIELD, ORIGINS OF MODERN SCIENCE, at 18 (scientists sometimes see old data in new ways after "putting on a different thinking cap").

[475]*See* Liebler, *Exclusion and Efficiency*, 11 Regulation at 38-39 (productive competition depends upon creation and enforcement of property rights); Demsetz, *Barriers to Entry*, 72 Am. Econ. Rev. at *passim* (same). *See also* F.A. Hayek, *The Meaning of Competition*, 110-111 in F.A. HAYEK, FREE ENTERPRISE AND ECONOMIC ORDER (1948) ("That a functioning market presupposes not only prevention of violence and fraud but the protection of certain rights, such as property, and the enforcement of contracts, is always taken for granted.").

[476]*See* nn. ____, *supra* and accompanying text (detailing claims and holding in *Microsoft*).

[477]This assumption is not far-fetched. Both Apple and IBM are vertically integrated in this manner. *See* Digital Equipment Corp. v. Uniq Digital Technologies, Inc., 73 F.3d 756, 761 (7th Cir. 1996) (describing how IBM, Apple, and Sun Microsystems all produce their own operating systems and PCs); *Microsoft*, 84 F. Supp. at 22 (explaining that Apple and IBM both produce operating systems for their PCs).

consumers who purchase a Microsoft PC, but also allows consumers to decline this option.[478] Finally, assume that the firm declines repeated requests from manufacturers of competing browsers to offer consumers the choice of other browsers when they purchase the machine.

By definition, this creation of Internet Explore and its inclusion on all Microsoft PCs would "exclude" other manufacturers of browsers from an important channel of distribution.[479] The same result would occur if Microsoft purchased a different firm's browser and chose to include only it on its PCs. Absent such absolute exclusion, such a unilateral refusal to allow a competitor to use the firm's property would still be presumed lawful.[480] Under current law, a plaintiff could rebut this presumption by showing that the refusal entirely eliminated competition by rivals.[481] By contrast, if Microsoft achieved the same result by contract with "independent" manufacturers of PCs, such a restriction would give rise to a *prima facie* case that Microsoft had violated Section 2, even if a

[478]By giving consumers this option, Microsoft would avoid any claim that the arrangement is a tying contract. Of course, even without such an explicit right, each consumers would have the ability to decline to use Microsoft's browser.

[479]*Cf. Microsoft*, 253 F.3d at 67-71 (holding that contractual exclusion of Netscape from a portion of an important channel of distribution sufficed to establish a *prima facie* case).

[480]*See* Olympia Equipment Leasing v. Western Union Telegraph Co., 797 F.2d 370, 378 (7th Cir. 1986) (Posner, J.) ("You cannot conscript your competitor's salesmen to sell your product even if the competitor has monopoly power and you are a struggling new entrant."). *See also Trinko*, 124 S. Ct. at 879-880 (refusal to deal lawful absent additional evidence that refusal could only serve anticompetitive objective); NYNEX Corp. v. DISCON, Inc., 525 U.S. 128, 137 (1998) (concluding that the freedom to choose one supplier to the detriment of others lies at the heart of the competitive process) (*quoting Standard Oil Co.*, 221 U.S. at 62 ("the freedom of the individual right to contract is not unduly or improperly exercised [is] the most efficient means for the prevention of monopoly")); *Alaska Airlines, Inc.*, 948 F.2d at 544; *In re Dupont de Nemours & Co.*, 96 F.T.C. at 745-46 (1980). *See also United Shoe Machinery*, 110 F. Supp. at 333, 344-45 (refusal to share technology with rivals did not violate Section 2).

[481]*See* Alaska Airlines, Inc. v. United Airlines, 948 F.2d 536, 544 (9th Cir. 1991); Twin Laboratories, Inc. v. Weider Health & Fitness, 900 F.2d 566, 567-69 (2d Cir. 1990).

plaintiff could not prove the existence of consumer harm.[482] Once such a case arose, Microsoft could only avoid liability by adducing evidence that the benefits of the arrangement outweighed the costs.[483] Moreover, even if Microsoft made such a showing, the plaintiff could still prevail if it showed that the defendant could achieve the same benefits with a means less restrictive of competition.[484]

B. *Toward A New Definition of Unlawful Contractual Exclusion*

As explained above, current law draws an indefensible distinction between two forms of conduct that excludes rivals. On the one hand, conduct that is purely internal to the firm, such as pricing decisions and product design, is presumed lawful, even if such conduct excludes all a firm's competitors from the marketplace. Moreover, plaintiffs that challenge such conduct face a heavy burden. In particular, to establish a *prima facie* case, plaintiffs generally must show that the challenged conduct cannot be explained absent a hypothesis that the defendant expects to obtain or preserve market power by excluding rivals.[485] So, for instance, a plaintiff challenging a monopolist's prices must do more than show that the defendant's prices entirely excluded it from the marketplace. Instead, the plaintiff must show that the defendant has priced below some measure of the defendant's

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[482]*See Microsoft*, 253 F. 3d at 67-71 (finding such a *prima facie* case where Microsoft entered agreements that excluded rivals from a significant portion of an important distribution channel). *See also* nn. ____, *supra* and accompanying text (describing judicial hostility toward such contracts under current law).

[483]*See* nn. ____, *supra* and accompanying text.

[484]*See* nn. ____, *supra* and accompanying text.

[485]*See* Brooke Group v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 223 (1993) (above-cost pricing by a monopolist is lawful *per se*); Trans Sport Inc. v. Starter Sportswear, Inc., 964 F. 2d 186, 189-91 (2d Cir. 1992) (Marshall, J.) (monopolist's refusal to deal was lawful where defendant adduced non-pretextual business rationale for its conduct); Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263, 272-74 (2d Cir. 1979) (realization of economies of scale by a monopolist cannot violate Section 2). *See also* nn. ____, *supra* and accompanying text.

costs. Moreover, while such a showing will suffice to make out a *prima facie* case, the defendant can nonetheless avoid liability by showing that such below-cost pricing in fact makes sense even if the defendant does not obtain or preserve market power.[486]

By contrast, so-called contractual exclusion, that is, arrangements that reach beyond an individual firm and bind competitor's suppliers or customers, are the object of intense judicial scrutiny. First, plaintiffs challenging such arrangements may establish a *prima facie* case simply by showing that they exclude some rivals from a "substantial" portion of the marketplace. This presumption rests upon price theory's model of (workable) competition, which saw no legitimate purpose for such agreements which supposedly "raise barriers to entry" and thwart "competition on the merits."[487] Furthermore, once plaintiffs establish such a case, defendants that seek to rebut it bear a heavy burden. In particular, a defendant must do more than show that the restraint produces benefits, *i.e.*, is rational absent the possession or expectation of market power. Instead, the defendant must rebut any claim that less restrictive means will achieve the same objectives as the challenged restraint.[488] Indeed, in *Microsoft* the D.C. Circuit imposed an additional hurdle, holding, as it did, that defendants must show that a restraint's benefits outweigh its harms.[489]

This article has shown that modern law's disparate treatment of "internal" and "contractual" exclusion reflects the continuing influence of price theory's theory of the firm and the derivative workable competition model. Recently, economists have generated a more realistic paradigm,

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[486]*See* nn. ____, *supra* and accompanying text (detailing standards that courts apply to internal conduct).

[487]*See* nn. ____, *supra* and accompanying text.

[488]*See* nn. ____, *supra* and accompanying text (describing standards governing contracted exclusion).

[489]*See* nn. _____, *supra* and accompanying text.

transaction cost economics (TCE). Application of TCE and its theory of the firm undermines price theory's account of vertical integration generally and the existence of firms in particular. At the same time, TCE offers its own theory of the firm, a theory that also explains a wide variety of non-standard contracts that price theory deemed "monopolistic" and/or exclusionary. In particular, TCE demonstrates that the "firm" is simply a "nexus of contracts" designed to reduce the cost of relying upon atomistic markets to conduct economic activity. At the same time, TCE concludes many non-standard contracts can also reduce transaction costs, while at the same time avoiding the downside of relying upon a completely integrated firm to conduct economic activity.[490] TCE's conception of the firm and other non-standard contracts suggests that any distinction between "internal" and "contractual" exclusion is entirely illusory. More fundamentally, just as "competition on the merits" can exclude rivals on the basis of efficiency and without any expectation of market power, so too can various non-standard contracts that reach beyond the firm.[491]

Recognition that internal conduct and contractual exclusion can produce similar economic benefits suggests that courts should subject such conduct to similar levels of scrutiny. More precisely, faithful application of the Rule of Reason requires courts to adjust current doctrine in light of changes in economic theory to harmonize the treatment of "internal" and "contractual" exclusion, respectively.[492] Antitrust courts could achieve this objective by adjusting monopolization doctrine in several ways. First, and most importantly, courts should adjust the requirements for establishing

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[490] *See* nn. ____, *supra* and accompanying text (detailing TCE's account of the firm and other non-standard contracts).

[491] *See* nn. ___, *supra* and accompanying text.

[492] *See* nn. ___, *supra* and accompanying text (explaining that *Standard Oil* and *American Tobacco* require courts to adjust antitrust doctrine when necessary to reflect the evolution of economic theory).

a *prima facie* case that contractual conduct constitutes a violation of Section 2. In particular, plaintiffs alleging that a particular agreement unduly interferes with "competition on the merits" should have to establish the structural prerequisites for the creation of anticompetitive harm. So, for instance, a plaintiff challenging an exclusive dealing arrangement as monopolistic should do more than simply show that the agreement excludes a rival from a "substantial" portion of an "important" distribution channel.[493] Instead, courts should require plaintiffs to show that market conditions are such that exclusion of this rival will likely harm consumers by raising or maintaining prices.[494] To this end, the plaintiff would have to show, among other things, that other channels of distribution were significantly more expensive than the channel preempted by the defendant.[495] The plaintiff would also have to show that the cost of distribution was a significant portion of the cost of the final product, with the result that higher input prices would significantly disadvantage one or more of the defendant's rivals.[496] Moreover, the plaintiff would have to rebut any claim that disadvantaged rivals could protect themselves by adopting strategies that counteract an agreement's exclusive impact.[497]

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[493] *Cf.* nn. ___, *supra* and accompanying text (explaining that current law allows plaintiffs to establish a *prima facie* case by making such a minimal showing); nn. ____, *supra* and accompanying text (describing holding in *Microsoft* case to this effect).

[494] *Cf.* Thomas G. Krattenmaker and Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power Over Price*, 96 Yale L.J. 209 (1986).

[495] *See* Krattenmaker & Salop, *Raising Rivals' Costs*, 96 Yale L. J. at 223-27, 234-36.

[496] *See* Krattenmaker & Salop, *Raising Rivals' Costs*, 96 Yale L. J. at 255.

[497] *See* Krattenmaker and Salop, *Raising Rivals' Costs*, 96 Yale L. J. at 268-73; Frank H. Easterbrook, *Predatory Strategies and Counter-Strategies*, 48 U. Chi. L. Rev. 263 (1981) (exploring various means victims may employ to resist exclusionary strategies).

Finally, the plaintiff would have to show that a policy disadvantaging it could affect ultimate market prices to the detriment of consumers.[498]

While proof of these conditions should suffice to establish a *prima facie* case, such proof should not itself establish liability. After all, proof that conditions are ripe for an anticompetitive strategy does not mean that such a strategy is actually afoot. Moreover, proof that such conditions are present does not exclude or even tend to exclude the possibility that the challenged arrangement overcomes a market failure.[499] As a result, courts should recognize and entertain arguments that such exclusionary agreements can overcome market failures by creating contractual property rights that ensure that individuals and firms internalize the costs and benefits of their actions.[500] Thus, courts should allow defendants to rebut such a *prima facie* case by showing that the restraint in question in fact overcomes a market failure and thereby produces significant cognizable benefits.[501]

Courts could, of course, balance such benefits against the anticompetitive harm purportedly produced by such arrangements.[502] Courts could also subject such proof to the sort of less restrictive

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[498]*See* Krattenmaker & Salop, *Raising Rivals' Costs*, 96 Yale L. J. at 262-66.

[499]*See* Krattenmaker & Salop, *Raising Rivals' Costs*, 96 Yale L.J. at 277-78.

[500]*See* nn. ____, *supra* and accompanying text (describing how such agreements can overcome market failures by creating the contractual equivalent of property rights). *Cf.* AREEDA AND HOVENKAMP, 3 ANTITRUST LAW at ¶ 651c (declining to explain how exclusionary contracts can further competition on the merits).

[501]*Cf.* Meese, *Rule of Reason*, 2003 Ill. L. Rev. at 161-67 (advocating similar approach to Rule of Reason analysis).

[502]*See Microsoft*, 253 F.3d at 59, 61 (holding that courts should balance a restraint's benefits against the harms it produces once the defendant rebuts a *prima facie* case). *See also* Meese, *Rule of Reason*, 2003 Ill. L. Rev. at 108-110 (describing the balancing that takes place in Rule of Reason litigation under Section 1).

alternative test employed under current law.[503] Both forms of scrutiny rest upon the assumption that any benefits of such restraints necessarily coexist with anticompetitive effects.[504] Still, courts have rejected such intrusive review where a plaintiff challenges above-cost pricing, the introduction of new products or a refusal to deal.[505] Here courts implicitly conclude that the benefits of such conduct outweigh any resulting harm.[506] In the same way, courts should reject such scrutiny in cases where the defendant shows that an exclusionary agreement produces significant efficiencies.[507] Indeed, proof that a restraint produces such benefits undermines any assumption that the benefits produced by the restraint coexist with anticompetitive effects.[508] After all, once a defendant shows that a restraint produces significant benefits, the mere fact that the restraint excludes rivals from a marketplace that meets the prerequisites for a successful anticompetitive strategy no longer suffices to support a presumption of consumer harm; such exclusion is equally consistent with the defendant's claim that the restraint, like any other property, simply overcomes a market failure.[509] In these circumstances, courts should dispense with balancing or examination of "less restrictive

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[503] *See* nn. ____, *supra* and accompanying text (describing courts application of this test once where defendants have proved that a restraint produces significant benefits).

[504] *See* nn. ____, *supra* and accompanying text.

[505] *See* nn. _____, *supra* and accompanying text. *See also*, *e.g.*, *Trans Sport*, 964 F. 2d at 188-91 (refusal to deal justified so long as defendant offered non-pretextual plausible business justification); *Olympia Equipment*, 797 F.2d at 377-79.

[506] *See* nn. ____, *supra* and accompanying text (explaining how workable competition model depended on this assumption); Williamson, *Economies As An Antitrust Defense*, 58 Am. Econ. Rev. at *passim* (merger that creates significant efficiencies almost certainly enhances total welfare).

[507] *See* Meese, *Price Theory, Competition, and the Rule of Reason*, 2003 Ill. L. Rev. at 161-67.

[508] *See* nn. ____, *supra* and accompanying text.

[509] *See* Meese, *Rule of Reason*, 2003 Ill. L. Rev. at 161-167 (proof that a restraint produces benefits undermines any presumption that such benefits coexist with anticompetitive effects).

alternatives" and instead accord such conduct the same treatment as, say, above-cost pricing by a monopolist: *per se* legality.[510]

Conclusion

Modern monopolization law rests upon a distinction between property-based "competition on the merits," on the one hand, and contractual exclusion, on the other. In particular, current law treats the former conduct as presumptively lawful while subjecting the latter to exacting scrutiny. This article has shown that current law rests upon price theory's outmoded conception of the firm and the derivative model of workable competition. This model treats property-based internal conduct as presumptively efficient while at the same time condemning a firm's attempt to disadvantage rivals by using contracts to constrain the discretion of customers or suppliers.

Application of a competing model --- transaction cost economics (TCE) --- undermines the distinction between internal conduct and contractual exclusion. TCE undermines price theory's technological conception of the firm and concludes that the firm is itself a non-standard contract that individuals employ to reduce the cost of market contracting. TCE also shows that, like the firm, various exclusionary contracts can overcome market failures by creating the equivalent of property rights that cause actors to internalize the costs and benefits of their activities. While such agreements can exclude rivals from the marketplace, they often do so on the basis of efficiency and are thus economically indistinguishable from internal "competition on the merits."

The realization that internal and contractual exclusion are economically similar requires courts to adjust antitrust doctrine accordingly. In particular, courts should treat contractual exclusion

[510] *Cf.* United States v. United Shoe Machinery Co., 247 U.S. 32, 63 (1918) (adoption of restraints before firm possessed a monopoly suggested they produced benefits); *id.* at 65-67 (restraints that produced benefits did not offend Section 2).

in the same way they currently treat “competition on the merits,” rejecting challenges to any agreements that produce significant benefits, regardless of exclusionary impact.