

2005

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Repository Citation

Meese, Alan J., "Market Failure and Non-Standard Contracting: How the Ghost of Perfect Competition Still Haunts Antitrust" (2005).
Faculty Publications. 57.
<https://scholarship.law.wm.edu/facpubs/57>

MARKET FAILURE AND NON-STANDARD CONTRACTING: HOW THE GHOST OF PERFECT COMPETITION STILL HAUNTS ANTITRUST

*Alan J. Meese**

ABSTRACT

Modern antitrust policy has a ‘love hate’ relationship with non-standard contracts that can overcome market failure. On the one hand, courts have abandoned various *per se* rules that once condemned such agreements outright, concluding that many non-standard contracts may produce benefits that are cognizable under the antitrust laws.¹ The prospect of such benefits, it is said, compels courts to analyze these agreements under the Rule of Reason, under which the tribunal determines whether a given restraint enhances or destroys competition.² At the same time, courts, scholars, and the enforcement agencies have embraced methods of rule of reason analysis that are unduly hostile to such agreements.³ In particular, courts and others are too quick to view such agreements and the market outcomes they produce as manifestations of market power. This article seeks to explain why these agreements are still the object of undue hostility.

The article finds an explanation in the continued influence of the perfect competition model on antitrust thinking. The article begins by offering a revised explanation for the so-called ‘inhospitality era’ of antitrust, an explanation that helps shed light on the current state of affairs. During this period, which stretched from the 1930s until 1978, scholars, courts and the enforcement

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The author thanks Lillian BeVier, Edmund Kitch, Thomas Nachbar, John Harrison, and other participants in a workshop at the University of Virginia School of Law for helpful comments on an earlier draft of this paper. The author also thanks Richard Hynes, Jim Moliterno, and participants in the summer workshop series at William and Mary for a helpful discussion of this project. The William and Mary School of Law provided a summer research grant in support of this paper. Della Harris provided word processing assistance, and Justin Laughter provided helpful research assistance.

¹ See *State Oil v Khan*, 522 US 3 (US Supreme Court 1997) (abandoning *per se* ban on maximum resale price maintenance); *Continental T.V. v. GTE Sylvania*, 433 US 36 (US Supreme Court 1977) (abandoning *per se* ban on vertically-imposed exclusive territories).

² See *Continental T.V. v GTE Sylvania*, 433 US 36 (US Supreme Court 1977) 49–59; see also *Chicago Board of Trade v United States*, 246 US 231, 238 (US Supreme Court 1918) (describing fact-intensive nature of rule of reason analysis).

³ See Alan J. Meese, ‘Price Theory, Competition, and the Rule of Reason’, 2003 *Illinois Law Review* 77 (2003).

agencies condemned most non-standard contracts as unlawful *per se* or nearly so. Beginning in the 1960s, the advent of transaction cost economics (TCE) caused many scholars to recognize that non-standard contracts can produce significant efficiencies by reducing transaction costs, and this recognition has resulted in the relaxation of most, but not all, *per se* rules in the courts. Practitioners of TCE traced the inhospitality tradition to neoclassical price theory, its paradigmatic technological conception of the firm and the resulting hostility toward partial integration, which by its nature cannot produce technical efficiencies. In other words, these scholars saw the problem as arising 'from the inside-out': because economists of the era misunderstood why firms exist, they could not understand less complete forms of integration, either. TCE, it is said, offered a new explanation for the firm, an explanation that also helped explain partial integration in the form of non-standard contracts.

Still, lingering manifestations of the inhospitality tradition in the form of unjustified *per se* rules and an unduly hostile Rule of Reason suggest that the TCE revolution has not been entirely successful where antitrust doctrine is concerned. As a result, it seems likely that there is some shortcoming in TCE's account of the inhospitality tradition, a shortcoming that has undermined the efforts of TCE's proponents to convince courts and agencies to reform antitrust doctrine. This article argues that the conventional explanation simply begs the question why inhospitality-era scholars did not recognize that non-standard agreements could produce non-technical efficiencies by overcoming market failure. The article also offers an explanation for this latter oversight, an explanation rooted in the period's paradigmatic approach to analyzing questions of market failure.⁴ This approach, it is shown, rested upon a methodological habit common to this pre-Coasean era of assuming that 'perfect competition' and 'market failure' co-existed. By imagining perfect competition, and framing market failure as a phenomenon that thwarted an optimal allocation of resources, which perfect competition would otherwise produce, the methodology of the era effectively blocked the recognition of certain market failures of particular relevance to antitrust policy. More importantly, this methodology blocked the recognition that private contracts could overcome market failure, because such contracts necessarily entailed one or more departures from the very perfect competition that was the foundation for the analysis. In the absence of a benign explanation for non-standard contracts, scholars and others naturally viewed non-standard contracts as manifestations of market power and thus proper objects of regulation designed to optimize the allocation of resources.

Of course, the Coase theorem has taught us that perfect competition cannot coexist with market failure.⁵ Moreover, practitioners of TCE have shown that many non-standard agreements are in fact methods of reducing the cost of transactions, that is, relying upon an unbridled market to conduct

⁴ See Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press 1970).

⁵ See Ronald H. Coase, 'The Problem of Social Cost', 3 *JLE* 1 (1960).

economic activity.⁶ Such agreements are beneficial, it is said, precisely because unbridled markets sometimes fail to produce an optimal allocation of resources.⁷ At the same time, however, courts, scholars, and enforcement officials still lack a complete understanding of the market failure concept and its relation to antitrust analysis of non-standard contracts. In particular, courts and others do not seem to recognize that such agreements entail contractual internalization of externalities that alter ‘competitive’ patterns of trade and produce prices and the output different from what would be obtained in an unbridled market. The paper ends by suggesting that perfect competition—the normative and interpretive bedrock of modern antitrust—still blocks the recognition that certain non-standard contracts produce benefits by overcoming market failure and thus altering the terms or patterns of trade.

Antitrust regulation is, after all, designed to thwart a particular form of market failure—the misallocation of resources resulting from the exercise of market power. As shown below, inhospitality-era economists used perfect competition as a methodological starting point for their analysis of market failure. In the same way, modern antitrust scholars embrace a peculiar version of perfect competition—modified to exclude externality by assumption—as a normative ideal and starting point for the interpretation of business behavior in their effort to identify and quash market failure *qua* market power. The perfect competition framework is sufficiently elastic to accommodate claims that mergers reduce production costs, or non-standard agreements ‘reduce transaction costs.’ Modern scholars recognize that such practices are often beneficial, even as they result in departures from perfect competition. At the same time, scholars who embrace perfect competition as a starting point thereby assume that any departure from this antiseptic model—even if beneficial—reflects some exercise of market power. It is thus no surprise that many scholars treat non-standard contracts that exclude competition or collectively alter price and output as manifestations of market power. Thus, modern antitrust’s embrace of perfect competition and its core vision of atomistic rivalry apparently blocks the recognition that non-standard contracts altering *collective* prices and outputs or thwarting rivals’ access to markets can in fact internalize externalities, change a firm’s cost structure, and thus alter price or output without creating or exercising market power. As a result, modern scholars still treat agreements that expressly or effectively alter prices or exclude rivals as manifestations of market power, the antithesis of the unbridled rivalry and the resulting prices implied by the perfect competition model and its more realistic variants. So long as scholars cling to perfect competition as a normative and descriptive ideal, antitrust policy will likely misinterpret some contracts that overcome market failure.

Part I examines certain aspects of current law that reflect an incoherent approach to contracts that overcome market failure. Part II examines the

⁶ See nn 119–27, below and accompanying text.

⁷ See nn 123–27, below and accompanying text.

standard account of the so-called inhospitality tradition and offers a critique of that account. Part III offers an alternative account of the inhospitality tradition, an account grounded in the claim that the period's paradigm for addressing questions of market failure depended upon the methodological habit of assuming that perfect competition coexisted with such failures. Part IV examines the treatment of perfect competition and market failure by representative modern antitrust scholars and suggests that the perfect competition model still blocks antitrust scholars from recognizing the exact manner in which non-standard contracts overcome market failure. It is thus no surprise that courts and enforcement officials are still unduly hostile to many such contracts.

I. THE INCOHERENCE OF CURRENT LAW

Courts, scholars and enforcement agencies were uniformly hostile to non-standard contracts for more than four decades.⁸ During this 'inhospitality era' agencies challenged and judges condemned most such restraints as unlawful *per se* or nearly so under Section 1 of the Sherman Act or Section 3 of the Clayton Act.⁹ At the same time, courts and the agencies condemned outright many non-standard contracts as 'exclusionary' practices that offended Section 2 of the Sherman Act if adopted by a monopolist.¹⁰ According to scholars,

⁸ Of course, 'the firm' is simply a particular type of non-standard contract, with the result that references to 'non-standard contracts' could encompass both complete and partial integration. See Steven N. S. Cheung, 'The Contractual Nature of the Firm', 26 *JLE* 1 (1983); Ronald H. Coase, 'Nature of the Firm', 4 *Economica* (n.s.) 386 (1937). See also Benjamin Klein, Robert Crawford and Armen Alchian, 'Vertical Integration, Appropriable Rents and the Competitive Contracting Process', 21 *JLE* 297 (1978), 326. However, this paper follows Professor Williamson's example and uses the term 'non-standard contract' to refer only to partial contractual integration. See Oliver E. Williamson, *Economic Institutions of Capitalism* (New York: Free Press; London: Collier Macmillan 1985) 13, 23–25, 371. Examples include tying, exclusive dealing, minimum resale price maintenance, and various horizontal restraints ancillary to otherwise valid joint ventures. *Ibid.*, at 13.

It should be noted that Williamson's definition, and thus the one employed in this paper, is very expansive, including within its ambit any contract that does more than simply mediate the passage of title at a uniform price. *Ibid.*, at 23 (distinguishing between nonstandard contracts and 'classical market exchange,' whereby 'product is sold at a uniform price to all comers without restriction'. As such, this formulation would include various garden variety agreements such as warranties or return provisions. Thus, any assertion that scholars were once hostile to all or most 'nonstandard contracts' defined in this way probably sweeps too broadly. This paper therefore employs the term 'nonstandard contract' somewhat loosely, to refer simply to those agreements that were the object of antitrust concern and condemnation during the inhospitality era. I am grateful to Edmund Kitch for pressing me on the meaning of 'non-standard' in this context.

⁹ Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 124–34 (recounting this hostility); Frank H. Easterbrook, 'Is There A Ratchet In Antitrust Law?', 60 *Texas Law Review* 705–715 (1982).

¹⁰ See Alan J. Meese, 'Monopolization, Exclusion, and the Theory of the Firm', 89 *Minnesota Law Review* 743, 793–808 (2005). See also *United States v Grinnell Corp.*, 384 US 563, 578 (US Supreme Court 1966) (banning exclusive dealing clause without regard to benefits).

courts, and the agencies, these non-standard agreements involved the exercise of market power in one of two ways. First, a firm could use such power to impose these contracts on unwilling buyers, thus excluding rivals and protecting or enhancing the firm's existing power.¹¹ Second, several firms could employ such contracts to create and exercise market power that none would possess individually.¹²

More recently, courts, scholars and agencies have taken a significantly more charitable view of such restraints, abandoning or softening numerous *per se* rules.¹³ This new attitude followed what might be called a revolution in Industrial Organization in the form of Transaction Cost Economics (TCE).¹⁴ According to TCE, most non-standard contracts, including those that are 'horizontal,' are methods of reducing the cost of transactions, that is, the cost of relying upon an unbridled market to conduct economic activity.¹⁵ Put another way, such contracts can overcome various 'market failures' that would prevent an optimal allocation of resources.¹⁶

Thus, while it may appear that manufacturers 'force' or 'impose' some non-standard agreements on unwilling purchasers, agreements that reduce

¹¹ See *Fortner Enterprises v United States Steel Corp.*, 394 US 495 (US Supreme Court 1969) (tying); *Perma Life Mufflers v International Parts Corp.*, 392 US 134 (US Supreme Court 1968) (holding that exclusive dealing and tying contracts were the result of coercion).

¹² See *United States v TOPCO*, 405 US 596 (US Supreme Court 1972) (exclusive territories ancillary to valid joint venture); *Klor's, Inc. v Broadway Hale Stores*, 359 US 207 (US Supreme Court 1957) (group boycott by rival suppliers).

¹³ See *State Oil v Khan*, 522 US 3 (US Supreme Court 1997) *passim*; *BMI v CBS*, 441 US 1 (US Supreme Court 1979) (finding that horizontal price fixing ancillary to blanket license agreement was subject to rule of reason analysis); *Continental T.V. v GTE Sylvania*, 433 US 36 (US Supreme Court 1977) *passim*. See also Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 Illinois Law Review 77 (2003), 141–44 (describing judicial retreat from some *per se* rules).

¹⁴ See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 Illinois Law Review 77 (2003), 141–44 (describing influence of TCE on modern antitrust doctrine); Oliver E. Williamson, 'Delimiting Antitrust', 76 Georgetown Law Journal 271 (1987), 274 (contending that TCE worked a 'genuine scientific revolution'); Williamson, see above n 8, at 15–42 (summarizing TCE); *ibid.*, at 365–84 (discussing various antitrust ramifications of TCE).

¹⁵ Williamson, above n 8, at 28 (articulating this presumption) See also Carl Dahlman, 'The Problem of Externality', 22 *JLE* 141 (1979) (defining transaction costs).

¹⁶ See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 Illinois Law Review 77 (2003), 136–41. See also William F. Baxter, 'The Viability of Vertical Restraints Doctrine', 75 California Law Review 933 (1987), 945–46; Wesley J. Liebler, 'Horizontal Restrictions, Efficiency, and the Per Se Rule', 33 UCLA Law Review 1019 (1986); Frank H. Easterbrook, 'Vertical Arrangements and the Rule of Reason', 53 Antitrust Law Journal 135 (1984) (contending that vertical distribution restraints are generally methods of reducing the cost of relying upon markets); Richard A. Posner, *Antitrust Law: An Economic Perspective* (Chicago: University of Chicago Press 1976) 159–67 (arguing that vertical and horizontal distribution restraints are generally procompetitive); Robert H. Bork, 'The Rule of Reason and the Per Se Concept: Price Fixing and Market Division', 75 Yale Law Journal 373 (1966), 430–38 (explaining how ancillary horizontal exclusive territories can ensure optimal promotion by joint ventures).

transaction costs are best understood as the result of voluntary integration between the parties.¹⁷ For instance, firms that fear future opportunism by their trading partners may offer those partners favorable pricing or other treatment if the partners agree to contractual provisions that attenuate the prospect of such opportunism.¹⁸ In this way, the at-risk party can induce its trading partners to internalize the harm that future opportunism would cause, thereby persuading the partner to adopt a contractual restraint that maximizes the parties' joint welfare over time.¹⁹ Moreover, while some non-standard agreements result in prices or other terms of trade different from those that existed before the restraint, such changes may simply reflect the elimination of market failure and the resulting internalization of externality that had produced inefficient market outcomes.²⁰ This internalization, in turn, will change the firms' costs and thus alter the price consumers pay for what is now a different product.²¹ In short, TCE undermines any claim that non-standard contracts generally reflect an exercise of market power.

Despite this sea-change in economic thought, various aspects of antitrust doctrine still reflect an undue focus on 'market power' as the cause or consequence of non-standard contracts. While TCE has led courts to abandon

¹⁷ See Alan J. Meese, 'Monopolization, Exclusion, and the Theory of the Firm', 89 *Minnesota Law Review* 743, 822–29, 832–42 (2005) (explaining how beneficial non-standard contracts obtained by a monopolist are in fact instances of voluntary integration); Alan J. Meese, 'Tying Meets The New Institutional Economics', 146 *University of Pennsylvania Law Review* 1 (1997), 61–94 (explaining how tying contracts that overcome market failure are in fact instances of voluntary integration); Williamson, see above n 8, at 33; Benjamin Klein, 'Transaction Cost Determinants of "Unfair" Contractual Arrangements', 70 *American Economic Review* 356 (1980), 360–61 (explaining how parties can enter non-standard contracts without regard to market power).

¹⁸ Williamson, see above n 8, at 33; Benjamin Klein, 'Transaction Cost Determinants of "Unfair" Contractual Arrangements', 70 *American Economic Review* 356 (1980), 357–58 (contract price will reflect prospect of opportunism in light of contractual terms). See also Alan J. Meese, 'Tying Meets The New Institutional Economics', 146 *University of Pennsylvania Law Review* 1 (1997), 61–94 (showing that sellers can obtain agreement to tying contracts by offering to sell tying product separately at a premium that reflects the risk of opportunism that seller would suffer absent some mechanism preventing such conduct).

¹⁹ See Charles Goetz and Robert Scott, 'Principles of Relational Contracts', 67 *Virginia Law Review* 1089 (1981), 1094–95 (predicting that parties will adopt relational contracts that will induce them to replicate the behavior of a single, unified firm over time).

²⁰ See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 138–41 (explaining TCE's conclusion that unbridled competition can result in market failure correctable by non-standard contracts); Frank H. Easterbrook, 'Vertical Arrangements and the Rule of Reason', 53 *Antitrust Law Journal* 135 (1984), 156 (beneficial vertical restraints often increase prices).

²¹ See Frank H. Easterbrook, 'Vertical Arrangements and the Rule of Reason', 53 *Antitrust Law Journal* 135 (1984), 147–49 (explaining that vertical arrangements can create new product that includes information that consumers desire); nn 266–69, below and accompanying text (explaining how non-standard contracts can facilitate specialization and thus help firms produce unique products).

certain *per se* rules, judges have reaffirmed others.²² At the same time, judges and the enforcement agencies have stubbornly clung to the modes of rule of reason analysis that reflect unjustified assumptions that certain non-standard agreements involve the exercise of market power.²³ The following discussion highlights three such instances of undue hostility: (1) rule of reason analysis of horizontal arrangements in the courts; (2) rule of reason analysis of such agreements by the enforcement agencies and (3) the analysis of non-standard 'exclusionary' agreements obtained by monopolists and scrutinized under Section 2 of the Sherman Act.

A. NCAA and the Rule of Reason

Consider the Supreme Court's most fulsome application of the Rule of Reason: *NCAA v Board of Regents of the University of Oklahoma*, which set the tone for modern rule of reason analysis.²⁴ There the Court evaluated the NCAA's restrictions on the price and output of games licensed to television networks by the league's members. The Court acknowledged that such restrictions would ordinarily be unlawful *per se* under then-current law, even if ancillary to an otherwise lawful venture, because they interfered with rivalry between competing firms.²⁵ Nonetheless, the Court held that application of the *per se* rule would be inappropriate, given that some cooperation between rivals was necessary to produce the venture product: college football.²⁶ While the Court emphasized the necessity of cooperation on items like rules of the game, eligibility requirements, and scheduling, it also approved (in *dicta*) the league's rule, placing a ceiling on the amount that a school could pay an athlete to attend.²⁷ According to the Court, if a single school tried to maintain amateur-level compensation on its own, it

²² See *Business Electronics Corp. v Sharp Electronics*, 485 US 723 (US Supreme Court 1988) (reaffirming *per se* ban on minimum resale price maintenance) (*dicta*); *Arizona v Maricopa County Medical Society*, 457 US 332 (US Supreme Court 1982) 343 (reaffirming *per se* ban on ancillary horizontal maximum price fixing).

²³ See *State Oil v Khan*, 522 US 3 (US Supreme Court 1997) (rejecting *per se* rule against maximum resale price maintenance); *Continental T.V. v GTE Sylvania*, 433 US 36 (US Supreme Court 1977) (rejecting *per se* rule against vertical exclusive territories).

²⁴ 468 US 85 (US Supreme Court 1984).

²⁵ See *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984) 98–100, nn 18–19 (citing *TOPCO*, 405 U.S. at 608–611); (declaring horizontal limitation on territories ancillary to legitimate joint venture unlawful *per se*, despite absence of market power by venture); *United States v Sealy, Inc.*, 388 US 350 (US Supreme Court 1967) (declaring ancillary price restrictions unlawful *per se* without any analysis of market power).

²⁶ See *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984) 101–03; *ibid*, at 101 ('What is critical [to rejection of the *per se* rule] is that this case involves an industry in which horizontal restraints on competition are essential if the product is to be available at all.').

²⁷ See *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984) 101–02.

would soon lose attractive athletes and suffer on the playing field and thus in the marketplace.²⁸ Only collective action setting the price paid for the athletes' services could preserve the integrity of the game by ensuring that amateur college football did not degenerate into semi-pro football.²⁹ In this way, the Court said, such a restraint could increase the number of entertainment options available to consumers.³⁰

The Court's refusal to apply the *per se* rule in *NCAA* seems to reflect a nascent recognition that some horizontal restrictions on rivalry can overcome market failures and thus enhance the results of overall competition.³¹ After all, the Court approved (in *dicta*) a horizontal agreement that presumably reduced 'wages' paid student athletes below the level that a 'free market' would produce.³² The Court did so because it believed that unbridled competition between member schools would produce the 'wrong' price for labor, because schools would not internalize the impact of their salary decisions on the integrity of the league product.³³ Indeed, in reaching its conclusion, the Court expressly invoked its earlier decision in *Continental T.V. v GTE Sylvania*, for the proposition that 'a restraint in a limited aspect of a market may actually enhance market wide competition.'³⁴ *Sylvania*, of course, relied quite expressly

²⁸ Ibid, at 101–02 ('The NCAA seeks to market a particular brand of football—college football. The identification of this "product" with an academic tradition differentiates college football from and makes it more popular than professional sports to which it might otherwise be comparable, such as, for example, minor league baseball. In order to preserve the character and quality of "the product," athletes must not be paid, must be required to attend class, and the like. And the integrity of "the product" cannot be preserved except by mutual agreement; if an institution adopted such restrictions unilaterally, its effectiveness as a competitor on the playing field might soon be destroyed.').

²⁹ See *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984) 102 (explaining that such limits were necessary to prevent college football from becoming identified in the public mind with 'professional sports to which it might otherwise be comparable, such as, for example, minor league baseball.').

³⁰ See *ibid* ('In performing this role [enforcing limits on payments to athletes] its actions widen consumer choice—not only the choices available to sports fans but also those available to athletes—and hence can be viewed as procompetitive.').

³¹ See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 142–43 (interpreting *NCAA* and related decisions in this manner). See *Chicago Professional Sports Limited Partnership v NBA*, 95 F3d 593 (US 7th Circuit 1996) (relying on *NCAA* for proposition that horizontal restrictions that may combat free riding should be analyzed under the Rule of Reason); *Polk Brothers, Inc. v Forest City Enterprises*, 776 F2d 185 (US 7th Circuit 1985) (same).

³² See *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984) 101–02.

³³ See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 142–43. But see Gary R. Roberts, 'The NCAA, Antitrust, and Consumer Welfare', 70 *Tulane Law Review* 2631 (1996) (contending, without mention of market failure concept, that unbridled competition between schools would produce amateurism if consumers demanded it).

³⁴ See *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984) 103 (citing *Continental T.V. v GTE Sylvania*, 433 US 36 (US Supreme Court 1977)).

on market failure reasoning.³⁵ Such reasoning would seem to imply that a restraint could enhance competition by increasing prices.³⁶

While nominally limited to collective action with respect to price, similar logic readily carries over to restraints impacting output as well. Almost by their nature, after all, sports leagues must determine the total output of their members.³⁷ In the absence of such an agreement, unbridled decision making could result in 'too many' games, transforming student athletes into quasi-professionals. While such restrictions could reduce output measured in the raw number of games, they likely enhance other measures of output.³⁸ In the same way, numerous other collective restrictions on output can enhance the welfare of society and consumers.³⁹

³⁵ See *Continental T.V. v GTE Sylvania*, 433 US 36 (US Supreme Court 1977) 55 ('The availability and quality of such services [i.e., promotional expenditures] affect the manufacturer's goodwill and the competitiveness of his product. Because of market imperfections such as the so-called "free rider" effect, these services might not be provided by retailers in a purely competitive situation, despite the fact that each retailer's benefit would be greater if all provided the services than if none did'); Williamson, see above n 8, at 372 (asserting that *Sylvania* decision was the result of changes in economic theory wrought by TCE); *ibid* ('The intellectual basis for assessing the merits of alternative modes of organization evidently experienced substantial changes in the 10-year interval [before *Sylvania*]. Public policy was transformed as a consequence.').

³⁶ See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 Illinois Law Review 77 (2003), 156–58. See also William F. Baxter, 'The Viability of Vertical Restraints Doctrine', 75 California Law Review 933 (1987), 945–46 (vertical restrictions that overcome market failure naturally lead to higher dealer prices); Frank H. Easterbrook, 'Vertical Arrangements and the Rule of Reason', 53 Antitrust Law Journal 135 (1984), 156 (same).

³⁷ See Herbert Hovenkamp, *Federal Antitrust Policy* (St Paul, MN: West Publishing 1999) 262 (NCAA football will not work without an agreement regulating the number of games that the teams will play.).

³⁸ Cf. *Chicago Professional Sports Limited Partnership v NBA*, 95 F3d 593, 598–99 (US 7th Circuit 1996) (explaining how output decisions by a joint venture can be analogous to similar decisions by single entities).

³⁹ For instance, partners in a law firm may agree that they will only practice law as members of the partnership and thus not 'moonlight,' i.e., practice law in their individual capacity. Such ancillary contractual restrictions may well reduce the total hours practiced by the two partners, i.e., output. Nonetheless, such agreements are generally enforced—even 'encouraged.' See *United States v Addyston Pipe & Steel Co.*, 85 F 271, 280 (US 6th Circuit 1898) (Taft, J.) (treating such restrictions as paradigmatic ancillary restraints that the law should 'encourage.').; Robert Bork, 'The Rule of Reason and the Per Se Concept: Price Fixing and Market Division', 75 Yale Law Journal 373 (1965), 381–83 (explaining how such restrictions could prevent free riding by partners and thus enhance welfare). Similarly, a covenant not to compete can reduce the output of the party bound to it. At the same time, such restrictions can create incentives for individuals to create and build up businesses in the first place. *Ibid*; Michael Trebilcock, *The Common Law of Restraint of Trade: A Legal and Economic Analysis* (Toronto: Carswell 1986) 252–53. Finally, collective restrictions on the use of natural resources can eliminate wasteful over-investment in resource exploitation while at the same time preventing overuse of the resources themselves. See Jonathan Adler, 'Antitrust as an Obstacle to Marine Resource Conservation', 61 Washington & Lee Law Review 3 (2004); Fred S. McChesney, 'Talking 'Bout My Antitrust Generation: Competition For and In The Field of Competition Law', 52 Emory Law Journal 1401 (2003), 1418–21.

Nonetheless, the Court conducted rule of reason analysis in a manner that was inconsistent with any recognition that horizontal restraints could overcome market failures and produce price or output better than that produced by an unbridled market. After deciding not to condemn the restraints outright, the Court went on to analyze them in light of numerous findings made by the trial court.⁴⁰ The Court began by noting the lower court's finding that, because of the restraints, prices were higher, and output was lower, than they otherwise would have been.⁴¹ The Court defined 'output' as the total number of games broadcast by the member schools, without adjusting for any impact the restraints might have had on the quality of the games and the resulting broadcasts.⁴²

Such proof, the Court said, sufficed to establish a *prima facie* case that the restrictions were unreasonable.⁴³ In so doing, the Court rejected the defendants' argument that proof of market power was an indispensable element of a *prima facie* case.⁴⁴ Instead, the Court embraced the assertion by the United States that proof of higher price or lower output established a *prima facie* case, because such proof itself established that the defendants possessed the market power necessary to create anticompetitive harm.⁴⁵ Indeed, the Court went even further, a few pages later, suggesting that the mere existence of a restraint that expressly invoked price or output would itself suffice to establish a *prima facie* case.⁴⁶

⁴⁰ See *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984) 104–20 (evaluating purportedly harmful effects and defendants' various justifications).

⁴¹ *Ibid*, at 105–06 ('The district court found that if member institutions were free to sell television rights, many more games would be shown on television, and that the NCAA's output restriction has the effect of raising the price the networks pay for television rights.').

⁴² See *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984) 104–07; cf. *ibid*, at 129–30 (White, J. dissenting) (taking the Court to task for relying upon number of games *simpliciter* as the measure of output).

⁴³ See *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984) 112–13.

⁴⁴ *Ibid*, at 110. See also Frank H. Easterbrook, 'The Limits of Antitrust', 63 *Texas Law Review* 1 (1984), 17–23 (arguing that absence of market power should doom a plaintiff's case).

⁴⁵ See *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984) 110, n 42 ('Because a judgment about market power is the means by which the effects of the conduct on the market place can be assessed, market power is only one test of reasonableness... where the anticompetitive effects of conduct can be ascertained through means short of extensive market analysis, and where no countervailing competitive virtues are evident, a lengthy analysis of market power is not necessary.') (quoting Brief for the United States as Amicus Curiae, at 19–20).

⁴⁶ Responding to the defendants' claim that proof of market power was necessary to establish a *prima facie* case, the Court stated that the mere existence of what it called a 'naked' restraint sufficed to establish a *prima facie* case without regard to the presence of market power. See *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984) 110 ('We have never required proof of market power in such a case. This market restraint on price and output requires some competitive justification even in the absence of a detailed market analysis.'). The Court then went on to affirm the trial court's finding that the NCAA did, in fact, possess power in the relevant market. *Ibid*, at 111–12; *ibid*, at 115 (rejecting one of defendants' justifications because the defendants did not face interbrand competition). See also Gary R. Roberts, 'The NCAA, Antitrust, and Consumer Welfare', 70 *Tulane Law Review* 2631

The Court's conclusion that higher prices or lower output establish a *prima facie* case seems inconsistent with its previous conclusion that such restraints avoid *per se* condemnation because they may overcome market failure and improve upon the price and output produced by an unbridled market.⁴⁷ Still, reliance on 'actual anticompetitive harm' to establish a *prima facie* case does not itself preclude judicial recognition that a restraint is reasonable because it overcomes a market failure. After all, courts could allow defendants to adduce evidence that such restraints overcome a market failure and allow such evidence to rebut any presumption that the restrictions in question produce anticompetitive harm. Such proof would not simply meet a defendant's burden of production; it would, if unrebutted, entitle the defendant to a judgment.⁴⁸

The *NCAA* opinion, however, suggested a much different approach endorsed by leading scholars.⁴⁹ In particular, the Court made it clear that proof that a restraint overcomes a market failure does not in any way rebut the presumption that arises if a plaintiff shows that a restraint affects price or output. According to the Court, proof of such effects casts upon the defendant a burden of proof, not simply a burden of production.⁵⁰ Moreover, mere proof that such restrictions overcome a market failure cannot satisfy that burden. Instead, the Court rejected the defendants' various justifications on the ground that the proof offered did not tend to undermine the district court's factual finding that the restrictions reduced output and increased price.⁵¹ This

(1996), 2651 (concluding expressly that existence of 'legitimate competitive counterarguments that allow [the NCAA] to avoid the *per se* bullet should not also allow it to call into question the underlying assumptions about the anticompetitive nature of a uniform wage.').

⁴⁷ See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 Illinois Law Review 77 (2003), 145–61; *Matsushita Electric Industrial Corp. v Zenith Radio Corp.*, 475 US 574 (US Supreme Court 1986) 587–95 (evidence that is equally consistent with benign and harmful interpretations of challenged conduct cannot by itself support an inference of harm).

⁴⁸ See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 Illinois Law Review 77 (2003), 161–67 (arguing that proof that a restraint overcomes a market failure should suffice to rebut a *prima facie* case that is based solely on actual detrimental effects). Cf. Phillip Areeda and Herbert Hovenkamp, *Antitrust Law* (New York: Aspen Law & Business 2003) vol. 7, ¶ 1507c, 385–86 (such proof by defendants meets a burden of production and thus sends case to a jury absent additional proof by the plaintiff).

⁴⁹ See n 67, below (collecting works by leading scholars endorsing the approach taken in *NCAA*).

⁵⁰ See *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984) 113 ('Under the Rule of Reason, these hallmarks of anticompetitive behavior place upon petitioners a heavy burden of establishing an affirmative defense which competitively justifies this apparent deviation from the operation of a free market.') (citing *National Society of Professional Engineers v United States*, 435 US 679 (US Supreme Court 1978) 692–96).

⁵¹ See *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984) 114 ('There is therefore no predicate in the district court's factual findings for petitioner's efficiency justification. Indeed, petitioner's argument is refuted by the district court's finding concerning price and output. If the NCAA's television plan produced procompetitive efficiencies, the plan would increase output and reduce the price of televised games. The district court's findings accordingly undermine petitioner's position.'). *ibid*, at 115 (rejecting

approach was consistent with the Court's holding in a previous case that a justification is not even cognizable in the first place unless it rests on a claim that the restraint will reduce price and increase output as measured by the Court when determining the existence of a *prima facie* case.⁵²

The Court's approach to rule of reason analysis contradicted its apparent recognition that horizontal restrictions can overcome market failure.⁵³ For one thing, the Court's requirement that the defendants establish an 'affirmative defense' that 'justified' the restrictions on rivalry signaled an assumption that any benefit of the restraint coexisted with the anticompetitive exercise of market power irrevocably presumed, once the plaintiff established a *prima facie* case.⁵⁴ Given this assumption, proof that the restrictions overcame a market failure would in no way 'rebut' the presumption of market power underlying the *prima facie* case; they would instead justify the anticompetitive harm that exists despite such benefits.⁵⁵ Similarly, the Court's requirement that any procompetitive benefits manifest themselves through prices that were lower than those that existed before the restraint is entirely at odds with the Court's earlier suggestion that horizontal restraints can be 'reasonable' if they overcome a market failure through contractual collective action that results in price or output that is different from that previously produced by unbridled rivalry.⁵⁶ Thus, *NCAA* reflects an incomplete understanding of the meaning of market failure and the relationship between contracts that overcome market failure, on the one hand, and market power, on the other.

NCAA is not an isolated decision. Just 2 years later the Court repeated its claim that a restraint's impact on price or output sufficed to establish that the defendants had exercised market power to the detriment of consumers.⁵⁷

claim that plan was necessary to penetrate the market through an effective package sale because the district court found that the restrictions reduced output); *Ibid*, at 119–20 (holding that the 'most important reason' for rejecting defendants' claim that the restriction enhanced 'competitive balance' between venture participants was the 'finding that consumption [i.e., the raw number of games] will materially increase if the [restraints] are lifted.').

⁵² See *National Society of Professional Engineers v United States*, 435 US 679 (US Supreme Court 1978) 693 (justification that rests on claim that the restraint will increase prices is not cognizable).

⁵³ See nn 31–36, above and accompanying text.

⁵⁴ See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 146–47, 162 (explaining how rule of reason balancing test applied by *NCAA* and other courts rests on such an assumption). Cf. Oliver Williamson, 'Economies as an Antitrust Defense: The Welfare Trade-Offs', 58 *American Economic Review* 18 (1968) (articulating partial equilibrium trade-off model for analyzing mergers that simultaneously create market power and economies of scale).

⁵⁵ Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 108–10 (explaining this aspect of *NCAA* and other rule of reason caselaw).

⁵⁶ See nn 31–36, above and accompanying text.

⁵⁷ See *Federal Trade Commission v Indiana Federation of Dentists*, 476 US 447 (US Supreme Court 1986) 460–61 (explaining that proof of market power is simply 'a 'surrogate for detrimental effects,' and that proof of the latter was sufficient to establish a *prima facie* case) (quoting Phillip Areeda, *Antitrust Law* (New York: Aspen Law & Business 1986) vol. 7, ¶ 1511, at 429).

Moreover, in its most recent statement on the Rule of Reason, the Court approved *NCAA's dicta* to the effect that the mere existence of certain restraints should itself suffice to establish a *prima facie* case and that, in any event, rule of reason analysis does not always require a full blown market analysis.⁵⁸

Most lower courts have also followed *NCAA's* lead.⁵⁹ To be sure, these courts purport to assign defendants only a burden of *production* once the plaintiff makes out a *prima facie* case.⁶⁰ At the same time, these decisions generally embrace *NCAA's* approach to establishing such a case in the first place, holding that proof that a restraint results in higher prices or reduced output itself establishes such a case without regard to the restraint's impact on the quality of the product.⁶¹ This is so, it should be noted, regardless of whether the challenged restraint expressly mentions price or output. Thus, even when the defendant avoids *per se* treatment by arguing that an agreement to increase price will overcome a market failure, proof that the agreement in fact has its beneficial, intended effect creates a presumption that the restraint is anticompetitive.⁶² Moreover, even if the defendants adduce unchallenged proof that the restraint in fact overcomes a market failure, such proof does not

⁵⁸ See *Federal Trade Commission v California Dental Association*, 526 US 756 (US Supreme Court 1999) (stating that courts should presume a restraint unlawful when 'an observer with even a rudimentary understanding of economics could conclude that the arrangements in question have an anticompetitive effect on consumers and markets.') (citing *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984)). See also Stephen Calkins, 'California Dental Association: Not the Quick Look, But Not The Full Monty, Either', 67 Antitrust Law Journal 495 (2000).

⁵⁹ See Michael Carrier, 'The Real Rule of Reason: Bridging The Disconnect', 1999 Brigham Young University Law Review 1265 (1999).

⁶⁰ See *Capital Imaging Associates, P.C. v Mohawk Valley Medical Association*, 996 F.2d 537 (US 2nd Circuit 1993) 543 ('After the plaintiff satisfies its threshold burden of proof under the Rule of Reason, the burden shifts to the defendant to offer evidence of pro-competitive "redeeming virtues" of their combination. Assuming defendant comes forward with such proof the burden shifts back to plaintiff...') (emphasis added); Areeda, see above n 48, at vol. 7, ¶ 1507c, at 385 ('Once the plaintiff satisfies his burden of persuasion... he will prevail unless the defendants introduce evidence sufficient to allow the tribunal to find that their conduct promotes a legitimate objective.'). See also Michael Carrier, 'The Real Rule of Reason: Bridging The Disconnect', 1999 Brigham Young University Law Review 1265 (1999), 1268.

⁶¹ *Rel/Max International, Inc. v Realty One, Inc.*, 173 F3d 995 (US 6th Circuit 1999) 1014–15 (proof that restraint raised commissions paid by the plaintiff established a *prima facie* case) (citing *Indiana Federation of Dentists*); *Law v NCAA*, 134 F3d 1010 (US 10th Circuit 1998) 1019–20 (proof that restrictions reduced the salaries paid to a certain subset of college coaches established a *prima facie* case); *United States v Brown University*, 5 F3d 658 (3rd Circuit 1993) 668 ('The plaintiff may satisfy [its initial burden of proof under the Rule of Reason] by proving the existence of actual anticompetitive effects such as reduction in output, increase in price, or deterioration in the quality of goods and services.'). See also Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 Illinois Law Review 77 (2003), 105–07; Mark Patterson, 'Market Power In Rule of Reason Cases', 37 San Diego Law Review 1 (2000) (summarizing case law to this effect).

⁶² See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 Illinois Law Review 77 (2003), 147–48 (explaining this disconnect in current law).

rebut the plaintiff's prima facie case. Instead, courts instruct juries to 'balance' any such benefits against the restraint's purported harms.⁶³ Indeed, even if the benefits of the restraint outweigh its harms, courts will nonetheless enter a judgment for the plaintiff if the plaintiff can show that the defendants could achieve the same benefits by means of a less restrictive alternative.⁶⁴ Both the balancing and the less restrictive alternative components of the analysis are premised upon an assumption, rarely made explicit, that any benefits produced by a restraint in fact coexist with harms that are presumed to exist once the plaintiff makes out a prima facie case.⁶⁵ Such harms, of course, purportedly flow from an exercise of market power.⁶⁶ Leading scholars have endorsed the approach outlined by *NCAA* and the lower courts.⁶⁷

⁶³ See *Law v NCAA*, 134 F3d 1010 (US 10th Circuit 1998) 1019 ('the harms and benefits must be weighed against each other in order to judge whether the challenged behavior is, on balance, reasonable.') (citing *Areeda*, see above n 48, at vol. 7, ¶ 1502, at 372); *Doctor's Hospital of Jefferson, Inc. v Southeast Medical Alliance*, 123 F3d 301 (US 5th Circuit 1997) 307 ('the anticompetitive evils of a restrictive practice must be balanced against any procompetitive benefits or justifications within the confines of the relevant market.'). *Capital Imaging Associates, P.C. v Mohawk Valley Medical Association*, 996 F2d 537 (US 2nd Circuit 1993) 543 (once defendant produces evidence of benefits, the fact finder must weigh the costs and benefits of a restraint).

⁶⁴ See *Law v NCAA*, 134 F3d 1010 (US 10th Circuit 1998) 1019 (once defendants prove that benefits are present, the plaintiff can prevail by showing that 'those objectives can be achieved in a substantially less restrictive manner'); *Sullivan v National Football League*, 34 F3d 1091 (US 1st Circuit 1994) 1103 (same); *United States v Brown University*, 5 F3d 658 (3rd Circuit 1993) 679 (same); *Capital Imaging Associates, P.C. v Mohawk Valley Medical Association*, 996 F.2d 537 (US 2nd Circuit 1993) 543 ('Assuming defendant comes forward with such proof, the burden shifts back to plaintiff for it to demonstrate that any legitimate collaborative objectives could have been achieved by less restrictive alternatives.'). *United States Healthcare, Inc. v Healthsource, Inc.*, 986 F2d 589 (1st Circuit 1993) 594 (rule of reason analysis requires 'the most careful weighing of costs and benefits'); see also *Chicago Professional Sports Limited Partnership v NBA*, 961 F2d 667 (US 7th Circuit 1992) (presence of less restrictive alternative doomed defendants' attempt to justify explicit restraint on output of broadcast games).

⁶⁵ Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 109–10, 167–70 (explaining how current approach to rule of reason balancing rests upon assumption that harms and benefits coexist); Hovenkamp, see above n 37, at 255–59; *Areeda*, see above n 48, at vol. 7, 1502, at 345–46; *ibid*, at 370 (less restrictive alternative test asks whether defendants can achieve objective 'in a manner that restrains competition less').

⁶⁶ See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 105–07; Mark Patterson, 'Market Power In Rule of Reason Cases', 37 *San Diego Law Review* 1 (2000), 39. See also *Todd v Exxon Corp.*, 275 F.3d 191, 206 (2nd Circuit 2001) (claiming that 'an actual adverse effect on competition... arguably is more direct evidence of market power than elusive market share figures'); *Areeda*, see above n 48, at vol. 7, 1507, at 400 (various methods of establishing existence of prima facie case are alternate vehicles of establishing possession and use of market power).

⁶⁷ For instance, many leading scholars have embraced the balancing metaphor. See *Areeda*, above n 48, at vol. 7, 1507b, at 397 (1986) (absent showing that defendants could achieve benefits via less restrictive means, 'the tribunal must somehow weigh and balance the harm against the benefit'); Hovenkamp, see above n 37, at 257–58 (same); Lawrence Sullivan and Warren Grimes, *The Law of Antitrust: An Integrated Handbook* (St Paul, MN: West Publishing 2000) 211 (Rule of Reason applied to horizontal restraints requires court to determine 'whether benefits are attained and, if so, whether they exceed the harms'); *ibid*, at 333–35 (endorsing such an

B. The Agencies' View of Horizontal Restraints: The 1996 Competitor Collaboration Guidelines

One could perhaps attribute doctrinal inconsistencies to a lack of judicial expertise and resulting caution. However, *NCAA* relied at least in part upon the advice of the United States and the period's most influential antitrust scholar.⁶⁸ Moreover, more than two decades later, the nation's two expert enforcement agencies announced guidelines that manifest some of the same internal inconsistencies. In 1996, the Department of Justice and Federal Trade Commission promulgated guidelines governing their assessment of horizontal restraints that limit rivalry between competitors.⁶⁹ These Guidelines begin with a statement of 'General Principles' that purportedly guide the more detailed provisions that follow. According to these principles, an agreement among rivals may benefit consumers by 'allow[ing] its participants to better use existing assets, or may provide incentives for them to make output-enhancing investments that would not occur absent the collaboration.'⁷⁰ Such collaboration, it is said, may allow cooperating rivals to achieve 'lower prices, improved quality, or bring new products to the market faster.'⁷¹

The Guidelines then explain how the agencies distinguish between contracts that are unlawful *per se*, on the one hand, from those subject to rule of reason analysis, on the other.⁷² Here the Guidelines begin by condemning as 'unlawful *per se*' any agreement 'not to compete on price or

approach to vertical restraints). Moreover, the same scholars have endorsed the conclusion that proof of actual detrimental effects should suffice to establish a *prima facie* case. See Areeda, above n 48, at vol. 7, ¶ 1511c; Sullivan & Grimes, see above, at 210–12 (approving *NCAA*'s rejection of market power inquiry given proof of increased prices); Hovenkamp, see above n 37, at 256. Finally, several leading scholars have endorsed the less restrictive alternative test as applied in this context. See Areeda, above n 48, at vol. 7, ¶ 1507b; *ibid.*, at ¶ 1505b; Hovenkamp, see above n 37, at 257 (endorsing such a test for evaluation of horizontal restraints ancillary to joint ventures); *ibid.*, at 489 (endorsing such a test when evaluating vertical distribution restraints); Stephen Ross, *Principles of Antitrust Law* (Westbury, NY: Foundation Press 1993) 157–58 (contending that an ancillary restraint should be unlawful if 'broader than necessary to achieve its purpose'); Sullivan & Grimes, see above, at 223 (endorsing such a test for analysis of horizontal restraints); Thomas A. Piraino, Jr., 'Reconciling Competition And Cooperation: A New Antitrust Standard For Joint Ventures', 35 William & Mary Law Review 871 (1994), 930 (endorsing application of less restrictive alternative test to restraints ancillary to legitimate joint ventures). See also Gary R. Roberts, 'The NCAA, Antitrust, and Consumer Welfare', 70 Tulane Law Review 2631 (1996), 2649–51 (endorsing *NCAA dicta* to the effect that mere proof that schools set wages or prices collectively should suffice to establish a *prima facie* case).

⁶⁸ See *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984) 110, n 42 (invoking views of the United States); *ibid.*, at 109, n 39 (invoking the views of Professor Areeda). See also n 340, below and accompanying text (collecting statistics regarding Professor Areeda's influence).

⁶⁹ See FTC and DOJ Competitor Collaboration Guidelines (1996).

⁷⁰ *Ibid.*, at § 2.1.

⁷¹ *Ibid.*

⁷² *Ibid.*, at §§ 3.1 and 3.2.

output.⁷³ Two sentences later, however, the Guidelines create an exception for such agreements that are 'reasonably necessary to achieve [the] procompetitive benefits' of an 'efficiency enhancing integration of economic activity.'⁷⁴ Agreements on price or output that fall into this category are analyzed under the Rule of Reason, even if they are 'of a type that might otherwise be considered *per se* illegal.'⁷⁵

Thus, the Competitor Collaboration Guidelines apparently recognize that agreements between rivals eliminating competition on price or output can in some cases plausibly enhance consumer welfare and thus properly avoid *per se* treatment. Moreover, the Guidelines do not limit this category to restraints designed to *reduce* prices or increase output; thus, restrictions that purport to increase prices or reduce output are included as well. In carving out this exception, the Guidelines are consistent with recent caselaw, including *NCAA*, which has recognized exceptions to the once-firm *per se* rule against all collective price or output restrictions.⁷⁶

It would seem, then, that the enforcement agencies are amenable to claims that collaboration between rivals on price or output is necessary to overcome some form of market failure that could defeat or attenuate the benefits of a legitimate venture. *A fortiori*, the Guidelines purport not to condemn outright non-price restrictions that nonetheless increase price or reduce output.⁷⁷ At the same time, however, the Guidelines articulate a rule of reason methodology that is unduly hostile to such agreements. According to the

⁷³ Ibid, at § 3.1.

⁷⁴ Ibid, at § 3.2.

⁷⁵ Ibid, at § 3.2 ('If, however, participants in an efficiency-enhancing integration of economic activity enter into an agreement that is reasonably related to the integration and reasonably necessary achieve its procompetitive benefits, the Agencies analyze the agreement under the rule of reason, even if it is of a type that might otherwise be considered *per se* illegal.'). See also *In re Polygram Holding, Inc.*, 2003 FTC Lexis 120 (US Federal Trade Commission 4 July 2003) * 61 (defendants may avoid summary condemnation of a restraint that is 'inherently suspect' by offering claim that the restriction produces plausible efficiencies that are cognizable under the Sherman Act).

⁷⁶ See *Law v NCAA*, 134 F3d 1010 (US 10th Circuit 1998) 1019–20; *Chicago Professional Sports Limited Partnership v NBA*, 95 F3d 593 (US 7th Circuit 1996) 600 (Easterbrook, J.); *United States v Brown University*, 5 F3d 658 (US 3rd Circuit 1993). See also *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984). Compare *United States v TOPCO*, 405 US 596 (US Supreme Court 1972) (even ancillary horizontal restraints on prices or territories are unlawful *per se*) with *Rothery Storage v Atlas Van Lines Co.*, 792 F2d 210 (US District of Columbia Circuit 1986) (Bork, J.) (concluding that *Topco* is no longer good law in light of decisions like *NCAA*). See also Fred S. McChesney, 'Talking 'Bout My Antitrust Generation: Competition For And In The Field of Competition Law', 52 Emory Law Journal 1401 (2003), 1410–11 (suggesting that *Rothery Storage* rested on very creative claim that *Topco* is no longer good law).

⁷⁷ See *United States v TOPCO*, 405 US 596 (US Supreme Court 1972) (declaring territorial restraints ancillary to legitimate joint venture unlawful *per se*). But see Joel L. Klein, 'A Stepwise Approach for Analyzing Horizontal Agreements' (Nov. 7, 1996) (available at <http://www.usdoj.gov/atr/public/speeches/0979.htm>) (agencies will subject *TOPCO*-like agreements to rule of reason analysis).

Guidelines, the central focus of rule of reason analysis involves a comparison of the 'state of competition' before the challenged agreement, as opposed to the state of competition after it.⁷⁸ This approach is quite sensible on its face: restraints—even those on price or output—that overcome market failure can enhance 'competition' and produce results that enhance consumer welfare.⁷⁹ It might seem, then, that the Guidelines' 'before and after' approach to the Rule of Reason can accommodate arguments that a restraint which increases price or reduces output actually enhances overall 'competition.'⁸⁰ Closer inspection, however, reveals a less sophisticated definition of competition, and one ill-suited for the recognition and validation of restraints that overcome market failure. In particular, the Guidelines focus on the *results* of rivalry that exists before and after the agreement, expressly equating the 'state of competition' with the magnitude of variables such as price, output and quality. To be precise, the Guidelines provide that an agreement injures 'competition' and thus offends the Rule of Reason if it results in prices that are higher, or an output that is lower, than what would have obtained without it.⁸¹ This standard seems inconsistent with the Guidelines' threshold recognition that even restraints on price or output can enhance the efficiency of joint ventures.⁸² Why allow rule of reason analysis of restrictions on price or output if restraints that actually impact such variables are uniformly condemned?

Examination of the Guidelines' precise process for analyzing such restraints confirms this apparent contradiction. The Guidelines require the agencies to begin by examining the agreement to determine whether it creates

⁷⁸ See FTC and DOJ Competitor Collaboration Guidelines, § 1.2.

⁷⁹ See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 Illinois Law Review 77 (2003), 134–41; *ibid* at 145–61 (explaining that application of transaction cost economics confirms that horizontal restrictions on price or output can overcome market failure and thus enhance overall market rivalry). See also *Standard Oil Co. v United States*, 221 US 1 (US Supreme Court 1911) 59–60 (explaining how restraints on parties' freedom of action can further overall process of competition); *Chicago Board of Trade v United States*, 246 US 231 (US Supreme Court 1918) 238 (Brandeis, J.) (explaining that partial restraint on price rivalry may actually promote competition); *Polk Brothers v Forest City Enterprises*, 776 F2d 185 (US 7th Circuit 1985) 188 (Easterbrook, J.) ('The war of all against all is not a good model for any economy. Antitrust law is designed to ensure an appropriate blend of cooperation and competition, not to require all economic actors to compete full tilt at every moment. When cooperation contributes to productivity through integration of efforts, the Rule of Reason is the norm.').

⁸⁰ See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 Illinois Law Review 77 (2003), 134–41.

⁸¹ See FTC and DOJ Competitor Collaboration Guidelines, § 3.1 ('Under the rule of reason, the central question is whether the relevant agreement likely harms competition by increasing the ability or incentive profitably to raise price or reduce output, quality or service below what likely would prevail in the absence of the relevant agreement.'). *ibid*, at § 2.1 (same); *ibid*, at § 2.2 (stating that an agreement creates 'anticompetitive harm' if it 'increas[es] the ability or incentive profitably to raise price above or reduce output, quality, service, or innovation below what likely would prevail in the absence of the relevant agreement.').

⁸² See nn 74–75, above and accompanying text.

'anticompetitive harm.'⁸³ Such an analysis sometimes requires definition of the relevant market and a determination of defendants' market power, if any.⁸⁴ The Guidelines also provide that the Agencies will dispense with such an analysis where 'the likelihood of anticompetitive harm is evident from the nature of the agreement.'⁸⁵ The Guidelines cite *NCAA* in support of such an approach and presumably endorse its approach to defining a *prima facie* case.⁸⁶

The Guidelines also follow *NCAA* when examining claims that restraints produce significant benefits that overcome any presumed harm. It is the possibility that a restraint produces benefits, such as the elimination of market failure, that avoids *per se* treatment in the first place.⁸⁷ The existence of such benefits does not by itself save the agreement from challenge. Instead, the Guidelines ask whether there is a less restrictive means of achieving such benefits.⁸⁸ Even if there is no less restrictive means, the Guidelines still ask whether the benefits adduced by the defendant 'offset' any anticompetitive harm by preventing price increases or reducing prices.⁸⁹ Here again the Guidelines judge the 'state of competition' by focusing on a single variable: price, without asking whether any price increase reflects an exercise of market power or, instead, the elimination of market failure. Like *NCAA* and similar decisions in the lower courts, the Guidelines reflect significant confusion about the relationship between market power, on the one hand, and restraints that overcome market failure, on the other. In short, the Guidelines are unduly biased against restraints that avoid *per se* condemnation because they plausibly overcome market failure.

C. Monopolization and the 'Use' of Monopoly Power

Similar shortcomings beset the law of monopolization. Under current law, mere possession of monopoly power does not suffice to establish a violation of

⁸³ See FTC and DOJ Competitor Collaboration Guidelines, § 3.3.

⁸⁴ *Ibid.*, at § 3.3.

⁸⁵ *Ibid.*, at § 3.3 ('The Agencies focus on only those factors, and undertake only that factual inquiry, necessary to make a sound determination of the overall competitive effect of the relevant agreement.').

⁸⁶ *Ibid.*, at § 3.3, n 28. See also Joel L. Klein, 'A Stepwise Approach to Antitrust Review of Horizontal Agreements,' at 3 (stating that mere existence of ancillary horizontal restrictions on territories sufficed to establish a *prima facie* case) (Nov. 7, 1996).

⁸⁷ See nn 74–75, above and accompanying text (describing Guidelines' conclusion that a plausible claim of efficiencies will suffice to save an otherwise unlawful restraint from *per se* condemnation); *In re Polygram Holding, Inc.*, 2003 FTC Lexis 120 (US Federal Trade Commission 4 July 2003) * 61–62 (same).

⁸⁸ See FTC and DOJ Competitor Collaboration Guidelines, § 3.36(b) ('If the participants could have achieved or could achieve similar efficiencies by practical, significantly less restrictive means, then the Agencies conclude that the relevant agreement is not reasonably necessary to their achievement.'). See also *In re Polygram Holding, Inc.*, 2003 FTC Lexis 120 (US Federal Trade Commission 4 July 2003) * 66.

⁸⁹ See FTC and DOJ Competitor Collaboration Guidelines, § 3.36.

Section 2 of the Sherman Act; plaintiffs must also show that the monopolist ‘used’ that power to ‘foreclose competition’ and thereby maintain its monopoly position.⁹⁰ Courts treat non-standard contracts like exclusive dealing and tying as quintessential examples of such ‘anticompetitive exclusion,’ as these restrictions are said to coercively foreclose rivals from the marketplace and produce unnatural patterns of trade.⁹¹ While monopolists may compete vigorously, they must do so ‘on the merits,’ that is, by improving product quality or realizing production efficiencies through innovation or economies of scale.⁹² Such competition is purely technological in nature.⁹³ Exclusionary contracts, it is said, interfere with such competition and deprive consumers of the benefits of unbridled rivalry.⁹⁴

Though once unlawful *per se*, a monopolist’s ‘exclusionary’ contracts are now analyzed under a truncated Rule of Reason.⁹⁵ Under this approach a plaintiff may make out a *prima facie* case by showing that a non-standard contract

⁹⁰ See *Eastman Kodak v Image Technical Services*, 504 US 451 (US Supreme Court 1992) 483 (offense of monopolization involves ‘use of monopoly power to foreclose competition’), quoting *United States v Griffith*, 334 US 100 (US Supreme Court 1948) 107. See also *United States v American Tobacco Co.*, 221 US 106 (US Supreme Court 1911) (mere possession of monopoly power does not suffice to establish offense of monopolization).

⁹¹ See *Eastman Kodak v Image Technical Services*, 504 US 451 (US Supreme Court 1992) 483–84 (treating tying contract as use of monopoly power to foreclose competition); *United States v Grinnell Corp.*, 384 US 563 (US Supreme Court 1966) 578 (5 year ‘coercive’ exclusive dealing agreement offended Section 2). See also *United States v Microsoft*, 253 F3d 34 (US District of Columbia Circuit 2001) (tying and exclusive dealing contracts deemed independently unlawful because they ‘foreclosed’ rivals from significant portion of the marketplace); *ibid*, at 64 (tying contracts involve ‘use’ of monopoly power).

⁹² *Brooke Group, Ltd v Brown & Williamson Tobacco Corp.*, 509 US 209 (US Supreme Court 1993) 223 (above-cost pricing cannot violate Section 2); *Aspen Skiing v Aspen Highlands Skiing Corp.*, 472 US 585 (US Supreme Court 1985) 600 (Sherman Act requires firms to compete through ‘internal expansion’); *Conwood Co., L.P. v United States Tobacco*, 290 F3d 768 (US 6th Circuit 2002) 783 (realization of economies of scale cannot offend Section 2); *United States v Microsoft*, 253 F3d 34 (US District of Columbia Circuit 2001) *passim* (distinguishing between technological innovation and lower prices, on the one hand, and contracts that disadvantage rivals, on the other); *Berkey Photo, Inc. v Eastman Kodak Co.*, 603 F2d 263 (US 2nd Circuit 1979) 274–75, 281–82 (realization of economies of scale or technological innovation cannot violate Section 2).

⁹³ See Alan J. Meese, ‘Monopolization, Exclusion, and the Theory of the Firm’, 89 Minnesota Law Review 743, 755–71 (2005) (describing the sort of technological competition that courts treat as legitimate).

⁹⁴ See *United States v Microsoft*, 253 F3d 34 (US District of Columbia Circuit 2001) 70–74. See also *Eastman Kodak v Image Technical Services*, 504 US 451 (US Supreme Court 1992) 483–84; *Jefferson Parish Hospital District Number 2 v Hyde*, 466 US 2 (US Supreme Court 1985) 12 (tying contracts ‘imposed’ by firms with market power interfere with ‘competition on the merits’).

⁹⁵ Cf. *United States v Grinnell Co.*, 384 US 563 (US Supreme Court 1966) 578 (declaring five year exclusive dealing contracts obtained by a monopolist unlawful despite claim of benefits); *ibid* (stating that trial court should consider benefits at remedy stage); *United States v United Shoe Machinery Co.*, 110 FSupp 295 (US District of Massachusetts 1953), *aff’d* *United Shoe Machinery Co. v United States*, 347 US 521 (US Supreme Court 1954) (*per curiam*) (declaring tying and exclusionary leasing provisions unlawful without regard to any benefits they might produce). See also *United States v American Tobacco Co.*, 221 US 106 (US Supreme Court 1911) 175–81 (holding that courts should analyze monopolization claims under the Rule of Reason).

‘excludes’ rivals from a significant portion of the marketplace.⁹⁶ Here again, however, the standards governing such justifications are unduly hostile to these contracts. Even if a defendant proves that the agreement produces significant benefits, courts will nonetheless void the practice if a plaintiff adduces a less restrictive means of achieving the same objective.⁹⁷ Some courts go even further, ‘balancing’ such benefits against the harms of such exclusion.⁹⁸ Both approaches rest upon an assumption that any benefits of such restraints necessarily coexist with anticompetitive effects—the exclusionary impact of contracts that reflect the use of market power.⁹⁹ The enforcement agencies and leading scholars agree with this test, and the distinction between ‘competition on the merits’ and contractual exclusion on which it rests.¹⁰⁰

II. THE SHORTCOMINGS OF THE STANDARD ACCOUNT OF THE INHOSPITALITY TRADITION

It is now commonplace among economists that most non-standard contracts reduce the cost of transacting—reliance on an unbridled market to conduct economic activity.¹⁰¹ In the absence of such contracts, reliance on the

⁹⁶ See *Eastman Kodak v Image Technical Services*, 504 US 451 (US Supreme Court 1992) 483–84; *United States v Microsoft*, 253 F3d 34 (US District of Columbia Circuit 2001) 68–71.

⁹⁷ See *Eastman Kodak v Image Technical Services*, 504 US 451 (US Supreme Court 1992) 483–86 (rejecting defendant’s motion for summary judgment because the plaintiff adduced evidence of less restrictive means); see also *Aspen Skiing Co. v Aspen Highlands Skiing Corp.*, 472 US 585 (US Supreme Court 1985) 605 (court should consider whether exclusion is broader than necessary to achieve legitimate benefits); *United States v Microsoft*, 253 F3d 34 (US District of Columbia Circuit 2001) 64–72 (same).

⁹⁸ See *United States v Microsoft*, 253 F3d 34 (US District of Columbia Circuit 2001) 59, 61 (holding that courts should balance a restraint’s benefits against the harms it produces once the defendant rebuts a prima facie case).

⁹⁹ See Alan J Meese, ‘Monopolization, Exclusion, and the Theory of the Firm’, 89 *Minnesota Law Review* 743, 760–61 (2005).

¹⁰⁰ Herbert Hovenkamp, ‘The Monopolization Offense’, 61 *Ohio State Law Journal* 1035 (2001); Jonathan B Baker, ‘Promoting Innovation Competition Through The Aspen/Kodak Rule’, 7 *George Mason Law Review* 495 (1999); Steven C. Salop and R. Craig Romaine, ‘Preserving Monopoly: Economic Analysis, Legal Standards, and the Microsoft Case’, 7 *George Mason Law Review* 617 (1999). See also Alan J. Meese, ‘Monopolization, Exclusion, and the Theory of the Firm’, 89 *Minnesota Law Review* 743, 811, n. 307. (2005) (collecting other authorities, including works by Professors Areeda, Grimes, Sullivan, and Piraino).

It should be noted that courts have taken a similar approach under Section 1 of the Sherman Act to tying contracts imposed by firms with market power. See *Jefferson Parish Hospital District Number 2 v Hyde*, 466 US 2 (US Supreme Court 1985) (ties imposed by firms with market power irrevocably presumed to be ‘forced’ on purchasers via market power). Moreover, lower courts that allow defendants to ‘justify’ *per se* unlawful tying contracts do so in a manner that assumes that any benefits of these agreements coexist with harms. See Alan J. Meese, ‘Antitrust Balancing in a (Near) Coasean World: The Case of Franchise Tying Contracts’, 95 *Michigan Law Review* 111 (1996).

¹⁰¹ Williamson, see above n 8, at 28 (concluding that there is a ‘rebuttable presumption that nonstandard forms of contracting have efficiency purposes’); Benjamin Klein & Lester F. Saft, ‘The Law and Economics of Franchise Tying Contracts’, 28 *JLE* 345 (1985) (arguing that

market may produce a market failure, that is, a departure from the allocation of resources that would occur in the absence of transaction costs.¹⁰² Antitrust scholars have followed suit and recognized that such agreements can often be 'procompetitive,' although these scholars rarely mention the concept of market failure.¹⁰³

This benign interpretation of non-standard contracts is relatively recent. For decades economists, antitrust scholars, and enforcement agencies were uniformly hostile to such agreements, and the courts followed suit.¹⁰⁴ The result was the so-called inhospitality-era, during which courts banned most non-standard contracts as unlawful *per se* or nearly so.¹⁰⁵ This section seeks to identify the source of this hostility in the economic theory of the time. Why is it that courts, legal scholars, and economists—all of whom were so quick to invoke 'market failure' as a rationale for banning 'harmful' agreements—were

franchise tying contracts can protect goodwill of the franchise system); Howard Marvel, 'Exclusive Dealing', 25 *JLE* 1 (1982) (arguing that exclusive dealing contracts can confer the equivalent of a property right upon manufacturers that advertise their products directly to consumers); Benjamin Klein, 'Transaction Cost Determinants of "Unfair" Contractual Arrangements', 70 *American Economic Review* 356 (1980); Lester G. Telser, 'Why Should Manufacturers Want Fair Trade?', 3 *JLE* 86 (1960); see also Ronald Coase, 'The Firm The Market, and The Law', in Ronald H. Coase, *The Firm, The Market and the Law* (Chicago: University of Chicago Press 1988) 26 (noting the ubiquity of transaction costs and resulting market failure in the real world).

¹⁰² See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 134–41; Guido Calabresi, 'Transaction Costs, Resource Allocation, and Liability Rules—A Comment', 11 *JLE* 67 (1968) (defining market failure in this manner). See also Ronald Coase, 'The Problem of Social Cost', 3 *JLE* 1 (1960). Compare George J. Stigler, *The Theory of Price* (New York: Macmillan 1966) 113 (claiming that the Coase theorem is simply an implication of the perfect competition model); *ibid.*, at 176–80 (perfect competition maximizes welfare).

¹⁰³ Hovenkamp, see above n 37, at 450–58; William F. Baxter, 'The Viability of Vertical Restraints Doctrine', 75 *California Law Review* 933 (1987), 945–46; Frank H. Easterbrook, 'Vertical Arrangements and the Rule of Reason', 53 *Antitrust Law Journal* 135 (1984); Richard A. Posner, 'Analysis of the Restricted Distribution, Horizontal Merger, and Potential Competition Decisions', 75 *Columbia Law Review* 282 (1975); 284; Robert H. Bork, 'The Rule of Reason and the Per Se Concept: Price Fixing and Market Division', 75 *Yale Law Journal* 373 (1966), 429–52.

¹⁰⁴ See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 124–34 (describing hostile Section 1 caselaw of this period); Alan J. Meese, 'Monopolization, Exclusion, and the Theory of the Firm', 89 *Minnesota Law Review* 743, 793–808 (2005) (describing hostile caselaw under Section 2).

¹⁰⁵ Williamson, see above n 8, at 19 (describing inhospitality tradition of antitrust); *ibid.*, at 370–73 (describing influence of inhospitality tradition on antitrust treatment of non-standard contracts); Frank H. Easterbrook, 'Is There A Ratchet In Antitrust Law?', 60 *Texas Law Review* 705 (1982), 715 ('[The] inhospitality tradition of antitrust... called for courts to strike down business practices that were not clearly procompetitive. In this tradition an inference of monopolization followed from the courts' inability to grasp how a practice might be consistent with substantial competition. The tradition took hold when many practices were genuine mysteries to economists, and monopolistic explanations were congenial. The same tradition emphasized competition in the spot market. Long-term contracts, even those arrived at by competitive processes, were deemed anticompetitive because they shut off day-to-day rivalry.').

unable to see that such contracts could, in some cases anyway, actually defeat market failure and improve the allocation of resources in a given market? As will be seen, the results of this inquiry will also shed light on the source of the modern attitudes toward such agreements.

A. The Conventional Account: Technology, the Firm, and Non-Standard Contracting from the 'Inside Out'

The conventional account of the inhospitality-era, promulgated mainly by Oliver Williamson, goes something like this.¹⁰⁶ In the 1940s, neoclassical price theory was the dominant economic paradigm and thus served as the basis for industrial organization.¹⁰⁷ Price theory treated the firm as a production

¹⁰⁶ Williamson, see above n 8, at 7, 18–19, 365–73. Other contributions along the same lines include: Richard N. Langlois, 'Contract, Competition, and Efficiency', 55 *Brooklyn Law Review* 831 (1989). See also Ronald H. Coase, 'Industrial Organization: a Proposal for Research', in Victor R. Fuchs (ed), *Policy Issues and Research Opportunities in Industrial Organization* (New York: National Bureau of Economic Research 1972).

¹⁰⁷ Williamson, above n 8, at 6–8. See also Ronald H. Coase, 'Industrial Organization: a Proposal for Research', in Victor R. Fuchs (ed), *Policy Issues and Research Opportunities in Industrial Organization* (New York: National Bureau of Economic Research 1972) 67 (surveying leading industrial organization textbooks in 1972 and concluding that they were manifestations of applied price theory). See generally Kuhn, see above n 4.

I am well aware of the definitional complexities surrounding the application of Kuhn's terminology and framework to this context. For one thing, Kuhn himself was ambivalent about whether economics was sufficiently 'scientific' to qualify for his analysis. Moreover, Kuhn has embraced a definition of 'paradigm' that is quite different from the now popular usage of the term. In particular, Kuhn originally used this term to refer to concrete problem solutions that a given profession has accepted as the basis for further research, often by analogy. See Thomas S. Kuhn, *The Essential Tension: Selected Studies in Scientific Tradition and Change* (Chicago: University of Chicago Press 1977) xvii–xx (recognizing that the definition of the concept expanded in *The Structure of Scientific Revolution* to refer to the set of values and pre-commitments shared by a particular scientific community); Kuhn, see above, at 225–39 (articulating Kuhn's original, narrower definition). See also Kuhn, 'Second Thoughts on Paradigms', in Kuhn, see above, 293, 294–308.

In limited defense of my application of a Kuhnian methodology, let me note the following. First, leading economists of the day treated economics as a discipline amenable to the scientific method, just like physics. See George J. Stigler, *The Theory of Competitive Price* (New York: Macmillan 1942) 3–26 (discussing scientific method as applied to economics); A.C. Pigou, *The Economics of Welfare* (London: Macmillan 1932) 3–11 (discussing 'realistic' nature of economic science); Frank H. Knight, *Risk, Uncertainty, and Profit* (Boston, New York: Houghton Mifflin 1921) 51–55 (discussing scientific nature of economic analysis); *ibid.*, at 6–11 (justifying economists' modeling techniques by invoking analogy to approach taken by physicists and other scientists). Of course, the mere fact that these scholars believed economics to be a science does not make it so. On the other hand, it does establish that these scholars were attempting to employ the scientific method, and that may be all that matters for those who are modeling their behavior. Second, other scholars, particularly those who have critiqued price-theoretic industrial organization, have invoked Kuhn's framework. See Ronald H. Coase, 'The Institutional Structure of Production', 82 *American Economic Review* 713 (1992), 718; Oliver E. Williamson, 'Delimiting Antitrust', 76 *Georgetown Law Journal* 271 (1987), 274 (contending that TCE worked a 'genuine scientific revolution'); Frank H. Easterbrook, 'Is There A Ratchet In Antitrust Law?', 60 *Texas Law Review* 705 (1982), 707, n 11 (invoking Kuhn for the claim that adherents

function, which took in inputs and converted them into outputs according to the physical laws reflected in the function.¹⁰⁸ Thus, the work of the firm took place within its boundaries, during the process of production. Once this process was complete, the firm's work was done, and the title to its product passed to consumers or another firm.¹⁰⁹

Price theory's technological conception of the firm implied a (exclusively) technological rationale for vertical integration, the common ownership of the successive stages of production. The classic example was the integration of iron production with steel production to avoid the need to reheat iron ingot before transforming it into steel.¹¹⁰ Such integration, of course, tended to lower the cost of production and thus reduce prices and increase output. Economists of this era employed this technological paradigm when examining vertical integration in their efforts to determine the causes of business

to the inhospitality approach would not lightly abandon their preexisting beliefs). See also Frank M. Machovec, *Perfect Competition and the Transformation of Economics* (London, New York: Routledge 1995) (arguing that the emergence of the perfect competition model early in the 20th century was a Kuhnian scientific revolution); William H. Page, 'The Chicago School And The Evolution of Antitrust: Characterization, Antitrust Injury, and Evidentiary Sufficiency', 75 *Virginia Law Review* 1221 (1989), 1225–26, n 6 (offering a defense of using Kuhnian framework to interpret evolution of antitrust law in response to changes in economic theory).

¹⁰⁸ Williamson, see above n 8, at 7, 26; Richard N Langolis, 'Contract, Competition, and Efficiency', 55 *Brooklyn Law Review* 831 (1989), 834 ('The economist's firm—at least until recently—was a black box, a production function that took in inputs and transformed them into outputs').

¹⁰⁹ See Richard N. Langlois, 'Contract, Competition, and Efficiency', 55 *Brooklyn Law Review* 831 (1989), 835 (explaining how price theory's theory of the firm only recognized 'classical contracting'). Professor Williamson summarized this milieu as follows:

The prevailing orientation toward economic organization in the 30-year hiatus between 1940 and 1970 was that technological features of firm and market organization were determinative. The allocation of economic activity as between firms and markets was taken as a datum, firms were characterized as production functions; markets served as signalling devices, contracting was accomplished through an auctioneer; and disputes were disregarded because of the presumed efficacy of court adjudication. The possibility that subtle economizing purposes are served by organizational variety does not arise within—indeed is effectively beyond the reach of—this orthodox framework. Correspondingly, the prevailing public policy toward unfamiliar or nonstandard business practices during that interval was deep suspicion or even hostility. Williamson, see above n 8, at 7.

¹¹⁰ Williamson, see above n 8, at 86–87 (identifying this as the classic exemplar of technologically-induced vertical integration) (citing Joe S. Bain, *Industrial Organization* (2nd edn, New York: Wiley 1968) 381). I have located several other texts invoking this example. There may well be more. See F.M. Scherer, *Industrial Structure and Economic Performance* (2nd edn, Chicago: Rand McNally College Publishing 1970) 70; Carl Kaysen and Donald F. Turner, *Antitrust Policy: An Economic Analysis* (Cambridge, MA: Harvard University Press 1959) 120; Joel Dirlam and Alfred Kahn, *Fair Competition: The Law and Economics of Antitrust Policy* (Ithaca, NY: Cornell University Press 1954) 23. See also Stigler, see above n 107, at 109–10 ('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 theorists they are data of analysis.').

conduct.¹¹¹ In the absence of a technological explanation for such integration, economists presumed it to be anticompetitive.¹¹²

Price theory's technological conception of the firm did more than explain vertical integration. Technological considerations were also said to explain horizontal integration whether by merger or internal expansion. Such integration, it was said, could help firms realize economies of scale and thus reduce production costs. While such expansion could confer market power on the expanding firm, such power was a necessary and often reasonable price for the technological benefits of increased scale.¹¹³ The goal of antitrust policy, then, was to distinguish efficient from inefficient horizontal integration by balancing the harms of such integration against its benefits.¹¹⁴

In this price-theoretic world, Williamson's story goes, there was simply no place for partial integration in the form of non-standard contracts. According to the accepted paradigm, efficiencies arose *within* the firm, before a product's title passed.¹¹⁵ Non-standard contracts, on the other hand, sought to influence the behavior of trading partners—and interfere with rivalry—after the product had left the firm's boundaries.¹¹⁶ There was no apparent way that such

¹¹¹ Kuhn, see above n 4, at 24–34 (describing enterprise of 'normal science' as involving repeated applications of accepted paradigm to analogous problems).

¹¹² Williamson, see above n 8, 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.'). See also Joe S. Bain, *Industrial Organization* (2nd edn, New York: Wiley 1968) 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.'). Even the Chicago school shared the belief that vertical integration produced only technological efficiencies. See Robert H. Bork, 'Vertical Integration and the Sherman Act', 22 *University of Chicago Law Review* 157 (1954), 200 (describing the benefits of vertical integration as 'bypassing a monopoly at one level, or... enabling the achievement of internal efficiencies').

¹¹³ Kaysen & Turner, see above n 110, at 128–29; Edward Mason, 'Workable Competition Versus Workable Monopoly', in Edward Mason (ed), *Economic Concentration and the Monopoly Problem* (Cambridge, MA: Harvard University Press 1957) 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.'). Joe S. Bain, *Pricing, Distribution, And Employment: The Economics of an Enterprise System* (New York: Holt 1948) 84–85. See also Oliver E. Williamson, 'Economies As An Antitrust Defense: The Welfare Tradeoffs', 58 *American Economic Review* 18 (1968).

¹¹⁴ Kaysen & Turner, see above n 110, at 111–19, 127–40; Oliver E. Williamson, 'Economies As An Antitrust Defense: The Welfare Tradeoffs', 58 *American Economic Review* 18 (1968) *passim*. It should be noted that Williamson prepared the analysis in this article at Turner's behest while serving in the Antitrust Division at the Department of Justice.

¹¹⁵ Williamson, see above n 8, at 370–71 (contending that the hostility toward non-standard contracts 'was buttressed by the view that true economies take a technological form [and] hence are fully realized within firms.').

¹¹⁶ Williamson, see above n 8, at 25–26 (describing price theory's anticompetitive account of such agreements in this manner).

agreements could produce technological efficiencies of any sort. Thus, the logical inference—and it was mainly that—was that such agreements necessarily reflected the exercise of market power, either to impose the agreement, or alter the terms of trade.¹¹⁷ Such reasoning, it is said, led to condemnation of a wide variety of contracts—tying, minimum and maximum rpm, exclusive dealing, and horizontal restraints ancillary to otherwise legitimate joint ventures.¹¹⁸

According to Williamson and others, the chief contribution of transaction cost economics (TCE) has been to undermine price theory's paradigmatic technological conception of the firm. In particular, practitioners of TCE performed a unique thought experiment, imagining a world without firms.¹¹⁹ In this way, it is said, these scholars were able to debunk the price-theoretic

¹¹⁷ Williamson, see above n 8, at 26 ('In as much as the natural boundaries of the firm are therein [i.e., within the neoclassical framework] defined by technology, any effort by the firm to extend its reach by resource to nonstandard contracting was presumed to have monopoly purpose and effect.'). *ibid.*, at 189 ('There being no place for the nonstandard (or, in Coase's terms, "ununderstandable") contracting practices within the applied price theory tradition, the merits of these practices were rejected or dismissed.'). quoting Ronald H. Coase, 'Industrial Organization: A Proposal For Research', in Fuchs (ed), above n 107, at 67; Williamson, see above n 8, at 370–72 ('Since there was nothing to be gained by introducing non-standard terms into market-mediated exchange, the use of contract restraints was presumed to have anticompetitive purpose and effect.'). According to Coase,

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

Ronald H. Coase, 'Industrial Organization: A Proposal For Research', in Fuchs (ed), see above n 107, at 67.

In the same way, of course, modern courts infer the exercise of market power from the existence of a restraint on competition for which parties are not willing or able to supply a plausible benign explanation. See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 98.

¹¹⁸ Williamson, see above n 8, at 25 (explaining how orthodox economic theory once inferred that all non-standard contracts were monopolistic); *ibid.*, at 370–71 ('The inhospitality tradition to which I referred earlier held that nonstandard modes of contracting were presumptively anticompetitive. The argument, moreover, was very sweeping. No effort was made to delimit applications to a subset of activity where the anticompetitive concerns were thought to be especially severe. Rather, customer, territorial, and related contract restraints were held to be presumptively unlawful, without qualification.').

¹¹⁹ Ronald H. Coase, 'Nature of the Firm', 4 *Economica* (n.s.) 386 (1937), 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?'); Harold Demsetz, 'The Theory of the Firm Revisited', 4 *Journal of Law, Economics & Organization* 141 (1988), 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 *JLE* 1 (1983), 4 ('If all the costs of transaction 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,

paradigm and its claim that technology itself could justify the creation and existence of firms.¹²⁰ For instance, the existence of thermal economies in steel manufacture could suggest that iron production and steel-making should take place in close proximity. But, these considerations did not mandate that the same individual or firm should own both production processes.¹²¹ Instead, it was said, such common ownership was designed to reduce the transaction costs that parties would have to endure if they relied upon market contracting to coordinate such an activity.¹²²

Having explained why firms exist, practitioners of TCE then went on to apply the same logic to arrangements 'between' the unbridled 'spot' market and complete vertical integration. These scholars argued that non-standard contracts—partial integration—could also reduce the cost of transacting through an atomistic market by limiting the discretion of trading partners.¹²³ Though less 'iron-clad' than complete integration, such partial integration could also obviate some of the disadvantages of complete integration.¹²⁴ Thus, it was said, firms presumably chose that sort of integration, complete or partial, that maximized the sum of the cost and benefits of each alternative arrangement.¹²⁵ According to practitioners of TCE, these considerations

'A Function for Thought Experiments', reprinted in Kuhn, above n 107 (examining role of thought experiments in challenging assumptions behind existing models).

¹²⁰ Williamson, see above n 8, at 86–89; Victor P. Goldberg, 'Production Functions and Transaction Costs', in George R. Feiwel (ed), *Issues in Contemporary Microeconomics & Welfare* (Albany: State University of New York Press 1985) 397 (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.'). See also Ronald H. Coase, 'Nature of the Firm', 4 *Economica* (n.s.) 386 (1937), 388 (explaining that individuals could theoretically rely on continuous market contracting to direct production).

¹²¹ Williamson, see above n 8, at 86–90; Victor P. Goldberg, 'Production Functions and Transaction Costs', in Feiwel (ed), above n 120, at 397; Ronald H. Coase, 'Nature of the Firm', 4 *Economica* (n.s.) 386 (1937), 388–89 (explaining that continuous market contracting could perform any coordination function in the absence of transaction costs).

¹²² Williamson, see above n 8, at 88–90; Benjamin Klein, Robert Crawford, and Armen Alchian, 'Vertical Integration, Appropriable Rents, and the Competitive Contracting Process', 21 *JLE* 297 (1978).

¹²³ See Benjamin Klein, 'Transaction Cost Determinants of "Unfair" Contractual Arrangements', 70 *American Economic Review* 356 (1980); Oliver E Williamson, 'Assessing Vertical Market Restrictions: Antitrust Ramifications of the Transaction Cost Approach', 127 *University of Pennsylvania Law Review* 953 (1979); Victor P. Goldberg, 'The Law And Economics of Vertical Restrictions: A Relational Perspective', 58 *Texas Law Review* 91 (1979); Ronald H. Coase, 'Nature of the Firm: Meaning', 4 *Journal of Law, Economics & Organization* 19 (1988), 28 (suggesting that franchising provides an example of a 'mixed relationship' combining attributes of the firm and the market).

¹²⁴ Williamson, see above n 8, at 157–58 (outlining considerations that might lead manufacturers to rely upon independent sellers instead of employees to distribute its goods); Benjamin Klein, 'Transaction Cost Determinants of "Unfair" Contractual Arrangements', 70 *American Economic Review* 356 (1980), 359, n 2 (same).

¹²⁵ See Alan J. Meese, 'Property Rights and Intrabrand Restraints', 89 *Cornell Law Review* 553, 595–97 (2004) (explaining why firms may choose to rely upon the market to distribute their

justified a presumption that complete or partial integration was designed to minimize the cost of conducting an economic activity.¹²⁶ While such restraints could alter the terms of trade when compared to what would have occurred in a competitive market, such changes were the result of purely voluntary integration that eliminated market failure.¹²⁷

B. Shortcomings in the Conventional Account

Williamson's historical account seems accurate as far as it goes, and his theoretical contributions are extremely important. There is no doubt, for instance, that inhospitality-era scholars treated complete vertical integration as a purely technological phenomenon.¹²⁸ In fact, I have relied upon this account in my own writings, as have some other antitrust scholars.¹²⁹ Moreover, most of these scholars embrace—expressly or implicitly—Williamson's most important theoretical conclusion, namely, that non-standard contracts are generally procompetitive attempts to reduce the costs of transactions.¹³⁰

products); Ronald H. Coase, 'Nature of the Firm: Influence', 4 *Journal of Law, Economics & Organization* 33 (1988), 39–40 (contending that interfirm competition leads firms to choose efficient level of partial or complete integration). Cf. Armen Alchian, 'Uncertainty, Evolution, and Economic Theory', 58 *Journal of Political Economy* 211 (1950).

¹²⁶ Williamson, see above n 8, at 103–30 (contending that 'vertical integration... is more consistent with transaction cost economizing than with the leading alternatives.').

¹²⁷ *Ibid.*, at 23–30 (explaining how contracts that reduce transaction costs lie on 'efficiency branch' of contract and how firms can induce agreement to such terms by employing cost-based price differentials); Benjamin Klein, 'Transaction Cost Determinants of "Unfair" Contractual Arrangements', 70 *American Economic Review* 356 (1980), 357–58. See also Alan J. Meese, 'Tying Meets The New Institutional Economics', 146 *University of Pennsylvania Law Review* 1 (1997), 67–70 (explaining how firms can obtain agreement to tying contracts by offering cost-based pricing differentials); Frank H. Easterbrook, 'Vertical Arrangements and the Rule of Reason', 53 *Antitrust Law Journal* 135 (1984), 150 (vertical distribution restraints are means of 'adapt[ing] to the costs of organization and information in a way that economizes on all costs, including the costs of the markets themselves.').

¹²⁸ See Alan J. Meese, 'Monopolization, Exclusion, and the Theory of the Firm', 89 *Minnesota Law Review* 743, 778–93 (2005) (collecting sources to this effect).

¹²⁹ See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 134–41; Alan J. Meese, 'Tying Meets The New Institutional Economics', 146 *University of Pennsylvania Law Review* 1 (1997), 59–66. See also Alan J. Meese, 'Monopolization, Exclusion, and the Theory of the Firm', 89 *Minnesota Law Review* 743 (2005); Alan J. Meese, 'Intrabrand Restraints and the Theory of the Firm', 83 *North Carolina Law Review* 40–44 (2004). See also Thomas C. Arthur, 'Formalistic Line Drawing: Exclusion of Unauthorized Services From Single-Brand Aftermarkets Under Kodak and Sylvania', 24 *Journal of Corporate Law* 603 (1999); Henry N. Butler & Barry D. Baysinger, 'Vertical Restraints of Trade as Contractual Integration: A Synthesis of Relational Contracting Theory, Transaction-Cost Economics and Organization Theory', 32 *Emory Law Journal* 1009 (1983).

¹³⁰ See Alan J. Meese, 'Monopolization, Exclusion, and the Theory of the Firm', 89 *Minnesota Law Review* 743, 812–29 (2005); Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 134–41; Thomas C. Arthur, 'A Workable Rule of Reason: A Less Ambitious Antitrust Role For The Federal Courts', 68 *Antitrust Law Journal*

Finally, many scholars who are not members of the transaction cost school nonetheless pay lip service to Williamson's theoretical conclusions.¹³¹ At the same time, however, courts, enforcement agencies, and antitrust scholars have not fully internalized the lessons of the transaction cost school, and much of antitrust doctrine is unduly hostile to contracts that may overcome market failures, i.e., avoid the 'transaction costs' that would result from reliance upon an atomistic market.¹³² Why is it, then, that mainstream antitrust policy does not yet fully reflect the implications of Williamson's theoretical conclusions?

To answer this question, let me begin with what might sound like an unflattering statement, although it is not meant to be critical: Williamson's important and accurate historical account of price theory's hostility toward non-standard contract is mainly descriptive. That is, while Williamson tells us what economists thought about the source and locus of efficiencies, he tells us far less about why economists believed what they believed. Why is it, for instance, that economists believed that all efficiencies were technological in nature and thus arose 'within' the firm, before title to the firm's product passed?¹³³ After all, the mere fact that intra-firm efficiencies are solely technological does not exclude the possibility that there are inter-firm or 'market' efficiencies with a different source. Put another way, what, if anything, prevented economists from recognizing that some efficiencies could arise outside the firm, after title passed? In the end, Williamson's claim—that recognition of such efficiencies 'is effectively beyond the reach of the orthodox framework' or 'effectively suppressed' by that framework seems based upon the following syllogism: (1) all efficiencies are technological; (2) technological efficiencies only arise within the firm; (3) therefore, no efficiencies arise after passage of the title.¹³⁴ While this conclusion follows the given initial premise, Williamson does not explore why economists embraced this premise in the first place.

Viewed up close, Williamson's account and others like it take what one might call a firm-centric 'inside-out' approach to an explanation of the inhospitality-era. According to this account, inhospitality-era economists identified the

337 (2000); Frank H. Easterbrook, 'Vertical Arrangements and the Rule of Reason', 53 *Antitrust Law Journal* 135 (1984) *passim*. See Williamson, above n 8, at 28 (articulating a 'rebuttable presumption that nonstandard forms of contracting have efficiency purposes.').

¹³¹ Hovenkamp, see above n 37, 37–38.

¹³² See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 144–70 (explaining how current structure of rule of reason analysis is unduly hostile to various restraints given the teachings of transaction cost economics). See also nn 24–100, above and accompanying text (explaining how judicial and enforcement agency approaches to horizontal restraints and monopolization doctrine are unduly biased against such agreements).

¹³³ See nn 109–18, above and accompanying text (outlining Williamson's account).

¹³⁴ See Williamson, above n 8, at 7; Oliver E. Williamson, 'Delimiting Antitrust', 76 *Georgetown Law Journal* 271 (1987), 272 (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.') (emphasis added).

technological explanation for the firm and complete vertical integration and then tried to extend that explanation outside and beyond the firm to various forms of partial integration.¹³⁵ Of course, the technological explanation cannot apply to partial integration: by their nature, technological efficiencies can only arise 'within' the boundaries of a particular firm, where, for instance, firms realize economies of scale.¹³⁶ This 'inside-out' approach, then, rules non-standard contracts 'non-efficient' by a sort of negative implication. In the absence of an efficiency explanation, they are presumed harmful.

Such an approach makes sense in the light of Professor Williamson's own intellectual journey. Like Coase's seminal work, Williamson's early writings seek to explain why firms choose complete vertical integration over market contracting; they make no effort to explain why non-standard contracts might be superior to an unbridled market.¹³⁷ Indeed, some of Williamson's early works expressly disclaimed any effort to explain even complete integration into distribution, the quintessential subject of partial integration in the form of non-standard contracts.¹³⁸ For Williamson, then, TCE re-emerged because economists like himself rediscovered Coase's explanation for complete integration and then subsequently applied that explanation to non-standard contracts.¹³⁹

¹³⁵ See nn 115–18, above and accompanying text.

¹³⁶ Williamson, see above n 8, at 371.

¹³⁷ See Oliver E. Williamson, 'The Vertical Integration of Production: Market Failure Considerations', 61 *American Economic Review* 112 (1971) (examining transaction cost considerations that lead firms to integrate completely); Oliver E. Williamson, 'Hierarchical Control and Optimal Firm Size', 75 *Journal of Political Economy* 123 (1966). Only in 1973 did Williamson begin offering explanations for one form of partial integration: so-called 'inside contracting,' whereby a single firm creates an internal market from which it purchases the final product and then sells it to consumers. See Oliver E. Williamson, 'Markets and Hierarchies: Some Elementary Considerations', 63 *American Economic Review* 316 (1973), 323–24. It appears that Williamson first applied TCE to non-standard contracts of antitrust concern in 1979. See Oliver E. Williamson, 'Assessing Vertical Market Restrictions', 127 *University of Pennsylvania Law Review* 953 (1979). See also Ronald H. Coase, 'Nature of the Firm', 4 *Economica* (n.s.) 386 (1937) (offering transaction cost explanation for firm's decision to perform task itself instead of relying upon the spot market).

¹³⁸ See Oliver E. Williamson, 'Vertical Integration of Production: Market Failure Considerations', 61 *American Economic Review* 112 (1971), 122.

¹³⁹ See Oliver E. Williamson, 'The Logic of Economic Organization', 4 *Journal of Law, Economics & Organization* 65 (1988), 73 (asserting that (complete) 'vertical integration' is the 'paradigm problem to which transaction cost economics recurrently returns' and that the solution to this problem is then applied to other economic problems); Oliver E. Williamson, 'Delimiting Antitrust', 76 *Georgetown Law Journal* 271 (1987), 273 (contending that revolution in antitrust began with reconceptualization of the purposes of the business firm); Williamson, above n 8, at 7–14. See also Ronald H. Coase, 'Nature of the Firm: Origin', 4 *Journal Law, Economics & Organization* 3 (1988), 7–17 (describing evolution of Coase's thinking regarding the rationale for complete vertical integration); Ronald H. Coase, 'Nature of the Firm', 4 *Economica* (n.s.) 386 (1937) *passim* (seeking explanation for why a firm may choose complete integration instead of the spot market). To be sure, Coase recognized that the concept of 'firm' was not self-defining. Nonetheless, he argued that the concept was useful even if the line between 'the firm' and 'the market' was not always entirely clear. *Ibid*, at 392, n 1.

While very useful, I hope, for those seeking to explain the origins of antitrust doctrine, the received account is not entirely satisfying for those seeking the origins of the economic theory that drove that doctrine. Moreover, Williamson's account and the related critiques of modern doctrine have not been entirely successful. Instead, as explained earlier, courts, agencies and leading antitrust scholars have not entirely internalized the lessons of transaction cost economics, particularly TCE's conclusion that non-standard contracts can overcome market failure by producing economic outcomes different from those that would result from an unbridled rivalry.¹⁴⁰ Instead, modern law often rests upon the assumption that an agreement that alters the terms of trade necessarily reflects an exercise of market power.¹⁴¹

Why is it, then, that Williamson's account has not been entirely persuasive to antitrust scholars and courts? The answer may lie in the account's failure to fully grasp the underlying source of price theory's hostility toward non-standard contracts. A more complete exegesis of the reasons for that failure could ultimately shed light upon modern antitrust's stubborn resistance to TCE's teachings.

What then, is missing from Williamson's account? For one thing, the 'inside-out' account seems to rest upon an anachronistic equation of price theory's 'firm' with non-standard contracts like exclusive dealing and minimum rpm. It is such an equation, after all, that forms the basis for the claim that inhospitality-era economists assumed that the efficiencies produced by non-standard contracts, if any, must be of the same variety as those that arise within the firm.¹⁴² Such an equation makes perfect sense within the confines of the transaction cost paradigm, which views the firm as just a special sort of non-standard contract.¹⁴³ However, this equation seems far less plausible as an account of economic thought during the inhospitality-era. In the end, after all, price theory drew a strong distinction between 'the firm' and 'the market,' and this distinction seems to have been antecedent, at least in part, to price theory's technological conception of the firm.¹⁴⁴ To be sure,

¹⁴⁰ See nn 24–100, above and accompanying text.

¹⁴¹ See nn 42–46, above and accompanying text.

¹⁴² See nn 110–18, above and accompanying text.

¹⁴³ Ronald H. Coase, 'Nature of the Firm', 4 *Economica* (n.s.) 386 (1937), 391. See also Scott Masten, 'A Legal Basis For The Firm', 4 *Journal of Law, Economics & Organization* 181 (1988) (arguing that 'the firm' is a series of default rules that parties can alter by contract); Steven N.S. Cheung, 'The Contractual Nature of the Firm', 26 *JLE* 1 (1983), 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 market prices of a variety of activities he may perform').

¹⁴⁴ See Harold Demsetz, 'The Theory of the Firm Revisited', 4 *Journal of Law, Economics & Organization* 141 (1988), 143 ('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 *JLE* 375 (1983), 377 ('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

Coase had already surmised that such a distinction was superfluous and misleading in his 'Nature of the Firm'.¹⁴⁵ But even he admitted that this article was 'much cited but little used'.¹⁴⁶ An account of the inhospitality-era that rests upon price theory's supposed equation of the purposes of the firm and 'other' non-standard contracts retroactively superimposes Coase's insight on an era that had not yet noticed it. An attempt to understand (and critique) past science through the lens of modern taxonomies is likely to fail.¹⁴⁷

Common sense suggests a different approach for a scholar seeking a complete explanation of this period. Once one determines that price theory imbued 'the firm' with unique efficiency properties, one might then expect price theorists to look for a type or class of efficiencies distinct from those that arise within the firm, a category that does not involve or require reliance upon technology. Thus, a conclusion that price theorists only recognized technological efficiencies that arose 'within' the firm seems to beg the question just why they failed to attribute some entirely different sort of efficiency to non-standard agreements. In fact, if price theorists had identified efficiency purposes for non-standard agreements, they could possibly have worked 'from the outside in,' asking whether the explanation for non-standard contracts might also shed some light on the rationale for the firm. Williamson does not address this question.

Moreover, Williamson's 'inside-out' approach does not square perfectly with the actual progress of economic thought away from the inhospitality tradition. To be sure, Coase's seminal piece on the nature of the firm, published in 1937, focused solely on the rationale for complete integration, thus forming the basis for an 'inside-out' approach.¹⁴⁸ But as noted earlier, economists effectively ignored this article during the relevant period.¹⁴⁹ When a transaction cost approach first reappeared in the literature, it did so in the form of work that sought to explain non-standard contracts, and not complete integration. First, Aaron Director and Edward Levi sought to explain tying

resources, not to understand the inner workings of real firms.'). See also Ronald H. Coase, *The Firm, the Market, and the Law* (Chicago: University of Chicago Press 1988) 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* (2nd edn, White Plains, NY: M.E. Sharpe 1980) ix.

¹⁴⁵ See Ronald H. Coase, 'Nature of the Firm', 4 *Economica* (n.s.) 386 (1937) *passim*.

¹⁴⁶ Ronald H. Coase, 'Industrial Organization: A Proposal For Research', in Fuchs (ed), above n 107, at 63 (noting that the *Nature of The Firm* was 'much cited but little used').

¹⁴⁷ Kuhn, see above n 4, at 1–4 (explaining how modern scientists often err when they attempt to interpret past scientific systems as anticipations of modern paradigms).

¹⁴⁸ See Ronald H. Coase, 'Nature of the Firm', 4 *Economica* (n.s.) 386 (1937) *passim*.

¹⁴⁹ See Ronald H. Coase, 'Industrial Organization: A Proposal For Research', in Fuchs (ed), above n 107, at 63. It should be noted that Coase himself wrestled with the link between nonstandard contracts and complete integration, but he did not publish the results. See Ronald H. Coase, 'The Nature of the Firm: Meaning', 4 *Journal of Law, Economics & Organization* 3 (1988), 29–31 (describing letters from Coase to a colleague on this subject).

contracts as attempts to overcome the information costs that otherwise prevented price discrimination.¹⁵⁰ Then, Lester Telser forcefully argued that some minimum resale price maintenance agreements were designed to prevent dealers from free riding on each others' promotional efforts, elaborating an earlier insight by Ward Bowman.¹⁵¹ Both of these approaches explained how non-standard contracts could overcome the cost of 'transacting,' *viz.*, reliance upon the market to conduct economic activity that could conceivably be handled 'within' the firm.

Telser took the manufacturer's reliance on the market as given and did not ask why firms exist in the first place.¹⁵² Nor did he cite Coase's work or otherwise attempt to relate his findings to any larger conception of vertical integration or the theory of the firm. That is, he did not work 'from the outside in.' At the same time, economists busy rediscovering Coase's insight regarding complete integration did not mention Telser's contribution.¹⁵³

¹⁵⁰ See Aaron Director and Edward Levi, 'Law and the Future: Trade Regulation', 51 *Northwestern Law Review* 281 (1956). See also Richard N. Langlois, 'Contract, Competition, and Efficiency', 55 *Brooklyn Law Review* 831 (1989), 836–37 (explaining how price discrimination account of tying is really a transaction-cost interpretation). It should be noted that Frank Knight first suggested this explanation for tying. See Frank Knight, 'Demand and Supply Price', in *The Economic Organization* (New York: A. M. Kelley 1951) 67, 94 ('Monopolists often try, with more or less success, to practice a policy which [allows them to expand output]. This is the device of *class price*, that is, charging different customers different prices in accordance with their ability or willingness to pay rather than do without the good. Another method is to rent the monopolized good and charge in proportion to the amount used instead of selling it outright. This can be done by selling supplies for it at a monopoly price.').

¹⁵¹ See Lester G. Telser, 'Why Should Manufacturers Want Fair Trade?', 3 *JLE* 86 (1960). See also Ward Bowman, 'The Prerequisites And Effects Of Resale Price Maintenance', 22 *University of Chicago Law Review* 825 (1955), 842–43 (articulating claim that minimum rpm can prevent free riding, without using that exact term).

According to Bowman:

Circumstances may arise, however, in which dealers cannot be reimbursed for essential services except through their price margins. Many products, especially new ones, the use of which requires particular knowledge or special skill, may require costly demonstrations or services by the dealer which it is not possible for the dealer to charge for directly or for the manufacturer to pay for directly. If the item sold is of such a nature that a customer may get his service from a service dealer and a cut price from a non-service dealer, the manufacturer may suffer because of the elimination of service outlets.

Ibid., at 842. See Lester G. Telser, 'Why Should Manufacturers Want Fair Trade?', 3 *JLE* 86 (1960), 89 n 4 (noting Bowman's recognition of the free rider problem).

¹⁵² As I have noted elsewhere, Telser simply took the manufacturer's decision to rely upon the market as a given, without discussing any possible rationales for doing so. See Alan J. Meese, 'Property Rights and Intrabrand Restraints', 89 *Cornell Law Review* 553, 563 (2004).

¹⁵³ See Oliver E. Williamson, 'Markets and Hierarchies: Analysis and Antitrust Implications' (1975) (no mention of Telser's work); Oliver E. Williamson, 'Vertical Integration of Production: Market Failure Considerations', 61 *American Economic Review* 112 (1971) *passim* (same); Oliver E. Williamson, 'Hierarchical Control and Optimal Firm Size', 75 *Journal of Political Economy*, 123 (1966) *passim* (same). See also Victor P. Goldberg, 'Production Functions and Transaction Costs', in Feiwel (ed), above n 120.

Six years later Robert Bork did work from the outside in. Bork applied Telser's logic to non-price restraints, showing how exclusive territories, for instance, could ensure that 'independent' dealers invested sufficient resources in promoting a manufacturer's product.¹⁵⁴ He also explained how manufacturers or joint ventures that relied on the market to distribute their products could employ similar horizontal restraints to ensure the same level of promotion that a completely integrated manufacturer would produce.¹⁵⁵ Citing Coase's 'Nature of the Firm,' Bork argued that courts should apply the same level of scrutiny to such agreements as they applied to purely 'unilateral' conduct by a fully integrated firm.¹⁵⁶ In effect, then, Bork worked from the outside in, explaining how both 'contractual' and 'ownership' integration could overcome the same sort of market failure, although he did not use that term.¹⁵⁷ Unfortunately, he did not pursue this line of inquiry as part of any larger project on the theory of the firm or transaction cost economics.¹⁵⁸ Nor does it appear that any economist noticed Bork's contribution.¹⁵⁹

Any complete account of the inhospitality tradition must explain why economists and others did not anticipate the alternative approach taken by Bowman and Telser, that is, recognize the efficiency properties of non-standard contracts without relating that recognition to any larger theory of the firm. In other words, putting aside any shortcoming in their theory of the firm, why did price theorists fail to recognize the propensity of non-standard

¹⁵⁴ See Robert H. Bork, 'The Rule of Reason and the Per Se Concept: Price Fixing and Market Division', 75 Yale Law Journal 373 (1966), 430–38 (arguing that exclusive territories can help manufacturers and joint ventures overcome 'the free ride problem'); *ibid.*, at 453–54 (applying the same logic to minimum rpm). By contrast, Telser's argument was limited to minimum price restraints. It should be noted that Bork also credited Bowman with recognizing the propensity of minimum rpm to prevent free riding. *Ibid.*, at 430, n 111.

¹⁵⁵ *Ibid.*, at 435–36.

¹⁵⁶ *Ibid.*, at 472. See also Robert H. Bork, 'Resale Price Maintenance and Consumer Welfare', 77 Yale Law Journal 950 (1968), 968.

¹⁵⁷ See Robert H. Bork, 'The Rule of Reason and the Per Se Concept: Price Fixing and Market Division', 75 Yale Law Journal 373 (1966), 452, n 156 ('The fully-integrated firm may, for example, wish to eliminate the problem of the free ride among its salesmen quite as much as does a contract-integrated firm.'). *Ibid.*, at 381–83 (explaining how restrictions in articles of partnership could help fully-integrated firm overcome free riding).

¹⁵⁸ For instance, Bork's classic antitrust monograph does not mention Coase's work on the theory of the firm in connection with partial integration. See Robert H. Bork, *The Antitrust Paradox* (New York: Basic Books 1978); *ibid.*, at 449–54 (discussing economics of minimum rpm and exclusive territories without mentioning the theory of the firm or the distinction between contractual and ownership integration).

¹⁵⁹ Indeed, Professor Coase is apparently unaware that Judge Bork rediscovered his seminal work. Two decades after Bork rediscovered Coase in this manner, Coase claimed that no one understood his work until the 1970s. See Ronald H. Coase, 'The Nature of the Firm: Meaning', 4 Journal of Law, Economics & Organization 3 (1988), 23 (claiming that *The Nature of the Firm* had no noticeable effect on any scholarly article in the 1960s); Ronald H. Coase, 'The Nature of the Firm: Influence', 4 Journal of Law, Economics & Organization 33 (1988), 35 (claiming that attention was first given to '*The Nature of the Firm*' in the 1970s and that the writings of Oliver Williamson first popularized Coase's work).

contracts—partial integration—to reduce transaction costs, overcome market failure, and thus produce non-technological efficiencies? Such a recognition could have undermined any claim that such contracts necessarily reflect an exercise of market power.¹⁶⁰ In the same vein, why did these economists not anticipate Bork's efforts and rediscover Coase's theory of the firm by working from the outside in? What, if anything, blocked economists and others from pursuing these avenues?¹⁶¹ The answer to this question will shed light on modern antitrust's continuing hostility toward non-standard contracts.

III. PERFECT COMPETITION, MARKET FAILURE, AND THE INHOSPITALITY TRADITION

The failure of economists to recognize the efficiency properties of non-standard contracts during the inhospitality-era poses quite a puzzle. After all, the practitioners of price theory certainly recognized that real markets could sometimes fail. Indeed, as Professor Coase would later point out, many were all too quick to identify such failures and thereby justify government intervention.¹⁶² Moreover, economists did not always recommend public regulation, taxes, or subsidies as the solution to such failure. Instead, many economists recognized that market failure was often the result of incorrect property right assignments which, if corrected, would overcome the failures in question.¹⁶³ Indeed, in 1958, the President of the American Economic Association delivered a sort of 'call to arms,' encouraging economists to devote their energies toward the identification of shortcomings in the legal system's

¹⁶⁰ See nn 310–28, below and accompanying text (describing basis for price theory's conclusion that non-standard contacts reflected exercise of market power).

¹⁶¹ Cf. Howard Margolis, *Paradigms and Barriers: How Habits of Mind Govern Scientific Beliefs* (Chicago: University of Chicago Press 1993) (arguing that methodological habits common to a scientific community can constitute 'barriers' that prevent scientists from recognizing new and better ways of understanding the world).

¹⁶² See Ronald H. Coase, 'The Lighthouse in Economics', 17 *JLE* 357 (1974). See also George J. Stigler, 'Perfect Competition: Historically Contemplated', 65 *Journal of Political Economy* 1 (1957), 10 (contending that Pigou overused the externality concept).

¹⁶³ See Francis Bator, 'The Anatomy of Market Failure', 72 *Quarterly Journal of Economics* 351 (1958), 354 ('arbitrary legal and organizational imperfections' can 'leave some inputs or outputs "hidden," or preclude their explicit allocation or capture by market processes... [market] [f]ailure is by enforcement.') (emphasis in the original); *ibid.*, at 363–65 (discussing so-called 'ownership externalities' that exist because of 'legal or practical inability to appropriate the full benefit of private activity'); Anthony Scott, 'The Fishery: The Objective of Sole Ownership', 63 *Journal of Political Economy* 116 (1955); *ibid.*, at 124 (concluding that 'the equilibrium of the sole owner who maximized the present value of the fishery would correspond more closely to the social optimum than would the competitive equilibrium.'). *ibid.* (concluding that 'the social optimum in both the long run and the short run would demand that common-property resources be allocated to maximizing owners, associations, co-operatives, or governments.'). See also Tibor Scitovsky, *Welfare and Competition: The Economics of a Fully Employed Economy* (Chicago: R. D. Irwin 1951) 184 (stating that 'all rules and customs' are designed to 'keep one person's consumption from interfering with other people's welfare.'). Kaysen & Turner, see above n 110, at 67, n 25 (tracing inequality between private and social costs to 'inappropriate property institutions').

assignment of rights and duties that caused market failure and then to propose legal reforms to eliminate the failures.¹⁶⁴ Pigou himself had recognized this, explaining as he did that the state could eliminate certain canonical market failures by changing the background rules governing the parties involved.¹⁶⁵ Indeed, Pigou had gone even a little further than this, noting at one point that the extent of externality could turn on the terms of the contract between two parties.¹⁶⁶ He did not, however, suggest that the parties could or would eliminate such market failures by negotiating a different contract.¹⁶⁷

If economists believed that market failures were prevalent, and if they understood that society could cure those failures by altering the legal framework, then why did no economist consider the possibility that at least some non-standard contracts are designed to alter background rules or duties so as to mitigate or overcome market failures?¹⁶⁸ Why, instead, did economists automatically and reflexively attribute such contracts to market power? The next two subsections offer an answer to these questions, an answer that will ultimately help shed light on the current state of antitrust law.

A. Perfect Competition and Market Failure During the Inhospitability-Era

The answer, it seems, lies in the nature of the perfect competition model and its relation to the market failure paradigm during the inhospitability-era. This model was not simply the foundation of price theory; it was also the jumping off point for any discussion of market failure during this period.¹⁶⁹ In short, perfect competition and the analysis of market failure were linked in such a way that scholars who practiced the mainstream economist's art could not recognize the possibility that private parties could overcome market failure by non-standard contracts.

Modern scholars treat market failure as a familiar and non-technical concept. Legal and other scholars tend to discuss it freely, untethered to any

¹⁶⁴ Morris A. Copeland, 'Institutionalism and Welfare Economics', 48 *American Economic Review* 1 (1958), 2–7; *ibid.*, at 6 ('[There are] a great number and a great variety of such divergences [between private and social cost or benefit]. It seems to me economists should be actively concerned both to discover such divergences and to devise remedies for them.'). *ibid.*, at 11 ('[V]arious forms of government action are aimed at supplementing the regulatory effects of competition so as to improve the operation of our economy... As time goes on the variety seems likely to increase. Indeed economists should make it their business to discover and to propose new possible supplements.').

¹⁶⁵ See Pigou, above n 107, at 175–81 (explaining how a change in background rules governing land tenancy can reduce or eliminate divergences between private and total returns from investments that tenants make on their leaseholds).

¹⁶⁶ See Pigou, above n 107, at 174–75 (concluding that the divergence between private and social product of investments by tenants in land improvements will depend upon 'the terms of the contract between lessor and lessee.').

¹⁶⁷ *Ibid.*

¹⁶⁸ Cf. Pigou, see above n 107, at 174–75.

¹⁶⁹ See generally Machovec, above n 107 (describing how perfect competition model became foundation for all economic analysis during the twentieth century).

technical jargon or constraints. Moreover, for modern scholars, any sort of market can fail. It was not always so. During the inhospitality-era, economists generally treated market failure as a highly technical concept, which they usually discussed or analyzed in relation to the perfect competition model and the outcomes that perfect competition would produce.¹⁷⁰ These scholars took the term 'market failure' quite literally, as a failure of the market to produce an optimal allocation of resources.¹⁷¹ Such a failure could occur for one of two reasons. First, the private market could depart from one or more assumptions of the perfect competition model.¹⁷² Second, even if the market was perfectly competitive, a divergence between private and social costs could cause even perfect competition to fail to produce an optimal allocation of resources.¹⁷³

Note here what I did not say. I did not say that the presence of 'market failure' was an exception to an 'otherwise' perfectly competitive market. For, economists of the era in question treated 'market failure' as a phenomenon that could exist even if all the assumptions of perfect competition were satisfied. The practice of assuming that market failure could and did coexist with perfect competition had important implications for economists' attempt to interpret non-standard contracts.

To modern ears, a claim that market failure interfered with the results of perfect competition and produced a suboptimal allocation of resources does not quite ring true. After all, the model of perfect competition assumes the absence of information costs, as well as the perfect mobility of resources.¹⁷⁴ Given these assumptions, it seems, market failure is impossible. This is a Coasean world, and in such a world market failure does not occur, because market participants can rely upon private contract to eliminate any such departures from an optimal allocation of resources.¹⁷⁵ Or, as George Stigler put it in 1966: 'The Coase Theorem [] asserts that under Perfect Competition private and social costs will be equal and output will not be affected by the manner in which the law assigns damages.'¹⁷⁶ Building on this reasoning, some have even claimed that the Coase Theorem was really nothing new, since it simply restated a somewhat tautological result of the perfect competition model.¹⁷⁷

¹⁷⁰ See Francis Bator, 'The Anatomy of Market Failure', 72 *Quarterly Journal of Economics* 351 (1955); J.E Meade, 'External Economies and Diseconomies in a Competitive Situation', 62 *Economic Journal* 54 (1952).

¹⁷¹ See Francis Bator, 'The Anatomy of Market Failure', 72 *Quarterly Journal of Economics* 351 (1955), 352–56.

¹⁷² *Ibid.*, at 352–54.

¹⁷³ *Ibid.*

¹⁷⁴ Scherer, see above n 110, at 9–21.

¹⁷⁵ See Ronald Coase, *The Problem of Social Cost*, 3 *JLE* 1 (1960).

¹⁷⁶ Stigler, see above n 102, at 113.

¹⁷⁷ See Donald McCloskey, 'The Good Old Coase Theorem and the Good Old Chicago School: A Comment on Zerbe and Medema', in Steven G. Medema (ed), *Coasean Economics: Law and Economics and the New Institutional Economics* (Boston; London: Kluwer Academic Publishers

But was Coase's contribution really the redundant reformulation of a tautology? If so, why did inhospitality economists, or any economists for that matter, not anticipate Coase's insight and conclude that purely private (non-standard) contracts can reallocate rights and duties so as to overcome what would otherwise be a market failure?

One finds a clue to the answer in the work of Stigler himself. For Stigler did not always treat the absence of market failure as a tautological result of the perfect competition model, as he did *after* Coase published 'The Problem Of Social Cost.' Instead, less than 10 years before he coined the 'Coase Theorem,' Stigler sung a somewhat different tune.¹⁷⁸ In 1957, Stigler traced the history of the Perfect Competition model, focusing significant attention on the historical development of each assumption of the model as he saw it.¹⁷⁹ His main discussion of the model and its requirements does not mention 'market failure,' 'externality,' or 'external economies or diseconomies.'¹⁸⁰ A.C. Pigou, who popularized the market failure concept, is mentioned only twice, and only once in connection with externality.¹⁸¹ The concept of market failure does

1998) 239–40 ('Smith, Edgeworth, Arrow, Debreu, with many others, noted that an item tends to gravitate by exchange into the hands of the person who values it most, if transaction costs (such as the cost of transportation) are not too high. Why a student of economic thought like Stigler would call this old idea in economics "remarkable" I do not know, though it is not the only strange reading that Stigler gave. Applying it to pollution rights is unremarkable. As Paul Samuelson said sneeringly about the Coase Theorem: Where's the theorem?').

¹⁷⁸ See William Breit, *Lives of the Laureates: Thirteen Nobel Economists* (3rd edn, Cambridge, MA: MIT Press 1995) 247 (explaining how George Stigler actually coined the phrase 'The Coase Theorem').

¹⁷⁹ See George J. Stigler, 'Perfect Competition: Historically Contemplated', 65 *Journal of Political Economy* 1 (1957).

¹⁸⁰ *Ibid.*, at 1–14. There is one possible exception. In a discussion of Marshall's contributions to the development of the model, Stigler notes the former's emphasis on the presence of external economies and diseconomies:

Marshall [added] a new and possibly extremely important exception [to the existence of a single maximizing equilibrium], arising out of external economies and diseconomies. The doctrine of external economies in effect asserts that in important areas the choices of an individual are governed by only part of the consequences, and inevitably the doctrine opens up a wide range of competitive equilibriums which depart from conventional criteria of optimum arrangement. It was left for Pigou to elaborate, and exaggerate, the importance of this source of disharmonies in *Wealth and Welfare*.

Two things are relevant about this passage. First, according to Stigler, anyway, Marshall had not yet developed fully the concept of 'perfect competition' extant during the inhospitality era. Second, Stigler's characterization here of the relevance of externalities is consistent with his subsequent treatment of the problem, insofar as he concludes that the existence of market failure results in 'a wide range of competitive equilibriums that depart from the criteria of optimum arrangement.' Under this formulation, 'market failure' coexists with (various) 'competitive equilibriums' and thus results in a suboptimal allocation of resources. See nn 181–87, below and accompanying text (discussing similar formulation latter in this same article).

¹⁸¹ *Ibid.*, at 10 (explaining that Pigou would overemphasize the importance of external economies and diseconomies in his *Wealth and Welfare*, published in 1912); *ibid.*, at 11, n 50, *discussing*

not appear in relation to the actual perfect competition model until a section entitled 'Concluding Reflections,' where Stigler, discussing perfect competition's usefulness as a normative benchmark to guide policy, opines as follows:

The vitality of the competitive concept in its normative role has been remarkable. One might have expected that, as economic analysis became more precise and as the range of problems to which it was applied widened, a growing list of disparities between the competitive allocation of resources and the maximum output allocation would develop. Yet to date there have been only two major criticisms of the norm. *The first is that the competitive individual ignores external economies and diseconomies, which—rightly or wrongly—most economists are still content to treat as an exception to be dealt with in individual cases.* The second, and more recent, criticism is that the competitive system will not provide the right amount (and possibly not the right types) of economic progress, and this is still an undocumented charge. The time may well come when the competitive concept is not suitable to normative analysis, but it is still in the future.¹⁸²

Under the heading of 'external economies and diseconomies,' then, the prospect of market failure is treated as a possible basis for criticizing the utility of the perfect competition model as a guide to policy. The absence of such failure is simply not treated as a precondition of the model. Instead, under Stigler's formulation, market failure can persist even if all the assumptions of the (self-contained) model are met. Market failure is an exception, exogenous to the world of perfect competition.

Stigler's treatment of market failure as a state of affairs that can coexist with perfect competition follows the treatment of the problem in his 1942 text 'The Theory of Competitive Price.' There Stigler devotes a chapter to perfect competition which, if present in all industries, would produce a general competitive equilibrium and optimize the allocation of a society's resources.¹⁸³ Here, again, he does not mention the absence of market failure as a precondition for invocation of the model.

Stigler does not ignore market failure, either. Several chapters later, in a chapter on 'The Nature of Costs and the Production Function,' Stigler briefly treats the possibility that some productive activities may entail a 'discrepancy between private and social cost.'¹⁸⁴ The discussion consumes all of two paragraphs, and there is no suggestion that 'perfect competition' would

Pigou, above n 107. Cf. nn 202–209, below (discussing Pigou's 1932 treatment of market failure as an exception to 'simple competition').

¹⁸² See George J. Stigler, 'Perfect Competition: Historically Contemplated', 65 *Journal of Political Economy* 1 (1957), 16–17 (emphasis added).

¹⁸³ Stigler, see above n 107, at 21–31.

¹⁸⁴ *Ibid*, at 106.

eliminate these external effects by assumption.¹⁸⁵ On the contrary, Stigler treats market failure as creating an exception to the conclusion that the allocation of productive resources will be ideal 'in a competitive equilibrium.'¹⁸⁶ According to Stigler, 'such disharmonies... are eliminated largely by *ad hoc* policies,' and thus not by the assumption of perfect competition.¹⁸⁷ Here again, market failure is a sort of add on or afterthought to the self-contained model of perfect competition.

The assumption that market failure could exist side-by-side with perfect competition was not new to Stigler. Instead, this treatment seems to reflect the economic conventions of the time. Consider classic formulations: one by Frank Knight (Stigler's teacher and dissertation advisor), and one by A.C. Pigou, who popularized the market failure concept.¹⁸⁸ According to Stigler, Knight was the first to articulate a complete formulation of the model.¹⁸⁹ Knight lists nine assumptions that, if satisfied, will lead to 'perfect competition.'¹⁹⁰

1. The members of society are a 'cross section of normal human beings with the attributes associated with members of Western Societies.'
2. Members of society act with complete rationality, subject to ordinary human motives.
3. People are free to act on their motives or, as Knight puts it 'people own themselves.'
4. There is a 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 cost involved in movements or changes.'

¹⁸⁵ Ibid, at 106–07.

¹⁸⁶ Ibid, at 107 ('It follows from the determination of costs, that in competitive equilibrium the allocation of productive services is ideal, in the sense that no other allocation would increase the product (measured in terms of what consumers are willing to pay). No unit of a productive service could produce more if transferred to another firm (in the case of specific factors) or to another industry (in the case of nonspecific factors).').

¹⁸⁷ Ibid, at 107 (citing Pigou, see above n 107, at Part II, Ch 9) ('An impressive list of such disharmonies between individual and social cost can easily be assembled. No single principle underlies them, and they are eliminated largely by *ad hoc* policies.'). According to Stigler, one such 'ad hoc policy' was 'cooperation.' Stigler, see above n 183, at 107. Did Stigler anticipate Coase?

¹⁸⁸ Breit, see above n 178, at 95, 97–100.

¹⁸⁹ Knight, see above n 107, at 76–81. See also George J. Stigler, 'Perfect Competition: Historically Contemplated', 65 *Journal of Political Economy* 1 (1957), 11 ('The concept of perfect competition received its complete formulation in Frank Knight's *Risk, Uncertainty, and Profit*. It was the meticulous discussion in this work that did most to drive home to economists generally the austere nature of the rigorously defined concept.').

¹⁹⁰ Knight, see above n 189, at 76–81.

5. 'It follows as a corollary from assumption number 4 that there is perfect competition.'
6. 'Every member of Society is to act as an individual only, in entire independence from other persons... Exchange of finished goods is the only form of relation between individuals, or at least there is no other form that influences economic conduct... In exchange between individuals, no interests of persons not parties to the exchange are to be concerned, either for good or ill. Individual independence in action excludes all forms of collusion, all degrees of monopoly or tendency to monopoly.'
7. 'All preying of individuals on each other' is excluded 'This specification is really a corollary from numbers 2 and 3, which exclude fraud or deceit and theft or brigandage, respectively, but it deserves explicit mention.'
8. 'The motives for division of labor and exchange must be present and active.'
9. 'All given factors and conditions are... to remain absolutely unchanged.'

Taken together, Knight said, these various conditions would result in 'perfect competition' and thus a general competitive equilibrium, *viz.*, an allocation of resources that maximized the potential welfare of society given its current endowments.¹⁹¹

Knight's very thorough description of the conditions necessary and sufficient for perfect competition does not mention externalities or the absence of market failure.¹⁹² To the modern eye, this is no surprise; the various assumptions Knight lays out seem plainly to preclude the possibility of positive or negative externality.¹⁹³ But strangely, to us anyway, Knight himself did not seem to think so. For, in a subsequent chapter, entitled 'Minor Prerequisites For Perfect Competition,' Knight expressly addresses the problem of market failure and its relation to perfect competition.¹⁹⁴ According to Knight, just

¹⁹¹ Knight, see above n 189, at 85–86.

¹⁹² It should be noted that Knight's assumption of the independence of actors included the assumption that 'in exchanges between individuals, no interests of persons not parties to the exchange are to be concerned, either for good or ill.' *Ibid.*, at 78. One could read this condition as eliminating the possibility of externality (the interests of persons not parties to the exchange) and thus market failure by fiat. However, the more natural reading would interpret this condition as simply positing that individuals ignore whatever positive or negative impact their conduct may, in fact, have upon other persons under perfect competition. This seems to be the better reading, given the example that Knight employs, namely, the individual or firm that does not consider the admitted and necessary impact of its output decisions on other firms and thus does not collude with them. *Ibid.* Indeed, Knight's subsequent recognition that individual actions *do* impact third parties is not inconsistent with his stipulation that, for purposes of the perfect competition model, individuals *do not consider* these effects. See nn 194–201, below and accompanying text. Thus, it seems clear that Knight does treat perfect competition and market failure as coexisting phenomena. I am grateful to Lillian BeVier for pressing me on this point.

¹⁹³ Stigler, see above n 176, at 113.

¹⁹⁴ Knight, see above n 189, at 181–83.

about every action an individual might take—or not take—in the real world may affect one or more individuals in a negative or positive way.¹⁹⁵ There is no suggestion that the presence of these external effects depends upon the violation of the various assumptions Knight had previously deemed necessary and sufficient to create perfect competition. Instead, Knight concludes that the social desirability of perfect competition depends upon the extent to which private and social interests diverge, that is, the presence or absence of externalities.¹⁹⁶ These interests can only diverge, it should be emphasized, given the assumption of the perfect competition model to the effect that individuals do not consider the impact of their conduct on others.¹⁹⁷ Here again, despite the chapter's purported focus on 'prerequisites,' Knight ultimately treats market failure as a phenomenon that could coexist with perfect competition. Indeed, Knight ends this discussion by exhorting economists to develop tractable standards for determining when 'free contract'—a synonym for perfect competition—does, in fact, 'promote individual interests harmoniously and realize social ideals.'¹⁹⁸ He ends the discussion by suggesting that there are two reasons that social and private interests may diverge. First, certain forms of organization may cause such divergence.¹⁹⁹ Such divergences, of course, would be independent of the existence *vel non* of perfect competition, and society could presumably eliminate such divergences by reforming the institutions that cause such divergence.²⁰⁰ Second, some such divergences are simply the result of immutable aspects of human nature, thus perhaps undermining the existence of perfect competition in the first place.²⁰¹

¹⁹⁵ Ibid, at 181–82 ('It may be doubted whether in fact any agreement between individuals is ever made which does not affect for good or ill many persons other than the immediate parties, and a larger proportion have larger ramifications over 'society.'').

¹⁹⁶ Ibid, at 181 ('The mere mechanical effectiveness of *competitive free contract* in producing a reconciliation of individual interests under given conditions depends largely on [the presence or absence of externalities]'). Cf. George J. Stigler, 'Perfect Competition: Historically Contemplated', 65 *Journal of Political Economy* 1 (1957), 16–17 (employing similar formulation).

¹⁹⁷ Ibid, at 85–86.

¹⁹⁸ Ibid, at 182–83 ('It would be well for the progress of science if we had less [argument for second-guessing preferences] and more serious effort to formulate standards and to determine the conditions under which free contract does or does not promote individual interests harmoniously and realize social ideals.').; *ibid*, at 86 (treating 'free exchange' and 'perfect exchange' as synonymous); *ibid*, at 53–54 (treating 'free competitive relations' based on ownership of private property (freedom) as synonymous with perfect competition).

¹⁹⁹ Knight, see above n 189, at 183 ('It is most desirable that some attempt be made to separate the evils for which the form of organization is more or less reasonably blamable from those which are inherent in nature and human nature, or in organization as such, irrespective of its form, and to keep the question in view...'). Cf. nn 163–66, above and accompanying text (explaining how economists of the era believed that market failure was often the result of poor property rights assignments).

²⁰⁰ Knight, see above n 189, at 185.

²⁰¹ Ibid, at 185; *ibid*, at 51–54 (explaining how concept of perfect competition depends upon certain idealized assumptions about human motives).

One finds a similar treatment of the problem in Pigou's classic text, *Economics and Welfare*.²⁰² While Pigou does not define perfect competition as such, he plainly employs the equivalent of the concept.²⁰³ His work begins with a definition of the 'National Dividend,' what he also calls 'economic welfare.'²⁰⁴ He then proceeds to consider to what extent the 'free play of self interest,' leads to the maximization of the national dividend *within the given legal framework*.²⁰⁵ The consideration begins with an examination of various factors that prevent the equalization of returns across industries, including imperfect knowledge, obstacles to the movement of factors, and the indivisibility of certain factors of production.²⁰⁶ The elimination of such conditions, it is said, leads 'self interest' to ensure that resources move to their highest valued (private) use, with the result that (private) investment returns are equal across industries, the result of what Pigou calls 'simple competition.'²⁰⁷

Having shown that the 'free play of self interest' could, in the absence of numerous potential obstacles, lead to equalized private returns across industries, Pigou then proceeded to examine the extent to which such equalization would maximize the national dividend and thus society's economic welfare.²⁰⁸ While self-interest would equalize private returns, it would only equalize social returns and thus maximize the national dividend where private and social returns happened to be identical in all industries.²⁰⁹ Here again, 'market failure' was exogenous to the existence *vel non* of perfect competition.

Knight's and Pigou's treatment of the interaction between market failure and perfect competition seems to have set the tone, or at least presaged,

²⁰² See James M. Buchanan, 'External Diseconomies, Corrective Taxes, and Market Structure', 59 *American Economic Review* 174 (1969) (concluding that both Pigou and Marshall considered the problem of market failure in a competitive setting).

²⁰³ See George J. Stigler, 'Perfect Competition: Historically Contemplated', 65 *Journal of Political Economy* 1 (1957), 11, n 50.

²⁰⁴ Pigou, see above n 107, at 31–42.

²⁰⁵ Ibid, at 127–30 (detailing plan of the remainder of the work in this manner); *ibid*, at xii (summarizing Part II: 'The Size Of The National Dividend And The Distribution Of Resources Among Different Uses' as '[ascertaining] how far the free play of self-interest, *acting under the existing legal system*, tends to distribute the country's resources in the way most favorable to the production of a large national dividend.') (emphasis added).

²⁰⁶ Pigou, see above n 107, at 144–48 (exploring impact of removing obstacles to movement); *ibid*, at 149–57 (considering 'hindrances to equality of returns due to imperfect knowledge'); *ibid*, at 158–66 (considering impact of 'imperfect divisibility of the units in which transactions are conducted').

²⁰⁷ Pigou, see above n 107, at 127–71; *ibid*, at 172 (equating result of unobstructed self-interest with 'simple competition').

²⁰⁸ Pigou, see above n 107, at 172–74.

²⁰⁹ Pigou, see above n 107, at 213 (defining 'simple competition' as 'conditions such that each seller produces as much as he can at the ruling market price, and does not restrict his output in the hope that the price will rise'); *ibid* (stating that, under simple competition, 'investment and output must be carried to a point at which the value of the marginal private net product of investment there conforms to the central value.').

economists' subsequent treatment of the question. In short, textbooks of the era either omitted any discussion of market failure or, *ala* Knight, Stigler, and Pigou treated the concept as a phenomenon that coexisted side-by-side with the state of perfect competition.²¹⁰

The realization that many leading economists treated perfect competition and market failure as coexisting phenomena seems inconsistent with the claim that the Coase Theorem was old hat.²¹¹ This realization also begs the question why economists clung to the fiction that perfect competition could coexist with market failure for so long. This is not the place to provide a full answer to this question, but we can at least surmise that this tenacity was not accidental. Scientific methodologies usually serve a purpose, helping practitioners solve the puzzles that the particular scientific community deems most salient.²¹² A model that solves these salient problems will be deemed 'successful,' even if it offers no solution to other problems.²¹³ Indeed, scientists will employ 'successful' models even if the particular scientific community demonstrates that some of the model's predictions are false.²¹⁴ Careful consideration

²¹⁰ Kaysen & Turner, see above n 110, 67, n 25 (treating divergence of private and social costs as a phenomenon independent of 'the equilibrium of a competitive model' that could prevent an efficient allocation of resources); Scitovsky, above n 163 (discussing 'Distinction Between Social And Private Marginal Value and Product' as a note to chapter on production costs); *ibid*, at 182–83 (divergence between private and social costs can prevent perfect competition from producing an optimal allocation of resources); *ibid*, at 183 ('We retain perfect competition as the best model for an efficient economy, even though it would be a perfect model only if the welfare of each consumer depended on his consumption alone.');

Joe S. Bain, *Price Theory* (New York: Holt 1952) 126–54 (defining pure competition without reference to market failure); *ibid*, at 168 (explaining how 'a price system under universal pure competition... would tend to bring about the best allocation of resources among uses or composition of aggregate output from the standpoint of consumer satisfaction'); *ibid*, at 169–70 (explaining how presence of externality 'tends to distort the allocative function of any price system, purely competitive or otherwise.');

John P. Miller, *Unfair Competition* (Cambridge, MA: Harvard University Press 1941) 360 (stating that a society that is perfectly competitive will achieve the 'ideal situation' of the 'most effective use of economic resources,' unless externalities are present). See also William Baumol, *Welfare Economics and the Theory of the State* (Cambridge, MA: Harvard University Press 1965) 72–74; Paul Samuelson, *Economics: An Introductory Analysis* (New York: McGraw-Hill 1951) 743, n 1 (discussing 'evil' of negative and positive externalities in a footnote and noting that these 'evils' mean that 'certain lines of activity deserve to be contracted and others to be expanded.').

²¹¹ See n 177, above and accompanying text (some scholars contend that the Coase Theorem was a tautological restatement of the perfect competition model).

²¹² Cf. Kuhn, above n 4, at 23 ('Paradigms gain their status because they are more successful than their competitors in solving a few problems that a group of practitioners has come to recognize as acute.');

ibid, at 23–34 (explaining how structure of paradigms often responds to problems that profession or society deems important).

²¹³ Kuhn, see above n 4, at 23 ('To be more successful [than competing paradigms] is not, however, to be completely successful with a single problem or notably successful with any large number').

²¹⁴ *Ibid*, at 79–82; *ibid*, at 81 (explaining that failure of Newton's theory to predict the speed and motion of Mercury did not cause scientists to question Newton's theory, given its ability to solve other important problems).

suggests three reasons why economists found this approach a useful tool for examining problems related to market failure.²¹⁵

First, it is useful to recall the overall agenda of microeconomics during this period. In short, economists devoted significant energy in determining under what conditions, if any, a system of private property and free exchange could produce an optimal allocation of resources.²¹⁶ It therefore made sense to distinguish between two inquiries: (1) whether a private system—even an ideal one—could ever produce an optimal allocation of resources and (2) whether a particular system was in fact ideal. By constructing the model of perfect competition, economists provided an answer to the first question, articulating the conditions both necessary and sufficient for a private market to produce equality between private costs and private benefits of economic activity. Having constructed such a model, economists could then ask the second question: did private costs equal social costs in the context of a particular institutional framework? By decoupling the existence of perfect competition from the presence or absence of market failure, economists could isolate and distinguish two questions: (1) the relationship between private costs and private benefits produced by particular market structures and circumstances, and (2) the impact on resource allocation of any divergence between private and social costs.²¹⁷ Thus, when addressing the latter question, economists would begin any analysis of market failure by assuming that the various underlying assumptions of perfect competition were present.²¹⁸

By structuring their analysis in this way, economists could imagine that the ‘free play of private interest’ could produce a general equilibrium in the absence of the introduction of some extraneous force preventing it.²¹⁹ Market

²¹⁵ Cf. Kuhn, above n 4, at 23 (paradigms survive to the extent they help solve problems the community deems useful); *ibid.*, at 66–71 (failure of paradigms to offer basis for solving important puzzles leads scientists to doubt the paradigm and to a resulting crisis).

²¹⁶ Knight, see above n 107, at 51–58 (framing the inquiry in this manner).

²¹⁷ Cf. Pigou, see above n 107, at 144 (explaining that assumption of equality between social and private net products allowed economists to isolate impact of complete mobility on allocation of resources without introducing complication of market failure).

²¹⁸ See Francis Bator, ‘The Anatomy of Market Failure’, 72 *Quarterly Journal of Economics* 351 (1958), 354; J.E. Meade, ‘External Economies and Diseconomies in a Competitive Situation’, 62 *Economic Journal* 54 (1952); Anthony Scott, ‘The Fishery: The Objective of Sole Ownership’, 63 *Journal of Political Economy* 116 (1955), 124 (emphasizing that the article’s conclusions held only to the extent that the entire economy was perfectly competitive); *ibid.* (explaining that the possession of market power by a single owner would ensure ‘so many possible consequences... that it would be impossible to generalize about them.’); Pigou, see above n 107, at 172–74 (examining the ramifications of divergence between marginal social and marginal private net product ‘under simple competition’); *ibid.*, at 172 (explaining that divergences between social and private marginal products will prevent self-interest from maximizing the ‘national dividend’ in a frictionless world). See also nn 178–210 above and accompanying text (collecting other sources taking same approach).

²¹⁹ Bain, see above n 210, at 163–68 (explaining how pure competition in all industries produces ideal allocation of resources); *ibid.*, at 169–70 (explaining that divergence between private and social costs results in a distortion of resource allocation ‘under universal pure competition’).

failure was one such extraneous force, and the existence of such a failure, on the other hand, presented economists with various puzzles to be solved.²²⁰ So, for instance, application of this methodology allowed economists to examine the exact contours of market failure, distinguishing between illusory pecuniary externalities, on the one hand, and meaningful technological externalities, on the other.²²¹ Economists could also examine the presence or absence of unique equilibria in the face of such failure, as well as the efficacy and impact on general welfare of possible solutions.²²² In so doing, economists could employ the sort of advanced mathematical techniques that are the hallmark of a normal science.²²³ By contrast, any departure from perfect competition would ensure the absence of the very optimal allocation of resources that served as the ultimate goal of economic policy.²²⁴ In this way, economists practiced 'normal science,' solving 'characteristic problems [that] are almost always repetitions, with minor modifications, of problems that have been undertaken and partially resolved before.'²²⁵

Indeed, and this brings us to a second reason economists may have clung to this methodology: the absence of perfect competition could even render market failure analysis counter-productive. After all, the so-called

²²⁰ Kuhn, see above n 4, at 37 (explaining how a scientific paradigm helps define the puzzles that scientists ought to solve); Bain, see above n 210, at 163–72 (summarizing results of perfect competition, with caveats for market failure); Scitovsky, see above n 163, at 181–87; Stigler, see above n 107, at 105–07 (explaining that 'discrepancy between private and social cost' would prevent the 'ideal' 'allocation of productive services' 'in a competitive equilibrium').

²²¹ See Francis Bator, 'The Anatomy of Market Failure', 72 *Quarterly Journal of Economics* 351 (1958), 356–58 (discussing distinction between mere pecuniary externalities, on the one hand, and technological externalities, on the other).

²²² See Francis Bator, 'The Anatomy of Market Failure', 72 *Quarterly Journal of Economics* 351 (1958), 363–77 (developing a taxonomy of various market failures and suggesting potential responses thereto); J.E. Meade, 'External Economies and Diseconomies in a Competitive Situation', 62 *Economic Journal* 54 (1952), 56–66 (distinguishing two types of externalities in 'the simplest competitive model'); Anthony Scott, 'The Fishery: The Objective of Sole Ownership', 63 *Journal of Political Economy* 116 (1955), 117–24 (examining extent to which a fishery held in common will result in allocation of resources consistent with wealth maximization given perfect competition). See also H. Scott Gordon, 'Economic Theory of a Common-Property Resource: The Fishery', 62 *Journal of Political Economy* 124 (1954), 128–42 (same).

²²³ See J.E. Meade, 'External Economies and Diseconomies in a Competitive Situation', 62 *Economic Journal* 54 (1952), 55–61, 63–66; Kuhn, see above n 4, at 36 ('Bringing a normal research problem to a conclusion is achieving the anticipated in a new way, and it requires the solution of all sorts of complex instrumental, conceptual, and mathematical puzzles. The man who succeeds proves himself an expert puzzle-solver, and the challenge of the puzzle is an important part of what usually drives him on.').

²²⁴ See Anthony Scott, 'The Fishery: The Objective of Sole Ownership', 63 *Journal of Political Economy* 116 (1955), 124 (introduction of market power into the model would result in too many analytical complications); Francis Bator, 'The Anatomy of Market Failure', 72 *Quarterly Journal of Economics* 351 (1958), 378 ('Despite the host of crucial feasibility considerations which render choice in the real world inevitably a problem in the strategy of the "second best," it is surely interesting and useful to explore the implications of Paretian efficiency.').

²²⁵ Kuhn, see above n 107, at 233.

'general theory of second best' holds that the elimination of distortions in one sector of the economy can actually reduce total welfare in some circumstances.²²⁶ In fact, the theory concludes that the elimination of market failure will only certainly improve welfare if there are no other market failures.²²⁷ Thus, by assuming that perfect competition and a single market failure coexisted, economists framed their inquiry so that a solution to a particular market failure would necessarily enhance and indeed perfect economic welfare.²²⁸ This approach allowed economists to focus their analysis on one market failure at a time, without the distracting complications posed by the possible interactions of several market failures.²²⁹

Third and finally, the bifurcation of perfect competition, on the one hand, and market failure on the other rested upon a convenient and natural distinction between empirical inquiry and policy analysis. Under this approach, the existence *vel non* of 'perfect competition' was generally an empirical question, one that economists could answer by gathering data in the 'real world.'²³⁰ By contrast, if competition was, in fact, perfect, the presence or not of market failure almost always depended on the legal framework, since most market failures were traceable to poor assignments of property rights that the state could remedy via legislation. This natural, commonsense distinction likely gave this methodology significant staying power.²³¹

By framing the market failure inquiry in this manner, economic theory necessarily transformed the study of market failure into an exercise in public

²²⁶ See Kelvin Lancaster and Richard Lipsey, 'The General Theory of Second Best', 24 *Review of Economic Studies* 11 (1956); Scherer, see above n 110, 26–29 (1980).

²²⁷ *Ibid.*

²²⁸ See James Buchanan, 'External Diseconomies, Corrective Taxes, and Market Structure', 59 *American Economic Review* 174 (1969), 175 (concluding that both Marshall and Pigou avoided second best problems by considering the problem of market failure 'implicitly based on the assumption of competitive structures'); Kuhn, see above n 4, at 35–37 (explaining that reification of a paradigm leads scientists to spend their professional lives pursuing narrow problems suggested by the paradigm).

²²⁹ See Anthony Scott, 'The Fishery: The Objective of Sole Ownership', 63 *Journal of Political Economy* 116 (1955), 124 (explaining how departure from assumption of perfect competition would introduce so many complications as to render useful conclusions impossible); Kuhn, see above n 4, at 37–38 (chosen paradigms effectively insulate scientists from addressing problems for which paradigms offer no methodology for solution); see Kuhn, above n 107, at 232 ('The practitioner of a mature science does not pause to examine divergent modes of explanation or experimentation.').

²³⁰ See Francis Bator, 'The Anatomy of Market Failure', 72 *Quarterly Journal of Economics* 351 (1958), 352–54. To be sure, the existence of perfect competition theoretically depended upon a legal framework that assigned property rights and provided remedies to enforce those rights. Still, economists (somewhat arbitrarily) treated a basic system of private property and free contract as sufficiently exogenous to support the bifurcation between empirical and policy analysis. Pigou, see above n 107, at 127–30 (explaining that book's analysis takes place within the given legal framework); *ibid.*, at xii (summarizing plan of Part II in this manner).

²³¹ Margolis, see above n 161, at 32–36.

policy analysis.²³² By positing a world where the ‘free play of self-interest’ could produce a general competitive equilibrium and optimize the allocation of resources, this methodology effectively ‘laid the blame’ for a suboptimal allocation at the feet of the government, which could, after all, change the rules of the game to eliminate any divergence between private and social cost. Indeed, according to Pigou, the study of economic science was worthwhile only to the extent that such a study might lead to ‘practical results in social improvements.’²³³ He thus framed a large part of his ‘Economics of Welfare’ as a study of how states could alter their legal institutions so as to ‘interfere[] with normal economic processes’ and therefore bring about equality between social and private costs.²³⁴ Such interference would channel ‘the free play of self-interest’ into socially-optimal directions and thus enhance the national dividend.²³⁵ Taking their cue from Pigou, many economists sought to identify market failures and propose solutions designed to thwart these failures and thereby bring the economy closer to an optimal allocation of resources.²³⁶ Some pursued this project with almost missionary zeal, treating the allocation of resources that an omniscient central planner would produce as their goal.²³⁷ These economists were not trying to solve market failure for the sake of doing so. Instead, economists were hoping to create an institutional framework in which

²³² Cf. Richard O. Zerbe, ‘The Failure of Market Failure’, in *Economic Efficiency in Law and Economics* (Northampton, MA: Edgar Elgar Publishing 2001) 165–66 (explaining how market failure analysis has been employed as ‘a diagnostic tool by which policy makers learned how to objectively determine the exact scope and type of intervention needed.’).

²³³ Pigou, see above n 107, at 4–5; *ibid.*, at 5 (‘Here, if in no other field, Comte’s great phrase holds good: “It is for the heart to suggest our problems; it is for the intellect to solve them”... The only position for which the intellect is primarily adopted is to be the servant of the social sympathies.’); Knight, see above n 107, at 16 (‘the aim of science is to predict the future for the purpose of making our conduct intelligent.’).

²³⁴ Pigou, see above n 107, at 172 (‘When there is a divergence between these two sorts of marginal net products, self-interest will not, therefore, tend to make the national dividend a maximum; and, consequently, certain specific acts of interference with normal economic processes may be expected, not to diminish, but to increase the dividend.’).

²³⁵ Pigou, see above n 107, at 128–29.

There is ground, however, for believing that even Adam Smith had not realised fully the extent to which the System of Natural Liberty needs to be qualified and guarded by special laws, before it will promote the most productive employment of a country’s resources. It has been said by a recent writer that ‘the working of self-interest is generally beneficent, not because of some natural coincidence between the self-interest of each and the good of all, but because human institutions are arranged so as to compel self-interest to work in directions in which it will be beneficent.’

Ibid. (quoting Cannan, *Economic Review*, July 1913, at 333).

²³⁶ Pigou, see above n 107, at 172–203.

²³⁷ See Morris A. Copeland, ‘Institutionalism and Welfare Economics’, 48 *American Economic Review* 1 (1958), 2–17; Samuelson, above n 210, at 743 (arguing that examination of pricing and allocational decisions in a hypothetical socialist economy ‘teaches us how to appraise the mechanical efficiency of pricing in a non-socialist society’).

'the free play of self interest' would produce an optimal allocation of resources and thus maximize Pigou's national dividend.²³⁸ In short, the practice of holding perfect competition constant while examining the problem of market failures supplied economists with a rich and tractable research agenda and thus may have helped entrench this methodology within the minds of these scholars.²³⁹

B. Perfect Competition and the Inhospitability Tradition

What though does all of this have to do with the inhospitability tradition? After all, economists of the inhospitability-era did not believe that the real world either did or should entirely replicate the world imagined by perfect competition. Instead, these scholars recognized certain desirable departures from perfect competition, including the existence of market power that came with economies of scale or product differentiation.²⁴⁰ Given this level of practical sophistication, how much influence could the idealized model of perfect competition really have had on antitrust policy?²⁴¹

The answer, it seems, is 'plenty,' though in a somewhat indirect way. To understand why, one must attempt to see the problem through the eyes of economists as they practiced their art in the 1950s. Scientists working with an accepted paradigm do not invent a new model for every new problem they

²³⁸ See Morris A. Copeland, 'Institutionalism and Welfare Economics', 48 *American Economic Review* 1 (1958), 2–4; see Pigou, above n 107, at 127–30.

²³⁹ Kuhn, see above n 4, at 24–25 (a paradigm is successful in part because it suggests numerous useful problems that it can help scientists solve); Kuhn, see above n 107, at 230–31 (different paradigms suggest different research agendas and different criteria governing what constitutes an acceptable solution).

²⁴⁰ See Alan J. Meese, 'Price Theory, Competition and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 121–22.

²⁴¹ It should be noted that some scholars have argued that the inhospitability tradition derived from undue adherence to the perfect competition model as a guide to antitrust policy. Machovec, see above n 107, at 203–08; Richard N. Langlois, 'Contract, Competition, and Efficiency', 55 *Brooklyn Law Review* 831 (1989), 834–35. See also Frank H. Easterbrook, 'Is There A Ratchet In Antitrust Law?', 60 *Texas Law Review* 705 (1980), 715 (asserting that inhospitability tradition of antitrust law 'emphasized competition in the spot market'). While each makes an important contribution, none of these scholars explores the link between perfect competition, on the one hand, and the analysis of market failure, on the other. Moreover, none reconciles his argument with the fact that inhospitability era scholars recognized certain departures from perfect competition as desirable. By contrast, this paper explains how economists interested in antitrust policy could embrace certain departures from the perfect competition model without also recognizing that non-standard contracts can overcome market failure without exercising or creating market power. At the same time, the paper seeks to explain how modern scholars can recognize that non-standard contracts produce significant benefits while at the same time questioning all such contracts that result in higher prices, for instance.

It should also be noted that Professor Williamson does not discuss the influence of the perfect competition model on the inhospitability tradition. Instead, Williamson attributes the inhospitability tradition to 'applied price theory.' See nn 107–18, above and accompanying text (describing Williamson's invocation of 'price theory' as source of inhospitability tradition); Ronald H. Coase, above n 107, at 61–64 (same).

encounter.²⁴² Economists interested in antitrust policy did not construct their own paradigms from scratch, but instead quite naturally employed the paradigms that their professional colleagues had developed to solve other problems.²⁴³ For these scholars, antitrust regulation was a subset of a larger effort to quash externalities and thus ensure that private markets produced the best possible allocation of resources.²⁴⁴

As explained above, when economists considered questions of market failure, they did so against the backdrop of perfect competition. More precisely, economists considering market failures that did not derive from market power began with the assumption, never relaxed, that the various conditions necessary and sufficient for ‘perfect competition’ obtained, with the result that private returns were equalized across all of society’s industries.²⁴⁵ By holding the existence of perfect competition constant, economists were able to identify and focus on instances in which, despite perfect competition, private returns diverged from social returns, with the result that some change in the background legal framework was necessary to eliminate market failure.²⁴⁶ Such a change would, given the methodology, result in the optimal allocation of resources. As shown below, this paradigm for examining market failure created substantial barriers to the recognition that private contracts were methods for overcoming market failure by economizing on the costs of relying upon the sort of unbridled market imagined by perfect competition. These barriers explain why—separate and apart from their technological theory of the firm—economists of this era could not recognize that non-standard contracts could overcome market failures and also why these same economists concluded that such agreements reflected an exercise of market power.

Earlier, this article explained how economists have identified several conditions that are necessary to the existence of ‘perfect competition’ and the resulting equalization of private returns across industries.²⁴⁷ Several of these assumptions, it will be seen, effectively raise the cost of recognizing the possibility that non-standard contracts can be vehicles for overcoming market

²⁴² Kuhn, see above n 4, at 22 (explaining how scientists employ community’s dominant paradigm to explore analogous problems); *ibid.*, at 19–20 (explaining that scientists working in field with an accepted paradigm ‘need no longer, in [their] major works, attempt to build [their] field anew.’); Kuhn, see above n 107, at 233 (‘The man who suspected the existence of a totally new type of phenomenon or who had basic doubts about the validity of existing theory would not think problems so closely modeled on textbook paradigms worth undertaking.’).

²⁴³ See Ronald H. Coase, above n 107, at 67 (explaining that, during this era, industrial organization was simply ‘applied price theory’).

²⁴⁴ Kaysen & Turner, see above n 110, at 3–14; *ibid.*, at 12 (expressly linking their own methodology to that of Pigou); Bain, above n 210, at 22–23 (stating that general equilibrium theory, ‘is our primary source of standards of what constitutes desirable performance by firms and industries.’); see Miller, above n 210, at 360.

²⁴⁵ See nn 169–210, above and accompanying text.

²⁴⁶ Pigou, see above n 107, at 144.

²⁴⁷ See nn 190–91, above and accompanying text.

failure.²⁴⁸ The first two: perfect knowledge and the absence of time, could block the recognition of certain market failures in the first place, particularly certain failures that are salient to antitrust analysis.²⁴⁹ The other three—perfect mobility of factors, lack of cooperation between rivals, and a fixed definition of property rights—all acted so as to make private solutions to recognized market failure beyond the ken of those economists applying the dominant methodology of the day.

1. *Blocking Recognition of Market Failure in the First Place*

a. Perfect knowledge

Consider first the impact of the ‘complete knowledge’ assumption of the perfect competition model. Many of the market failures identified by TCE’s practitioners result in a failure of firms to produce an optimal amount of information. For instance, manufacturers that rely upon an unbridled market—dealers—to distribute their goods may find that dealers under-invest in promotion and advertising, given the prospect that other dealers may free-ride on these efforts.²⁵⁰ Similarly, manufacturers may find that their own promotional expenditures that lure consumers to dealers may ‘spill over’ and benefit other manufacturers who distribute products through the same dealers.²⁵¹ Given such spillovers, these manufacturers may also under-invest in promotion, thus depriving consumers of information they might find useful.²⁵² Finally, independent organizations that repair complex machinery may lack the incentives necessary to produce information that might help the manufacturer improve its products.²⁵³

Today economists recognize that complete integration can solve these and other similar market failures.²⁵⁴ Even before economists focused on complete integration as a solution to these problems, however, scholars began to recognize that non-standard contracts can overcome such market failures. Minimum rpm or exclusive territories can ensure that dealers internalize

²⁴⁸ Cf. Margolis, see above n 161, at 29–42 (explaining how deeply entrenched habits of mind can constitute barriers that prevent scientists from properly understanding natural phenomena).

²⁴⁹ Knight, see above n 107, at 77–78 (explaining role of perfect knowledge assumption in perfect competition model); Pigou, see above n 107, at 149–58 (explaining how absence of perfect knowledge can serve as a barrier to the realization of equal private returns across markets).

²⁵⁰ See Lester G. Telser, ‘Why Should Manufacturers Want Fair Trade?’, 3 *JLE* 86 (1960); Ward Bowman, ‘The Prerequisites And Effects Of Resale Price Maintenance’, 22 *University of Chicago Law Review* 825 (1955), 842–43 (articulating claim that minimum rpm can prevent free riding, without using that exact term).

²⁵¹ See Howard Marvel, ‘Exclusive Dealing’, 25 *JLE* 1 (1982).

²⁵² See Howard Marvel, ‘Exclusive Dealing’, 25 *JLE* 1 (1982), 6–11.

²⁵³ See Alan J. Meese, ‘Tying Meets The New Institutional Economics’, 146 *University of Pennsylvania Law Review* at 1 (1997), 65.

²⁵⁴ See Benjamin Klein, ‘Transaction Cost Determinants of “Unfair” Contractual Arrangements’, 70 *American Economic Review* 356 (1980), 359, n 2; Victor Goldberg, ‘The Law and Economics of Vertical Restrictions’, 58 *Texas Law Review* 91 (1979), 109.

the results of their promotional efforts.²⁵⁵ Subsequently scholars determined that exclusive dealing can ensure that manufacturers that invest in promotion and entice customers to their dealers will realize the benefits of such expenditures.²⁵⁶ Contracts that require purchasers of complex machinery also to purchase repair and maintenance services from the manufacturer allow the manufacturer to reap the rewards of generating information about the underlying machine while repairing it.²⁵⁷

Note, however, that the methodology employed during the inhospitality-era for identifying, analyzing, and correcting market failure would raise the cost of recognizing these information-based market failures in the first place. Recall that economists searching for market failures in need of state correction would do so in an effort to move the economy closer to an optimal allocation of resources. To this end, these practitioners assumed that any such failure would coexist with the conditions necessary and sufficient for perfect competition, including the possession of perfect knowledge by all market participants.²⁵⁸ In a world of complete knowledge, consumers completely understand the attributes of various products and fully know the locations where they are sold. There is no fraud in this world, and trading partners cannot behave in an opportunistic fashion.²⁵⁹

In this world, advertising, trademarks, and other promotional devices indispensable in the real world simply have no place, as consumers already know everything advertising might teach them.²⁶⁰ In such an environment, a

²⁵⁵ See Robert H. Bork, 'The Rule of Reason and the Per Se Concept: Price Fixing and Market Division II', 75 Yale Law Journal 373 (1965), 430–38, 453–54; Lester G. Telser, 'Why Should Manufacturers Want Fair Trade?', 3 JLE 86 (1960), 89–96.

²⁵⁶ See Howard Marvel, 'Exclusive Dealing', 25 JLE 1 (1982), 6–11.

²⁵⁷ See Alan J. Meese, 'Tying Meets The New Institutional Economics', 146 University of Pennsylvania Law Review 1 (1997), 65–66.

²⁵⁸ See nn 169–210, above and accompanying text (summarizing this argument).

²⁵⁹ Stigler, above n 107, at 22 (explaining that state regulation is unnecessary in world characterized by complete knowledge); Knight, above n 107, at 78–79 (explaining that perfect competition's assumption of no fraud is simply a redundant implication of the perfect knowledge assumption); Miller, above n 210, at 115 (incomplete knowledge a necessary condition for fraud).

²⁶⁰ Bain, see above n 210, at 157 ('It is significant that in pure competition production occurs without any selling cost, since no seller has anything unique to advertise.');

Stigler, see above n 107, at 23 ('If consumers know the technical properties of all commodities, there will be no advertising, for all claims for a product would be true, and hence already known, or false, and then merely irritating.');

F. A. Hayek, 'The Meaning of Competition', in *Individualism and Economic Order* (Chicago: University of Chicago Press 1948) 96 (explaining that, under the concept of perfect competition employed in general equilibrium models, '[a]dvertising, undercutting and improving ("differentiating") the goods or services produced are all excluded by definition—"perfect" competition means indeed the absence of all competitive activities.');

Joan Robinson, 'The Impossibility of Competition', in E. H. Chamberlin (ed), *Monopoly and Competition and Their Regulation* (London: Macmillan 1954) 245 (noting that 'competition in practice is very imperfect'); *ibid*, at 245–46 ('in the broad sense in which business men understand it, [competition] largely consists in destroying competition in the narrow economist's sense by product differentiation, advertisement, and the creation of goodwill.').

claim that market failure could result in too little advertising would seem backwards: any such claim would rest upon a departure from the perfect competition model and thus contradict the methodology of market failure analysis during this period.²⁶¹ Indeed, during this period, economists and legal scholars often saw much advertising as an evil, part of an effort to enhance undue product differentiation and the resulting market power by duping consumers into attributing illusory distinctions to rival products.²⁶² If successful, it was said, such counter-productive advertising could cause even further divergence from the allocation of resources that perfect competition would produce. In fact, some scholars recognized that minimum rpm, for instance, did increase promotion, but viewed such additional promotion as a vehicle for producing undue product differentiation and the resulting market power!²⁶³ It is no surprise, then, that scholars failed to identify these informational market failures, which rested upon a departure from perfect competition and could not plausibly coexist with that ideal state of affairs.²⁶⁴ Adherence to the perfect competition model simply blocked these scholars from recognizing the presence of market failure.²⁶⁵

b. The absence of time

Not all market failures involve the failure to produce information. Sometimes, reliance on unbridled market contracting will expose a firm to other forms of opportunism. For instance, a desire to minimize production costs or create a unique product may induce a supplier to invest in equipment that is useful only

²⁶¹ See nn 169–210, above.

²⁶² Bain, see above n 210, at 367–69; *ibid*, at 449–50 ('Although some selling costs are likely to be desirable as a means of disseminating information, there is at least a strong possibility that they may be incurred in such quantity—and qualitatively for certain sorts of sales promotion—that buyers are not rewarded for the loss of aggregate output which they may necessitate.');

see Miller, above n 210, at 114–17.

²⁶³ See J. R. Gould and B. S. Yamey, 'Professor Bork on Vertical Price Fixing: A Rejoinder', 77 *Yale Law Journal* 936 (1968), 938–41 (provision of additional promotional information as a result of minimum rpm may not increase welfare); William Commanor, 'White Motor And Its Aftermath', 81 *Harvard Law Review* 1419 (1967) (additional promotion caused by exclusive territories likely leads to undue product differentiation). Cf. *In re Sandura*, 61 *FTC* 756 (US Federal Trade Commission 1962) 814–15 (concluding that existence of significant product differentiation militated against defendant's claim that exclusive territories were necessary to ensure effective distribution because such differentiation would enhance the market power that such territories supposedly created).

²⁶⁴ I do not mean to suggest that these economists believed that the real world mimicked the world of perfect competition, or even that they believed that such an identity was always desirable. On the contrary, these scholars argued that some departures from perfect competition could actually enhance welfare on balance. See nn 319–24, below and accompanying text. On the other hand, when considering the narrower question of market failure, these same scholars did so on the hypothetical assumption that perfect competition obtained.

²⁶⁵ Cf. Margolis, see above n 161, at 130–61 (explaining how Ptolemaic assumption that universe was characterized by nested spheres blocked realization that the Earth revolved around the Sun in an elliptical orbit).

in the context of a particular relationship.²⁶⁶ By making such a specific investment, the firm may place itself at risk of opportunism by its trading partner, who could 'hold out' for a better bargain during the next period.²⁶⁷ In the absence of some remedy, the prospect of such opportunism may deter such investment in the first place, thereby reducing the welfare of both parties and the consumers who would purchase the product in question.²⁶⁸

Both complete vertical integration and non-standard contracts can reduce the prospect of such opportunism and thus encourage firms to make specific investments that deepen specialization and thus enhance welfare.²⁶⁹ Here again, however, there is an aspect of the perfect competition model that would block recognition of this market failure in the first place. The perfect competition model seems to operate in a world divorced from time.²⁷⁰ Given

²⁶⁶ See Richard N. Langlois, 'Transaction Costs, Production Costs, and the Passage of Time', in Steven G. Medema (ed), *Coasean Economics: Law and Economics and the New Institutional Economics* (Boston: Kluwer Academic Publishers 1997) 11–12 (explaining how specific investments can be a manifestation of specialization).

²⁶⁷ Williamson, see above n 8, at 78; *ibid*, at 91; Benjamin Klein, Robert Crawford and Armen Alchian, 'Vertical Integration, Appropriable Rents and the Competitive Contracting Process', 21 *JLE* 297 (1978), 298–301. See also Benjamin Klein, 'Fisher-General Motors and the Nature of the Firm', 43 *JLE* 105 (2000) *passim* (arguing that opportunistic behavior by Fisher Body led General Motors to integrate backward into the production of automobile bodies); Michael E. Levine, 'Airline Competition in Deregulated Markets: Theory, Firm Strategy, and Public Policy', 4 *Yale Journal on Regulation* 393 (1987), 439–40 (explaining how threat of opportunism by commuter carriers led major carriers to integrate vertically, despite higher operating costs).

²⁶⁸ See Langlois, 'Transaction Costs, Production Costs, and the Passage of Time', in Steven G. Medema (ed), *Coasean Economics: Law And Economics And The New Institutional Economics* (Boston; London: Kluwer Academic 1998) 2–4, 11–12; Benjamin Klein, 'Transaction Cost Determinants of "Unfair" Contractual Arrangements', 70 *American Economic Review* 356 (1980), 357 (explaining that opportunistic exploitation of relationship-specific investments 'is not a long-run equilibrium phenomenon').

²⁶⁹ See Benjamin Klein, 'Fisher-General Motors and the Nature of the Firm', 43 *JLE* 105 (2000) *passim* (arguing that opportunistic behavior by Fisher Body led General Motors to integrate backward into the production of automobile bodies); Benjamin Klein, 'Vertical Integration as Organizational Ownership: The Fisher Body General Motors Relationship Revisited', 4 *Journal of Law, Economics & Organization* 199 (1988), 201 (explaining that requirement that General Motors purchase only from Fisher Body protected the latter from opportunism and thus induced relationship-specific investment); Milton Handler, 'Statement Before The Small Business Administration', 11 *Antitrust Bulletin* 417 (1966), 424–25 (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 Benjamin Klein, Robert Crawford and Armen Alchian, 'Vertical Integration, Appropriable Rents and the Competitive Contracting Process', 21 *JLE* 297 (1978), 307, n 23 (susceptibility of specific investments to opportunism can change the production function). But compare Ronald H. Coase, 'The Nature of the Firm: Influence', 4 *Journal of Law, Economics & Organization* 33 (1988), 42–44 (contending that long-term contracts can adequately address prospect of opportunism, with the result that fear of such opportunism rarely leads to integration) with Benjamin Klein, 'Vertical Integration as Organizational Ownership: The Fisher Body General Motors Relationship Revisited', 4 *Journal of Law, Economics & Organization* 199 (1988), 200–11 (responding to Coase's critique).

²⁷⁰ Knight, see above n 107, at 81 (within model of perfect competition, production occurs in a 'brief interval of time,' after which all market participants 'meet[] in a central marketplace to

perfect information and the costless movement of resources, time—even the time necessary to produce goods—becomes irrelevant.²⁷¹ Consumers and firms instantaneously know their preferences and costs, respectively and act accordingly, allocating resources between infinite possible uses in a world with absolutely no barriers to movement.

By contrast, the possibility of opportunism requires the existence and the passage of time. Take the example above. A firm that makes a specific investment can only suffer at the hands of a customer or supplier in the next period, after the investment has occurred and become specific to the relationship in question.²⁷² By contrast, in the world of perfect competition, 'each person continuously produces a complete commodity which is consumed as fast as produced. The exchange of commodities must be virtually instantaneous and costless.'²⁷³ In a world where markets clear in an instant, opportunism becomes extinct. By narrowing its focus to market failures that could coexist with perfect competition and therefore excluding time from its analysis, the methodology of the inhospitality-era made it more difficult to recognize this form of opportunism.²⁷⁴

2. *Perfect Competition and Private Solutions to Market Failure*

Let us assume, however, that an economist of the inhospitality-era had overcome the perfect knowledge and absence of time barriers and identified a market failure that resulted in the underproduction of promotional information or the threat of opportunism directed at parties who have made relationship-specific investments. Would that economist have recognized that non-standard contracts could solve such market failures? Here again, certain barriers rooted in the perfect competition model would have stood in the way of such a recognition.

exchange their wares'); Machovec, see above n 107, at 178–79 (describing instantaneous process of market clearing that occurs under perfect competition); F. A. Hayek, 'The Meaning of Competition', in *Individualism and Economic Order* (Chicago: University of Chicago Press 1948) 92, 96 (satisfaction of various assumptions of perfect competition model results in instantaneous state of 'perfect competition' and thus excludes by hypothesis any activities deemed 'competition' in ordinary life).

²⁷¹ See Leon Walras, *Elements of Pure Economics* (first published in 1874); (Homewood, IL: Richard D Irwin, Inc. 1954) 242 (trans. William Jaffe) ('Once the equilibrium has been established in principle, exchange can take place immediately. Production, however, requires a certain lapse of time. We shall resolve the second difficulty purely and simply by ignoring the time element at this point.').

²⁷² Langlois, 'Transaction Costs, Production Costs, and the Passage of Time', in Steven G Medema (ed), *Coasean Economics: Law And Economics And The New Institutional Economics* (Boston; London: Kluwer Academic 1998) 6–9; Williamson, above n 8, at 29–31 (opportunism occurs because parties make specific investments in a world where bounded rationality prevents perfect planning for future contingencies).

²⁷³ Knight, see above n 107, at 78.

²⁷⁴ Cf. Margolis, see above n 161, at 130–61 (explaining how central habits of mind of Ptolemaic cosmology blocked recognition of heliocentric solar system).

a. Perfect mobility of factors

Consider first the assumption of perfect mobility of factors of production, including labor. This assumption served a key function in the model, ensuring that resources could readily and immediately move from underperforming sectors to those with higher returns.²⁷⁵ Adherence to it, however, would certainly raise the cost of recognizing the function of non-standard contracts. By their nature, after all, such agreements would, if enforced, hinder the mobility of labor and capital and thereby cause a departure from perfect competition.²⁷⁶ Take, for instance, an exclusive dealing contract. By preventing a dealer from carrying the products of several rival manufacturers, such an agreement would hinder the movement of goods from the manufacturer to consumers.²⁷⁷ Such an agreement would also hinder the discretion of dealers to invest their own resources in stocking and promoting the products of several manufacturers. In short, such a contract would result in an allocation of resources that was 'anti-competitive' in a straightforward way.²⁷⁸ In the same way, of course, exclusive territories or minimum rpm would also hinder the movement of resources by, for instance, preventing a dealer from opening a new shop outside her assigned territory.²⁷⁹

By their nature, then, non-standard contracts thwarted the 'free mobility' assumption of perfect competition. As a result, economists could not have seen these agreements as solutions to the problem of 'market failure' as they conceived and tried to solve it. Recall here that economists of this era examined market failures and the solutions thereto on the assumption that the economy satisfied the various conditions for perfect competition.²⁸⁰ Within this framework, the solution for market failure caused private and social costs to converge and thus, given the existence of perfect competition, led to a perfect allocation of resources.²⁸¹ By contrast, a non-standard contract would by hypothesis thwart the existence of perfect competition and prevent the

²⁷⁵ Knight, see above n 107, at 77–78; Pigou, above n 107, at 144–49.

²⁷⁶ Cf. *Chicago Board of Trade v United States*, 246 US 231, 238 (US Supreme Court 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. The true test of legality is whether the restraint imposed is such as merely regulates and perhaps thereby promotes competition or whether it is such as may suppress or even destroy competition.').

²⁷⁷ *Standard Oil Company v United States*, 337 US 293, 314 (US Supreme Court 1949) (exclusive dealing contracts create a 'clog on competition').

²⁷⁸ Cf. Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 Illinois Law Review 77 (2003), 94 (discussing similar definition of 'anticompetitive' that courts employ when administering *per se* rules).

²⁷⁹ Cf. *Continental T.V. v G.T.E. Sylvania*, 433 US 36 (US Supreme Court 1977) (evaluating restraint that prevented dealer from opening new store in different city). See also *United States v TOPCO*, 405 US 596 (US Supreme Court 1972) (criticizing horizontal allocation of territories ancillary to legitimate joint venture on these grounds); *In re Sandura*, 61 FTC 756 (US Federal Trade Commission 1962) 813–16 (condemning exclusive territories on this basis).

²⁸⁰ See nn 178–210, above and accompanying text.

²⁸¹ See nn 216–25, above and accompanying text.

equalization of private returns across markets. Even if such contracts did eliminate a market failure, they would at the same time eliminate the very perfect competition that was the foundation of market failure analysis. Thus, non-standard contracts could not solve the market failure puzzle in a manner acceptable to the paradigm that economists embraced.²⁸²

b. Independent action

The assumption of perfect mobility is not the only prerequisite of perfect competition that would hinder recognition of private solutions to market failure: there is also the entirely separate assumption that market participants do not cooperate with one another on price or output.²⁸³ This assumption may seem redundant, given the model's attempt to discern the results of a system of 'free contract' and the assumption of numerous market participants.²⁸⁴ In such an environment, it seems, collusion would not be possible.²⁸⁵

Still, this condition is in fact fundamental, given the model's other assumptions. For, if market participants possess perfect information about their rivals' plans and can costlessly bargain with them over a division of profits, collusion is a simple proposition, no matter how many firms remain in the market.²⁸⁶ As Stigler stated in 1958, 'one of the assumptions of perfect competition is the existence of the Sherman Act.'²⁸⁷ Otherwise, market participants would cartelize and exercise market power.

²⁸² Kuhn, see above n 4, at 38 (paradigms imply 'rules that limit both the nature of acceptable solutions and the steps by which they are to be obtained.').

²⁸³ Knight, see above n 107, at 78 ('Every member of society is to act as an individual only, in entire independence of all other persons... Individual independence in action excludes all forms of collusion, all degrees of monopoly or tendency towards monopoly'); George J. Stigler, *Perfect Competition: Historically Contemplated*, 65 *Journal of Political Economy* 1 (1957), 14.

²⁸⁴ Knight, see above n 107, at 55, 174 (characterizing analysis in this way); Pigou, see above n 107 (same).

²⁸⁵ See Mancur Olson, *The Logic of Collective Action* (Cambridge, MA: Harvard University Press 1971) 9–11 (explaining how only government intervention could preserve cartel pricing in otherwise competitive market).

²⁸⁶ See George J. Stigler, *Perfect Competition: Historically Contemplated*, 65 *Journal of Political Economy* 1 (1957), 14 ('[I]t seems essential to assume the absence of collusion as a supplement to the presence of large numbers.'). See also Milton Friedman, *Price Theory* (Chicago: Aldine Publishing 1962) 11 (value of price system 'implicitly supposes the existence of effective competition in translating consumer wishes into productive activity. It is assumed that people can affect their incomes only through use of their resources and not through interference with the price system. There is freedom to compete but not freedom to combine.').

²⁸⁷ See George J. Stigler, *Perfect Competition: Historically Contemplated*, 65 *Journal of Political Economy* 1 (1957), 14. See also Ronald H. Coase, *The Institutional Structure of Production*, 82 *American Economic Review* 713 (1992), 717–18 (background rules construct an institutional framework that impacts the allocation of resources); F. A. Hayek, 'Free Enterprise and the Competitive Order', in *Individualism and Economic Order* (Chicago: University of Chicago Press 1948) 115 ('We cannot regard "freedom of contract" as a real answer to our problems if we know that not all contracts out to be made enforceable and in fact are bound to argue that contracts 'in restraint of trade' ought not be enforced.').

How, then, might this non-cooperation assumption block the recognition that private contracts can overcome market failure? Most if not all contracts that overcome market failure violate or appear to violate this assumption in some way. Consider two examples often invoked as paradigms of market failure: the extraction of oil and gas, and fishing.²⁸⁸ Under a rule of capture, firms with access to a particular pool of minerals or fish may extract either too quickly and invest too many resources in doing so.²⁸⁹ The classic solution to this market failure was a change in background legal rules, namely, the assignment of all minerals or fish in the relevant pool to a single owner, for instance.²⁹⁰ Such a solution would have vested control over the resources in a single firm, which could compete with numerous other firms that had received similar resource assignments.²⁹¹

At first glance, such a solution would itself offend perfect competition, by unifying previously independent firms and thus effectively fixing prices.²⁹² But economists who proposed such a solution (somewhat arbitrarily) avoided this critique by assuming that enough firms would remain to satisfy the model's numerosity requirement.²⁹³ After all, a subset of infinity is still infinity!

²⁸⁸ Kaysen & Turner, see above n 110, at 13, n 12 (describing oil extraction as an activity where improper property arrangements such as the rule of capture could result in a divergence between private and social costs); Samuelson, see above n 210, at 743 n 1 (employing this as single example of market failure); Anthony Scott, 'The Fishery: The Objective of Sole Ownership', 63 *Journal of Political Economy* 116 (1955).

²⁸⁹ See Jonathan Adler, 'Conservation Through Collusion: Antitrust As An Obstacle To Marine Resource Conservation', 61 *Washington & Lee Law Review* 3 (2004), 16–17 (describing so-called 'race to fish' caused when fish are part of common pool accessible to all); Anthony Scott, 'The Fishery: The Objective of Sole Ownership', 63 *Journal of Political Economy* 116 (1955) *passim*. In part this is analogous to the salvage problem, whereby private salvors may overinvest in locating and raising a sunken ship filled with treasure. See William M. Landes and Richard A. Posner, 'Salvors, Finders, Good Samaritans and Other Rescuers: An Economic Study of Altruism', 7 *Journal of Legal Studies* 83 (1978).

²⁹⁰ Kaysen & Turner, see above n 110, at 13, n 12 (proper assignment of property rights would solve market failure in the extraction of oil); Anthony Scott, 'The Fishery: The Objective of Sole Ownership', 63 *Journal of Political Economy* 116 (1955) *passim* (assignment of relevant pool of fish to a single owner would overcome market failure). See also Francis Bator, 'The Anatomy of Market Failure', 72 *Quarterly Journal of Economics* 351 (1958), 354 ('arbitrary legal and organizational imperfections' can 'leave some inputs or outputs 'hidden,' or preclude their explicit allocation or capture by market processes... [market] [f]ailure is by *enforcement*.') (emphasis in the original); *ibid*, at 363–65 (discussing so-called 'ownership externalities' that exist because of legal or practical inability to appropriate the full benefit of private activity).

²⁹¹ Cf. Anthony Scott, 'The Fishery: The Objective of Sole Ownership', 63 *Journal of Political Economy* 116 (1955), 124 (examining such a reform on the assumption of perfect competition in the output market).

²⁹² Cf. *Copperweld v Independence Sheet and Tube Co.*, 467 US 752 (US Supreme Court 1984) 769 (conceding that internal coordination is a form of price fixing); *Broadcast Music, Inc. v CBS*, 441 US 1, 9, 23–24 (US Supreme Court 1979) 9, 23–24 (explaining that merger or operation of a partnership can be the equivalent of price fixing).

²⁹³ See Anthony Scott, 'The Fishery: The Objective of Sole Ownership', 63 *Journal of Political Economy* 116 (1955), 124 (elaborating on assumption that sole owner does not possess power over price); *ibid*, at 117, n 4 ('Sole ownership' is not monopoly but merely complete appropriation of all of a natural resource in a particular location.). Moreover, price theory's account of the firm as a point source with a single profit-maximizing consciousness allowed

Turn now to a private solution. One solution would be an agreement among those with access to the minerals to curtail their production so as to conserve the resource.²⁹⁴ While such an agreement would obviate the 'overfishing' or overdrilling problem, it might not eliminate the problem of duplicative investment, as each rival could retain incentives to purchase and utilize equipment that overlapped with that used by rivals.²⁹⁵ Thus, any agreement would also have to prevent duplicative investment.

The private agreements necessary to overcome this paradigmatic market failure would quite obviously offend at least two assumptions of the perfect competition model. For one thing, such agreements would plainly contradict the assumed absence of any obstructions to the movement of resources, be they capital or labor.²⁹⁶ At the same time, such agreements would offend the assumption that market participants act independently, i.e., do not coordinate their decisions, particularly when it comes to price or output.²⁹⁷ An agreement to eliminate market failure by preventing 'overdrilling' or 'overfishing' would quite obviously require a reduction in the output below the level that 'free' drilling or fishing would produce.²⁹⁸ As a result, this 'solution' to the market failure puzzle would not satisfy the criteria for puzzle solutions implied by the market failure paradigm economists employed.²⁹⁹ An economist who sought solutions to market failure on the assumption that perfect competition nonetheless obtained would simply not see such contracts as vehicles for solving the problem as then conceived.

economists of the era to treat the assignment of resources to a single, perhaps larger, firm as consistent with perfect competition. Indeed, some modern antitrust scholars still maintain the assumption that 'the firm' possesses a single unified consciousness and thus ignore TCE's insight that the firm is in fact a nexus of contracts. See generally Areeda, see above n 48, vol. 7 1464c, at 236 ('Intraenterprise contracts, like the pure unilateral cooperation within the very smallest firms are natural and efficient. Such contracts are unlike collaboration of unrelated firms which is dangerous to competition and therefore forbidden unless redeemed by some pro-competitive virtue.');

Hovenkamp, see above n 37, at 187 ('Agreements within the firm are to be treated as the conduct of a single actor, on the presumption that such a firm is a single profit-maximizer.');

see *ibid* ('When the firm is unmistakably a single profit-maximizing entity and has always been so, it makes no sense to find a Sherman Act "conspiracy" among any of its personnel, subsidiaries or other subordinate organizations.'). See also Alan J. Meese, 'Intrabrand Restraints and the Theory of the Firm', 83 *North Carolina Law Review* at 5 (2004), 45–49 (discussing price theory's influence on the characterization of the firm).

²⁹⁴ See generally Jonathan Adler, 'Conservation Through Collusion: Antitrust As An Obstacle To Marine Resource Conservation', 61 *Washington & Lee Law Review* 3 (2004), 58–60 (explaining that the natural response to overfishing is a horizontal agreement that limits production).

²⁹⁵ *Ibid*, at 16–17.

²⁹⁶ See nn 275–82, above and accompanying text (explaining role played by this assumption in the perfect competition model).

²⁹⁷ See nn 283–85, above and accompanying text (explaining this assumption).

²⁹⁸ See Jonathan Adler, 'Conservation Through Collusion: Antitrust As An Obstacle To Marine Resource Conservation', 61 *Washington & Lee Law Review* 3 (2004), 24–26, 58–60.

²⁹⁹ Kuhn, see above n 4, at 38.

Similar considerations would block a proper interpretation of various non-standard contracts that were the traditional objects of antitrust concern. Take, for instance, minimum resale price maintenance. While technically a vertical agreement between manufacturers and dealers, courts and lawyers had long treated such arrangements as the functional equivalent of a cartel between otherwise competing dealers.³⁰⁰ For an economist operating within this milieu, then, such agreements would plainly offend the 'independent action' requirement and thus could not solve market failure without also thwarting the existence of perfect competition. Thus, such agreements could not unravel the puzzle that welfare economists were seeking to solve, i.e., the elimination of market failure in a manner that would simultaneously preserve perfect competition throughout the economy. Similar considerations would foreclose even more strongly recognition of efficient *horizontal* price restraints or group boycotts ancillary to otherwise legitimate ventures.³⁰¹

c. Fixed property rights

This brings us to the final assumption of perfect competition that could block the proper interpretation of non-standard agreements, namely, the fixed assignment of property rights and legal obligations.³⁰² While not always explicit, this assumption seems well-ingrained, particularly given the model's treatment (or non-treatment) of time.³⁰³ The question for analysis—the puzzle to be solved—was to determine whether a system of private property and free contract could result in an optimal allocation of resources.³⁰⁴ By its nature, the model—a proposed solution—must assume some 'rules of the game,' that is, some

³⁰⁰ See *Dr Miles Medical Co. v John D. Park & Sons*, 220 US 373, 407–08 (US Supreme Court 1911) (finding that the advantage of the minimum rpm agreement before it 'primarily concerns the dealers' and was indistinguishable from horizontal cartel agreements that the state and federal courts had previously condemned); *In re Snap-On Tools Corp.*, 59 FTC 1035, 1047–48 (US Federal Trade Commission 1961) (analogizing vertical territorial restraints to naked horizontal allocation of territories).

³⁰¹ See *United States v Topco*, 405 US 596 (US Supreme Court 1972) (declaring ancillary restraints allocating territories among joint venture partners unlawful *per se*, despite district court finding that participants possessed no market power and that venture enhanced competition); *United States v Sealy, Inc.*, 388 US 350 (US Supreme Court 1967) (same); *Radiant Burners, Inc. v Peoples Gas Light and Coke Company*, 364 US 365 (US Supreme Court 1961) (declaring gas companies' collective refusal to deal with customers of burner manufacturer unlawful *per se*); *Klor's, Inc. v Broadway Hale Stores*, 359 US 207 (US Supreme Court 1959) (declaring collective refusal by appliance dealers to deal with retailer unlawful *per se*); *Kiefer-Stewart v Joseph Seagram & Sons*, 340 US 211, 213 (US Supreme Court 1951) (declaring maximum price fixing by closely-related subsidiaries unlawful *per se*).

³⁰² Stigler, see above n 107, at 22 (noting that perfect competition depends upon enforcement of contracts and protection of private property).

³⁰³ Pigou, see above n 107, at xii (framing the forthcoming analysis as involving an examination of the results of the free play of self interest 'under the existing legal system').

³⁰⁴ Knight, see above n 107, at 56–57 ('The foundation of the process [to be studied] is the private ownership of productive resources—a synonym for individual freedom.') (emphasis in original).

background assumption of property rights and tort rules.³⁰⁵ Given the model's other assumptions, 'the game begins' once the state creates and enforces a certain set of background rules of property and tort. Moreover, given perfect knowledge and the completely free movement of resources, the game ends exactly when it begins.³⁰⁶

Such a hypothetical world would seem to exclude by assumption any change—within the confines of the model—in the background rules, whether those changes have a legal or contractual basis. Thus, once the 'game' of perfect competition begins, participants must play within the rules as they exist, and may not seek to alter them by seeking legislative changes to the initial assignment of rights and duties.³⁰⁷ While economists recognized that legal reform could eliminate market failure that coexisted with perfect competition, they assumed that such a reform was exogenous and antecedent to the operation of the model.³⁰⁸ Thus, just as the model assumes away any legal reform internal or endogenous to the model that could correct market failure, so too does it preclude parties from reforming background rules by negotiating agreements that alter property rights so as to overcome market failure.³⁰⁹ According to the accepted paradigm, then, a 'market failure' was the result of an imperfection in the antecedent rules of the game that caused otherwise well-functioning private forces to diverge from the optimal allocation of resources. Only the sovereign that made the rules in the first place could solve this problem.

C. Market Power

Of course, the mere fact that economists could not recognize the efficiency properties of non-standard contracts would not itself establish that such contracts are anticompetitive efforts to use or exercise market power. Still, unable to identify any redeeming virtue for such agreements, economists who saw perfect competition and the allocation of resources that it produced as desirable naturally inferred that such contracts were manifestations of such power.³¹⁰ Such agreements limited rivalry in one way or another, often against

³⁰⁵ Stigler, see above n 107, at 22; Pigou, see above n 107, at 127–30. See also Williamson, see above note 8, at 370–71 (explaining how inhospitality tradition erred by considering impact of a contract at a particular point in time and not in its entirety); F.A. Hayek, 'Free Enterprise and Competitive Order', in *Individualism and Economic Order* (Chicago: University of Chicago Press 1948) 110–16 (explaining that well-functioning competitive order depends upon properly-designed 'legal framework' of contract, property, tort, and business law).

³⁰⁶ See nn 270–71, above and accompanying text.

³⁰⁷ Cf. Victor Goldberg, 'Institutional Change and the Quasi-Invisible Hand', 17 *JLE* 461 (1974), 461 ('not only will people pursue their self-interest within the rules; they will also allocate resources toward *changing* the rules toward their own benefits.').

³⁰⁸ See nn 163–67, above and accompanying text. See also Morris A. Copeland, 'Institutionalism and Welfare Economics', 48 *American Economic Review* 1 (1958), 2–17.

³⁰⁹ Kuhn, see above n 4, at 38 (explaining that paradigms narrow the range of acceptable solutions and methods for achieving such solutions).

³¹⁰ See Kaysen & Turner, above n 110, at 8 (behavior inconsistent with that found in perfectly competitive market indicates possession of market power).

the 'will' of one of the parties to them, at least in the relevant period. For instance, tying or exclusive dealing arrangements limited the discretion of dealers and consumers and seemed to produce no corresponding benefits that the parties could not achieve by relying upon the sort of 'free market' that perfect competition entailed.³¹¹ There was simply no reason for a dealer or consumer to enter such an agreement voluntarily. Because these agreements thwarted the existence of perfect competition, the conclusion that manufacturers who limited rivalry by entering such agreements were exercising market power seemed inescapable.³¹²

This market power interpretation seemed particularly appropriate for agreements that used price or output controls to overcome market failures. Recall that the state of perfect competition produced a natural, equilibrium price and output in each industry. Taken together, these various price and output levels brought about a general competitive equilibrium that maximized the returns from society's existing resources, assuming the absence of market

³¹¹ For instance, economists argued that, if exclusive dealing between parties produced mutual benefits, dealers would observe such exclusivity voluntarily, without contractual requirement to do so. See Derek C. Bok, 'The Tampa Electric Case And The Problem of Exclusive Arrangements Under The Clayton Act', 1961 Supreme Court Review 267 (1961), 307-08 ('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 & Kahn, above n 110, 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.'). Other economists argued that sellers who imposed tying contracts could achieve any benefits of such agreements by allowing buyers to choose what products to purchase in a 'free market.' See James M. Ferguson, 'Tying Arrangements and Reciprocity: An Economic Analysis', 30 Law & Contemporary Problems 522 (1965), 558-64; Donald Turner, 'The Validity of Tying Arrangements Under the Antitrust Laws', 72 Harvard Law Review 50 (1958), 66-67; Alfred E. Kahn, 'A Legal and Economic Appraisal of the 'New' Sherman and Clayton Acts', 63 Yale Law Journal 293 (1954), 324, n 160.

John Harrison suggests that the assumption that non-standard contracts are 'coercive' could also reflect the legal realist tradition, which treated all private property and resulting contracts as 'coercive' because both institutions depended upon state enforcement. See Robert L. Hale, 'Bargaining, Duress, and Economic Liberty', 43 Columbia Law Review 603 (1943). I do not disagree with the suggestion that this strand of legal realism reinforced conclusions driven by price theory (or *vice versa*!). In a previous article, I explain why this legal realist approach is inconsistent with TCE. See Alan J. Meese, 'Price Theory and Vertical Restraints: A Misunderstood Relation', 45 UCLA L Review 143 (1997), 199-202 (rebutting claim that mere creation and enforcement of property rights confers bargaining power in any sense that is meaningful for antitrust purposes). See also William H. Page, *Legal Realism and the Shaping of Modern Antitrust*, 44 Emory L.J. (1995) (describing influence of "coercion" and other realist concepts on antitrust doctrine).

³¹² See Donald Turner, 'The Validity of Tying Arrangements Under the Antitrust Laws', 72 Harvard Law Review 50 (1958) (tying arrangements are necessarily the result of market power); Miller, see above n 210, at 199 (same).

failure.³¹³ Putting aside government action, only three factors could influence prices or output in this world: changes in demand, industry-wide changes in (production) costs, and the exercise of market power. Blocked as they were from recognizing private responses to market failure, economists could not see a fourth possibility: the contractual internalization of externalities that could alter costs and result in a different price or output from that which an unbridled market would produce.³¹⁴ As a result, economists fell back on the only available explanation for such departures from perfect competition: the use or exercise of market power.

This 'market power' interpretation was quite natural, given that (1) such arrangements often involved or seemed to involve cooperation between potential rivals and (2) market failures and contractual solutions thereto were most likely in those industries where product differentiation and its nominal market power was an important aspect of interbrand rivalry.³¹⁵ Finally, 'on their face' such agreements seemed designed to increase price or reduce output, the exact opposite of what one would expect from an agreement that produced 'efficiencies.' Within this framework, 'market power'—the ability to price above the competitive, i.e., preexisting, level—became a convenient universal solvent that helped economists explain arrangements that were anomalies within the confines of the paradigm they embraced.³¹⁶ In so doing, economists preserved their existing paradigms entirely intact and thus had no reason to seek alternative explanations for such agreements.³¹⁷ Indeed, given the limitations of the framework, it was the only possible explanation. Without the right 'thinking cap,' economists could not see what was 'right before their eyes,' namely, contractual solutions to market failure that helped move the market to a different equilibrium and thus enhanced the welfare of consumers and society.³¹⁸

It bears emphasis that these scholars did not believe that antitrust law should seek to replicate perfect atomistic competition in all industries. To be

³¹³ See nn 190–91, above and accompanying text.

³¹⁴ See nn 14–21, above and accompanying text (explaining TCE's conclusion that non-standard contracts overcome market failure by internalizing externalities by contract).

³¹⁵ See nn 266–68, above and accompanying text (explaining how market failures often arise in industries where product differentiation requires significant promotional expenditures or relationship-specific investments that facilitate such differentiation); Lester G. Telser, 'Why Should Manufacturers Want Fair Trade?', 3 *JLE* 86 (1960), 87 (minimum rpm is only useful to further promotion where the manufacturer sells a differentiated product).

³¹⁶ Kuhn, see above n 4, at 63–64 (explaining that scientists seek to 'tame' anomalies by adjusting conceptual categories within existing paradigm); *ibid.*, at 78 (concluding that scientists 'will devise numerous articulations and *ad hoc* modifications of their theory in order to eliminate any apparent conflict' between predicted and actual results under existing paradigm).

³¹⁷ See Kuhn, see above n 4, at 64–65 (explaining how scientists cling to paradigms despite contrary evidence); *ibid.*, at 97 (explaining that scientists rarely seek new explanations for phenomena that are 'well-explained by existing paradigms.').

³¹⁸ See Herbert Butterfield, *The Origins of Modern Science* (New York: Macmillan 1957) 13 (scientists often see old data in new ways if they put on a 'different thinking cap').

sure, these scholars treated perfect competition as the presumptive goal of antitrust and other public policies.³¹⁹ On the other hand, these scholars did not believe that all departures from perfect competition reduced economic welfare. Instead, these scholars believed that certain departures from perfect competition could actually increase society's wealth. For instance, these scholars believed that product differentiation could cater to heterogeneous consumer tastes.³²⁰ They also believed that technological economies of scale could lead a market's firms to expand beyond the size consistent with the model's numerosity requirement.³²¹ Both of these departures would, given the model's assumptions, lead to the possession and exercise of market power. For instance, product differentiation would eliminate the model's homogeneity assumption and thus ensure that some consumers prefer the manufacturer's product to that of its competitors.³²² Moreover, the existence of economies of scale would lead firms to expand by merger or otherwise, thereby undermining the model's numerosity assumption.³²³ Nonetheless, scholars believed that the benefits of such practices could outweigh any harm associated with market power.³²⁴

At the same time, for reasons outlined above, scholars considering questions of market failure did so on the assumption that markets were perfectly competitive.³²⁵ This assumption was not a statement about the actual state of the world, but instead a component of a theoretical model designed to guide scientific research.³²⁶ This methodological habit prevented these scholars from recognizing that various non-standard contracts could overcome market failure.³²⁷ In the absence of a beneficial explanation for these agreements, scholars naturally treated these departures from perfect competition as manifestations of market power.

³¹⁹ See nn 266–68, above and accompanying text.

³²⁰ Bain, see above n 113, 242–47 (1948); Miller, see above n 210, at 114–17.

³²¹ Kaysen & Turner, see above n 110, at 5–8; Miller, see above n 210, 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'); Bain, see above n 113, at 84 (stating that, 'in most industries, a small firm is quiet inefficient'); *ibid.*, 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).

³²² Bain, see above n 113, at 146–56; Edward Mason, 'Monopoly in Law and Economics', 47 *Yale Law Journal* 34 (1937), 36 (concluding that economists should not oppose all instances of product differentiation despite the resulting market power).

³²³ Miller, see above n 210, at 411; George J. Stigler, 'The Extent and Bases of Monopoly', 32 *American Economic Review* 1 (1942), 8–13 (noting an 'incompatibility of competition and continuing economies of scale' and examining the extent to which such economies do require market power).

³²⁴ See nn 113–14, above and accompanying text.

³²⁵ See nn 212–39, above and accompanying text.

³²⁶ Stigler, see above n 107, at 8–11 (describing importance of abstraction in economics).

³²⁷ See nn 245–309, above and accompanying text.

IV. MODERN RELEVANCE

Modern antitrust scholars and practitioners may view the discussion thus far as an interesting history lesson, with little relevance to modern antitrust policy. After all, most modern antitrust scholars—particularly those with significant influence in the courts—seem, on the surface at least, fully to embrace the teachings of transaction cost economics, particularly the claim that vertical integration is often a method of overcoming or avoiding transaction costs.³²⁸ Moreover, these scholars are generally critical of the more excessive lingering manifestations of the inhospitality tradition.³²⁹ Thus, it would seem that mainstream antitrust scholars have fully internalized the teachings of TCE; any fault for excessive antitrust regulation must therefore rest with the courts and the officials charged with enforcing the antitrust laws.

Closer analysis, however, suggests that all is not well with antitrust scholarship, particularly when it comes to scholars' treatment of the origins of non-standard contracts that plausibly overcome market failure. For one thing, some of the same scholars who rhetorically embrace transaction cost economics also support various aspects of rule of reason analysis that are unduly hostile to non-standard agreements.³³⁰ The same scholars also support the distinction that monopolization law currently draws between (technological) competition on the merits, on the one hand, and non-standard exclusionary contracts, on the other.³³¹ As explained earlier, this distinction supports current law's undue hostility toward non-standard contracts that exclude rivals from portions of the marketplace.³³² While these scholars support significant departures from the inhospitality tradition, particularly the relaxation of various *per se* rules, they simultaneously endorse the rule of reason methodology that undermines these reforms.³³³

³²⁸ Hovenkamp, see above n 37, at 372–74; Areeda and Hovenkamp, see above n 48, vol. 3A, at 757c; H1; Bork, see above n 158.

³²⁹ Hovenkamp, see above n 37, at 441–58 (rejecting economic basis of *per se* rule against minimum rpm).

³³⁰ Ibid, at 256 (approving *NCAA*'s approach to defining a *prima facie* case); *ibid*, at 257 (endorsing less restrictive alternative test); Areeda, see above n 48, vol. 7 1507b, at 397 (endorsing *NCAA*'s approach to defining a *prima facie* case because proof of actual detrimental effects itself proves possession of market power); *ibid*, at 1505b, 1507b (endorsing application of less restrictive alternative test in this context). Moreover, Professor Hovenkamp has expressly argued that restrictions such as those scrutinized in *NCAA* could only be obtained by means of market power. See Herbert Hovenkamp, 'Competitor Collaboration after California Dental Association', 2000 University of Chicago Legal Forum 149 (2000), 179–80.

³³¹ See Alan J. Meese, 'Monopolization, Exclusion, and the Theory of the Firm', 89 Minnesota Law Review 743, 809–11 (2005) (discussing treatise by Professors Areeda and Hovenkamp as well as work by other scholars endorsing this distinction); Herbert Hovenkamp, 'The Monopolization Offense', 61 Ohio State Law Journal 1035 (2001).

³³² See nn 91–94, above and accompanying text.

³³³ One exception, of course, is Judge Bork, who has endorsed the application of a 'market power' filter in Rule of Reason cases, thus implicitly rejecting the 'actual detrimental effects' approach to establishing a *prima facie* case. See *Rothery Storage v Atlas Van Lines*, 792 F2d 210 (US District of Columbia Circuit Court 1986) (Bork, J.).

In an earlier work I have explained how the positions embraced by these scholars do not square well with the teachings of transaction cost economics.³³⁴ Identification of these shortcomings begs the obvious question, namely, why is it that scholars persist in clinging to tests for liability that appear antiquated in light of not-so-recent developments? The answer, I suggest, lies in the continued, but more subdued, influence of the perfect competition model on modern antitrust thinking. Just as inhospitality-era economists treated the perfect competition model as the foundation of market failure analysis, so too have antitrust scholars treated perfect competition as the basis for their analysis of antitrust problems. At the same time, practitioners of TCE have not directly confronted the culprit of perfect competition, choosing instead to focus their fire on 'price theory,' its technological conception of the firm, and the resulting 'inside-out' account of the inhospitality era's hostility to non-standard contracting.³³⁵ Reliance on the perfect competition model, I submit, accounts for the failure of modern scholars to offer any account of the formation and enforcement of non-standard contracts that does not depend on the possession or exercise of market power. By focusing solely on the propensity of non-standard contracts to *reduce* 'transaction costs,' these scholars ignore the fact that such agreements also reverse market failures by internalizing externalities and thus altering the costs faced by parties to such agreements. Thus, such restraints naturally produce prices or output different from what would obtain in an unbridled market. Part A confirms that the most influential antitrust scholars have not fully internalized TCE's teachings to the effect that non-standard agreements can overcome market failure and thus alter price and output. Part B traces this shortcoming to the continued undue influence of the perfect competition model.

A. TCE and Market Failure in Modern Antitrust Scholarship

Consider first Professor Hovenkamp's recent and influential treatise, 'Federal Antitrust Policy.'³³⁶ The book begins with a chapter on the 'Basic Economics of Antitrust.' The chapter does not discuss market failure, or the propensity of private contracts to overcome such misallocations and thus produce efficient changes in price or output. Nor does the chapter discuss any theories of contract formation. Instead, in a section on 'Less-Than-Perfect Competition,' the author spends three paragraphs on the commonplace that the firm and other non-standard contracts can 'reduce or avoid transaction costs,' which the author defines simply as 'the costs of using the

³³⁴ See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 Illinois Law Review 77 (2003); Alan J. Meese, 'Monopolization, Exclusion, and the Theory of the Firm', 89 Minnesota Law Review 743, 831-46 (2005).

³³⁵ See nn 119-39, above and accompanying text (explaining how practitioners of TCE took an 'inside-out' approach to the problem of complete and partial vertical integration).

³³⁶ Lower federal courts have cited this treatise 37 times in the last 5 years.

market.³³⁷ The brief discussion invokes Williamson and Coase (1937) without mentioning Telser or Bork.³³⁸ The first example of a practice that reduces transaction costs is the business firm itself, which the discussion then analogizes to various forms of 'vertical contracting.'³³⁹ There is no suggestion that horizontal agreements can reduce transaction costs, and no attempt to explain how parties form such contracts independent of market power. Nor is there any attempt to relate transaction cost theory to the concept of market failure or externality.

One finds similar shortcomings in Professor Areeda's monumental treatise, which the Supreme Court has cited numerous times since the 1970s.³⁴⁰ Co-authored with Professor Hovenkamp and an economist, the second volume examined 'The Economic Basis For Antitrust Policy' just 1 year before the enforcement agencies issued their Competitor Collaboration Guidelines.³⁴¹ This examination included a two page discussion of 'externalities,' which illuminated the authors' thinking about market failure.³⁴² The authors begin by noting that 'perfect competition' depends on the absence of externalities, which in turn can exist only as a result of transaction costs.³⁴³ The discussion then identifies two externalities as examples: one 'negative' (air and stream pollution) and one 'positive,' (education).³⁴⁴ There is no discussion of opportunism or other forms of externality amenable to private contractual solution.

In an analysis that could have been written in 1950, the authors then go on to conclude that 'although externalities may require corrective public actions, they do not imply any material alteration of antitrust policy.'³⁴⁵ Such 'public actions' include 'taxes, subsidies, or specific controls such as safety and antipollution standards.'³⁴⁶ The authors mention (and reject) only one possible change in antitrust policy: 'encouraging monopoly or price fixing agreements.'³⁴⁷ The authors reject this course of action, with one caveat:

³³⁷ Hovenkamp, see above n 37, at 37–38.

³³⁸ Ibid, at 37.

³³⁹ Ibid, at 37–38.

³⁴⁰ A LEXIS search reveals that the Supreme Court has cited Professor Areeda's work 50 times.

³⁴¹ See Phillip Areeda, Herbert Hovenkamp, and John Solow, *Antitrust Law* (New York: Aspen Law & Business 1995) vol II, ¶ 400 ff. As explained below, the most recent version of this work is essentially unchanged in relevant respects from the 1995 version. I have focused on the 1995 version because it pre-dates the 1996 Competitor Collaboration Guidelines and the Supreme Court's most recent decision regarding the Rule of Reason. See *FTC v California Dental Association*, 526 US 756 (US Supreme Court 1999). Thus, this version of the treatise is the best evidence of the scholarly consensus that influenced current law and enforcement policy.

³⁴² Ibid, at 53–55.

³⁴³ Ibid, at 53; *ibid*, at 3 (listing as one condition of perfect competition that 'there are no "externalities:" producers pay all social costs incurred in the production of goods and services and receive payment for all social benefits incurred.').

³⁴⁴ Ibid, at 54.

³⁴⁵ Ibid, at 54.

³⁴⁶ Ibid.

³⁴⁷ Areeda, Hovenkamp, and Solow, see above n 341, vol. II, at 54.

society may want to enforce agreements between rivals that voluntarily abate a 'low private-cost but high social cost method of production,' with the result that such agreements should be analyzed under the Rule of Reason.³⁴⁸ The authors do not relate this suggestion to any actual antitrust controversies and thus essentially ignore the possibility that 'externalities' are amenable to the private contractual solution. Indeed, just two paragraphs later, in a section on collusion, the authors note that 'restrictive agreements sometimes improve economic performance and benefit consumers,' without elaboration, and without any attempt to link this statement to the immediately preceding subsection.³⁴⁹ Putting aside deviations from perfect competition, market failure and externality were for these scholars irrelevant for antitrust purposes and the proper subject of other bodies of regulatory law.³⁵⁰

A subsequent version, published 5 years later, is virtually indistinguishable from that published in 1995.³⁵¹ The authors do add a new paragraph arguing that the existence of externalities may justify 'relatively benign antitrust rules toward vertical restraints.'³⁵² At the same time, they repeat their previous assertion that 'externalities... do not imply any material alteration of antitrust policy.'³⁵³ Moreover, they do not mention the concept of market failure or explain how contracts that eliminate such failures can impact price and output. Nor do they mention horizontal restraints or 'exclusionary' agreements entered by a monopolist.³⁵⁴

One could perhaps attribute these oversights to undue reliance upon an economist co-author with little familiarity with antitrust problems. Still, the 1995 version of this section is unchanged from the 1978 version of the treatise, which Professor Areeda co-authored with Donald Turner, who was certainly familiar with antitrust problems!³⁵⁵ Thus it seems more likely that the section reflects the views of Professors Areeda and Turner, with little change from when the latter co-authored the canonical text on antitrust policy during the

³⁴⁸ Ibid, at 55.

³⁴⁹ Ibid, at 55.

³⁵⁰ By assuming away such externalities, these scholars also avoid any 'second best' issues. See Areeda, Hovenkamp, and Solow, *Antitrust*, see above n 341, vol. II, at ¶ 411 (discussing second best problems without mentioning market failures unrelated to market power).

³⁵¹ Areeda and Hovenkamp, see above n 328, vol IIA at ¶ 414 (2000).

³⁵² Ibid, at ¶ 414, p. 57. Elsewhere I have argued that these scholars have embraced standards that are unduly biased against vertical restraints. See Alan J. Meese, 'Rule of Reason', 2003 Illinois Law Review 77 (2003), 149, n 393. See also Alan J. Meese, 'Intrabrand Restraints and the Theory of the Firm', 83 North Carolina Law Review at 5 (2004) (arguing, contrary to Professors Areeda and Hovenkamp, that intrabrand restraints should be lawful *per se*).

³⁵³ Areeda and Hovenkamp, see above note 328, Vol II A at ¶ 414, p. 56.

³⁵⁴ See nn 24–100, above and accompanying text (describing undue hostility toward such restraints).

³⁵⁵ See Phillip Areeda and Donald Turner, *Antitrust Law* (New York: Aspen Law & Business 1978), vol. II, at ¶ 413. Professor Turner, of course, served as head of the Antitrust Division during the Johnson administration and co-authored what was then the leading treatise on antitrust policy.

inhospitality-era.³⁵⁶ Moreover, as noted earlier, Professors Areeda and Hovenkamp have endorsed versions of the Rule of Reason that reflect imperfect appreciation of the nature of market failure and the effects of contracts that overcome such failure.³⁵⁷

An explicit discussion on market failure in the work of Professor Areeda confirms this lack of appreciation. In a section discussing the Supreme Court's rejection of 'public interest' justifications for limiting competition, Professor Areeda speculates that parties could recast some such 'public interest' justifications as arguments that the restraints in question overcome 'market failure.'³⁵⁸ As the sole example, he posits an agreement between television stations to set aside non-overlapping hours for certain forms of 'cultural' programming that are under-produced because broadcasters choose to reach as many viewers as possible by offering fungible but popular programming.³⁵⁹ While such a restraint would reduce the output of popular programming, Professor Areeda claims that it could increase the overall number of viewers and thus 'bring about a more "competitive" result.'³⁶⁰

Having suggested this possibility in the context of a purely hypothetical case, Professor Areeda immediately retreats, concluding that 'this is not the place to work out the soundness of that argument.'³⁶¹ Nor does Professor Areeda or any of his co-authors ever try to work out the argument or attempt to apply it outside the context of 'public interest' justifications. Instead, when discussing a real case, *NCAA*, Professors Areeda and Hovenkamp both conclude that proof that the restriction reduced the output of broadcast games in a particular season sufficed to establish a *prima facie* case, without regard to the longer run impact of the restraint on the number of viewers or other more creative indicia of output.³⁶² Both also conclude that any benefits of such a restraint necessarily coexist with harms that are presumed once the plaintiff makes out a *prima facie* case.³⁶³ Such an approach is inconsistent with the hypothetical broadcasting example, which by its nature involved a reduction in the output of 'fungible' programming supposedly to achieve increased output when measured by total viewers.³⁶⁴ Thus, it seems, the published work of Professors Areeda and Hovenkamp does not evince full

³⁵⁶ Kaysen & Turner, see above n 110.

³⁵⁷ See nn 67, above and accompanying text.

³⁵⁸ Areeda, see above n 57, vol. 7, ¶ 1505, at 382–83 ('We might even believe that the apparent restraint actually moves market performance closer to the competitive result. Rather than suppressing competition, offsetting a "market failure" promotes competitive results.').

³⁵⁹ *Ibid.*, at 383.

³⁶⁰ *Ibid.*, at 383.

³⁶¹ *Ibid.*

³⁶² See nn 67, above and accompanying text.

³⁶³ See nn 67, above and accompanying text.

³⁶⁴ Cf. Areeda, see above n 57, vol. 7, ¶ 1505 (arguing that agreement reducing output of fungible programming to set aside hours for specialized programming could overcome a market failure and thus increase output).

appreciation of the implications of TCE's conclusion that private contracts can overcome market failure without exercising market power.³⁶⁵ Similar shortcomings beset the work of other scholars.³⁶⁶

B. The Lingering Impact of Perfect Competition

How is it, then, that such sophisticated antitrust scholars can overlook the complete implications of transaction cost economics so long after TCE first appeared on the scene? The answer, it seems, is the perfect competition model that still serves as the foundation for so much antitrust thinking—both normative and descriptive.³⁶⁷ The perfect competition model is 'front and center' in antitrust monographs and treatises. Robert Bork's classic, 'The Antitrust Paradox', invokes the allocational results of perfect competition as the normative ideal that drives the need for, and the limits of, antitrust regulation.³⁶⁸ At the same time, Bork invokes 'price theory' as the only admissible methodology for interpreting contracts and other commercial practices for antitrust purposes.³⁶⁹ In this vein, Bork has argued that one could conceptualize all antitrust problems as involving the sort of analysis illustrated by the partial equilibrium trade-off model that Oliver Williamson first applied to evaluate claims that mergers to monopoly nonetheless enhanced welfare by producing significant technological efficiencies.³⁷⁰ Like Bork, Judge Posner has argued that 'Price Theory' is the appropriate methodology for solving antitrust problems.³⁷¹

³⁶⁵ It should be noted that both scholars are a bit more nuanced when discussing vertical restraints. See Areeda and Hovenkamp, see above note 48, vol. 8, ¶ 1611 cl (noting that free riding is a type of 'market failure'); Hovenkamp, see above n 37, at 450–59. Still, even in the vertical context, they continue to endorse the less restrictive alternative test, which rests upon a misunderstanding of the sort of market failure solved by these contracts. *Ibid.*, at 487–88. Cf. Alan J. Meese, 'Property Rights and Intrabrand Restraints', 89 *Cornell Law Review* 553 (2004), 610–11 (explaining how less restrictive alternatives cannot replicate the decentralization function of intrabrand restraints).

³⁶⁶ Sullivan & Grimes, see above n 67, at 1–80 (discussing basics of antitrust economics without mentioning market failure or transaction costs).

³⁶⁷ See nn 189–91 (describing assumptions of the model), above and accompanying text.

³⁶⁸ Bork, see above n 158, at 90–104. See also Robert H. Bork, 'Legislative Intent and the Policy of the Sherman Act', 9 *JLE* 7 (1966).

³⁶⁹ Bork, see above n 158, at 116–17; *ibid.*, at 117 ('There is no body of knowledge other than conventional price theory that can serve as a guide to the effects of business behavior upon consumer welfare. To abandon economic theory is to abandon the possibility of a rational antitrust law.'). Robert H. Bork, 'The Role of the Courts in Applying Economics', 54 *Antitrust Law Journal* 21 (1985), 24 (same). See also Robert H. Bork, 'Resale Price Maintenance and Consumer Welfare', 77 *Yale Law Journal* 950 (1968), 952 (claiming that benevolent view of minimum rpm 'is grounded in basic price theory.').

³⁷⁰ Bork, see above n 158, at 107–10. See also Oliver E. Williamson, 'Economics as an Antitrust Defense: The Welfare Trade-offs', 58 *American Economic Review* 18 (1968).

³⁷¹ See Richard A. Posner, 'The Chicago School of Antitrust Analysis', 127 *University of Pennsylvania Law Review* 925 (1979), 928–29 (arguing that Chicago School's main innovation was the application of price theory to antitrust problems).

Bork and Posner are not the only scholars who invoke perfect competition and price theory as appropriate guides to antitrust policy. Both of the leading treatises on antitrust law begin with a chapter on economic theory, as a way of 'setting the stage' for the policy discussions that follow. For instance, Professor Hovenkamp's 'Federal Antitrust Policy' begins with a chapter on 'The Basic Economics of Antitrust.'³⁷² As it turns out, these 'basic economics' consist of applied price theory, almost indistinguishable from that found in the industrial organization textbooks of the 1950s.³⁷³ The chapter devotes 24 pages to a detailed discussion of perfect competition, and deviations therefrom, including pure monopoly, market power and their allocational consequences.³⁷⁴

One finds a similar emphasis in Professor Areeda's monumental treatise. The second volume on 'The Economic Basis For Antitrust Policy' spends 25 pages on perfect competition, monopoly, oligopoly, cartels, and the allocational ramifications of each.³⁷⁵ The chapter then devotes another 30 pages to the antitrust policy consequences of various departures from perfect

³⁷² Hovenkamp, see above n 37, at 2–46.

³⁷³ See Ronald H. Coase, 'Industrial Organization: A Proposal For Research', Fuchs (ed), see above n 107, at 61–64 (explaining that, in 1972, industrial organization was simply applied price theory).

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³⁷⁴ Hovenkamp, see above n 37, at 2–26.

³⁷⁵ *Ibid.*, at 2–26.

competition, including product differentiation, economies of scale, and concentration-based market power.³⁷⁶ All such departures, it is said, produce market power in the form of prices above marginal cost and can only be justified by offsetting benefits, if any.³⁷⁷ According to these scholars, economic theory provides that any price different from that produced by 'perfect competition', was the result of market power and thus presumptively harmful.

By embracing the perfect competition model as the foundation of antitrust analysis, these scholars mimic the approach taken by inhospitality-era economists. These economists, it will be recalled, also treated perfect competition as the foundation for their analysis of market failure in general and antitrust policy in particular.³⁷⁸ According to scholars of both eras, perfect competition results in a 'competitive' price and output and presumptively maximizes the value obtained from society's existing stock of resources. Thus, this state of affairs serves as a logical goal of economic and antitrust policy, at least provisionally.³⁷⁹ Departures from these competitive outcomes are *prima facie* market failures and thus logical objects of regulation.³⁸⁰

On the other hand, unlike economists of the inhospitality-era, who assumed that perfect competition could coexist with externality and market failure, these scholars eliminate externality by assumption, treating externality as the exclusive concern of government, which presumably eliminates such harm by regulation.³⁸¹ In so doing, these scholars contradict their own recognition of Coase's insight that 'perfect competition' will itself eliminate externality, as parties eliminate externalities through bargaining and private contract.³⁸² In a sense, then, this unique formulation of perfect competition rests on the existence of a perfect government, which defines background rules of the game in a way that eliminates market failures not based on market power.³⁸³ In the absence of such rules, competition simply cannot result in an optimal allocation. By embracing as a benchmark a model that assumes away all externalities that are not based on market power, these scholars make market

³⁷⁶ Ibid, at 26–55.

³⁷⁷ Areeda, Hovenkamp, and Solow, see above n 341, at vol II 408a, at 291–93 (discussing trade-off between market power and reduced production costs resulting from economies of scale); *ibid*, at 410, 306–07 (discussing similar trade off where product differentiation is concerned).

³⁷⁸ See nn 240–49, above and accompanying text.

³⁷⁹ Areeda, Hovenkamp, and Solow, see above n 341, at vol II 402b.

³⁸⁰ Hovenkamp, see above n 37, at 17–18 (analogizing antitrust regulation of monopoly to environmental regulation that internalizes externalities).

³⁸¹ Areeda, Hovenkamp, and Solow, see above n 341, at vol II 402a. Cf. Stigler, see above n 102, at 113.

³⁸² See nn 174–77, above and accompanying text.

³⁸³ Cf. nn 173–215, above, and accompanying text (explaining that economists once treated market failure and perfect competition as co-existing phenomena); George J. Stigler, *Perfect Competition: Historically Contemplated*, 65 *Journal of Political Economy* 1 (1957), 14 (perfect competition requires existence of the Sherman Act). See also nn 163–67 above and accompanying text (explaining how market failure is the result of poor property rights assignments).

power the sole focus of antitrust law and policy.³⁸⁴ As a result, these scholars have constructed a framework that excludes all other externalities from their purview, thus raising the cost of understanding how non-standard contracts overcome market failure.

To be sure, sophisticated antitrust scholars recognize that some departures from perfect competition can further total welfare, but then so too did the scholars who set the tone during the inhospitality-era.³⁸⁵ Moreover, like inhospitality scholars, many modern scholars treat all departures from perfect competition as the source or result of market power.³⁸⁶ Like their inhospitality-era predecessors, these scholars believe that such harms must be justified by some countervailing efficiency.³⁸⁷

Unlike their inhospitality-era counterparts, however, today's scholars recognize that non-standard contracts can produce significant benefits, by reducing transaction costs.³⁸⁸ Nonetheless, these scholars still see these contracts through the lens of perfect competition and price theory. The very description of their benefits—a 'reduction in transaction costs' finds accommodation within the traditional model and conjures up images of falling cost curves and lower production costs for individual firms.³⁸⁹ Moreover, by emphasizing the paradigm of complete integration and the theory of the firm, these scholars seem to conceptualize the benefits of these agreements as arising within the firm, before passage of title. In so doing, these scholars obscure the concept of market failure, which by definition manifests itself outside the firm, in the non-optimal prices and quantities that various (now cooperating) firms once charged consumers in light of externalities.³⁹⁰ By describing the benefits of these agreements in this way, scholars apparently avoid the need to invoke the existence of externalities, which would themselves require an additional violation of the modern formulation of the perfect competition model.³⁹¹ As a result, these scholars are able to accommodate

³⁸⁴ Indeed, it should be noted that both scholars have argued that antitrust courts should not premise liability on mere informational market failures that may give rise to consumer harm. See, e.g., Hovenkamp, above n 37, at 299–300.

³⁸⁵ See nn 319–24, above and accompanying text.

³⁸⁶ Hovenkamp, see above n 37, at 36–37 (product differentiation necessarily confers market power).

³⁸⁷ *Ibid.*, at 27–31 (explaining how concentration related to economies of scale can enhance welfare); Areeda, Hovenkamp, and Solow, II, see above n 341, at ¶ 408a.

³⁸⁸ Hovenkamp, see above n 37, at 37–38.

³⁸⁹ *Ibid.*, at 37–38 (describing such contracts as methods of reducing transaction costs, without referring to market failure), 372–74 (same). Cf. Bork, see above n 158, at 107–10 (contending that Williamson's trade-off model can be used to illustrate all antitrust problems). See also Kuhn, see above n 4, at 78 (explaining that scientists will adopt modifications of the received paradigm when necessary to protect it from attack).

³⁹⁰ Cf. *NCAA v Board of Regents of the University of Oklahoma*, 468 US 85 (US Supreme Court 1984) 101–02 (explaining how agreement on price paid athletes can overcome a market failure and thus enhance the quality of the product sold to consumers).

³⁹¹ See nn 381–83, above and accompanying text (explaining how modern antitrust scholars define perfect competition in a manner that excludes externality by fiat). The most recent

non-standard agreements within the existing framework, thereby avoiding the need to fundamentally alter their foundational model.³⁹² In so doing, these scholars suppress or ignore the possibility that such contracts can produce different (and better) market outcomes by restraining the marketplace behavior of otherwise independent firms.³⁹³

It should not be surprising that modern scholars have failed to incorporate the concept of market failure into their foundational models. As noted earlier, these scholars have embraced a curious brand of perfect competition, one that rests upon the superfluous assumption that externalities do not exist.³⁹⁴ Even ardent devotees of TCE downplay the market failure concept, rarely mentioning it in their work. Like modern antitrust scholars, these scholars generally treat complete integration as the paradigm case, thus buttressing the modern inclination to analogize transaction cost reductions to other cost reductions that occur 'within' the firm.³⁹⁵ Indeed, as I have shown elsewhere, leading antitrust scholars have not fully comprehended TCE's main insight, namely, that the firm is simply a particular sort of contract, with the result that any distinction between what occurs inside and outside the firm is entirely illusory.³⁹⁶ By approaching the problem from the 'inside-out,' then, practitioners of TCE have missed an opportunity to identify the more fundamental basis for modern hostility toward non-standard contracts and thus failed to overcome modern scholars' understandably fierce resistance to paradigm change.³⁹⁷ Absent the articulation of a competing paradigm,

version of Professor Areeda's treatise does explain that vertical distribution restraints can overcome externalities. Areeda and Hovenkamp, see above note 48, vol. 8, ¶ 1613b. However, this most recent version does not link the elimination of externality to any broader understanding that non-standard contracts may impact price and output without exercising market power. Hence, the *pro forma* invocation of externality does not reflect a deeper reformulation of the authors' views on the relationship between TCE and antitrust doctrine.

³⁹² Kuhn, see above n 4, at 97 (scientists see no reason to reexamine existing models when such models offer adequate explanations for observed phenomena).

³⁹³ See nn 151–59, above and accompanying text (explaining how cooperating firms can internalize externalities through voluntary contractual integration).

³⁹⁴ See nn 381–83, above and accompanying text.

³⁹⁵ See nn 137–39, above and accompanying text (explaining how devotees of TCE treat complete integration as the paradigm case).

³⁹⁶ See Alan J. Meese, 'Intrabrand Restraints and the Theory of the Firm', 83 North Carolina Law Review at 123–27. Areeda, see above n 48, vol. 7 at 1464c, p. 236 ('Intraenterprise contracts, like the pure unilateral cooperation within the very smallest firms are natural and efficient. Such contracts are unlike collaboration of unrelated firms which is dangerous to competition and, therefore, forbidden unless redeemed by some pro-competitive virtue.'). Hovenkamp, see above n 37, at 187 ('Agreements within the firm are to be treated as the conduct of a single actor, on the presumption that such a firm is a single profit-maximizer.'). *ibid* ('When the firm is unmistakably a single profit-maximizing entity and has always been so, it makes no sense to find a Sherman Act "conspiracy" among any of its personnel, divisions, subsidiaries or other subordinate organizations.').

³⁹⁷ Kuhn, see also above n 4, at 64–65 (describing resistance to paradigm change by incumbent scientists). See also Max Planck, *Scientific Autobiography and Other Papers* (New York: Philosophical Library 1949) 33–34 (trans. F. Grager) (contending that new scientific theories

modern antitrust scholars naturally cling to that which has served them so well for so many years.³⁹⁸

It is entirely natural, then, that these scholars and the courts that listen to them would expect transaction cost efficiencies to manifest themselves as reduced prices and increased output as measured by courts.³⁹⁹ It is equally natural that these scholars would treat any increase in price or reduction in output as a departure from perfect competition and a manifestation of market power.⁴⁰⁰ In short, modern scholars have done their best to assimilate TCE's teachings within the partial equilibrium trade-off framework initially developed to analyze the welfare effects of mergers that produce technological efficiencies.⁴⁰¹ Within this framework, efficiencies necessarily manifest themselves as lower production costs and thus increased output of the product than existed before the restraint. This merger paradigm is ill-suited for evaluation of restraints that purportedly overcome market failure.⁴⁰²

While scholars 'know' that non-standard contracts can produce benefits, they simultaneously cling to a foundational model that has as its bedrock the 'competitive price,' set in an instant by unbridled rivalry in a 'competitive' market where resources move without restraint. When the ideal of antitrust policy is the 'competitive price,' set without cooperation, and where scholars assume that market power is the only source of externality, collective action that impacts price or disadvantages rivals is naturally seen as a departure from the perfectly competitive ideal and thus the exercise of 'market power,' the bogey man of the model. Moreover, adherence to this foundational ideal apparently precludes recognition that cooperation between parties can internalize anticipated externalities, change the costs faced by the parties to the arrangement, and thus result in higher prices or reduced output without creating or exercising market power. In this way, otherwise independent firms can replicate the (perfectly legal) behavior of a fully-integrated firm.⁴⁰³

only emerge because adherents to old paradigms retire and thus cede the field to proponents of new paradigms); Kuhn, see above n 4, at 151.

³⁹⁸ Kuhn, see above n 4, at 77 ('Once it has achieved the status of paradigm, a scientific theory is declared invalid only if an alternative candidate is available to take its place'); *ibid* ('The decision to reject one paradigm is always simultaneously the decision to accept another.').

³⁹⁹ See nn 49–52, 87–89, above and accompanying text (explaining how *NCAA* and the Competitor Collaboration Guidelines rest on this assumption).

⁴⁰⁰ See nn 41–49, 67, 81–86, above and accompanying text (discussing various scholarly, judicial and executive pronouncements that all depend upon assertion that a restraint that increases prices or reduces output necessarily reflects an exercise of market power).

⁴⁰¹ Cf. Oliver E. Williamson, 'Economies as an Antitrust Defense: The Welfare Trade-Offs', 58 *American Economic Review* 18 (1968) (articulating partial equilibrium trade-off model for analyzing mergers that simultaneously create market power and economies of scale).

⁴⁰² See Alan J. Meese, 'Price Theory, Competition, and the Rule of Reason', 2003 *Illinois Law Review* 77 (2003), 144–70.

⁴⁰³ Cf. Charles Goetz and Robert Scott, 'Principles of Relational Contracts', 67 *Virginia Law Review* 1089 (1981), 1094–95 (predicting that parties will adopt relational contracts that will

Instead, to the modern eye, such impacts on price and output ‘must’ be manifestations of market power, with the result that any attempt to justify such agreements will necessarily fail. Until courts and scholars remove the blinders of perfect competition, they will continue to repeat many of the mistakes of their predecessors.

V. CONCLUSION

Transaction cost economics has worked a genuine revolution in economic theory. At the same time, practitioners of TCE have not yet identified the true foundations of the hostility to non-standard contracts, hostility that still survives to this day. This article has traced both the inhospitality-era hostility and lingering modern hostility back to the foundational model of perfect competition. Scholars, courts and enforcement officials would do well to re-examine the ‘Basic Economics of Antitrust.’

induce them to replicate the behavior of a single, unified firm over time); Robert H. Bork, ‘The Rule of Reason and the Per Se Concept: Price Fixing and Market Division II’, 75 *Yale Law Journal* 373 (1965), 453–54; *ibid*, at 472 (‘In economic analysis, a contract integration is as much a firm as an ownership integration. The nature of the standards applied to them through the Sherman Act should be the same.’); Margolis, *see above* n 161, at 29–42 (explaining how deeply entrenched habits of mind can constitute barriers that prevent scientists from properly understanding natural phenomena).

