



# Overshot the Mark? A Simple Explanation of the Chicago School's Influence on Antitrust

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**Joshua Wright**

# OVERSHOT THE MARK? A SIMPLE EXPLANATION OF THE CHICAGO SCHOOL'S INFLUENCE ON ANTITRUST

Joshua D. Wright<sup>1</sup>

## I. "IT TAKES A THEORY TO BEAT A THEORY"

In his Nobel lecture, economist George Stigler declared this proposition as "the fundamental rule of scientific combat," asserting that "no amount of skepticism about the fertility of a theory can deter its use unless the skeptic can point to another route by which the scientific problem of regulation can be studied successfully.<sup>1</sup> These rules of engagement are to scientific and intellectual combat in the marketplace of ideas as antitrust is to competition in product markets. Stigler argued that this form of intellectual rivalry should be resolved by evidence of the explanatory power of the competing theories.<sup>2</sup> Of course, the proposition that the selection of theoretical models for application to policy problems should be guided by consistency with the phenomena the models attempt to explain is not original to Stigler. It is a principle that is fundamental not only to economics, but science generally.<sup>3</sup>

It is with Stigler's rules of intellectual engagement as my guide that I set forth on my current task: a critical review of former Federal Trade Commission Chairman Robert Pitofsky's *How the Chicago School Overshot the Mark: The Effect of Conservative Economic Analysis on U.S. Antitrust*, a collection of essays devoted to challenging the Chicago School's approach to antitrust in favor of a commitment to Post-Chicago policies.

The Post-Chicago School challenge to the previous dominant model, often described as the "Chicago School,"<sup>4</sup> is well known. The developments of the past 25 years, especially the new game theoretic tools applied to problems of vertical contracting to generate possibility theorems, have changed the landscape of antitrust economics considerably. The important debate between whether the existing body of economic knowledge or the new Post-Chicago contributions provide the best guide for antitrust policy has always been one concerning which "models" offered a more predictive and robust account of antitrust-relevant behavior.

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<sup>1</sup> Assistant Professor, George Mason University School of Law (on leave); Visiting Professor, University of Texas School of Law. This article reviews *How the Chicago School Overshot the Mark: The Effect of Conservative Economic Analysis on U.S. Antitrust* (Robert Pitofsky, ed., Oxford University Press 2008). I thank Jonathan Baker, Bruce Kobayashi, William Kovacic and Geoff Manne for helpful comments, discussions, and provocative challenges to my thinking on these issues which should not be interpreted as an endorsement of any of the views expressed herein. I am also grateful to Sarah Berens for superb research assistance.

Unfortunately, much of the "Chicago versus Post-Chicago" debate (and yes, Harvard too) has not been fought on the scientific terms.

*Overshot the Mark* is a new and important contribution to this debate. The book is clear that in its purpose to marshal arguments and evidence resulting in the rejection of the Chicago School, in favor of an antitrust regime founded on the Post-Chicago alternative. Professor Pitofsky usefully describes the essential theme of *Overshot the Mark* in the introduction's concluding sentence: "Because extreme interpretations and misinterpretations of conservative economic theory (and constant disregard of facts) have come to dominate antitrust, there is reason to believe that the United States is headed in a profoundly wrong direction."<sup>5</sup>

In support of its claims, the essays center on an attempt to demonstrate that the Chicago School: (1) is wrong on the economics, (2) ideologically ignores facts and evidence when convenient, and (3) has misled courts into extreme interpretations of the antitrust laws to the detriment of consumers.<sup>6</sup> While much effort is expended throughout the volume on asserting and defending these and other claims, *Overshot the Mark's* most glaring weakness is that insufficient attention is paid to supporting not only those claims, but also the implicit corollary that the Post-Chicago possibility theorems outperform the models of their predecessors, on scientific terms relating to theoretical robustness or empirical support.<sup>7</sup>

To be sure, *Overshot the Mark* is an important book and one that will be cited as intellectual support for a new and "reinvigorated" antitrust enforcement regime based on Post-Chicago economics.<sup>8</sup> Its claims about the Chicago School's stranglehold on modern antitrust, despite the existence of a superior economic model in the Post-Chicago literature, are provocative. If the premise is accepted that the Post-Chicago School provides a sounder economic basis for antitrust than that offered by the incumbent Chicagoans, that presents a puzzle. The puzzle is to explain why the Chicago School continues, by all accounts, to dominate modern antitrust discourse, particularly in the courts, in the face of this obviously superior alternative?

To its credit, *Overshot the Mark* does offer an implicit (and sometimes explicit) answer to this question, an answer which should be familiar to antitrust readers: A conspiracy. That the volume offers an answer to such an interesting puzzle is the good news. The bad news is that these are the types of conspiracy allegations that would not survive the Supreme Court's new "plausibility" test.<sup>9</sup> The supposed cartel consists of Chicago-oriented antitrust lawyers, economists, enforcement agency officials, and both conservative *and* liberal judges. The aim of their collusive scheme is to halt the common law evolutionary process that would have led to the adoption and incorporation of these superior economic norms into antitrust doctrine but for the conspiracy.

There is another interesting aspect of this puzzle for economists. For several decades, Post-Chicago economics has overwhelmingly been taught to graduate economics students in industrial organization economics courses in top departments in the United States and Europe. Top economics journals publish Post-Chicago theoretical models. If the Post-Chicago School

offers superior economics, and provides more elegant models with greater explanatory power, why haven't they succeeded in persuading the courts?

The central task of this review will be to evaluate the underlying premise that Post-Chicago economics literature provides better explanatory power than the "status quo" embodied in the existing body of theory and evidence supporting Chicago School theory. I will conclude that the premise is mistaken. However, the mistaken premise only partially obviates the need to solve the puzzle of the hypothetical adoption and persistence of inefficient economic norms. A review of the empirical evidence overwhelmingly demonstrates that Chicago School economic insights and policy prescriptions remain the best available foundation for modern antitrust policy. As will be discussed in Part III, the most fundamental weakness of *Overshot the Mark* is the failure to acknowledge, and grapple with, the substantial body of empirical evidence in support of Chicago School views, while simultaneously failing to provide empirical support for Post-Chicago anticompetitive theories.

In short, *Overshot the Mark* does not offer a persuasive account for Chicago's continued dominance. Following Stigler's admonition, I offer a simple alternative hypothesis to explain the Chicago School's continuing dominance of antitrust law: it provides a more robust theoretical and empirical account of the business practices we observe in the real world along with their competitive effects. It is often said that economic knowledge is incorporated into antitrust law with a significant lag. For example, many of the Chicago School insights of the 1960s and 70s were incorporated into antitrust doctrine (and remain a central part of its intellectual foundation) decades later. By way of contrast, Post-Chicago economics has now dominated the industrial organization economics literature for nearly thirty years without, thus far, substantial impact on antitrust doctrine. Economic science has moved toward the production of highly formalized and mathematically elegant models, based on highly stylized assumptions from which it is difficult to draw policy implications. Relatively superior empirical support provides an alternative account for the persistent influence of the Chicago School on antitrust doctrine. Before turning to providing support for this simple explanation, a few preliminary notes are in order.

The target of the book is clear: The Chicago School of Antitrust Economics. But what exactly does this "School" consist of? Throughout *Overshot the Mark*, the most persistent and puzzling ambiguity is the conflation of Chicago School antitrust economics with something labeled "conservative economics." Both terms escape simple definitions that command universal agreement. Stigler, a Chicago School founding member if there ever was one, described the Chicago School as "a hypothetical kingdom" and seemed to resent uses of the label, noting that it "has always been a phrase whose accuracy varied inversely to its content."<sup>10</sup> Whether a hypothetical construction or otherwise, it is conventional wisdom that there is some body of economic knowledge that can be attributed to the Chicago School, and that this body of knowledge has been and continues to be a dominant intellectual force behind the evolution of antitrust law.<sup>11</sup> The Chicago School's contributions to antitrust policy are many, and are not denied by the essayists.<sup>12</sup>

*Overshot the Mark* accepts the premise that the Chicago School provided antitrust its intellectual foundation, and subsequently saved it from the state of incoherence that would motivate Robert Bork's seminal effort to incorporate the economic reasoning emanating from the University of Chicago, and Aaron Director in particular, into the Sherman Act.<sup>13</sup> While a precise definition is elusive, the Chicago School of antitrust economics can be defined in a reasonable though imperfect manner.<sup>14</sup> However, *Overshot the Mark* is unsuccessful in its attempt to locate the body of economic knowledge that it aims to target, in large part because it equates the Chicago School with something called "conservative economics."

This label generates more questions and confusion than clarity. Is "conservative" meant as analytically identical to the Chicago School? If so, why use two different words? If not, what's the difference? The most intuitively plausible explanation for this choice is that the label is a rhetorical device designed to score some easy political points and frame the relevant policy debate as one centered around ideology rather than economic science. This is not to claim that antitrust debates have ever been or ever will be invariant to ideology. My claim here is that the ideology-to-economics ratio has become too high, and that the framing of Chicago School economics as "conservative" is evidence in support of that proposition. But the choice to frame the debate in this manner also comes with its costs. In this case, the "conservative" label leads to an inevitable imprecision in many of the claims pressed throughout the book. The label is also misleading when one considers the scope of the well-known contributions of Chicago School scholars. Consider, for example, that the theoretical underpinnings of the "raising rivals' cost" theories of anticompetitive conduct at the core of the Post-Chicago movement are based on the work of Aaron Director, the father of the Chicago School.<sup>15</sup> Moreover, Chicago-affiliated scholars have made significant contributions to our understanding of anticompetitive behavior and are responsible for documenting foundational empirical examples of Post-Chicago phenomena in the real world.<sup>16</sup> Perhaps the lesson to be learned from a more accurate economic history of the Post-Chicago movement, whether one likes it or not, is that we are all Chicagoans now.

*Overshot the Mark's* second weakness is related to the first. Little or no attempt is made to isolate the effect of Chicago's influence on modern doctrine, relative to other important factors. There is reason to believe that this is not harmless error. Kovacic's persuasive historical account of the intellectual foundations of modern antitrust law rejects the Chicago/Post-Chicago narrative, making room for the Harvard School.<sup>17</sup> While the Harvard and Chicago approaches have converged in many areas of antitrust law, such as predatory pricing doctrine, there are also important differences. Professor Elhauge has also recently argued that it is the Harvard School, and not the Chicago School, which characterizes the Supreme Court's modern antitrust jurisprudence.<sup>18</sup> *Overshot the Mark* suffers from its presumption that the Chicago School is the cause of the state of modern doctrine, with which the authors find themselves dissatisfied. Indeed, recognition that the current state of monopolization doctrine is best explained by a convergence of both Chicago and Harvard principles is at tension with the narrative of the singlehanded ideological stranglehold that is pressed throughout the volume. Failure to recognize the dual nature of the intellectual foundations of antitrust law allows one to characterize the Chicagoans as outliers and extremists. An alternative hypothesis exists, but it

is one that is unsettling for the essayists—perhaps the convergence of Harvard and Chicago on much of modern antitrust jurisprudence suggests that those advocating a deviation from the status quo are the extremists.

*Overshot the Mark* makes a provocative claim: That conservative economic analysis has, in recent years, had a pernicious effect on consumers. Throughout the various essays these claims are pressed in different forms, but boil down to the following essential theme: Chicago School economics caused courts to adopt erroneous economic principles and get specific cases wrong; develop sub-optimal legal rules; or otherwise influence antitrust policy in the wrong direction.<sup>19</sup> One of the most valuable contributions of economics to law is that it brings about rigor by demanding hypotheses that can be tested against real world data. Ideological policy disputes, unlike in other fields of law unencumbered by any attachment to scientific method or economic methodology, can be settled with evidence rather than by assertion. When the claims in the book are held up to data, it becomes evident that *Overshot the Mark* does not carry its burden of rejecting the simple null hypothesis that the Chicago School's persistence is owed to its superiority on economic terms.

In Part II I will offer a set of definitional principles that guide Chicago School antitrust economics, in order to set the stage for evaluating specific claims that contributions from Chicago have “gone too far.” A more rigorous examination of the actual body of knowledge produced by Chicago School lawyers and economists suggests a much more detailed picture than the “conservative” label allows. While these shorthand labels make for good slogans, they come at the significant cost of inviting conclusory and superficial evaluations that facilitate misleading descriptions of their targets, and can lead to mistaken policy recommendations.<sup>20</sup> Without a firm and workably precise definition of the Chicago School of antitrust economics, it would be impossible to evaluate *Overshot the Mark* and its claims about the relative explanatory power of Chicago and Post-Chicago economics.

In Part III we take a scientific approach to evaluating the claim that Post-Chicago economics has greater explanatory power than the approaches of the Chicago School. Specifically, we evaluate claims about the relative merits of Chicago and Post-Chicago approaches to resale price maintenance and exclusive dealing in light of the existing empirical evidence.

In Part IV, the focus shifts from economics to law. We evaluate *Overshot the Mark's* the claim that courts, driven by the undue influence by Chicago economics, have adopted extreme interpretations of the law to the detriment of consumers.

Part V proposes a scientific approach, one that does not require allegiance any particular branch of economic theory, to identify the best possible set of antitrust liability rules and enforcement policies conditional on our existing set of theoretical and empirical knowledge. I describe this approach as “evidence based antitrust.”

## II. DEFINING THE CHICAGO SCHOOL<sup>21</sup>

The Chicago School of Economics has been described many ways. David Wall once described three basic characteristics of the Chicago School of economics: “First, that theory is of

fundamental importance; second, that theory is irrelevant unless set in a definite empirical context; and third, that in the absence of evidence to the contrary, the market works.”<sup>22</sup> To others, to invoke the term Chicago School is to describe a reflexively anti-interventionist position that typically involves irrational disdain for government regulation. While current financial times render it somewhat in vogue to casually toss around caricatured versions of entire schools of economic thought without regard to accuracy or evidence, antitrust commentators have generally avoided such style of commentary in favor of careful analysis of competing theories and evidence.<sup>23</sup>

The contributions of the Chicago School are well known, and no sensible antitrust commentator denies that policies based on these contributions have rendered antitrust an intellectually respectable body of law.<sup>24</sup> Commentators of all political and economic stripes agree that antitrust is, despite some quibbles around the margins, an economically rational body of law. Perhaps more important than its internal economic coherence, the Chicago School revolution allowed courts and antitrust agencies to harness the power of the Sherman Act in order to act as a shield against truly harmful business practices, while limiting its use as a sword by private and public plaintiffs bent on attacking efficiencies.

The history of the Chicago School’s influence on antitrust analysis has been well documented. Professors Jonathan Baker and Timothy Bresnahan divide the Chicago School’s influence on antitrust into two separate components: “the Chicago School of industrial organization economics,” and “the Chicago School of antitrust analysis.”<sup>25</sup> The Chicago School of industrial organization economics consists of the work in industrial organization economics that aimed, and succeeded, at debunking the structure-conduct-performance paradigm and its hypothesized relationship between market concentration and price or profitability.<sup>26</sup> Especially influential in the dismantling of the structure-conduct-performance hypotheses was UCLA economist Harold Demsetz.<sup>27</sup> Demsetz’s work was central to exposing the misspecification of this relationship in previous work by Joe Bain and followers, as well as offering efficiency justifications for the observed correlation—that firms with large market shares could earn high profits as a result of obtaining efficiencies, exploiting economies of scale, or creating a superior product.<sup>28</sup>

The second component, “the Chicago School of antitrust analysis,” primarily contributed empirical work in the form of case studies demonstrating that various business practices previously considered to be manifestly anticompetitive could, in fact, be efficient and pro-competitive. Perhaps the most well known contribution of the Chicago School of antitrust is the “single monopoly profit theorem,” which is built upon the observation that only a single monopoly profit is available in any vertical chain of distribution. The theorem posits that a firm with monopoly power at one level of distribution would prefer competition at every other level of the supply chain because that will reduce the price of the product to consumers, increase sales, and maximize total profits. It is now understood that the theorem applies in limited circumstances. Nonetheless, this theoretical insight placed significant pressure on economists to think more rigorously about explaining the efficiency justifications for various vertical

contractual arrangements as well as the conditions under which they prove to be anticompetitive.

The basic features of this second component are generally attributable to the work of Aaron Director<sup>29</sup> and others from 1950 to the mid 1970s.<sup>30</sup> A group of eminent antitrust scholars including Richard Posner, Robert Bork, and Frank Easterbrook followed in Director's footsteps, building on these studies and on economic analysis, and advocating bright-line presumptions, including *per se* legality, which reflected the growing consensus that most conduct is efficient most of the time.

This is not to say that the Chicago School's contributions to antitrust economics were completed by the 1970s, or that they were limited to the ultimate rejection of the structure-conduct-performance paradigm. For example, "Chicago School" industrial organization economists have continued to contribute to our economic understanding of various business practices, despite the fact that developments in industrial organization economics for the past 20 years have relied primarily on game-theoretic modeling techniques.<sup>31</sup> Recent Chicagoan contributions to antitrust economics include work on exclusive dealing,<sup>32</sup> slotting contracts,<sup>33</sup> and vertical restraints theory.<sup>34</sup>

There is little doubt that the Chicago School's influence on antitrust law and policy has been substantial, particularly in the Supreme Court. Important Supreme Court precedents have been influenced by Chicago School thinking, including *Continental T.V., Inc. v. G.T.E. Sylvania, Inc.*, *State Oil Co. v. Khan*, *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko*, *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, *Leegin Creative Leather Products, Inc. v. PSKS, Inc.*, and *Pacific Bell Telephone Co. v. linkLine Communications, Inc.*, in addition to the development of the 1982 *Horizontal Merger Guidelines* by Assistant Attorney General William Baxter.<sup>35</sup> The 1970s and 1980s were marked by a dramatic shift in antitrust policies, a significant reduction in enforcement agency activity, and calls from Chicago School commentators for the use of bright line presumptions,<sup>36</sup> *per se* legality for vertical restraints,<sup>37</sup> and even repeal of the antitrust laws altogether.<sup>38</sup> Perhaps the Chicago School's most important and visible victory has been the assault on the *per se* rule of illegality, which, at least for now, exists only in naked price-fixing cases and, in a weakened form, in tying cases.

The leading alternative to the Chicago School approach is the Post-Chicago School.<sup>39</sup> The Post-Chicago approach challenges the conditions under which Chicago results hold, such as the single monopoly profit theorem. Indeed, authors in the Post-Chicago movement have been able to produce a series of models in which a monopolist in one market has the incentive to monopolize an adjacent product market.<sup>40</sup> Post-Chicago economists also have created literature focusing on the possibility of vertical foreclosure. This raising rivals' costs strand of literature has become the most influential Post-Chicago contribution, and has provided a theoretical framework for a number of theories that explore the possibility of anticompetitive effects of various exclusionary business practices.<sup>41</sup> For example, such theorems have demonstrated that it is possible for tying, exclusive dealing, and predatory pricing to generate anticompetitive effects under certain conditions, including an assumed absence of any pro-competitive justifications for the conduct examined.<sup>42</sup>



Despite the Post-Chicago School's dominance in modern economics departments, ownership of the dominant share of pages in top economics journals relative to any other category of antitrust, and successful infiltration of antitrust policy in the European Union, the Post-Chicago economic framework has only had a modest impact on U.S. competition law. The watershed mark of Post-Chicago analysis is the Supreme Court's decision in *Eastman Kodak Co. v. Image Technical Services, Inc.*, which seemed to open the door, if only for a moment, to Post-Chicago arguments.<sup>43</sup> However long *Kodak* held open a window that would have facilitated a paradigm shift in the federal courts from Chicago School antitrust to Post-Chicago principles, the antitrust jurisprudence of the Roberts Court appears to have closed it.

The contrast between the Chicago and Post-Chicago Schools often tempts commentators to adopt a "pendulum narrative" when describing the history of antitrust thought.<sup>44</sup> First, by introducing economic analysis to antitrust, the Chicago School supplanted the pre-Chicago "structural" view that often resulted in condemning business practices without understanding them, and exhibited hostility towards market concentration even when such increased concentration was likely to benefit consumers. Next, it became apparent that the Chicago School insights immunizing certain conduct from antitrust scrutiny went "too far" as Post-Chicago economists exposed the myth endorsed by Chicago School proponents that "everything is efficient" by generating models debunking Chicago assertions that various business practices could never be inefficient or anticompetitive. Because Chicagoans ignore the possibility theorems produced by the Post-Chicago literature, it is argued, the Chicago School necessarily "went too far."

This convenient narrative portraying Post-Chicago antitrust economics as a reasonable compromise between the pre-economics era and the policies generated by Chicago School insights pervades *Overshot the Mark*. Of course, economic science allows us to settle disputes between competing theoretical models by means superior to compromise. Further, as Federal Trade Commission (FTC) Commissioner Kovacic has recently argued, this "just right" narrative is not an accurate intellectual history of antitrust in the United States because it misses, or minimizes, the contributions of the Harvard School.<sup>45</sup> Kovacic also points out that this narrative overstates the differences between Chicago and Post-Chicago thinking.<sup>46</sup> It is always more difficult to characterize a position as extreme if many diverse groups hold it. To the extent that Chicago and Harvard have indeed converged on much in modern antitrust jurisprudence, assertions about the reflexive and ideological opposition to antitrust intervention in Chicago are less likely to persuade without evidence.

Unfortunately, the Chicago/Post-Chicago narrative has also tempted commentators to adopt extreme and misleading descriptions of one camp or the other. Several commentators in *Overshot the Mark* succumb to this temptation by describing the Chicago School economists as a monolithic entity that always favors free markets over regulation, allows ideology to trump evidence, and is not interested in advancing the discourse of antitrust economics in a scientific manner.<sup>47</sup> In reality, this is a gross mischaracterization of the Chicago School. Indeed, Chicagoans are well known to have anticipated the raising rivals' cost literature by recognizing the insight that a dominant firm might harm competition by foreclosing rivals from

distribution,<sup>48</sup> and have contributed to the economic literature by documenting some of the only empirical examples of raising rivals' costs theories<sup>49</sup> and economically-rational predation theories.<sup>50</sup> They have also contributed to the theory of collusion,<sup>51</sup> and explored the use of tying and other practices to monopolize adjacent markets.<sup>52</sup> These caricature-like descriptions of the Chicago School, however, threaten to nonsensically turn "Chicago School" into a pejorative term, and do little other than mislead and discourage meaningful discourse.

The aim of this section is not to simply point out the ways in which the Chicago School has been mischaracterized. Rather, it is to provide an accurate and workable definition of the Chicago School, against which we can measure *Overshot the Mark's* claims. I offer an alternative definition of the Chicago School of antitrust which turns on the following three methodological commitments: (1) rigorous application of price theory; (2) the centrality of empiricism; and (3) emphasis on the social cost of legal errors in the design of antitrust rules.

### 1. Rigorous Application of Price Theory

The first defining characteristic of the Chicago School is a rigorous application of economic theory, especially but not exclusively neoclassical price theory, to problems of antitrust analysis. Richard Posner once stated that the key distinguishing attribute of the Chicago School of antitrust was that it "view[ed] antitrust policy through the lens of price theory."<sup>53</sup> Because I suspect that most commentators will agree that the application of price theory is indeed a distinctive characteristic of the Chicago School of antitrust, I will not expand on this point other than to offer the following two caveats.

The first is that Chicago's application of price theory does not imply that both Post-Chicago and Harvard School applications of economic theory to antitrust lack rigor. Although this criticism has been leveled at the Harvard School's contributions to industrial organization economics in the 1950s and 1960s, most criticisms of the Post-Chicago movement have focused on its excessive mathematical complexity and highly stylized models, rather than a lack of theoretical rigor.<sup>54</sup> The primary difference between the Chicago and Post-Chicago Schools with respect to economic theory is that the former rejects game theory as a useful tool for policy analysis, while the latter embraces it as a primary weapon. Game theory has been criticized on the grounds that it produces too many equilibria to be useful, so the Chicago School favors price theory for its ability to generate testable data for the purpose of empirical testing.<sup>55</sup>

The second caveat is to recognize that many of the Chicago School's contributions, especially in the area of vertical restraints, do not rely solely upon neoclassical price theory and the model of perfect competition. Several of the key contributions by Chicagoans actively shed the confines of the neoclassical price theory model of perfect competition, in favor of reliance on the new institutional economics and focus on institutional details and transaction costs. In a series of articles, Professor Alan Meese has correctly noted that strict adherence to the perfect competition model envisioned in neoclassical economics is not consistent with the Chicago explanations of vertical restraints, which depend on the presence of downward sloping demand curves.<sup>56</sup> While noting that this objection is not without some force, I adopt an inclusive view of the philosophical underpinnings of the Chicago School, which includes these contributions.

Adherence to neoclassical price theory was no doubt a hallmark characteristic of Chicago analysis—and much progress was made in advancing antitrust analysis with a simple application of price theory. However, embracing a one-to-one correlation between perfect competition and Chicago would be overly narrow and would not capture the contributions of many members of the Chicago movement. Chicago School economists frequently deviated from the confines of the model of perfect competition whenever such deviation was useful to generate helpful insights about various business practices.<sup>57</sup> In fact, Chicagoans were among the first to criticize reliance on the model of perfect competition as a useful benchmark for antitrust analysis.<sup>58</sup>

## 2. The Centrality of Empiricism

The second defining feature is the centrality of empiricism to the research agenda of Chicago antitrust analysis. Recent empirical surveys of vertical restraints strongly support the view that these practices are not likely to produce anticompetitive effects, and therefore favor a presumption of legality.<sup>59</sup> The question I address here, however, is not whether Chicago School models have superior predictive power relative to their Post-Chicago counterparts. Rather, my claim is merely that empirical testing is a central feature of the Chicago School analysis.

There is at least one set of generally undisputed empirical contributions from Chicago School economists—the debunking of the purported relationship between concentration and price that was asserted by proponents of the structure-conduct-performance paradigm.<sup>60</sup> However, even setting aside the contributions of these “early” Chicagoans, it is clear that the relative weight attached to empirical evidence by later Chicago antitrust scholars was also relatively high.

Perhaps the most striking example of a Chicago School scholar who offered substantial empirical contributions to antitrust literature was George Stigler. Seminal Chicago School figures Ronald Coase and Harold Demsetz have both noted Stigler’s dedication to empiricism with a note of admiration. Coase describes Stigler as moving effortlessly “from the marshaling of high theory to aphorism to detailed statistical analysis, a mingling of treatments which resembles, in this respect, the subtle and colourful Edgeworth. It is by a magic of his own that Stigler arrives at conclusions which are both unexpected and important.”<sup>61</sup> Demsetz eloquently elaborates on this theme:

Housed in Stigler’s mind, neoclassical theory had more than the usual quality of material with which to work. It was coupled with a joy in verification and with a strong work ethic and sense of duty to his profession. Intelligence, insight, wit, and style were evident in his writings. His articles and essays could not be ignored. They provoked readers to think and often to follow his lead. For some readers, they simply provoked. Stigler’s passion for evidence gathering is also evident in his work, and he made no secret of it.<sup>62</sup>

Stigler’s work exemplified the billing described by these prominent Chicagoan colleagues and displayed an unmistakable passion for empirics. It is the empirical flavor of his economic analysis that landed Stigler the Nobel Prize in 1982 for his “seminal studies of industrial structures, functioning of markets and causes and effects of public regulation.”<sup>63</sup>

However, in an ironic twist, Stigler was initially rejected by the University of Chicago economics department for being “too empirical.” In his 1964 presidential address to the American Economic Association, Stigler announced that the “age of quantification is now full upon us,” and noted that this age would be characterized by policy analysis informed by empirical evidence.<sup>64</sup>

Stigler’s body of work in industrial organization economics, which he often referred to as “microeconomics with evidence,” is powerful proof of the centrality of empiricism to his own approach. For example, Stigler offered an early study of the effects of the antitrust laws,<sup>65</sup> an empirical assessment of block booking practices,<sup>66</sup> and a study of the economies of scale<sup>67</sup> introducing the survivorship principle. Perhaps the strongest evidence of Stigler’s dedication to the role of empirical evidence in the development of antitrust policy was his change in position in favor of deconcentration policy in the early 1950s. This change was in response to empirical evidence that debunked the consensus views concerning the relationship between concentration and profitability.<sup>68</sup>

The uniquely Stiglerian commitment to empiricism is a noteworthy feature of the Chicago School’s contribution to antitrust analysis in its own right, but there are others who demonstrate a similar commitment. For example, the case studies offered by many Chicagoans have played an important role in antitrust policy. Former FTC Chairman Timothy Muris has recognized the contributions of Benjamin Klein’s case studies emphasizing the role of vertical restraints in facilitating dealer supply of promotional services, when performance is difficult to measure.<sup>69</sup>

In sum, the Chicago School of antitrust analysis places a strong emphasis on empiricism, through both statistical analysis and case studies of specific restraints. One might view the Chicago commitment to price theory—and even measured deviations from price theory where useful to explain economic phenomenon—as an extension of the emphasis on empiricism because of the testable implications that follow from its application.

### **3. Adoption of the Error-Cost Framework**

A third defining feature of the Chicago School of antitrust analysis is its emphasis on the relationship among antitrust liability rules, judicial error, and the social costs of those errors. From an economics perspective, it is socially optimal to adopt the rule that minimizes the expected cost of false acquittals, false convictions, and administrative costs. Not surprisingly, the error-cost approach is distinctively Chicagoan because it was pioneered by Judge Frank Easterbrook of the U.S. Court of Appeals for the Seventh Circuit, who is a prominent Chicagoan.<sup>70</sup> Subsequently, several commentators have adopted this framework as a useful tool for understanding the design of antitrust rules.<sup>71</sup>

The error-cost framework begins with the presumption that the costs of false convictions in the antitrust context are likely to be significantly larger than the costs of false acquittals, since judicial errors that wrongly excuse an anticompetitive practice will eventually be undone by competitive forces. Conversely, judicial errors that wrongly condemn a pro-competitive

practice are likely to have significant social costs, because such practices are abandoned and not offset by market forces.

The insights of Judge Easterbrook's error-cost framework, combined with the application of price theory and a sensitivity to the state of empirical evidence, can be a powerful tool for improving antitrust policy. For example, David S. Evans and Jorge Padilla demonstrate that such an approach to tying favors a modified *per se* legality standard, in which tying is deemed pro-competitive unless the plaintiff presents strong evidence that the tie was anticompetitive.<sup>72</sup> Their conclusion is based upon the formulation of prior beliefs concerning the likely competitive effects of tying, and grounded in an assessment of the empirical evidence evaluating both Chicago and Post-Chicago economic theories.<sup>73</sup> While Evans and Padilla describe this approach as "Neo-Chicagoan" because it adds the error-cost framework to the conventional Chicago approach, I attribute the intellectual origins of the error-cost framework as applied in the antitrust context to Judge Easterbrook, and thus continue to use the original term.<sup>74</sup>

This is not to say that the Chicago School possesses an exclusive claim on the placing of significant weight on error and administrative costs in the design of antitrust standards. Indeed, FTC Commissioner Kovacic has persuasively demonstrated that the Harvard School has played an integral role in promoting the administrability of antitrust rules, which is a predecessor of the error-cost framework discussed above.<sup>75</sup> Perhaps the most well known proponents of this position are Professors Phillip Areeda and Donald Turner, who have consistently argued that antitrust rules should be administrable.<sup>76</sup> The Harvard School's then-Judge Stephen Breyer incorporated the insights of the Harvard approach into antitrust doctrine in *Barry Wright Corp. v. ITT Grinnell Corp.*, noting that "antitrust laws very rarely reject . . . 'beneficial birds in hand' for the sake of more speculative . . . 'birds in the bush.'"<sup>77</sup> Again, the Harvard School's sensitivity to the possibility of deterring pro-competitive conduct as a result of judicial error is largely related to the Chicago School's error-cost framework. The powerful intellectual foundations of the error-cost framework, grounded in basic decision theory and accepted by Chicago, Harvard, and most economists, is one reason why the framework has become a building block for modern competition policy.

Having defined the Chicago School and its methodological commitments, a central challenge from *Overshot the Mark* remains to be answered. In Section III, I scrutinize claims that the Chicago School gets the economics wrong, while focusing on *Overshot the Mark's* insistence that Chicago economists have "gone too far" when it comes to our understanding of various business practices. In Section IV, I turn to the provocative claim that the Supreme Court has perhaps been blinded by "conservative" Chicago School economics, and subsequently ignored evidence in favor of a reflexively pro-business approach to antitrust.

### III. A SIMPLE EXPLANATION OF THE CHICAGO SCHOOL'S PERSISTENT DOMINANCE OF U.S. ANTITRUST POLICY

*Overshot the Mark's* critiques of the Chicago School literature have one theme in common: That the Chicago School's preference for theory and ideology rather than empirical

evidence has led to antitrust policy that is too lenient compared to policy informed by the more predictive Post-Chicago economic theories.<sup>78</sup> Fortunately, assertions that Chicago School economics “gets it wrong” can be evaluated with objective data. Moreover, so can the relative predictive power of Chicago and Post-Chicago theories. We do so in this section. Specifically, motivated by *Overshot the Mark's* claims about the failures of Chicago School economics in these areas, we evaluate the state of available theoretical and empirical knowledge concerning resale price maintenance (RPM) and exclusive dealing.<sup>79</sup>

### A. Resale Price Maintenance: Economic Theory and Evidence

One of the most persistent debates in antitrust has been over the appropriate antitrust treatment of RPM. *Leegin Creative Leather Products, Inc. v. PSKS, Inc.*<sup>80</sup> was a major event in this debate. Relying extensively on the existing theoretical and empirical economic literature, the Supreme Court overturned *Dr. Miles'* century old *per se* prohibition against minimum RPM in favor of a rule of reason approach.<sup>81</sup> Justice Kennedy's majority opinion concluded that the *per se* rule was inappropriate because, while there was universal agreement between economists that RPM could be anticompetitive, the theory and evidence simply did not demonstrate that the practice “always or almost always tend[s] to restrict competition and decrease output.”<sup>82</sup>

The result was unsurprising on economic grounds. Economists nearly universally agree that while RPM can generate anticompetitive outcomes in some instances (for example as part of a manufacturers' cartel), it is generally pro-competitive.<sup>83</sup> However, despite this consensus, many legal commentators continue to take the position that *Dr. Miles*, or some truncated rule of reason approach placing an initial burden on firms adopting the practice to demonstrate that their RPM contracts fit into a specified list of acceptable uses, is more appropriate.<sup>84</sup> These commentators argue that the efficiency justifications most frequently offered for RPM either don't fit the existing cases or are logically invalid.<sup>85</sup> Indeed, proposed legislation which would revive the *per se* rule against RPM under the Sherman Act currently awaits Congressional attention.<sup>86</sup>

One side of the debate views *Leegin* as a long overdue symbol of the Chicago School's continued attack on anachronistic antitrust rules from the “pre-economics” era of competition policy. Advocates of a Post-Chicago approach to antitrust enforcement view *Leegin* quite differently. Post-Chicagoans, and authors in *Overshot the Mark*, point to the death of the *per se* prohibition against RPM as a primary example that the Supreme Court has favored ideology over sensible economic theory and empirical evidence.

Much of this debate has revolved around the economic concept of free-riding. Particularly in the context of RPM, the debates have focused on the potential for free-riding on the promotional efforts of retailers—that were funded by manufacturers—by ensuring a higher margin with RPM. Advocates of the *per se* rule argue that the free-riding concept has spun out of control and now is used to attempt to justify the use of vertical restraints in areas where the concept clearly does not apply. Further, they argue that the empirical literature demonstrates conclusively that RPM generates higher retail prices. They are right on both counts. But on both counts, they've also asked the wrong questions.

Let us start with the objection to the overuse of the free-riding prevention justification for the use of RPM and other vertical restraints. Since the Supreme Court's watershed decision in *Sylvania*, it has been widely recognized that RPM can prevent the problem that "discounting retailers can free-ride on retailers who furnish services and then capture some of the increased demand those services generate."<sup>87</sup> This form of "discount dealer" free-riding takes place when consumers first visit the full-service retailer to obtain valuable promotional services (such as obtaining product information) before purchasing the product from a "discount dealer" who does not provide those services, and therefore can sell at a lower retail price. RPM is used to prevent this form of discounting by eliminating retail discounting.<sup>88</sup>

While this efficiency justification for RPM is now well accepted, Robert Pitofsky and other commentators have noted that many of the observed uses of RPM do not fit the "discount dealer" story.<sup>89</sup> Chicago School economists have agreed that the "discount dealer" free-riding story is not, by itself, sufficient to explain the prevalence of RPM. For instance, Benjamin Klein observed that "the attempt by defendants to place all cases of resale price maintenance within the prevention of free-riding framework has led to absurd, clearly pretextual explanations."<sup>90</sup> The failure of the "discount dealer" free-riding justification to explain many instances of RPM has led many commentators to conclude that where this narrow explanation does not apply, it is appropriate to conclude that RPM is likely to generate anticompetitive results.<sup>91</sup>

The Post-Chicago commentators who have correctly noted the overuse of the "discount dealer" justification and, therefore, concluded that a *per se* rule is appropriate, have made a fundamental error. They have either ignored or failed to understand the role of RPM in facilitating the provision of efficient promotional services in the absence of free-riding. Because they fail to understand the pro-competitive role of RPM in the absence of free-riding, they have incorrectly concluded that either *per se* analysis or a truncated rule of reason, allowing a limited defense to defendants if their use of RPM appears to fit the narrow "discount dealer" story, is appropriate.

These commentators are in distinguished company. Justice Breyer's dissent in *Leegin* concedes confusion about what possible efficiency gains might derive from the use of RPM in the absence of free-riding:

"I do not understand how, in the absence of free-riding (and assuming competitiveness), an established producer would need resale price maintenance. Why, on these assumptions, would a dealer not 'expand' its 'market share' as best that dealer sees fit, obtaining appropriate payment from consumers in the process? There may be an answer to this question. But I have not seen it. And I do not think that we should place significant weight upon justifications that the parties do not explain with sufficient clarity for a generalist judge to understand."<sup>92</sup>

In *Overshot the Mark*, Warren Grimes and Marina Lao echo Justice Breyer's view that RPM either cannot or does not solve free-riding on promotional services. Both argue that *Leegin* is misguided because it misunderstands the economics of RPM, granting too much deference to the "discount dealer" free-rider theory espoused in *Sylvania*. For example, Professor Grimes

claims that “[a] manufacturer’s desire to limit free riding by its dealers cannot provide a justification for either upstream or downstream power vertical restraints.”<sup>93</sup> Professor Lao similarly asserts that RPM simply cannot provide incentives for the supply of retailer promotional services in the absence of dealer free-riding, calling the very idea “fundamentally flawed” and observing that “it is not clear how free riding can plausibly occur, much less become a severe problem that must be remedied through distribution restraints.”<sup>94</sup> Professor Lao goes on to conclude that “as long as free riding is not a likely risk, then, in a free market, we would expect dealers to voluntarily invest to provide the enhancements truly valued by consumers.”<sup>95</sup> Justice Breyer as well as Professors Lao and Grimes are mistaken in their understanding of the economics of RPM and its role in facilitating the provision of efficient promotional services in the absence of free-riding.

The fundamental economic question is why, in a competitive retail market with zero free-riding, retailers lack a sufficient incentive to adequately promote the manufacturer’s product?<sup>96</sup> In other words, why don’t retailers in a competitive retail market, when left to their own devices, provide the efficient level of promotional services? Professors Lao and Grimes conclude that they do. Justice Breyer searches for an answer. Interestingly, Justice Kennedy’s majority opinion in *Leegin* provides one, citing Klein and Murphy’s seminal article on the economics of vertical restraints which provided the answer to this question 20 years ago.<sup>97</sup>

Klein and Murphy demonstrate that retailers will undersupply promotional services because manufacturers do not take into account the incremental profit margin earned by the manufacturer on promotional sales when some, but not all, consumers value the promotional service. There is an important incentive conflict between manufacturers and retailers with respect to retailer supply of point-of-sale promotional effort. The conflict derives from two economic factors common in markets where RPM is observed. The first is that manufacturers’ profit margins (difference between wholesale price and marginal cost of production) on an incremental sale induced by retailer promotion are generally much larger than the retailer’s margin (difference between retail price and wholesale price paid). This is highly likely to be the case where manufacturers produce branded, differentiated goods and face substantially less elastic demand than retailers. Because retailers do not take into account the additional profit margin earned by the manufacturer on promotional sales, they will generally have an insufficient incentive to provide promotion from the manufacturer’s point of view.<sup>98</sup>

The second factor is that the manufacturer’s incremental sales produced by the retailer’s manufacturer-specific efforts are often greater than the retailer’s overall incremental sales. When a retailer provides incremental services to promote a specific manufacturer’s product, there is no larger retail increase in total sales that is capable of offsetting the lower retail profit margin. In fact, when a multi-product retailer supplies promotional services for a specific brand, for example Coca-Cola, the primary effect is demand-shifting among manufacturers.<sup>99</sup> In other words, promotion-induced sales of Coca-Cola are likely to be at least partially offset by a decrease in the sales of other soda products.

Given these general economic conditions—manufacturer profit margins that exceed retailer profit margins on promotional incremental sales, the absence of significant inter-retailer



demand effects from the supply of promotional effort, and promotion that results primarily in manufacturer “brand-shifting”—retailers will not have an adequate incentive to supply manufacturer-specific promotional efforts. It is critical to note that these conditions are pervasive in the modern economy of differentiated products, downward sloping demand curves, and competitive retail industries. Under these conditions, whether or not there is also “discount dealer” free-riding, manufacturers and retailers have a strong economic motivation to solve this incentive conflict by devising contractual arrangements assuring that the jointly profit-maximizing level of promotional services is supplied.

While these conditions provide the incentives for manufacturers to compensate retailers for the supply of promotional services, there are a number of possible contractual arrangements the parties might adopt. For example, manufacturers might compensate retailers with a per unit time slotting payment, a wholesale price reduction, or RPM. The fundamental objective of these payments is to provide a premium stream to retailers for the provision of promotional services. This premium stream facilitates performance and is self-enforcing in the economic sense.<sup>100</sup> In other words, because the desired performance might include promotional services that are difficult and costly to specify, manufacturers ensure performance not by litigating but by monitoring retailer efforts and then terminating retailers that the manufacturers determine are not performing adequately or in accord with the specified and unspecified elements of the parties’ agreement.<sup>101</sup> The self-enforcing nature of these contractual arrangements, and the costs associated with contracting for difficult-to-specify retailer promotional efforts, also expose the flaw in economic arguments that compensation arrangements, other than those that would completely specify desired performance, should be suspect under the antitrust laws.<sup>102</sup>

Understanding the economic role of RPM in resolving incentive conflicts between manufacturers and retailers in the absence of dealer free-riding does not imply that RPM is always pro-competitive. The anticompetitive theories of RPM are well known—facilitating cartels or allowing manufacturers to compensate retailers in a manner that excludes rivals from access to efficient distribution. But if it does indeed “take a theory to beat a theory,” it makes sense to completely understand the underlying economics of both the pro-competitive and anticompetitive theories at issue with respect to RPM before choosing which economic model has the greatest predictive power. RPM skeptics, however, have largely justified their position—that the anticompetitive theories are more likely to explain RPM—by assertion. But what does the empirical evidence actually show?

In *Overshot the Mark*, Professor Lao assesses the state of economic evidence, both theoretical and empirical, and concludes that “the procompetitive case that is made for minimum RPM is largely theoretical, with at most some weak supporting empirical evidence. In contrast, the anticompetitive effects of RPM are real, significant, and sometimes well-documented.”<sup>103</sup> Professor Lao also notes that “there is virtually no dispute that RPM almost always leads to higher consumer prices,”<sup>104</sup> and argues that despite the fact that higher prices could be consistent with both pro-competitive and anti-competitive theories of RPM, this finding supports application of a truncated rule of reason approach.<sup>105</sup>

From a consumer welfare perspective, it is true that measuring the impact of RPM on prices tells us little about the competitive effects of RPM, since both pro- and anti-competitive theories predict higher prices. Analyzing the impact of RPM on output, where the theories offer predictions in opposing directions, would resolve this problem. It is also important to note that a prohibition on RPM will not necessarily result in lower retail prices because manufacturers and retailers will substitute more inefficient distribution arrangements (often using other vertical restraints or vertical integration).<sup>106</sup>

While measuring the welfare effects of vertical restraints can be especially difficult in the absence of a natural experiment, over the last 25 years there has been a concerted effort to add empirical knowledge to our large menu of theoretical models.<sup>107</sup> Two recent empirical surveys summarize the existing empirical literature. The first, authored by a group of Federal Trade Commission and Department of Justice economists, reviews 24 papers published between 1984 and 2005 providing empirical effects of vertical integration and vertical restraints.<sup>108</sup> The second, by Francine Lafontaine and Margaret Slade, reviews 23 papers with some overlap with the Cooper et al. survey.<sup>109</sup> While the reader is referred to these surveys for methodological details concerning individual studies, a careful review of the relevant studies reveals that both surveys offer a synthesis of the evidence. Cooper et al. observe that “empirical analyses of vertical integration and control have failed to find compelling evidence that these practices have harmed competition, and numerous studies find otherwise,” and while “some studies find evidence consistent with both pro- and anticompetitive effects,” **“virtually no studies can claim to have identified instances where vertical practices were likely to have harmed competition.”**<sup>110</sup>

Lafontaine and Slade reach a similar conclusion. Summarizing and synthesizing the evidence that they reviewed, the authors conclude that “it appears that when manufacturers choose to impose restraints, not only do they make themselves better off, but they also typically allow consumers to benefit from higher quality products and better service provision . . . the evidence thus supports the conclusion that in these markets, manufacturer and consumer interests are apt to be aligned.”<sup>111</sup> In a more recent analysis of the vertical restraints literature, Dan O’Brien notes that three additions to the literature provide new evidence that vertical restraints mitigate double marginalization and promote retailer effort.<sup>112</sup> O’Brien goes on to conclude that “with few exceptions, the literature does not support the view that these practices are used for anticompetitive reasons,” and supports “a fairly strong prior belief that these practices are unlikely to be anticompetitive in most cases.”<sup>113</sup>

In *Overshot the Mark*, Professors Lao and Grimes do not confront this literature. Perhaps sensing the overwhelming empirical evidence stacked against them, Lao and Grimes attempt to recast the theoretical debate and even go so far as to claim that the empirical evidence favors the anticompetitive theories. These attempts fail. A scientific, Bayesian approach to the design of optimal antitrust policy requires that we update our prior beliefs based on the available empirical evidence. In order to select the best performing economic models from those available, antitrust decision-makers must rigorously examine the existing evidence. In the context of RPM and vertical restraints, it is impossible to evaluate the existing empirical

literature without reaching the conclusion that these practices are nearly always efficient. Applying explanatory power as our selection criteria for the proper economic model, the evidence overwhelmingly rejects replacing the Chicago School approach to vertical restraints with a more interventionist approach. As O'Brien concludes, "if there were a Hippocratic Oath among antitrust practitioners, this is where a scientific approach would lead."<sup>114</sup>

### **B. Exclusive Dealing: Economic Theory and Evidence<sup>115</sup>**

The primary anticompetitive concern with exclusive dealing contracts is that a monopolist might be able to utilize exclusivity to fortify its market position, raising rivals' costs of distribution, and ultimately harming consumers. In *Overshot the Mark*, Steven Salop usefully summarizes the raising rivals' cost (RRC) principle, which he originated, and its application to exclusionary contracts, distinguishes it from predatory pricing theories, and places the RRC principle in the context of Post-Chicago economics.<sup>116</sup>

The most common scenario of antitrust relevance involving exclusive dealing contracts concerns an upstream supplier, *S*, entering into an exclusive dealing contract with retailers, *R*, who in turn sells the product to final consumers. The potentially anticompetitive motivation associated with exclusive dealing contracts is clearly related to the limitation placed by that contract on *R*'s ability to sell rival products to final consumers. The possibility of anticompetitive exclusion occurring from these types of contracts generally arises only if *S* is able to foreclose rival suppliers from a large enough fraction of the market to deprive those rivals of the opportunity to achieve minimum efficient scale.<sup>117</sup>

The well known critique of that line of reasoning comes from the Chicago School argument that *R* will not have the incentive to agree to contracts that facilitate monopolization upstream, because they will then suffer the consequences of facing that monopolist in their chain of distribution.<sup>118</sup> As a general matter, one can think of this criticism as drawing the analogy to a conspiracy among retailers, *R*, organized by the monopolist *S* to exclude *S*'s rivals from access to distribution.<sup>119</sup> Like any other conspiracy, it is generally the case that each *R* has the incentive to deviate and remain outside the agreement by contracting with *S*'s rivals and expanding output at the expense of rival retailers.<sup>120</sup> In other words, retailers have the incentive to avoid entering agreements that will ultimately harm them, and *S* will generally not be able to compensate retailers enough to enter into the anticompetitive exclusive contract.<sup>121</sup> The critique goes on to argue that observed exclusive dealing contracts must generate efficiencies rather than anticompetitive effects.

The economic literature has grown in recent years to include a series of theoretical models that contemplate scenarios where *S* can sufficiently compensate retailers to join and remain within the conspiracy, and therefore accomplish an anticompetitive purpose. These anticompetitive theories of exclusive dealing generally assume that *S* supplies a product that is essential to *R*'s viability and that there are substantial economies of scale in manufacturing.

One such theory considers the case where the monopolist *S* adopts exclusive contracts rather than merely collecting its monopoly profit from the sale of the essential product, and relies on the existence of dynamic economies of scale such as network effects.<sup>122</sup> Under this

dynamic theory of exclusion, *S*'s exclusive contracts prevent *S*'s rivals or potential entrants from developing into future rivals, thereby protecting *S*'s future market power. Because *S*'s rivals must operate at a cost disadvantage that drives them out and prevents entry, *S* is able to increase the duration and scope of its market power.<sup>123</sup>

A second set of models explores the possibility that coordination problems between buyers prevent the foiling of *S*'s anticompetitive use of exclusive dealing contracts. There is substantial industrial organization literature analyzing the conditions under which these types of coordination problems between buyers generate the possibility of anticompetitive exclusion. The seminal article of this type is by Rasmussen, Ramseyer, and Wiley ("RRW"),<sup>124</sup> and later refined by Segal and Whinston ("SW").<sup>125</sup> The unifying economic logic of these models is that the potential entrant (or current rival) must attract a sufficient mass of retailers to cover its fixed costs of entry, but *S*'s exclusive contracts with retailers prevent the potential entrant from doing so. It is then necessary to work out the conditions under which such exclusion is not possible, possible, or probable.

A number of factors, in addition to the degree of downstream retail competition, have been identified in the exclusive dealing literature as either favoring the theoretical possibility of exclusion or rendering it less likely or impossible. Significant economies of scale in distribution militate against exclusion because, in that case, a potential entrant may need to attract only a single buyer in order to achieve minimum efficient scale. Similar logic suggests that a small number of buyers will be able to coordinate in order to support the excluded rival. Further, the exclusionary equilibrium in these models is relatively fragile and the models also often generate multiple equilibria in which buyers reject exclusivity also exists.<sup>126</sup>

Recent extensions of these models that focus on the case where buyers are competitive downstream retailers rather than final consumers have produced a wide range of conflicting results under various conditions.<sup>127</sup> Fumagalli and Motta consider the role of retail competition in the RRW-SW framework and demonstrate that the incentives to exclude can disappear in this setting as one buyer becomes large enough to support the entry or viability of a rival.<sup>128</sup> Simpson and Wickelgren derive a model that produces the opposite result, arguing that downstream competition enhances the incentive to exclude because the benefits to a single buyer of resisting exclusion are minimal if all retailers are equally disadvantaged, because retail competition will allow retailers to pass those costs on to consumers.<sup>129</sup>

The development of this literature has increased our knowledge about the potential theoretical impact of exclusive dealing contracts. However, the models generating anticompetitive exclusion generally rely on strict assumptions concerning the existence of significant economies of scale, barriers to entry, the nature of both upstream and downstream competition and, importantly, the complete absence of efficiency justifications for the contracts. Where the necessary conditions of those models are satisfied, they demonstrate that exclusive dealing contracts may harm consumers and thus are an appropriate subject for antitrust scrutiny and further analysis.

Like RPM, exclusive dealing has become an area of antitrust debate in which possibility theorems of anticompetitive vertical contracting practices challenge the pre-existing “Chicago School” economic view. The approach in this review has been to resolve such competing theoretical claims with the empirical evidence. First, however, we must discuss the standard pro-competitive account of exclusive dealing.

Exclusive dealing arrangements are often efficient, and result from the normal competitive process. Exclusive dealing contracts are frequently observed between firms that lack any meaningful market power, implying that there must be efficiency justifications for the practice. Indeed, the economics literature is replete with pro-competitive explanations for exclusives and partial exclusives.<sup>130</sup>

The standard pro-competitive account of exclusive dealing contracts involves use of those contracts to prevent free-riding dealers from using manufacturer-supplied investments to promote rival products.<sup>131</sup> Manufacturer-supplied investments may take the form of purchasing display fixtures or training salespeople, among others. Dealer free-riding on these investments involves using these investments to promote rival brands. The classic example of this type of free-riding in the antitrust context is *Ryko Manufacturing Co. v. Eden Services*,<sup>132</sup> where a manufacturer of car wash equipment used exclusive territories and exclusive dealing contracts to prevent its dealers from switching consumers to other brands. By facilitating dealer performance, the exclusive dealing contract allows manufacturers to collect a return on their investments and increase output.

A recent article by Benjamin Klein and Andres Lerner expands our understanding of the use of exclusive dealing by demonstrating how exclusivity minimizes free-riding in two cases where there are no manufacturer-supplied investments: First, free-riding on manufacturer-financed promotions in order to sell rival products, and Second, free-riding in the form of failing to supply the promotion paid for by the manufacturer altogether, even in the absence of dealer switching.<sup>133</sup> Since manufacturers often compensate retailers for the provision of promotional services such as premium shelf space,<sup>134</sup> dealers have incentives to use these additional promotional efforts to switch consumers to other products upon which the dealer earns a greater profit. Exclusive dealing can be used to prevent this type of free-riding in an analytically identical manner to the way it prevents free-riding on manufacturer-supplied investments.<sup>135</sup>

The second type of free-riding examined by Klein and Lerner also involves manufacturer-financed promotion. Because dealers are being compensated for promotional effort on the basis of total sales (both marginal and infra-marginal), and non-performance is costly to detect, dealers have an incentive not to supply the agreed upon promotional inputs.<sup>136</sup> Exclusive dealing mitigates the incentive to free-ride in this way by increasing the dealer’s incentive to promote the manufacturer’s product. Courts have recognized this somewhat intuitive justification for the use of exclusive dealing in *Joyce Beverages*<sup>137</sup> and *Roland Machinery*, noting the incentive effects of “dedicated” or “loyal” distribution.<sup>138</sup> Klein and Lerner provide an economic basis for understanding the mechanism by which dealers more actively promote

the manufacturer's product in this case, and consider whether *Dentsply's* "dealer loyalty" justification for its use of exclusive dealing was improperly rejected.<sup>139</sup>

Outside of the expanded analysis of dealer free-riding, there are other efficient uses of exclusive dealing. One such use involves the role of exclusive dealing by individual retailers, including those without any market power, in order to intensify competition by manufacturers for their business and to improve purchase terms. By offering manufacturers access to the retailer's loyal customer base, a retailer is able to commit a substantial fraction of its customers' purchases to the "favored" supplier and thereby dramatically increase each supplier's perceived elasticity of demand by making rival products highly substitutable.<sup>140</sup> I have previously extended this analysis to explain the use of category management contracts, where the particular quantity and type of shelf space devoted to the manufacturer's products is not contractually set by the retailer, but is flexibly determined over time by the category captain, a firm selected by the retailer to assist and influence decisions concerning which products in a product category are stocked, as well as how they are displayed, promoted, and priced.<sup>141</sup> In contrast to the case where optimal shelf space commitments are stable, well known, and easily specified by contract, and where non-performance is easily detected by the manufacturer, category management contracts offer increased flexibility where such commitments are imprecise and change over time.

Building on the insights of the RRC and Post-Chicago possibility theorems as his foundation, Professor Calkins argues that courts have responded inadequately to the lessons from this literature.<sup>142</sup> Professor Calkins purports to adopt the "evidence based" approach advocated in this review, which recommends selecting from the available economic models of exclusive dealing the ones with the greatest predictive power. However, Professor Calkins appears to assume that the Post-Chicago possibility theorems, which demonstrate that exclusive dealing contracts can generate anticompetitive effects under some conditions, are the best available models without a rigorous critique of the available evidence. Rather, he proceeds to offer a critique of the various obstacles that lie in front of a plaintiff seeking to prevail on a monopolization claim under an operating assumption that these obstacles are a bad thing for consumers.<sup>143</sup> To be fair, in the closing sentences of Professor Calkins' article, and only after he has concluded that various changes in exclusive dealing law are necessary to ensure that the "Chicago approach" does not persist, he acknowledges that there is not "nearly enough empirical work" and that "we need all the help we can get about how the world really works."<sup>144</sup> However, Professor Calkins does not reject the possibility that the best available empirical evidence does not support the presumption that the Post-Chicago models do a better job of explaining exclusive dealing and therefore should provide the economic foundation upon which we rely to design legal rules.

But what if we took the approach advocated here? What if we looked first to the existing empirical evidence, and then designed our antitrust approach to exclusive dealing contracts based upon whether the Post-Chicago possibility theorems or pro-competitive explanations for exclusivity generated superior predictive power?

Existing empirical evidence of the impact of exclusive dealing is scarce, but generally favors the view that exclusive dealing is much more likely to be output-enhancing than anticompetitive. Heide et al. conducted a survey of managers responsible for distribution decisions and found that the incidence of exclusive dealing was correlated with the presence of “free-ridable” investments.<sup>145</sup> Both Asker and Sass separately examine the welfare consequences of exclusive dealing in the beer market by observing the effect of exclusive dealing on total market output, as well as the output and prices of rival distributors, concluding that exclusive dealing is output increasing and does not generate foreclosure.<sup>146</sup> Lafontaine and Slade’s survey of the existing empirical literature, including both exclusive dealing contracts and vertical integration, concludes that the practices are generally efficient and not associated with anticompetitive outcomes.<sup>147</sup>

While we have limited our analysis to RPM and exclusive dealing contracts for the purposes of this review, our approach points towards firm conclusions with respect to the optimal antitrust approach to both practices. Rather than providing support for *Overshot the Mark’s* hypothesis that Post-Chicago economics’ possibility theorems provide a sounder basis for antitrust policy than the pre-existing body of economic knowledge associated with the Chicago School, the empirical evidence on RPM overwhelmingly rejects the hypothesis. The empirical evidence on exclusive dealing also does not support *Overshot the Mark’s* hypothesis, with the scarce evidence pointing in favor of the pro-competitive economic accounts of exclusivity.

Having generated significant improvements of our economic knowledge of various business practices by all accounts, the burden of persuasion lies with the challenging body of theory to displace the existing theoretical paradigm. In this case, it is for the Post-Chicagoans to demonstrate both that the Chicagoans did indeed overshoot the mark and that the newer theoretical contributions could produce an antitrust enforcement policy much closer to the ideal target. Applying a simple scientific approach to antitrust policy, based on updating prior beliefs concerning the probability that a specific business practice is anticompetitive based on the available empirical evidence, *Overshot the Mark* fails to satisfy its burden of proof. The simple hypothesis that the persistence of Chicago School economic models and ideas in the courts is motivated by their superior explanatory power not only cannot be rejected, but finds substantial support in the data.

This finding is fatal to *Overshot the Mark’s* primary mission: to explain why inferior Chicago School economics persists in the face of a superior challenger. *Overshot the Mark* also offers a secondary claim of only somewhat less significance: That the Supreme Court has been a party to a conspiracy to favor Chicago School economics. Our analysis in this Section provides, in our view, a more persuasive explanation for the persistence of Chicago School economics in the federal courts. Nonetheless, we evaluate this claim on its own merits against the available evidence in Section IV.

#### IV. THE CHICAGO SCHOOL AND THE SUPREME COURT

In addition to *Overshot the Mark's* overstated and, as we've shown, unsupported claims about the predictive superiority of the Post-Chicago economic models, the volume also presses the proposition that conservative economic analysis has, in recent years, had a pernicious effect on consumers by causing courts to adopt erroneous economic principles and get specific cases wrong, develop sub-optimal legal rules, or otherwise influence antitrust policy in the wrong direction.<sup>148</sup>

Because all parties agree that the early Chicago School contributions gave intellectual coherence to antitrust, and at least started out moving it in the "right" direction for consumers, the burden lies with the challengers to demonstrate persuasively that the efficient evolutionary path of antitrust was stalled as the result of the Chicago School's influence on the courts. The challenger must gather enough evidence to reject the simple alternative hypothesis that the persistence of the Chicago School's economic legacy in the federal courts is explained by the proposition that the judges have relied on the body of economic knowledge with the greatest explanatory power. Our analysis thus far already does the bulk of the work toward undermining the intellectual predicate for this claim. Arguments that the Chicago School approach to RPM, for instance, generates an inferior legal rule are simply unsupported by data on the competitive consequences of the practice. Perhaps an appeal to the underlying empirical evidence supporting the competing economic theories is enough to settle the matter.

Perhaps not. To be sure, if the underlying economic claim was correct and supported by the existing empirical evidence, *Overshot the Mark* would present an interesting puzzle concerning the persistence of antiquated Chicago School economics in the face of a superior alternative. Scholars of the efficiency of legal rules could use antitrust as a laboratory in which to study how the common law guides us to inefficient rules. But the underlying economic claim is not correct. Nonetheless, it is worth exploring *Overshot the Mark's* would-be explanation for this state of affairs. Quite simply, the explanation is a kind of conspiracy theory. The theory goes as follows: One significant reason for the persistence of what the Post-Chicagoans perceive to be inefficient legal rules is a supposed cartel consisting of Chicago oriented antitrust lawyers, economists, enforcement agency officials, and both conservative *and* liberal judges. Together these groups, the theoretical narrative continues, derailed the common law evolutionary process that could have led to the adoption and incorporation of these superior economic norms into antitrust doctrine. Conservative economists, it appears, have successfully and even knowingly misled the Supreme Court of the United States over the past several decades into the adoption of inefficient legal norms based on inferior economic foundations.

While claims that the Supreme Court has fallen victim to this conspiracy appear throughout *Overshot the Mark*, the most notable proponent of this conspiracy theory explanation for the persistence of the Chicago School in the federal courts, and the Supreme Court in particular, is Professor Fox.<sup>149</sup> Professor Fox accepts that the Court was headed in the "right" direction, but asserts that for the past several decades "a conservative Court swung the pendulum from one inefficient position (too much antitrust because it disregarded incentives



and efficiencies of dominant firms) to another (too little antitrust because it disregards incentives and efficiencies of firms without power)."<sup>150</sup>

As evidence in favor of this proposition, Professor Fox walks through four Supreme Court cases: *Brooke Group*,<sup>151</sup> *California Dental Association*<sup>152</sup>, *Trinko*,<sup>153</sup> and *Leegin*,<sup>154</sup> concluding that each is decided not by efficiency but by a commitment to conservative economics, which allows theory and ideology to trump evidence and efficiency. In *Brooke Group*, Professor Fox argues that the Court's presumption that predatory pricing was rare was "based on theory only, as adumbrated by conservative economists," while other "scholarship establishes, to the contrary, that selective price predation is a recurring phenomenon; it is used effectively to eliminate young rivals and to deter potential entry into noncompetitive markets."<sup>155</sup> Professor Fox presumes, based on her assessment of the relative frequency of anticompetitive predatory pricing, that a plaintiff victory would have been efficient and did not occur because of "conservative economics, which consistently privileged theory over facts."<sup>156</sup>

Professor Fox criticizes the Court's *Brooke Group* decision for relying on economic literature suggesting the rarity of anticompetitive predatory pricing and emphasizing the benefits of low prices because it is too theoretical and insufficiently empirical. By way of contrast, Professor Fox points to scholarship that "establishes" and presumably does not favor theory over facts. One might expect to see a citation here to an empirical study documenting the anticompetitive effects of predatory pricing. But that is not the case. To criticize the theoretical nature of the Chicago School critique of predatory pricing, Professor Fox cites to a well known discussion of *game theoretic models* which suggest various conditions under which price predation might be plausible.<sup>157</sup> A rigorous examination of the empirical evidence in order to establish the frequency of anticompetitive predation, as well as the social costs of both false positives and false negatives, would be required to understand whether the rule announced in *Brooke Group* was indeed inefficient. Professor Fox does neither, which is particularly troublesome when advocating that predation policy be based upon strategic agency models which are notoriously difficult to administer, highly stylized and formal, and whose application is likely to substantially increase the probability of false positives.

Professor Fox makes similar arguments with regard to *Cal Dental* and *Trinko*, arguing that the tie-breaking vote in the former was due to conservative economics. With respect to *Trinko*, Professor Fox asks "was *Trinko* efficient? The principles it recites certainly had efficiency properties," as would a "judgment more sympathetic to the abused rivals."<sup>158</sup> Nonetheless, Professor Fox argues that we can attribute "Justice Scalia's remarkable and unprecedented formulation of pro-dominant-firm antitrust law principles" to "conservative economics."<sup>159</sup> Finally, channeling volume contributors Professors Lao and Grimes' views on RPM and *Leegin*, Professor Fox describes the decision as driven by "conservative economics-based theory rather than fact."<sup>160</sup>

While a complete defense of each of the Supreme Court's decisions over the past 25 years is beyond the scope of this review, a critique of the theme emerging from Professor Fox's critique of the Supreme Court's antitrust jurisprudence is not. We've already discussed *Leegin* and suggest that rule of reason approach to RPM is mandated by an overwhelming empirical

showing that RPM is generally efficient.<sup>161</sup> It is also important to notice that the critique of the Supreme Court decisions generally takes the form of announcing a preferred rule as efficient, showing that some economic theory exists in support of the particular position, and then proceeding to fault the Court for failing to adopt that position in favor of other economic theories. One reason for the Supreme Court to adopt one body of theory over another, and the possibility explored in Section III, is that the body of theory produces the most predictive power relevant to antitrust policy problems. An alternative theory, and the one explored by Professor Fox in *Overshot the Mark*, is that *conservative* economics' pernicious influence on the Supreme Court has misled its members into favoring inferior economics upon which to base antitrust policy.

Like the proposition that the Post-Chicago theories exhibit superior predictive power, this theory can also be tested against available data. While a rigorous quantitative empirical test of this ideological conspiracy theory may be difficult to execute, the theory does generate some testable implications. Perhaps the most obvious of these testable implications is that Supreme Court jurisprudence of the past several decades ought to be split among ideological lines, with decreasing consensus as conservative judges push the conservative economic agenda against their unwilling liberal counterparts.

The data tells a different story, which is impossible to reconcile with Professor Fox's simple tale of ideological conspiracy. In an excellent analysis of Supreme Court antitrust decisions from 1967-2007, Leah Brannon and Judge Douglas Ginsburg examine recent trends in Supreme Court voting patterns.<sup>162</sup> Contrary to the predictions that ideological adoption of conservative economics in the Supreme Court would reduce consensus and produce voting along ideological lines, Brannon and Ginsburg find a remarkable degree of consensus in antitrust decisions.<sup>163</sup> In the benchmark period from 1967-1976, the Supreme Court decided 44 antitrust cases. Eighty percent of these decisions were decided by a supermajority of two-thirds or more. In this initial time period, 55 percent of the supermajority decisions favored plaintiffs and 25 percent favored defendants. From 1977 to 2006, approximately 77 percent of the 73 antitrust decisions were decided by a supermajority with 34 of these decisions favoring defendants and 22 for plaintiffs.<sup>164</sup> If one focuses on the most recent time period from 1997-2006, 85 percent of all antitrust decisions were decided by a supermajority margin, and each in favor of the defendant. Conservative and liberal Supreme Court justices alike are apparently equally persuaded by the economic logic of Chicago School arguments.

Is this the voting pattern of an ideological antitrust court? Consider the vote counts for the decisions during the Bush administration from 2004-2008. The total vote count for these decisions was 77-9. Six of ten decisions were decided unanimously with only one, *Leegin*, attracting more than two votes for the dissent.<sup>165</sup> Including the Supreme Court's recent and unanimous *linkLine* decision,<sup>166</sup> these numbers change to 86-9, with seven of the eleven decisions unanimous. Of course, these voting counts are not evidence that the Supreme Court does not consider political ideology when deciding antitrust cases. Nor does this data reject the possibility that political ideology explains the persistence of the Chicago School's influence in lower courts. It does however suggest that the simple conspiracy story, which alleges that the

judiciary is an active participant in an ideologically motivated program to produce inefficient antitrust rules that harm consumers, is not supported by the data.

Both the voting behavior of the Supreme Court's conservative and liberal justices as well as the available empirical economic evidence on specific business practices such as RPM and exclusive dealing support the simple hypothesis that the persistence of the Chicago School's influence can be explained by the robustness of the economic models and their explanatory power. This simple story may not satisfy those searching for a more exciting explanation, but it is the story supported by the data.

## V. WHAT'S NEXT: A ROLE FOR EVIDENCE-BASED ANTITRUST?

It is by now fairly commonplace for antitrust policy debates in the United States, as well as between the United States and Europe, to adopt a Chicago against Post-Chicago meme. These debates, far too often in my view, focus on shorthand slogans and labels rather than the relevant economic questions. For example, much is made of the fact that both the United States and Europe have adopted an “effects-based” analysis aimed towards promoting “consumer welfare.” But there is little doubt that, at least in some instances, these words do not mean the same thing to enforcers on both sides of the Atlantic. Aggressive and interventionist antitrust programs attach themselves to the Post-Chicago economics movement, while those that are skeptical of such intervention attach themselves to the Chicago School. The fine details of the economics and evidence are not always but too frequently left on the sidelines to play only a complementary role rather than take center stage. *Overshot the Mark* also adopts this frame of reference for understanding whether changes in United States antitrust doctrine have helped or harmed consumers. This debate has become increasingly ideological, and too insensitive to empirical evidence, to produce progress toward sounder policy and enforcement decisions.

The evidence based approach is faithful neither to the Chicago or Post-Chicago approaches. The approach identifies the best possible set of antitrust liability rules and enforcement policies conditional on our existing set of theoretical and empirical knowledge. Some key characteristics of such an “evidence based antitrust” approach would be that it: (1) reflects a commitment to reliance on the economic theories that provide the strongest foundation for predicting how specific business practices will impact competitive outcomes; (2) uses predictive power, as determined by the best available empirical evidence, as the selection criteria applied in order to identify the appropriate economic theories to inform policy and judicial decision-making; and (3) applies the tools of decision-theory with the goal of producing liability rules that minimize the social and administrative costs of erroneous decisions. Neither subjecting economic theories to empirical testing to assess their validity and policy relevance nor application of decision theory to assist in updating our prior beliefs about the likelihood of competitive harm flowing from a particular business practice should be controversial.

Evidence-based antitrust policies could be based on a combination of Chicago and Post-Chicago insights, as well as having room for theoretical contributions that owe allegiance to neither School. In principle, such a policy program could recommend a Post-Chicago approach to predatory pricing and a Chicago School approach to exclusive dealing. One size need not fit

all. The determinative criteria would be to select the theoretical foundation with the greatest predictive power, as determined by credible and reliable empirical evidence. It is also important to note that such a program allows for change over time, as new evidence is introduced that may tilt our prior beliefs concerning the likelihood that any given business practice is anticompetitive, or the magnitude of social benefits or harms arising out of a practice.

To be sure, many antitrust commentators have applied this approach to specific business practices by evaluating competing theories against the available evidence through the lens of the error-cost approach.<sup>167</sup> However, a more broadly based shift in the policy debate from theoretical allegiance toward a scientific approach which takes seriously the existing empirical evidence is in order to resolve the important debates in antitrust law that exist both within the United States and between the United States and Europe concerning the appropriate antitrust approach to single-firm conduct and other yet unresolved debates.

A complete evaluation of United States antitrust law under the evidence-based approach is beyond the scope of this review. However, the existing economic evidence presented in Part III with respect to RPM, exclusive dealing, tying, and mergers suggests that the simple hypothesis that the Chicago School still provides the “best available” economic foundations for antitrust law and policy cannot be rejected. Indeed, the simple hypothesis performs quite well relative to the competing hypothesis that the continued influence of the Chicago School on United States antitrust law and policy is due to a collusive arrangement between enforcement agencies and federal judges of all political stripes in the face of allegedly superior economic theory. The collusive theory for the Chicago School’s continued dominance offered in *Overshot the Mark* explains neither the fact that the majority of modern Supreme Court antitrust decisions attract a bipartisan supermajority nor the fact that the best available empirical evidence still favors the Chicago School with respect to issues such as vertical contracting. Indeed, it is doubtful that this particular cartel story would survive the Supreme Court’s newly imposed “plausibility” requirement.

*Overshot the Mark* is an important collection of essays presenting a challenge to the Chicago School’s dominating influence on United States antitrust jurisprudence. It offers a proposal to supplant the Chicago School theoretical foundations of modern antitrust in favor of a Post-Chicago enforcement regime. Applying Stigler’s admonition that explanatory power must determine the winner of a battle of competing theories, I conclude that despite a valiant effort well worth reading for any party interested in the future of antitrust policy, *Overshot the Mark* falls short of hitting its own.

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<sup>1</sup> George Stigler, Graduate School of Business, University of Chicago, Nobel Memorial Lecture: The Process and Progress of Economics (Dec. 8, 1982), in NOBEL LECTURES, ECONOMICS 1981-1990 (Karl-Göran, Mäler ed., World Scientific Publishing Co., Singapore 1992) at 67.

<sup>2</sup> Id. at 67-69.

<sup>3</sup> Rhetorical battles over whether economics qualifies as a science aside, there is no serious debate that the antitrust economics literature conforms to the scientific method and that there is universal agreement that economics should inform antitrust analysis.

<sup>4</sup> See Daniel P. O’Brien, The Antitrust Treatment of Vertical Restraints: Beyond the Possibility Theorems, in REPORT: THE PROS AND CONS OF VERTICAL RESTRAINTS 40, 80 Konkurrensverket, Swedish Competition Authority, 2008), available at [http://www.konkurrensverket.se/upload/Files/Trycksaker/Rapporter/Pros&Cons/rap\\_pros\\_and\\_cons\\_vertical\\_restraints.pdf](http://www.konkurrensverket.se/upload/Files/Trycksaker/Rapporter/Pros&Cons/rap_pros_and_cons_vertical_restraints.pdf). O’Brien refers to this body of literature as the “1984 Synthesis,” rather than the “Chicago Synthesis,” because the latter has

mistakenly come to be associated with an unscientific, non-interventionist view toward the antitrust treatment of vertical practices." While O'Brien's point is well taken, because one purpose of this review is to confront these mistaken associations directly, we elect to use Chicago School without loss of generality.

<sup>5</sup> Robert Pitofsky, Introduction: Setting the Stage, in *HOW THE CHICAGO SCHOOL OVERSHOT THE MARK: THE EFFECT OF CONSERVATIVE ECONOMIC ANALYSIS ON U.S. ANTITRUST*, at 3, 6 (Robert Pitofsky ed., Oxford Univ. Press 2008).

<sup>6</sup> See *id.* at 5-6, for the assertions that conservative economic analysis has impacted U.S. antitrust enforcement such that it is characterized by "preferences for economic models over facts...[and] outright mistakes in matters of doctrine," and that "extreme interpretations and misinterpretations of conservative economic theory (and constant disregard of facts) have come to dominate antitrust," to the detriment of consumers.

<sup>7</sup> See O'Brien, *supra* note 4.

<sup>8</sup> President Obama, for instance, has promised to "direct my administration to reinvigorate antitrust enforcement." Posting of Joshua D. Wright to Truth On The Market, <http://www.truthonthemarket.com/2008/11/05/antitrust-under-president-obama-i-will-direct-my-administration-to-reinvigorate-antitrust-enforcement/> (Nov. 5, 2008, 9:53 EST). President Obama's respective nominee to head the Federal Trade Commission, Commissioner Leibowitz, has already cited favorably to *OVERSHOT THE MARK* in a policy speech. Jon Leibowitz, Commissioner, FTC, Remarks at Section 5 Workshop (Oct. 17, 2008) (available at <http://ftc.gov/speeches/leibowitz/081017section5.pdf>). Similarly, Christine Varney has publicly applauded the American Antitrust Institute Transition Report, which adopts an explicitly Post-Chicago vision of antitrust enforcement, noting that "'a great framework that starts it and I do endorse the conclusion.'" Posting of Joshua D. Wright to Truth On The Market, <http://www.truthonthemarket.com/2009/02/22/doj-aag-designate-christine-varney-on-section-2-europe-google-a-puzzling-statement-about-error-costs/> (Feb. 22, 2009 21:10 EST).

<sup>9</sup> See *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544 (2007) (for discussion of plausibility standard).

<sup>10</sup> JOHAN VAN OVERTVELDT, *THE CHICAGO SCHOOL: HOW THE UNIVERSITY OF CHICAGO ASSEMBLED THE THINKERS WHO REVOLUTIONIZED ECONOMICS AND BUSINESS* (Agate B2 2007).

<sup>11</sup> See, e.g., ROBERT H. BORK, *THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF* (The Free Press 1993) (1978); Edmund W. Kitch, *The Fire of Truth: Remembrance of Law and Economics at Chicago, 1932-1970*, 26 J.L. & ECON. 163 (1983); William E. Kovacic & Carl Shapiro, *Antitrust Policy: A Century of Economic and Legal Thinking*, 14 J. ECON. PERSPECTIVES 43 (2000); Alan J. Meese, *Tying Meets the New Institutional Economics: Farewell to the Chimera of Forcing*, 146 U. PA. L. REV. 1 (1997); William H. Page, *The Chicago School and the Evolution of Antitrust: Characterization, Antitrust Injury, and Evidentiary Sufficiency*, 75 VA. L. REV. 1221 (1989); Richard A. Posner, *The Chicago School of Antitrust*, 127 U. PA. L. REV. 925 (1969).

<sup>12</sup> See, e.g., Pitofsky, *supra* note 5, at 3, 5; Daniel L. Rubinfeld, *On the Foundations of Antitrust Law and Economics*, in *OVERSHOT THE MARK*, *supra* note 5, at 51, 52; Richard Schmalensee, *Thoughts on the Chicago Legacy in U.S. Antitrust*, in *OVERSHOT THE MARK*, *supra* note 5, at 11, 22.

<sup>13</sup> For discussions of Bork's efforts, see Frank H. Easterbrook, *The Chicago School and Exclusionary Conduct*, 31 HARV. J.L. & PUB. POL'Y 439 (2008); Douglas H. Ginsburg, *Judge Bork, Consumer Welfare, and Antitrust Law*, 31 HARV. J.L. & PUB. POL'Y 449 (2008); George L. Priest, *The Abiding Influence of The Antitrust Paradox*, 31 HARV. J.L. & PUB. POL'Y 455 (2008).

<sup>14</sup> Joshua D. Wright, *The Roberts Court and the Chicago School of Antitrust: The 2006 Term and Beyond*, 3 COMPETITION POL'Y INT'L 24 (2007) (arguing that Chicago School economic principles successfully characterize the Roberts Court antitrust jurisprudence).

<sup>15</sup> See Steven C. Salop, *Economic Analysis of Exclusionary Vertical Conduct: Where Chicago Has Overshot the Mark*, in *OVERSHOT THE MARK*, *supra* note 5, at 141, 144 (for the claim that "it is important to recognize that [the Post-Chicago] approach has its root in the economic analysis of Chicago School commentators," referring to the work of Aaron Director & Edward H. Levi, *Law and the Future: Trade Regulation*, 51 NW. U. L. REV. 281 (1956); Peter C. Carstensen, *Director and Levi After 40 Years: The Anti-Antitrust Agenda Revisited*, 17 MCLR 37, 40 (1996) (for the proposition that Director and Levi's analysis was a precursor to the raising rivals' costs hypothesis); Comment, *Vertical Forestalling Under the Antitrust Laws*, 19 U. CHI. L. REV. 583 (1952).

<sup>16</sup> See, e.g. Elizabeth Granitz & Benjamin Klein, *Monopolization by "Raising Rivals' Costs": The Standard Oil Case*, 39 J.L. & ECON. 1 (1996); Dennis Carlton & Michael Waldman, *The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries*, 33 RAND J. ECON. 194 (2002).

<sup>17</sup> See William E. Kovacic, *The Intellectual DNA of Modern U.S. Competition Law for Dominant Firm Conduct: The Chicago-Harvard Double Helix*, 2007 COLUM. BUS. L. REV. 1 (2007).

<sup>18</sup> Einer Elhauge, *Harvard, Not Chicago: Which Antitrust School Drives Recent U.S. Supreme Court Decisions?*, 3 COMPETITION POL'Y INT'L 59 (2007).

<sup>19</sup> For claims that Chicago School economics caused courts to adopt erroneous economic principles and get specific cases wrong, see e.g. Schmalensee, *supra* note 12, at 19, 20; Thomas E. Kauper, *Influence of Conservative Economic Analysis on the Development of the Law of Antitrust*, in *OVERSHOT THE MARK*, *supra* note 5, at 40, 44; Herbert Hovenkamp, *The Harvard and Chicago Schools and the Dominant Firm*, in *OVERSHOT THE MARK*, *supra* note 5, at 109, 113; Harvey J. Goldschmid, *Comment on Herbert Hovenkamp and the Dominant Firm: The Chicago School Has Made Us Too Cautious About False Positives and the Use of Section 2 of the Sherman Act*, in *OVERSHOT THE MARK*, *supra* note 5, at 123, 126; Warren S. Grimes, *The Sylvania Free Rider*

Justification for Downstream-Power Vertical Restraints: Truth or Invitation for Pretext?, in *OVERSHOT THE MARK*, supra note 5, at 181, 191; Marina Lao, Free Riding: An Overstated, and Unconvincing, Explanation for Resale Price Maintenance, in *OVERSHOT THE MARK*, supra note 5, at 196, 201. For claims that the Chicago School caused courts to develop sub-optimal legal rules, see e.g. Schmalensee, supra note 12, at 19; Kauper, id. at 42; Eleanor M. Fox, The Efficiency Paradox, in *OVERSHOT THE MARK*, supra note 5, at 77, 79-80; John B. Kirkwood & Robert H. Lande, The Chicago School's Foundation is Flawed: Antitrust Protects Consumers, Not Efficiency, in *OVERSHOT THE MARK*, supra note 5, at 89, 90; Hovenkamp, id. at 111. For claims that the Chicago School influenced antitrust policy in the wrong direction, see e.g. F.M. Scherer, Conservative Economics and Antitrust: A Variety of Influences, in *OVERSHOT THE MARK*, supra note 5, at 30, 36-37; Rubinfeld, supra note 12, at 52; Fox, id. at 81; Kirkwood & Lande, supra, at 90; Hovenkamp, id. at 111.

<sup>20</sup> Posting of Joshua D. Wright to Truth On The Market, <http://www.truthonthemarket.com/2007/07/25/chicago-post-chicago-post-post-chicago-on-using-shorthand-labels-responsibly/> (July 25, 2007, 13:07 EST).

<sup>21</sup> This section relies on my earlier work on the influence of the Chicago School on the Roberts Court's antitrust jurisprudence. See Wright, supra note 14.

<sup>22</sup> *CHICAGO ESSAYS IN ECONOMIC DEVELOPMENT* vii (David Wall, ed., Univ. of Chicago Press 1972).

<sup>23</sup> For remarks on how the current financial crisis demonstrates that the Chicago School is "on life support, if it is not dead," see J. Thomas Rosch, Comm'r, Fed. Trade Comm'n, New York Bar Association Annual Dinner: Implications of the Financial Meltdown for the FTC (Jan. 29, 2009), <http://ftc.gov/speeches/rosch/090129financialcrisisnybarspeech.pdf>.

<sup>24</sup> The Chicago School does not deserve all of the credit for this revolution. Kovacic convincingly demonstrates that the intellectual foundations of monopolization doctrine were generated by both Chicago and Harvard, and with substantial convergence between the two. See Kovacic, supra note 17. Additionally, Elhauge argues that the Roberts Court's antitrust jurisprudence represents a shift away from Chicago and toward Harvard. See Elhauge, supra note 18.

<sup>25</sup> Jonathan B. Baker & Timothy F. Bresnahan, Economic Evidence in Antitrust: Defining Markets and Measuring Market Power 23-26 (Stanford Law School, Working Paper No. 328, 2006).

<sup>26</sup> See, e.g., YALE BROZEN ET AL., *CONCENTRATION, MERGERS, AND PUBLIC POLICY* (The Free Press 1982) (questioning the causal link between market concentration and price, and providing alternative efficiency-based explanations for the correlation); HARVEY J. GOLDSCHMID ET AL., *INDUSTRIAL CONCENTRATION: THE NEW LEARNING* (Little Brown and Co. 1974).

<sup>27</sup> Professors Demsetz and Armen Alchian are frequently associated with the Chicago School despite the fact that both spent the bulk of their careers at the University of California, Los Angeles (UCLA). As any UCLA economist should note, the antitrust community has sometimes allowed the Chicago School to take credit for many of the contributions from UCLA economists such as Alchian, Demsetz, Benjamin Klein, and others. The contributions of the UCLA economists to antitrust analysis are discussed by former FTC Chairman, and UCLA alumnus, Timothy J. Muris. See Timothy J. Muris, Improving the Economic Foundations of Competition Policy, 12 *GEO MASON L. REV.* 1 (2003).

<sup>28</sup> Harold Demsetz, Two Systems of Belief About Monopoly, in *INDUSTRIAL CONCENTRATION*, supra note 26. The contributions of Demsetz and other participants in the famous Airlie House Conference are discussed in Timothy J. Muris, Economics and Antitrust, 5 *GEO. MASON L. REV.* 303 (1997).

<sup>29</sup> See *THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW* 227-33, 601-05 (Peter Newman ed., Macmillan Reference 1998); see also Sam Peltzman, Aaron Director's Influence on Antitrust Policy, 48 *J.L. & ECON.* 313 (2005).

<sup>30</sup> Seminal contributions from the Chicago School literature include, but are not limited to, Robert H.

Bork, Vertical Integration and the Sherman Act: The Legal History of an Economic Misconception, 22 *U. CHI. L. REV.* 157 (1954); Aaron Director & Edward H. Levi, Law and the Future of Trade Regulation, 51 *NW. U. L. REV.* 281 (1956) (reprinted in 3 *COMPETITION POL'Y INT'L* 253 (2007); Ward S. Bowman, Tying Arrangements and the Leverage Problem, 67 *YALE L.J.* 19 (1957); John S. McGee, Predatory Price Cutting: The Standard Oil (NJ) Case, 1 *J.L. & ECON.* 137 (1958); Lester G. Telser, Why Should Manufacturers Want Fair Trade?, 3 *J.L. & ECON.* 86 (1960).

<sup>31</sup> See, e.g., Louis Kaplow & Carl Shapiro, Antitrust, in 2 *HANDBOOK OF LAW AND ECONOMICS* 1073 (A. Mitchell Polinsky & Steven Shavell eds., Elsevier B.V. 2007) available at <http://faculty.haas.berkeley.edu/shapiro/antitrust2007.pdf>.

<sup>32</sup> Howard P. Marvel, Exclusive Dealing, 25 *J.L. & ECON.* 1 (1982); Benjamin Klein & Andres V. Lerner, The Expanded Economics of Free-Riding: How Exclusive Dealing Prevents Free-Riding and Creates Undivided Loyalty, 74 *ANTITRUST L.J.* 473 (2007); Benjamin Klein & Kevin M. Murphy, Exclusive Dealing Intensifies Competition for Distribution, 75 *ANTITRUST L.J.* 433 (2008).

<sup>33</sup> Benjamin Klein & Joshua D. Wright, The Economics of Slotting Contracts, 50 *J.L. & ECON.* 473 (2007); Joshua D. Wright, Slotting Contracts and Consumer Welfare, 74 *ANTITRUST L.J.* 439 (2007); Joshua D. Wright, Antitrust Law and Competition for Distribution, 23 *YALE J. ON REG.* 169 (2006).

<sup>34</sup> Benjamin Klein & Kevin M. Murphy, Vertical Restraints as Contract Enforcement Mechanisms, 31 *J.L. & ECON.* 265 (1988).

<sup>35</sup> *Cont'l T.V., Inc. v. GTE Sylvania, Inc.*, 433 U.S. 36 (1977); *State Oil Co. v. Khan*, 522 U.S. 3 (1997); *Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398 (2004); *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209

(1993); *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877 (2007); *Pac. Bell Tel. Co. v. linkLine Commc'ns., Inc.*, No. 07-512, 2009 U.S. Lexis 1635 (U.S. Feb. 25, 2009).

<sup>36</sup> See, e.g., Frank Easterbrook, *The Limits of Antitrust*, 65 *TEX. L. REV.* 1 (1984).

<sup>37</sup> Richard A. Posner, *The Next Step in the Antitrust Treatment of Restricted Distribution: Per Se Legality*, 48 *U. CHI. L. REV.* 6 (1981).

<sup>38</sup> See, e.g., DOMINICK T. ARMENTANO, *ANTITRUST POLICY: THE CASE FOR REPEAL* (Ludwig von Mises Institute 2007) (1986).

<sup>39</sup> On the Post-Chicago approach to antitrust, see Jonathan B. Baker, *A Preface to Post-Chicago Antitrust*, in *POST-CHICAGO DEVELOPMENTS IN ANTITRUST LAW* 60 (Antonio Cucinotta et al. eds., Edward Elgar Publishing 2003).

<sup>40</sup> A seminal paper in this literature is Michael D. Whinston, *Tying, Foreclosure, and Exclusion*, 80 *AM. ECON. REV.* 837 (2000).

<sup>41</sup> See Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96 *YALE L.J.* 209 (1986).

<sup>42</sup> See, e.g., Whinston, *supra* note 40; Carlton & Waldman, *supra* note 16; see also Bruce Kobayashi, *Does Economics Provide A Reliable Guide to Regulating Commodity Bundling By Firms? A Survey of the Economic Literature*, 1 *J. COMPETITION L. & ECON.* 707 (2005) (surveying the bundling literature); Eric B. Rasmusen, Mark J. Ramseyer & John Shepard Wiley Jr., *Naked Exclusion*, 81 *AM. ECON. REV.* 1137 (1991); Douglas Bernheim & Michael Whinston, *Exclusive Dealing*, 106 *J. POL. ECON.* 64 (1998); John Simpson & Abraham L. Wickelgren, *Naked Exclusion, Efficient Breach, and Downstream Competition*, 97 *AM. ECON. REV.* 1305 (2007); Patrick Bolton, Joseph F. Brodley & Michael H. Riordan, *Predatory Pricing: Strategic Theory and Legal Policy*, 88 *GEO. L.J.* 2239 (2000).

<sup>43</sup> *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451 (1992). In aftermarket "lock-in" cases most closely resembling the Post-Chicago theories in Kodak, lower courts have "bent over backwards to construe Kodak as narrowly as possible." See Herbert Hovenkamp, *The Reckoning of Post-Chicago Antitrust*, in *POST-CHICAGO DEVELOPMENTS IN ANTITRUST*, *supra* note 39, at 8; see also David A.J. Goldfine & Kenneth M. Vorrasi, *The Fall of the Kodak Aftermarket Doctrine: Dying A Slow Death in the Lower Courts*, 72 *ANTITRUST L.J.* 209 (2004); Bruce H. Kobayashi & Joshua D. Wright, *Federalism, Substantive Preemption, and Limits on Antitrust: An Application to Patent Holdup*, *J. COMPETITION L. & ECON.* (forthcoming 2009) (extending Goldfine and Vorrasi's analysis through 2007 and confirming their results).

<sup>44</sup> William E. Kovacic, *The Modern Evolution of Competition Policy Enforcement Norms*, 71 *ANTITRUST L.J.* 377 (2003).

<sup>45</sup> See Kovacic, *supra* note 17. Kovacic's primary theme is that the Chicago/Post-Chicago narrative minimizes the contributions of the Harvard School scholars such as Professors Phillip Areeda and Donald Turner, as well as Justice Stephen Breyer.

<sup>46</sup> A view endorsed by one of the Chicago School's more prominent contributors. See Richard A. Posner, *Keynote Address: Vertical Restrictions and "Fragile" Monopoly*, 50 *ANTITRUST BULL.* 499, 500 (2005).

<sup>47</sup> See, e.g., Pitofsky, *supra* note 5, at 4-5; Irwin M. Stelzer, *Some Practical Thoughts About Entry*, in *OVERSHOT THE MARK*, *supra* note 5, at 24, 28-29; Fox, *supra* note 19, at 82, 86, 88; Lao, *supra* note 19, at 199.

<sup>48</sup> See *supra* text accompanying note 15.

<sup>49</sup> See Granitz & Klein, *supra* note 16.

<sup>50</sup> Tom Hazlett, *Predation in Local Cable TV Markets*, 40 *ANTITRUST BULL.* 609 (1995).

<sup>51</sup> George J. Stigler, *The Theory of Oligopoly*, 72 *J. POL. ECON.* 44 (1964).

<sup>52</sup> Carlton & Waldman, *supra* note 16.

<sup>53</sup> Posner, *Chicago School of Antitrust*, *supra* note 11, at 928; accord BORK, *THE ANTITRUST PARADOX*, *supra* note 11, at 117.

<sup>54</sup> See, e.g., Posner, *Chicago School of Antitrust*, *supra* note 5, at 928-29:

It is still fair to ask why the application of price theory to antitrust should have been a novelty. The answer, I believe, is that in the 1950s and early 1960s, industrial organization, the field of economics that studies monopoly questions, tended to be untheoretical, descriptive, "institutional," and even metaphorical. Casual observations of business behavior, colorful characterizations (such as the term "barrier to entry"), eclectic forays into sociology and psychology, descriptive statistics, and verification by plausibility took the place of the careful definitions and parsimonious logical structure of economic theory. The result was that industrial organization regularly advanced propositions that contradicted economic theory.

<sup>55</sup> See Bruce H. Kobayashi, *Game Theory and Antitrust, A Post-Mortem*, 5 *GEO. MASON L. REV.* 411, 412 (1997) (criticizing the application of game theory in antitrust on the grounds that "game theoretic models of [industrial organization] have not been empirically verified in a meaningful sense"). See also David Evans & Jorge Padilla, *Designing Antitrust Rules for Assessing Unilateral Practices: A Neo-Chicago Approach*, 72 *U. CHI. L. REV.* 73, 98 (2005) ("it has yet to demonstrate a capacity to produce what we would call identification theorems—useful descriptions of the circumstances determining whether a practice is procompetitive or anticompetitive").

<sup>56</sup> See, e.g., Alan J. Meese, *Price Theory and Vertical Restraints: A Misunderstood Relation*, 45 *UCLA L. REV.* 143 (1997); Alan J. Meese, *Exclusive Dealing, The Theory of the Firm, and Raising Rivals' Costs: Toward a New Synthesis*, 50 *ANTITRUST BULL.* 371 (2005); Alan J. Meese, *Price Theory, Competition, and the Rule of Reason*, 2003 *U. ILL. L. REV.* 77 (2003); Alan J. Meese, *Market Failure and Non-Standard Contracting: How the Ghost of Perfect Competition Still Haunts Antitrust*, 1 *J. COMPETITION L. & ECON.* 21 (2005).

<sup>57</sup> See, e.g., George J. Stigler, *The Economics of Information*, 69 *J. POL. ECON.* 213 (1964) (analyzing the economics of information from a search cost perspective, whereas search costs would not exist under perfect competition); Telsler, *supra* note 30

(analyzing resale price maintenance); Klein & Murphy, *supra* note 34; Benjamin Klein, Market Power in Aftermarkets, 17 *MANAGERIAL & DECISION ECON.* 143 (1996); Klein & Lerner, *supra* note 32 (analyzing the role of exclusive dealing contracts in preventing dealer free-riding).

<sup>58</sup> See Harold Demsetz, 100 Years of Antitrust: Should We Celebrate?, Brent T. Upson Memorial Lecture, George Mason University School of Law, Law and Economics Center (Sept. 21, 1989).

<sup>59</sup> See James C. Cooper, Luke M. Froeb, Dan O'Brien & Michael G. Vita, Vertical Antitrust Policy as a Problem of Inference, 23 *INT'L J. INDUS. ORG.* 639 (2005); Francine Lafontaine & Margaret Slade, Exclusive Contracts and Vertical Restraints: Empirical Evidence and Public Policy (Sept. 2005) (unpublished paper, available at <http://www2.warwick.ac.uk/fac/soc/economics/staff/faculty/slade/wp/ecsept2005.pdf>).

<sup>60</sup> See Brozen, *supra* note 26; Demsetz, *supra* note 28.

<sup>61</sup> R.H. COASE, George J. Stigler, in *ESSAYS ON ECONOMICS AND ECONOMISTS* (University of Chicago Press 1995).

<sup>62</sup> Harold Demsetz, George J. Stigler: Midcentury Neoclassicalist with a Passion to Quantify, 101 *J. POL. ECON.* 793 (1993).

<sup>63</sup> Press Release, The Royal Swedish Academy of Sciences, The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 1982 (Oct. 20, 1982), [http://nobelprize.org/nobel\\_prizes/economics/laureates/1982/press.html](http://nobelprize.org/nobel_prizes/economics/laureates/1982/press.html).

<sup>64</sup> See, e.g., George J. Stigler, The Economist and the State, 55 *AM. ECON. REV.* 1, 17 (1965):

It will become inconceivable that the margin requirements on securities markets will be altered once a year without knowing whether they have even a modest effect. It will become impossible for an import-quota system to evade calculus of gains and costs . . . Studies will inevitably and irresistibly enter into the subject of public policy, and we shall develop a body of knowledge essential to intelligent policy formation.

<sup>65</sup> George J. Stigler, The Economic Effects of the Antitrust Laws, 9 *J.L. & ECON.* 225 (1966).

<sup>66</sup> George J. Stigler, *United States v. Loew's: A Note on Block Booking*, 1963 *SUP. CT. REV.* 152 (1963).

<sup>67</sup> George J. Stigler, The Economies of Scale, 1 *J.L. & ECON.* 54 (1958).

<sup>68</sup> GEORGE J. STIGLER, *MEMOIRS OF AN UNREGULATED ECONOMIST* 97-100 (University of Chicago Press 1988).

<sup>69</sup> See Muris, *supra* note 27, at 17. The seminal article from Klein & Murphy, *supra* note 34, includes a detailed discussion of Coors' use of vertical restraints to solve dealer free-riding problems.

<sup>70</sup> Easterbrook, *supra* note 36.

<sup>71</sup> See, e.g., Evans & Padilla, *supra* note 55; C. Frederick Beckner III & Steven C. Salop, Decision Theory and Antitrust Rules, 67 *ANTITRUST L.J.* 41 (1999); Keith N. Hylton & Michael Salinger, Tying Law and Policy: A Decision-Theoretic Approach, 69 *ANTITRUST L.J.* 469 (2001); Luke Froeb et al., Vertical Antitrust Policy as a Problem of Inference, 23 *INT'L J. INDUS. ORG.* 639 (2005).

<sup>72</sup> Evans & Padilla, *supra* note 55. Others have applied the error-cost framework in a similar manner. See *supra* note 71.

<sup>73</sup> See *id.* at 88.

<sup>74</sup> See *id.* at 75.

<sup>75</sup> See Kovacic, *supra* note 17.

<sup>76</sup> PHILLIP AREEDA & DONALD TURNER, *ANTITRUST LAW* 31-33 (1978).

<sup>77</sup> *Barry Wright Corp. v. ITT Grinnell Corp.*, 724 F.2d 227, 234 (1st Cir. 1983).

<sup>78</sup> See Fox, *supra* note 19, at 79-80, 82, 86, 88; Lao, *supra* note 19, at 199, 208. See also Stephen Calkins, Wrong Turns in Exclusive Dealing Law, in *OVERSHOT THE MARK*, *supra* note 5, at 156, 165-67.

<sup>79</sup> We exclude mergers from our analysis here for a number of reasons. The first is that *OVERSHOT THE MARK* largely ignores mergers with the exception of Baker & Shapiro, *Reinvigorating Horizontal Merger Enforcement*. One of the primary points made in that article is that, during the George W. Bush administration, the Department of Justice did not vigorously enforce the Clayton Act. Jonathan B. Baker & Carl Shapiro, *Reinvigorating Horizontal Merger Enforcement*, in *OVERSHOT THE MARK*, *supra* note 5, at 235, 246-7. Baker & Shapiro offer some evidence that the percentage of merger challenges relative to transactions identified by the Hart-Scott-Rodino filing requirements fell. *Id.* at 246. The second is that others have defended against, discussed, and picked apart these claims in great detail. See, e.g., Timothy J. Muris, *Facts Trump Politics: The Complexities of Comparing Merger Enforcement over Time and Between Agencies*, *ANTITRUST*, Summer 2008, at 37; John D. Harkrider, *Antitrust Enforcement During the Bush Administration—An Econometric Estimation*, *ANTITRUST*, Summer 2008, at 43. The third reason is that, even if one accepts the questionable statistical foundation of Baker and Shapiro's claims that the Bush II Department of Justice (and to a lesser extent the FTC) gave a pass to anticompetitive mergers, there is little evidence to support that such a result (including the split between the DOJ and FTC on merger enforcement) is attributable to Chicago School economics. Finally, there is growing convergence on the relevant antitrust economics of mergers. This literature focuses on empirical methods designed to improve post-merger pricing predictions and is not inherently ideological. For a survey of the state of empirical evidence on the competitive effects of mergers, see Matthew Weinberg, *The Price Effects of Horizontal Mergers*, 4 *J. COMPETITION L. & ECON.* 433 (2008); Dennis W. Carlton, *Why We Need to Measure the Effect of Merger Policy and How to Do It* (Nat'l Bureau of Econ. Research, Working Paper No. 14719, Feb. 2009); Paul Pautler, *Evidence on Mergers and Acquisitions*, 48 *ANTITRUST BULL.* 119 (2003); Kaplow & Shapiro, *supra* note 32, at 1152-57. See also Orley Ashenfelter & Daniel Hosken, *The Effect of Mergers on Consumer Prices: Evidence from Five Selected Case*



Studies (Nat'l Bureau of Econ. Research, Working Paper No. 13859, Mar. 2008); Graeme Hunter, Gregory K. Leonard & G. Steven Olley, *Merger Retrospective Studies: A Review*, ANTITRUST, Fall 2008, at 34.

<sup>80</sup> Leegin, 127 S. Ct. 2705. On Leegin and its antitrust implications, see Wright, *supra* note 14.

<sup>81</sup> See Thomas A. Lambert, *Dr. Miles is Dead. Now What?: Structuring a Rule of Reason for Evaluating Minimum Resale Price Maintenance*, WM. & MARY L. REV. (forthcoming 2009).

<sup>82</sup> Leegin, 127 S. Ct. at 2709. The Supreme Court overruled the per se rule against maximum RPM ten years earlier in *State Oil v. Khan*, 522 U.S. at 3. See Benjamin Klein, *Distribution Restrictions Operate by Creating Dealer Profits: Explaining the Use of Maximum Resale Price Maintenance in State Oil v. Khan*, 7 SUP. CT. ECON. REV. 1 (1999).

<sup>83</sup> See Brief of Amici Curiae Economists in Support of Petitioner at 16, *Leegin Creative Leather Prods. V. PSKS, Inc*, 127 S. Ct. 2705 (No. 06-480), 2007 WL 173681 (stating that “[i]n the theoretical literature, it is essentially undisputed that minimum RPM can have procompetitive effects and that under a variety of market conditions it is unlikely to have anticompetitive effects”). The best estimate of the prevalence of collusion allegations in RPM cases is no greater than 15 percent. See Pauline Ippolito, *Resale Price Maintenance: Empirical Evidence from Litigation*, 34 J.L. & ECON. 263, 270 (1991).

<sup>84</sup> Warren S. Grimes, *The Path Forward After Leegin: Seeking Consensus Reform of the Antitrust Laws of Vertical Restraints*, 75 ANTITRUST L.J. 467 (2008).

<sup>85</sup> See, e.g., Grimes, *supra* note 19, at 182, 189, 191, 195; Lao, *supra* note 19, at 199, 203, 209.

<sup>86</sup> *Discount Pricing Consumer Protection Act*, S. 148, 111th Cong. (2009).

<sup>87</sup> *Sylvania*, 433 U.S. at 55.

<sup>88</sup> This economic rationale for RPM is typically associated with Telser, *supra* note 30.

<sup>89</sup> Robert Pitofsky, *Why ‘Dr. Miles’ Was Right*, 8 REGULATION 27, 29 (1984). Robert Pitofsky, *Are Retailers Who Offer Discounts Really “Knaves”?: The Coming Challenge to the Dr. Miles Rule*, ANTITRUST, Spring 2007, at 61, 63; Grimes, *supra* note 19, at 187.

<sup>90</sup> Benjamin Klein, *Competitive Resale Price Maintenance in the Absence of Free-Riding* (Feb. 10, 2009) (draft for FTC Hearings on Resale Price Maintenance, Feb. 17, 2009), available at <http://ftc.gov/opp/workshops/rpm/docs/bklein0217.pdf>.

<sup>91</sup> See, e.g. Robert L. Hubbard, *Protecting Consumers Post-Leegin*, ANTITRUST, Fall 2007, at 41.

<sup>92</sup> *Leegin Creative Leather Products, Inc. v. PSKS, Inc.*, 127 S. Ct. 2705, 2733 (2007).

<sup>93</sup> Grimes, *supra* note 19, at 195.

<sup>94</sup> Lao, *supra* note 19, at 203.

<sup>95</sup> *Id.*

<sup>96</sup> A second critical economic question is why the compensation for the desired promotional services takes its particular form, e.g. RPM, a lump sum per unit time payment such as a slotting fee, or a wholesale price discount. For a discussion of the relative merits of volume based payment schemes such as RPM and wholesale price discounts in comparison to slotting fees, see Klein and Wright, *supra* note 33.

<sup>97</sup> Leegin, 127 S. Ct. at 2716 (citing Klein & Murphy, *supra* note 34, at 295. Klein has recently revisited the economics of resale price maintenance as first articulated by Klein and Murphy, in Klein, *supra* note 90).

<sup>98</sup> This is not the case where the services desired have significant inter-retailer demand effects and consumers shift their purchases from one retailer to another in response to the retailer’s supply of the service. However, these large inter-retailer demand effects are not likely to be present for many desired services, such as the provision of premium shelf space. A more complete economic analysis of the incentive conflict based inter-retailer demand effects is presented in Ralph Winter, *Vertical Control and Price Versus Nonprice Competition*, 108 Q. J. ECON. 61 (1993), and in Klein & Wright, *supra* note 33.

<sup>99</sup> See Wright, *supra* note 33.

<sup>100</sup> See Benjamin Klein & Keith B. Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 J. POL. ECON. 615 (1981).

<sup>101</sup> See Klein, *supra* note 90 (describing how RPM facilitates self-enforcement).

<sup>102</sup> See, e.g., Grimes, *supra* note 84, at 477-78.

<sup>103</sup> Lao, *supra* note 19, at 209.

<sup>104</sup> *Id.* at 210.

<sup>105</sup> *Id.* at 211.

<sup>106</sup> See Klein, *supra* note 90, at 42.

<sup>107</sup> See Dan O’Brien, *supra* note 4, for an excellent and extensive discussion of the relevant theoretical and empirical literature on RPM and vertical restraints generally.

<sup>108</sup> Cooper et al., *supra* note 59.

<sup>109</sup> Francine Lafontaine & Margaret Slade, *Empirical Assessment of Exclusive Contracts*, in *HANDBOOK OF ANTITRUST ECONOMICS* (Paolo Buccirossi ed., The MIT Press 2008).

<sup>110</sup> Cooper et al., *supra* note 59, at 18 (emphasis added).

<sup>111</sup> Lafontaine & Slade, *supra* note 59, at 22.

<sup>112</sup> O'Brien, *supra* note 4, at 72-73 (citing Sofia Berto Villas-Boas, *Vertical Relationships between Manufacturers and Retailers: Inference with Limited Data*, 74 *REV. ECON. STUD.* 625 (2007); Julie H. Mortimer, *Vertical Contracts in the Video Rental Industry*, 75 *REV. ECON. STUD.* 165 (2008); Giorgio Zanarone, *Vertical Restraints and the Law: Evidence from Automobile Franchising*, 52 *J.L. & ECON.* (forthcoming 2009)).

<sup>113</sup> *Id.*

<sup>114</sup> O'Brien, *supra* note 4, at 82.

<sup>115</sup> This section relies on the discussion in Alden F. Abbott & Joshua D. Wright, *Antitrust Analysis of Tying Arrangements and Exclusive Dealing* (George Mason Law & Economics Research Paper No. 08-37) (forthcoming in *ANTITRUST LAW AND ECONOMICS*, Keith N. Hylton, ed., Edward Elgar Publishing, 2009).

<sup>116</sup> Salop, *supra* note 15, at 142-44. Salop also acknowledges that the RRC concept has its roots in the work of earlier Chicago commentators such as Aaron Director and Edward Levi, who recognized the potential for anticompetitive effects arising from exclusive dealing contracts. *Id.* at 144.

<sup>117</sup> This anticompetitive strategy using exclusive contracts belongs to the more general class of strategies analyzed in the raising rivals' costs literature. See Krattenmaker & Salop, *supra* note 41; Stephen C. Salop & David T. Scheffman, *Raising Rivals' Costs*, 73 *AM. ECON. REV.* 267 (1983).

<sup>118</sup> This line of reasoning is conventionally associated with Robert Bork. See, e.g., BORK, *supra* note 11, at 309 ("A seller who wants exclusivity must give the buyer something for it. If he gives a lower price, the reason must be that the seller expects the arrangement to create efficiencies that justify the lower price. If he were to give a lower price simply to harm his rivals, he would be engaging in deliberate predation by price cutting, and that, as we have seen in Chapter 7, would be foolish and self-defeating behavior on his part").

<sup>119</sup> This analogy is explored and used to derive the economic conditions necessary for exclusive contracts to cause anticompetitive effects in Benjamin Klein, *Exclusive Dealing as Competition for Distribution on the Merits*, 12 *GEO. MASON L. REV.* 119, 122-28 (2003).

<sup>120</sup> See Granitz & Klein, *supra* note 16.

<sup>121</sup> Bernheim & Whinston, *supra* note 42, formally derive this result.

<sup>122</sup> See Carlton & Waldman, *supra* note 16.

<sup>123</sup> An alternative, but related, theory of exclusion operates by driving out competing retailers and allowing S to monopolize distribution and also collect its monopoly price on the distribution of rival products. See Whinston, *supra* note 40. This alternative theory also requires substantial economies of scope or scale in the supply of distribution services. Economies of scope in distribution may be present if, for example, S's product is essential to the economic viability of R.

<sup>124</sup> Rasmussen, Ramseyer & Wiley, *supra* note 42.

<sup>125</sup> Ilya R. Segal & Michael D. Whinston, *Naked Exclusion: Comment*, 90 *AM. ECON. REV.* 296 (2000).

<sup>126</sup> But see *id.*, and MICHAEL D. WHINSTON, *LECTURES ON ANTITRUST ECONOMICS* (MIT Press, 2008), for arguments that the ability to make discriminatory or sequential offers to buyers increases the support for exclusion.

<sup>127</sup> See, e.g., Chiara Fumagalli & Massimo Motta, *Exclusive Dealing and Entry When Buyers Compete*, 96 *AM. ECON. REV.* 785 (2006) (exclusion is not likely with downstream retail competition where potential entrant can achieve scale through distribution with a small number of retailers); Simpson & Wickelgren, *supra* note 42 (exclusion is possible with downstream retail competition because each individual retailer has little to gain from holding out from the exclusive and the increased benefits of upstream competition are largely passed on to final consumers); John Simpson & Abraham L. Wickelgren, *Exclusive Dealing and Entry, When Buyers Compete: Comment* (mimeo, June 2005) (same).

<sup>128</sup> Fumagalli & Motta, *supra* note 126.

<sup>129</sup> Simpson & Wickelgren, *supra* note 126.

<sup>130</sup> A description of other commonly accepted justifications for exclusive dealing is presented in Jonathan M. Jacobson, *Exclusive Dealing, "Foreclosure," and Consumer Harm*, 70 *ANTITRUST L.J.* 311, 357-60 (2002).

<sup>131</sup> Marvel, *Exclusive Dealing*, *supra* note 32.

<sup>132</sup> 823 F.2d 1215 (8th Cir. 1987). See also Klein & Lerner, *supra* note 32, at 481-83 (discussing Ryko as an example of this type of free-riding).

<sup>133</sup> Klein & Lerner, *supra* note 32.

<sup>134</sup> See Klein & Wright, *supra* note 33, which extends the original analysis of inadequate dealer incentives to promote and the use of vertical restraints in solving this dealer incentive problem in Klein & Murphy, *supra* note 34.

<sup>135</sup> Klein & Lerner, *supra* note 32, at 497-502.

<sup>136</sup> *Id.* at 502-04.

<sup>137</sup> *Joyce Beverages of N.Y., Inc. v. Royal Crown Cola Co.*, 555 F. Supp. 271, 276-77 (S.D.N.Y. 1983). See also *Hendricks Music Co. v. Steinway, Inc.*, 689 F. Supp. 1501 (N.D. Ill. 1988) ("it is perfectly legitimate and, in fact, procompetitive, for manufacturers to insist that their dealers devote undivided loyalty to their products and not to those of their competitors").

<sup>138</sup> *Roland Mach. Co. v. Dresser Indus., Inc.*, 749 F.2d 380 (7th Cir. 1984).

<sup>139</sup> Klein & Lerner, *supra* note 32, at 507-18. See generally *United States v. Dentsply Int'l, Inc.*, 277 F. Supp. 2d 387 (D. Del. 2003), *rev'd*, 399 F.3d 181 (3d Cir. 2005), *cert. denied*, 126 S. Ct. 1023 (2006). Klein and Lerner conclude that creating “undivided dealer loyalty” was a plausible justification in *Dentsply*, but that “we do not know if a more complete analysis would have found the net effect of *Dentsply*’s exclusive dealing to be procompetitive or anticompetitive,” and “what is clear is that further analysis of the undivided loyalty rationale for exclusive dealing should have been undertaken.” Klein & Lerner, *supra* note 32, at 518.

<sup>140</sup> See Klein & Murphy, *supra* note 32. This explanation is related to, and provides the economic basis for, the argument that exclusives “instigated” by customers should enjoy a presumption of legality. See also Richard M. Steuer, *Customer Instigated Exclusive Dealing*, 68 ANTITRUST L.J. 239 (2000).

<sup>141</sup> Joshua D. Wright, *Antitrust Analysis of Category Management: Conwood Co. v. United States Tobacco Co.*, 17 SUP. CT. ECON. REV. (forthcoming 2009).

<sup>142</sup> Calkins, *supra* note 78, at 156-57.

<sup>143</sup> For example, Professor Calkins criticizes the trend in lower courts toward presuming legality for distribution contracts of less than one year. See also Salop, *supra* note 15. But see Wright, *supra* note 33 (providing a defense of presumptive legality for short term contracts).

<sup>144</sup> Calkins, *supra* note 78, at 167.

<sup>145</sup> Jan B. Heide et al., *Exclusive Dealing and Business Efficiency: Evidence from Industry Practice*, 41 J.L. & ECON. 387 (1988).

<sup>146</sup> See John Asker, *Diagnosing Foreclosure Due to Exclusive Dealing* (NYU Working Paper No. EC-04-36, 2005); Tim R. Sass, *The Competitive Effects of Exclusive Dealing: Evidence from the US Beer Industry*, 23 INT’L J. INDUS. ORG. 203 (2005).

<sup>147</sup> Lafontaine & Slade, *supra* note 108.

<sup>148</sup> See *supra* text accompanying note 19.

<sup>149</sup> Fox, *supra* note 19, at 83. See also Robert Pitofsky, *supra* note 5, at 6 (“Because extreme interpretations and misinterpretations of conservative economic theory (and constant disregard of facts) have come to dominate antitrust, there is reason to believe that the United States is headed in a profoundly wrong direction”).

<sup>150</sup> Fox, *supra* note 19, at 81.

<sup>151</sup> *Brooke Group*, 509 U.S. 209.

<sup>152</sup> *California Dental Ass’n v. FTC*, 526 U.S. 756 (1999).

<sup>153</sup> *Trinko*, 540 U.S. 398.

<sup>154</sup> *Leegin*, 127 S. Ct. 2705.

<sup>155</sup> Fox, *supra* note 19, at 82.

<sup>156</sup> *Id.*

<sup>157</sup> Fox, *supra* note 19, at 82 (citing Joseph F. Brodley, *Predatory Pricing: Strategic Theory and Legal Policy*, 88 GEO. L.J. 2239 (2000)). But see Kenneth G. Elzinga & David E. Mills, *Predatory Pricing and Strategic Theory*, 89 GEO. L.J. 2475, 2475 (2001) (“Although strategic theories of predatory pricing are exemplary in their coherence and rigor, their potential to add value to antitrust policy is much more modest than the authors admit.”). Indeed, the economic literature does provide some evidence of profitable predation. See, e.g., U.S. DEP’T OF JUSTICE, *COMPETITION AND MONOPOLY: SINGLE-FIRM CONDUCT UNDER SECTION 2 OF THE SHERMAN ACT* (2008), at 56, note 85 (collecting studies). See generally Bruce H. Kobayashi, *The Law and Economics of Predatory Pricing* (forthcoming in *ANTITRUST LAW AND ECONOMICS*, *supra* note 114).

<sup>158</sup> Fox, *supra* note 19, at 84.

<sup>159</sup> *Id.*

<sup>160</sup> *Id.* at 86.

<sup>161</sup> See *supra* text accompanying notes 81, 82.

<sup>162</sup> Leah Brannon & Douglas H. Ginsburg, *Antitrust Decisions of the U.S. Supreme Court, 1967-2007*, 3 COMPETITION POL’Y INT’L 3 (2007).

<sup>163</sup> *Id.* at 20.

<sup>164</sup> *Id.* at Table 4.

<sup>165</sup> See Einer Elhauge, *supra* note 18, at 64 (speculating that the fact that “Breyer’s dissent referred no less than six times to the stare decisis considerations that were cited in an abortion case made it hard to avoid the conclusion that this case had gotten mixed up with abortion politics.”)

<sup>166</sup> Linkline, No. 07-512, 2009 U.S. Lexis 1635.

<sup>167</sup> See Cooper, et al, *supra* note 59; Hylton & Salinger, *supra* note 71; David S. Evans & Michael A. Salinger, *Why Do Firms Bundle and Tie? Evidence from Competitive Markets and Implications for Tying Law*, 22 YALE J. ON REG. 37 (2005).