Good evening. My remarks tonight will focus on the proper intersection between economic theory, on the one hand, and antitrust doctrinal analysis, on the other. I have been giving this topic some thought for quite a while. Indeed, my attorney advisor, Mandy Reeves, was likely surprised in April when I called from an airport to say that a *New York Times* book review that I had just read on the origins of quantum physics should inform our thinking on this topic. In that book, *The Age of Entanglement: When Quantum Physics Was Reborn*, the author explains that for more than half a century, physicists were of sharply different views as to whether general relativity or quantum mechanics should supply the organizing principle to describe the relationship between atoms and subatomic particles. But in the 1960s, the discord

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1 The views stated here are my own and do not necessarily reflect the views of the Commission or other Commissioners. I am grateful to my attorney advisor, Amanda Reeves, for her invaluable assistance preparing this paper.

began to ebb with the contribution of a new generation of physicists who suggested that a modified version of quantum mechanics could sensibly coexist with a theory of relativity.

What does all of this have to do with antitrust? I believe that we are on the brink of a similar moment in the history of antitrust. While the orthodox Chicago School of economics has long been at the forefront of antitrust analysis, there are several other economic theories percolating under the surface that I believe supply a better understanding of how market participants—more specifically sellers and buyers—actually behave. But the fundamental issue for those of us responsible for enforcing the antitrust laws remains the same—when should the conduct of those firms be viewed as anticompetitive? While I remain far from having all or any of the answers, this evening I would like to offer you some initial thoughts on these topics. My remarks will proceed in three parts. First, I will explain my views on the proper role of economics in antitrust analysis. Second, I will describe what I perceive to be the four major and, to varying extents, competing schools of economic thought about how market participants behave. Third, I will sketch out an analytical framework for analyzing claims under Sections 1 and 2 of the Sherman Act and Section 7 of the Clayton Act that is not dependent on any of these schools, but can accommodate all of them. I will end with some concluding thoughts.

I.

Let me begin by dispelling a misconception about how I view economics and economists, attributable I fear to not making my views clear. More specifically, critics—overwhelmingly Chicago School apologists—have suggested that I am anti-economics and anti-economist and,
indeed, that I doubt that economics should play a role in antitrust law enforcement. Those are not my views. My views are as follows.

First, to be blunt, as I have freely admitted—perhaps too colorfully—even with 40-plus years of experience as an antitrust lawyer, I just don’t understand complex economic formulae. Second, based on my experience as a trial lawyer who had limited success in communicating complex ideas to lay juries and generalist courts, I think economists who use complex formulae to express their conclusions respecting the economics considerations in antitrust cases are of little practical value. Indeed, it has long been my view that if I couldn’t fully understand a message then I could not effectively communicate it, and, as I have noted, complex economic formulae have long been over my head and over the heads of any juries that I stood before.

Third, I doubt that anyone other than someone with a Ph.D. in economics or other significant statistical training comprehends those formulae. It is no accident, for example, that there are few or no complex economic formulae in three of the most influential antitrust textbooks of our time—Judge Robert Bork’s *The Antitrust Paradox*; Judge Richard Posner’s *The Antitrust Laws*; and Professor Areeda’s classic text, which he authored with several collaborators over the years.

I am not the first to criticize the use of complex economic formulae. Indeed, other economists and businesspeople have criticized their use as well. Professor Nouriel Roubini of NYU and Warren Buffett, among others, have cautioned against falling victim to those

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formulae. Likewise, economists who testify before judges and juries themselves insist on using words of one syllable to explain their conclusions. And with good reason: in a recent piece published by *Competition Policy International*, Judge Vaughn Walker, who presided over the Oracle trial, argued that generalist judges lack economic training (and often interest) and that, as such, if economic evidence is to be persuasive, it must be communicated in a way that a generalist can understand and must be consistent with other evidence. Complex economic theories are simply not comprehensible to many specialists like myself, let alone to a generalist.

This is all to say that, while I think that economics are an important ingredient in applying the antitrust laws, they are no substitute for the laws themselves. In this regard, I find support not only in Judge Walker’s views, but in Justice Breyer’s comments in his dissenting opinion in *Leegin* when he opined that “economics can, and should, inform antitrust law. But antitrust law cannot, and should not, precisely replicate economists’ (sometimes conflicting) views.” I think it is safe to say that I share that view.

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5 In his annual letter to Berkshire Hathaway shareholders earlier this year, Warren Buffet harshly criticized the impenetrable mathematical formulae that were fashionable in business before the downturn. Investors are too easily seduced, Buffett said, by “a nerdy-sounding priesthood, using esoteric terms such as beta, gamma, sigma and the like. Our advice: Beware of geeks bearing formulas.” “In Letter, Warren Buffet Concedes a Tough Year,” New York Times (March 1, 2009), available at http://www.nytimes.com/2009/03/01/business/01buffett.html?_r=1&hp.


7 *Leegin Creative Leather Products v. PSKS, Inc.*, 127 S. Ct. 2705, 2729 (2007) (Breyer, J., dissenting) (“Law, unlike economics, is an administrative system the effects of which depend upon the content of rules and precedents only as they are applied by judges and juries in courts and by lawyers advising their clients. And that fact means that courts will often bring their own administrative judgment to bear, sometimes applying rules of per se unlawfulness to business practices even when those practices sometimes produce benefits.”).
II.

Next, I would like to discuss the role economic theory has played over the last forty years in antitrust analysis and highlight some strengths and weaknesses of the competing economic theories that already do or arguably should play a role in antitrust analysis.

To be sure, the most dominant school of economic thought in antitrust analysis is the orthodox Chicago School. As I see it, there are two fundamental premises that underlie that school: first, markets if not perfect, correct themselves quickly; and second, firms accordingly generally act rationally, which is to say that they generally act to maximize profits, instead of engaging in predatory behavior which will be nullified by market corrections.8

These principles, which have their origins in Friedrich von Hayek’s and Milton Friedman’s views, began bubbling to the surface in the late 1960s through, among other things, Nobel Prize winning economist George Stigler’s 1964 article “A Theory of Oligopoly” in which he explained that it was improper to assume that firms in an oligopolistic market would find a way to agree to raise prices above competitive levels.9

The Chicago School came to the forefront of antitrust law in the late 1970s. During this period, the Supreme Court embraced the Chicago School way of thinking in its 1977 GTE Sylvania decision where the Court overturned its 1967 decision in Schwinn and held that non-

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price vertical restraints were subject to the rule of reason.\textsuperscript{10} The Court cited then Professor Posner’s 1976 book, \textit{Antitrust Law: An Economic Perspective}, as support for the proposition that economists had identified several ways in which manufacturers use non-price vertical restraints to compete against other manufacturers.\textsuperscript{11} The following year, Robert Bork penned \textit{The Antitrust Paradox} which collected the Chicago School’s basic tenets in one place and provided one of the most—if not the most—significant contributions to antitrust law in the 20th Century.\textsuperscript{12} Bork asserted that many of the then current cases applying the antitrust laws were irrational and actually hurt consumers. He also argued that consumers were often beneficiaries of corporate mergers. With Ronald Reagan’s victory in 1980 and Posner and Bork’s appointments to the federal appellate bench in 1981 and 1982, respectively, the Chicago School’s ascendancy as providing the predominant organizing principles for antitrust law was complete.

With the recent financial crisis, however, one has to wonder if the Chicago School’s fundamental presumptions are still tenable. In a January speech before the New York Bar Association, I suggested that, in light of the economic crisis, the Chicago School was on life


\textsuperscript{11} \textit{GTE Sylvania}, 433 U.S. at 54–55. The Court noted that Economists have identified a number of ways in which manufacturers can use such restrictions to compete more effectively against other manufacturers … Service and repair are vital for many products, such as automobiles and major household appliances. The availability and quality of such services affect a manufacturer’s goodwill and the competitiveness of his product. Because of market imperfections such as the so-called “free rider” effect, these services might not be provided by retailers in a purely competitive situation, despite the fact that each retailer’s benefit would be greater if all provided the services than if none did.

\textit{Id.} at 55. Relying solely on economic theory, the Court found that a manufacturer’s limitation of intrabrand competition actually aided that manufacturer in the interbrand market. \textit{Id.} at 56.

support if not dead. As it turns out, other Republicans—including many who have embraced the Chicago School over the years at least as fervently as I—share this view. Alan Greenspan and former Secretary of the Treasury Henry Paulson are both Republicans who fully subscribed to the Chicago School theory before the crisis. But in his testimony before Congress last October, Alan Greenspan recanted his faith in the market and the rationality of business people, testifying that more government regulation of the financial sector was both necessary and proper. Although Secretary Paulson was not so specific about market imperfections and irrational behavior, he intervened repeatedly to try to deal with perceived imperfections in that market.

Yet perhaps most telling is Judge Posner’s change in course. In his recent book on the financial crisis, Judge Posner declares that the “depression of 2008” (as he calls it) resulted from market failure. Judge Posner contends that there is a need for more active government regulation and that deregulation of the financial industry went too far by “exaggerating the resilience—the

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15 As I noted during my speech before the New York Bar Association, this is not to say that one size fits all when it came to Paulson’s interventions. Secretary Paulson intervened in different ways at different times. For example, he intervened when he felt that some institutions were “too big to fail”—e.g., Bear Stearns, Fannie Mae, Freddie Mac, and Citicorp—but did not do so when other institutions failed—e.g., Lehman Brothers. Also, initially he intervened by purchasing (or standing behind) the distressed assets of financial institutions, and he initially considered using TARP funds to do that exclusively. But he ultimately intervened instead by buying equity in major financial institutions that were considered “too big to fail.”
self-healing powers – of laissez-faire capitalism.” If Judge Posner is arguing that the markets failed to self-correct, it is safe to say that the Chicago School is indeed teetering on the edge of collapse.  

Apart from the current economic crisis, though, the more I read about alternative economic theories, the more I am certain that the Chicago School does not even accurately portray how buyers or sellers behave. The truth is—I doubt that there is any one economic theory respecting the way that buyers or sellers behave that accords with the real world. I have, however, identified three competing economic theories with various shades of grey in between them that do or should play some role in antitrust analysis.

The first of those theories—actually consisting of a group of theories—is what I have described as post-Chicago School theory but what others have called “game” theory. Game theorists may subscribe to the basic Chicago School tenets that markets are self-correcting (at least over the long run) and that sellers act rationally, which is to say that they engage in profit-maximizing conduct. But they contend that many practices that orthodox Chicago School theorists would consider predatory are in fact profit-maximizing in the real world (at least in

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17 At least one Conservative overseas likewise shares Greenspan, Paulson, and Posner’s views. In April, George Osborne, who is the “shadow” Chancellor of the Exchequer for David Cameron’s Conservative Party in the United Kingdom “signaled that the Conservatives are breaking with the neo-liberal absolutism of the past 30 years to forge a new approach to the market economy.” In a speech where Mr. Osborne lauded the benefits of a behavioral economics approach to understand market behavior, Mr. Osborne “repudiated laissez faire economics and the libertarian philosophy that licensed its practice.” Philip Blond, “Let us put markets to the service of the good society,” Financial Times (April 13, 2009), available at http://www.ft.com/cms/s/0/1f1541e4-2859-11de-8dbf-00144feabdc0.html.
some instances). Some examples are Salop’s “raising rivals’ costs” theories,\(^{18}\) Whinston’s “tying” theories,\(^{19}\) and Creighton’s “cheap exclusion” theories.\(^{20}\) Although it’s a closer call, I would also add to this list Einer Elhauge, in light of his recent thought-provoking article, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory*, to the category of post-Chicago School theorists.\(^{21}\) Although these theories do offer a more sophisticated, nuanced view of seller behavior than the orthodox Chicago School, the post-Chicago School theorists still principally subscribe to the view that profit-maximization is the organizing principle around which antitrust law should evolve.

The second economic theory is the one that Professor Joe Farrell, the FTC’s new Director for the Bureau of Economics, has espoused in a piece called *Complexity, Diversity, and Antitrust* that appeared in the Spring 2006 issue of *The Antitrust Bulletin*.\(^{22}\) I call his theory “experimentation” theory. Under that theory, which focuses on the sell-side of markets, most business firms do not engage in behavior that they consider profit-maximizing from the get-go. Instead, Farrell argues, firms engage in a trial-and-error process to identify which conduct will be


profit-maximizing for themselves over the long run. Sometimes their experiments are successful, and sometimes they are not.

David Teece has also set forth a similar theory in the context of discussing the economics that underlie innovation. Teece has argued that the concept of static competition, which looks only at price competition by rational agents for existing products, “reflects an intellectual framework” and “not a state of the world.” In contrast, he argues, dynamic competition is driven by the trial and error efforts of innovators and institutional structures that support innovation. Again, speaking frankly, the theories that Farrell and Teece have posited are most consistent with my own real world experience. Perhaps that is because the behavior of most firms is determined by the decisions of middle managers, not senior executives, much less economists.

Third and finally, there are the behavioral economists, who contend that many, if not most, business firms, as well as consumers, behave irrationally or, at the very least, do not always behave in a perfectly rational manner. That literature has been gathered together by, among others, Professor Maurice Stucke. Although behavioral economics bears some similarities to Farrell and Teece’s experimentation theory in that it can inform understandings of behavior on the sell side, behavioral economics is arguably most useful in informing an analysis of the motives of parties on the demand or buy side of any given transaction. Indeed, I think that one of the most significant insights from the behavioral economics literature is the suggestion that, because consumers will behave irrationally—which is to say that they will make

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25 See Economics Roundtable, Global Competition Review (March 2009).
decisions based on factors other than price and quality—when there is a situation with less or imperfect competition, the government should engage in consumer protection efforts in those cases rather than sitting back and waiting for a market to heal itself.26

Dennis Carlton has told me that while behavioral economics may be very useful in analyzing the behavior of individuals, it has little application to firm conduct. But I wonder about that distinction. After all, firms—and particularly the middle managers in firms—are just collections of individuals. There is recent literature that confirms that view. Economists George Akerlof and Robert Shiller of Berkeley and Yale, respectively, have just published Animal Sprits, in which they resurrect behaviorally-informed Keynesianism to show that free-market ideology is fundamentally incomplete because it fails to account for the fact that human irrationality infects human decision-making and, thus, decisions that govern how the market actually (as opposed to hypothetically) functions.27 Likewise, in Jones v. Harris, a securities case which is now at the Supreme Court, Judge Posner himself has recently advanced a behavioral economics approach—and sharply rejected Chief Judge Easterbrook’s free-market theory—in his dissent from the Seventh Circuit’s denial of rehearing en banc.28 Consistent with the behavioral economics approach, Judge Posner has argued that mutual fund shareholders have a reasonable basis for suing their financial advisers for exacerbating their losses during the financial crisis.29

26 Id. (“We know that the competitive process will protect consumers even if they are myopic and don’t realize what’s going on. So if there is lots of competition, we should worry less about consumer protection. If there is less competition, then consumer protection policies are key.”) (Comments of Jorge Padilla).
28 Jones v. Harris Assocs. L.P. ("Jones II"), 527 F.3d 728, 729 (7th Cir. 2008) (Posner, J., dissenting from denial of rehearing en banc). Writing for a unanimous panel, Chief Judge Frank Easterbrook had applied a stringent standard to hold that mutual fund shareholders could not sue their financial advisers for exacerbating their losses during the financial meltdown. Jones v. Harris Assocs. L.P. ("Jones I"), 527 F.3d 627 (7th Cir. 2008). In so holding, Easterbrook advanced a classical law-and-economics analysis that presumed a well-functioning market for investment advice, dismissed possibly irrational investor behavior, and concluded with a call for greater deregulation of the industry. In sharp contrast, Posner asserted in his dissent that Easterbrook’s faith in the self-disciplining nature of market forces in the mutual fund industry is
In the economics literature, Posner observed that, in the absence of a competitive market, regulation is needed to protect consumers because market participants are not infallible.

Likewise, Carlton also has suggested to me that firms who behave irrationally will end up losing out to profit-maximizing firms in the long run. But that may take a very long time, and consumer welfare may suffer grievously in the meantime. And, if that is so, the complexity and uncertainty associated with identifying and regulating irrational conduct is of no comfort to the Commission as an antitrust law enforcement agency. To the contrary, it raises a number of questions about antitrust law enforcement. The most fundamental of those questions, however, is whether the complexity and uncertainty in this respect mean that the Commission should eschew antitrust enforcement for fear of making a mistake or should make a threshold decision about what kind of behavior by market participants is at issue and then analyze those practices or transactions differently, depending on that threshold determination.

III.

So where do we go from here? I would like to use the balance of my remarks to discuss an analytical approach that I suggest, by focusing chiefly on anticompetitive effects (as opposed to conduct) works regardless of which economic theory or theories one thinks best explains how sellers and buyers make decisions. That approach is a structured rule of reason analysis. My thesis is fourfold. First, structured rule of reason analysis provides an analytical framework that applies regardless of the real-world market, firm or customer behavior that is at issue, and it doesn’t matter whether the challenge is made under the Sherman Act or under Section 7 of the Clayton Act. Second, that analytical framework is consistent with the antitrust case law in the

misplaced because “mutual funds are a component of the financial services industry, where abuses have been rampant.” 527 at 730. Finding an absence of healthy competition, Posner took the view that market regulation was needed to correct for disordered behavior.
United States. Third, it is also consistent with the Article 82 Guidance recently issued by the European Commission. And fourth, it is a mode of analysis in which economists do have a role to play, but not with complex formulae.

Structured rule of reason analytical framework is not new. Arguably it was introduced by former Chairman Tim Muris. But it has been adopted by the Supreme Court in Indiana Federation of Dentists, and by various regional courts of appeals, most notably in Judge Ginsburg’s opinion in the Three Tenors decision of the D.C. Court of Appeals. There are two essential ingredients of the analysis. The first ingredient is proof of a practice which, considered in context, is “inherently suspect” under the antitrust laws because it is likely to adversely impact consumer welfare. Some “inherently suspect” practices, such as the agreement not to compete challenged in Three Tenors, involve agreements among competitors and they chiefly implicate Section 1 of the Sherman act. Other practices, however, involve single firm conduct implicating chiefly Section 2 of the Sherman Act. In either event, it does not matter whether the practice is rational (in the sense that it is profit-maximizing), experimental, or just plain irrational. As long as the practice is likely to injure consumer welfare, the structured rule of reason analysis supplies a means to properly consider the legality of the practice.

In some instances, it is possible to determine whether a practice is likely to injure consumer welfare based on experience with the practice. In those instances, the Supreme Court has held that the practice can be deemed inherently suspect without determining whether the firm

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31 *Polygram Holding, Inc. v. FTC*, 416 F.3d 29 (D.C. Cir. 2005). *See also North Texas Specialty Physicians v. FTC*, 528 F.3d 346, 370 (5th Cir. 2008).
or firms engaging in the practices enjoy monopoly or near monopoly power in a relevant market. The Court’s decisions in NCAA v. Board of Regents and Indiana Federation of Dentists are examples of those cases. In other instances, however, experience with a practice does not teach that the practice is likely to injure consumer welfare. Then, it may be appropriate to look to circumstantial evidence of that probable effect, such as whether the practice was intended to have that effect; or whether, in Section 2 cases, the practice is accompanied by other exclusionary practices. Or, as in California Dental Association v. FTC, it may be necessary to prove that the firm or firms engaging in the practice enjoy monopoly or near monopoly power. Otherwise, consumers can turn to alternative suppliers in order to avoid injury from the parties. Or, put differently, absent monopoly or near-monopoly power, the practice is not likely to have market-wide effects on prices, output, quality and/or innovation that are harmful to consumers. The fundamental point is that in any case, a practice can properly be considered to be “inherently suspect” because it is likely to injure consumer welfare, regardless of whether the practice is rational, irrational or experimental.

Efficiencies, however, are a second essential element in a structured rule of reason analysis. They may take many forms, including lower prices, superior quality, and enhancement of innovation. Again, moreover, whether the practice was rational, experimental or irrational is irrelevant. If it produces efficiencies that outweigh the likely consumer injury, the practice should not be condemned. That said, though, in order to rebut the presumption arising from proof

34 See, e.g., Le Page’s Inc. v. 3M Co., 324 F.3d 141 (3d Cir. 2003) (en banc).
that a practice is inherently suspect, the defendant must bear the burden of proving offsetting efficiencies.

Structured rule of reason analysis is consistent with U.S. antitrust case law generally. It is plainly consistent with the law in Section 1 cases. Indeed, it has its roots in the Section 1 case law. Section 1 of course also requires proof of an agreement, and as a technical matter, it may be argued that monopoly or near monopoly power will never exist in a Section 1 case because monopoly is a term of art that presupposes single firm conduct. But firms who are participants in a duopoly or a tight oligopoly market collectively enjoy power that is akin to monopoly power in the sense that they have the power to increase prices and reduce output in the market as a whole. Thus, the fact that injury to consumer welfare is likely to flow from a collective exercise of monopoly or near monopoly power instead of from single firm conduct may be considered a distinction without a difference. That is probably why the analytical framework has been applied in Section 1 cases without any mention of the issue.

It may be argued that insofar as proof of collective monopoly or near-monopoly power is required, structured rule of reason analysis imposes on plaintiffs a higher burden of proof than they would bear in a traditional rule of reason case. I am not sure that is true. Absent proof that experience established that a practice is likely to injure consumer welfare, the regional appellate courts have generally required proof of that kind of power, reasoning that otherwise the practice is unlikely to adversely impact market-wide competition, which is what the antitrust laws were designed to prevent.36 Moreover, the structured rule of reason framework certainly casts a lighter burden on plaintiffs than does a traditional unstructured rule of reason requirement, in which the

plaintiff bears the burden of proof throughout the analysis, without the burden ever shifting to the defendant.37

Finally, it may be argued that if the firms engaging in the practice are behaving experimentally or irrationally, they cannot as a practical matter prove that the practice is efficient. But this does not follow. To be sure, their documents may not contain an efficiency story line. That does not mean, however, that they cannot prove that the practice has in fact resulted in offsetting efficiencies.

Structured rule of reason framework has not historically been used in Section 2 cases. However, there is no reason why it cannot be. To be sure, Section 2 expressly requires proof of monopoly or near-monopoly power before an attempt to monopolize or monopolization can be considered actionable. But as I have previously noted, that proof may be required in some Section 1 structured rule of reason cases too. Moreover, the Section 2 case law requires proof that a defendant has “willfully acquired or maintained” some power before a violation can be found.38 That is plainly an effects-based requirement on its face.39 There is ample support in the case law for considering illegal under Section 2 exclusionary practices by firms with monopoly or near-monopoly power that are likely to injure consumers by preventing rivals or would-be rivals from constraining the exercise of that power.40 Finally, even when a practice is likely to

37 Schwinn, 388 U.S. at 374 n.5, overruled on other grounds by GTE Sylvania, 433 U.S. at 58–59 (1977); Worldwide Basketball & Sport Tours v. NCAA, 388 F.3d 955, 959 (6th Cir. 2004); Spanish Broad. Sys. v. Clear Channel Commc’ns., 376 F.3d 1065, 1072–73 (11th Cir. 2004).
38 Verizon Commc’ns. v. Law Offices of Curtis V. Trinko LLP, 540 U.S. 398, 407 (2004) (noting that a Section 2 monopolization claim requires proof that the defendant (1) possesses monopoly power, and (2) has acquired, enhanced, or maintained that power by use of exclusionary conduct).
have that effect, the practice can be justified by proof of efficiencies. In short, there is nothing in the Section 2 case law that differentiates among kinds of exclusionary conduct based on whether it is rational, experimental or irrational.

Structured rule of reason analysis has not been used historically in Section 7 cases. Again, however, there is no reason it cannot be. Proof of a Section 7 violation requires proof that a transaction is likely to result in an exercise of monopoly power or a substantial lessening of competition. That is exactly the kind of effects-based proof of the kind I have described, except that it results from the transaction rather than a single firm practice or agreement.

Finally, it may be argued that under the case law proof of efficiencies is not permitted under Section 7. Courts have so held in merger cases. However, since the 1992 Merger Guidelines, the agencies have permitted respondents to adduce offsetting efficiencies, just as they are under a structured rule of reason analytical framework. Thus, use of a structured rule of reason analytical framework in Sherman Act cases is not inconsistent with Section 7 law enforcement.

43 See 1992 Merger Guidelines, § 4 (“The Agency will not challenge a merger if cognizable efficiencies are of a character and magnitude such that the merger is not likely to be anticompetitive in any relevant market.”).
Structured rule of reason analysis is also consistent with the European Commission’s recent Article 82 Guidance. Indeed, the major underlying theme in the Guidance is that Article 82 may be violated when a dominant firm engages in exclusionary practices that threaten consumer welfare by eliminating or crippling rivals or would-be rivals from constraining the dominant firm’s exercise of its power. That is one of the central concerns that is addressed in structured rule of reason analysis, and it would be squarely addressed by applying that analytical framework in Sherman Act Section 2 cases.

The Guidance is also quite clear that both direct and circumstantial evidence may be used to prove that this has occurred. More specifically, direct evidence in the form of evidence that the practice at issue has actually had that effect, as well as historical evidence respecting the likelihood that it will have that effect, may be adduced but it is not required. Circumstantial evidence may suffice instead. For example, proof that that effect was intended or that the practice at issue was just one of multiple exclusionary practices employed may be used. In the case of refusals to license or deal, proof that the practice represents an unexplained change in the defendant’s course of dealing may be considered. As I have discussed, the case law in the

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45 Id. at 7 (discussing “anticompetitive foreclosure” and noting that harm occurs where consumer welfare is harmed or where rivals are eliminated from competition).

46 Id. at 9 (noting that “if the conduct has been in place for a sufficient period of time, the market performance of the dominant undertaking and its competitors may provide direct evidence of anticompetitive foreclosure” but describing circumstantial evidence that the Commission will also find persuasive).

47 Id.

48 Id. at 23–26.
United States permits use of this kind of circumstantial evidence.\textsuperscript{49} There is nothing in the case law applying structured rule of reason analysis to indicate that such circumstantial evidence would be excluded from that analytical framework.

Finally, the EC’s Guidance permits defendants to prove that there are offsetting efficiencies.\textsuperscript{50} However, as in structured rule of reason analysis, the efficiencies must be shown to outweigh the anticompetitive effects that make the practice inherently suspect in the first place.\textsuperscript{51} The EC’s principal legal officer, Philip Lowe, has made it clear that although the Commission will generally consider whether the practice at issue has excluded competitors who are as efficient or more efficient than the defendant, it will take into account whether an excluded rival that is a less efficient rival is only that way because of the defendant’s superior economies of scale or scope.\textsuperscript{52} Again, however, there is nothing in the United States case law to rule out that kind of flexibility.

What role for economists is there in this analysis? I would suggest that it is very much the same role that economists have heretofore played in antitrust cases. Although market definition and market shares are not the only way to prove the existence of monopoly or near-monopoly

\textsuperscript{49} See, e.g., Microsoft, 253 F.3d 34 (D.C. Cir. 2001) (holding that evidence of intent is permissible to prove anticompetitive effects); Aspen Skiing, 472 U.S. 585 (holding that unexplained changes in course of dealing can give rise to inference of anticompetitive effects); Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 222–24 (1993) (holding that to prevail under a predatory pricing claim, the plaintiff must show, first, that the defendant priced its products below an appropriate measure of its costs, and, second, that there was a dangerous probability that the defendant would recoup its investment in below-cost prices, but not addressing the appropriate measure of cost because the parties agreed that the relevant measure of cost was average variable cost).

\textsuperscript{50} Supra note 44, Guidance at 12-13 (discussing use of evidence of efficiencies as a defense to a claim of exclusionary conduct).

\textsuperscript{51} Id. at 12.

\textsuperscript{52} Philip Lowe, The European Commission Formulates its Priorities as Regards Exclusionary Conduct by Dominant Undertakings, Global Competition Review (February 2009).
power, like dominance in the EC, monopoly or near-monopoly power can be proved by evidence of actual anticompetitive effects. As such, that is one way to prove or disprove its existence. In pricing cases, the proper measure of costs will continue to be debated. And whether there are offsetting efficiencies will remain a subject of controversy. In all of these areas, economists have traditionally made substantial contributions. There is no reason why they will not continue to do so. For this is essentially old wine in new bottles. The economic theories respecting the way that markets and business firms behave may have changed. But there is no need to change the legal framework in which business practices and transactions are evaluated under the antitrust laws. Indeed, arguably the proper legal framework is more generally applicable than we have supposed.

In sum, while I do not believe that antitrust law has yet to settle on the right economic theory (or group of theories as the case may be) to accurately account for the complexities of rational and irrational seller and buyer conduct, I think in the last few years, developments in economic thinking have brought us much closer to that objective. And just as in the 1960s, quantum physics was reborn stronger than ever, I am hopeful that as these ideas are incorporated into the mainstream thinking among members of the judiciary and the antitrust bar, we will soon see new life breathed into the antitrust laws through a doctrinal framework that can best identify and prevent anticompetitive conduct.