While Antitrust was out to Lunch: Lessons from the 1980's for the Next Century of Enforcement

Peter C. Carstensen
I. INTRODUCTION

ANTITRUST law has proven to be a remarkably durable part of American public economic policy. Its success lies, in substantial part, in its ideological commitment to an open, workable competitive economy. In practice antitrust has only made focused interventions in the economic order. At the same time, it has been a very important shield for private economic actors, insulating them from the continuing urge of policy-makers to impose more intrusive, direct controls. Indeed, at the start of the twentieth century, Teddy Roosevelt and
many of the captains of industry had a shared vision that old-fashioned economic competition was inconsistent with the newly-emerging industrial order and that the best response would be a public agency which would have broad, direct regulatory authority over the new, large enterprises.\(^1\) Ultimately, Congress rejected this regulatory approach and, in adopting the Clayton Act,\(^2\) reasserted a political preference for competition as the touchstone of American economic policy. In the 1930s, the federal agencies created pursuant the National Industrial Recovery Act ("NIRA")\(^3\) sought to implement a regulatory and syndicalist approach to economic organization with authorized cartels in which private trade groups would define fair competition and the government would enforce it.\(^4\) Antitrust was held in abeyance, and, in the mid-1930s, Thurman Arnold stigmatized antitrust law as the "folklore of capitalism."\(^5\) The rise of Soviet, Nazi, Fascist, and Japanese economic centralism during the 1930s reinforced for many Americans the social-political linkage between open, competitive markets and the goals of a democratic, pluralistic society.\(^6\) Thus, in the late 1930s Thurman Arnold, as Assistant Attorney General for Antitrust, led the revival and restoration of antitrust as a guide to American economic policy.

From the late 1930s into the late 1970s the national consensus held that legally enforced, economic competition was, in general, the most desirable way to organize economic activity. The benefits of such competition were both in the short run gains that result from lower prices and more choice, and in the long run dynamic such competition imposed on market actors. The success of the Allies in World War II, the relative superiority of the American economy in relation to that of the centralized economies of Eastern Europe, and the remarkable revival of the German and Japanese economies under the constraints of antitrust regulations imposed by the victorious Americans all served to provide both economic and political vindication for a policy of enforced competition.

Starting in the late 1960s a new American deregulatory movement sought to limit or eliminate direct governmental regulation in air travel, trucking, telecommunications, and other traditionally regulated markets. This movement rested on a faith that market discipline was better than

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6. Richard Hofstadter, What Happened to the Antitrust Movement?, in The Paranoid Style in American Politics and Other Essays 188 (1965); see also Hawley, supra note 4.
regulatory control. Certainly, experience with regulation was generally bad. Regulators stifled new innovations, fixed high prices, denied entry into markets and generally produced undesirable economic results while also illustrating in various ways that the end result of direct regulation was political corruption and state control. The deregulatory movement was widely successful in limiting or eliminating direct economic regulation in many fields. Moreover, despite the many problems with accomplishing effective transformation of these markets, the positive consequences of enhanced economic competition are visible to all.

Antitrust enforcement was caught up in the same deregulatory enthusiasm. Again embracing much older notions, many policy-makers and enforcers endorsed the assumption that markets were naturally competitive. This meant that any intervention in the market was counter-productive because it would upset the forces in the market. Moreover, intervention was unnecessary to promote or protect competition because it was the natural state of the market. This reasoning, starting in 1981, caused a marked decline in enthusiasm for and commitment to antitrust. The old insights were declared invalid and the old cases condemned as inefficient intervention in the smooth workings of the market. Arguments from economic theories based on assumed industrial facts supported these claims. The new orthodoxy, which actually looks a lot like the view of some economists and many business leaders at the beginning of the twentieth century and in the NIRA era, was that antitrust should back off enforced competition and let the economy be “free.” Such freedom included the right to combine into super-large enterprises which often had very large shares of specific markets and to enter into agreements of all kinds. World markets, complex new industrial and technological needs, etc., were once again the rallying cry for those who opposed competition and the laws that enforced it.

During the 1980s tough rules against mergers among competitors as well as among large firms, regardless of their current economic interaction, were abandoned. First, many large combinations measured in both market share terms and overall size were permitted. Second, under the slogan of “fix it first,” the enforcement agencies undertook to bargain with buyers to define narrow divestitures which would eliminate the most egregious aspects of the combination, thereby allowing the combination to proceed. Previously, a merger which was bad in any aspect was illegal and thus could not be consummated at all. In the area of agreements, there was a similar loss of interest in critical examination of new multi-firm undertakings that often imposed large scale control over economic activity. For example, the FTC permitted the first and third largest car

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companies in the world to enter into a joint venture to produce cars. Critical review of distribution restraints was dropped, and, except in health care, the enforcement agencies were not visible as critical reviewers of other agreements among competitors, customers and suppliers that directly and indirectly linked increasingly large segments of the economy. Concentrated markets were no longer seen as posing in themselves risks of inefficient or anticompetitive harms. In sum, most of the policies of the prior forty years, developed out of actual experience with the economy, were jettisoned based on purportedly new learning and theories about how markets ought to work.

The goal of this essay is argue that the older policies of antitrust were better, long-run rules for the effective governance of a dynamic economy. In particular, there were four major studies published during the 1980s that, in my view, provide theoretical, historical, and contemporary empirical support for important parts of the traditional standards and concerns of antitrust. The four books are: Robert Axelrod, The Evolution of Cooperation (1984); Naomi R. Lamoreaux, The Great Merger Movement in American Business, 1895-1904 (1985); David J. Ravenscraft and F.M. Scherer, Mergers, Sell-Offs, & Economic Efficiency (1987); and Leonard Weiss (editor), Concentration and Price (1989).

Taken together, these four works address central issues in antitrust policy: collusion and concentration. They teach that collusion in concentrated markets as a matter of theory, history, and current experience is a durable strategy; they teach that concentration is very likely to produce economic costs rather than gains; and they teach that there are few, if any, observable economic benefits from the combinations that create concentration.

Weaving together these historical, empirical, economic, and game theory strands creates a strong case for the older view of concentrated structures. This in turn argues for stricter, more vigorously enforced merger standards, for continued efforts to devise ways of bringing about deconcentration of oligopolistic and monopolistic markets, and for renewed concern for the ways in which agreements among economic actors can result in the "evolution of cooperation." In sum, the long run best economic interest of the United States is still best served by actively enforcing competition.

The next section provides a summary of the four works of scholarship from the 1980s that should be central to public policy governing antitrust in the next century. Part III will then discuss some of the implications for public policy that these works suggest.

10. See, e.g., U.S. Dep't of Justice, 1985 Vertical Restraint Guidelines.
II. THE "LOST" LEARNING FROM THE 1980s

The learning discussed below is lost only to those actively involved in making antitrust policy. Historians are quite aware of Professor Lamoreaux's work, and economists know of both the Ravenscraft and Scherer study and Professor Weiss's work. Scholars in a broader range of fields, including law, are aware of Axelrod's work. Antitrust scholarship has, however, remained in ignorance of this work.

Axelrod and the Ravenscraft and Scherer books have received some attention. In early June 1995, the Lexis law review collection had 159 articles with references to Axelrod's work, but only a handful of those articles had anything to do with antitrust. Indeed, Professor John Wiley of UCLA, who wrote an article exploring some of the implications of Axelrod's work, and myself account for most of these antitrust references. Ravenscraft and Scherer were cited in thirty-eight articles in the Lexis archive. Of these articles, twenty-one were on non-antitrust aspects of corporate takeover policy while seventeen had explicit antitrust focus. Only six antitrust articles have referenced Weiss's work—one with total inaccuracy—and I, a colleague of Weiss's, was the author of two of the remaining articles that referred to his work. Lamoreaux has gone unnoticed in the legal academy save for a single reference in an article I wrote on the history of antitrust. This survey suggests that these works remain largely unexplored by antitrust scholars. It is my contention that serious discussion of both the history and the policy of antitrust requires consideration of these works, even if one ultimately rejects the implications I have drawn from them.

This discussion starts with theory—Axelrod's explanation of the conditions for durable collusion. Axelrod's theory provides a base from which to examine the intrinsically interesting historical work of Lamoreaux on the great merger wave at the start of the twentieth century, as well as Weiss's work on concentration. In this analysis, the Ravenscraft and Scherer work provides an important contribution because it counsels us that merger is not, in itself, likely to enhance efficiency. This means that the down-side risks of a strict policy to discourage new concentration and unravel old is unlikely to produce serious negative effects. In the interest of chronological sequence, I will consider the Ravenscraft and Scherer book prior to Weiss's. This sequence will also allow us to see that Lamoreaux's skeptical conclusions about major mergers at the turn of the century are consistent with the contemporary data examined by Ravenscraft and Scherer.

13. Frank H. Easterbrook, Correspondence, Workable Antitrust Policy, 84 MICH. L. REV. 1696, 1698 n.6 (1986) (asserting that Weiss had "retreated" from the position that concentration had negative competitive implications).
A. Explaining Collusion

Robert Axelrod is a political scientist interested in promoting "cooperation" among contending groups. He had a particular interest in the development of cooperation among nations who are hostile to each other. The kind of social problem that interested him was one in which there were net gains to cooperation, but in which betrayal could also produce gains. Moreover, he saw this as a long term, repeat process. A repeated "prisoner's dilemma" game is a classic example of this problem. The basic statement of this game is that each of two prisoners will be best off if she confesses and implicates the other, so long as the other prisoner continues to deny the crime. In that case, the prisoner who has betrayed will get a substantial reward while the other will suffer punishment. The next best solution from the perspective of either prisoner occurs if both prisoners deny the crime (a conspiracy of silence), then neither will be punished; however, neither will gain the largest potential individual reward. The worst case, from the perspective of either prisoner, occurs if both implicate the other. In that case both will be punished, but neither will be punished as severely as would have been the case if only one of them had been found guilty. The result of the reward structure is to create a richly varied set of outcomes and a simple but analytically interesting context in which to consider strategic behavior.

The implications of the reward structure are that cooperation between two rivals will yield a better result than mutual betrayal; but in any specific game, the "best" individual outcome is to betray the other party if that party is cooperating. On the other hand, if betrayal is likely, then the target is better off refusing to cooperate (mutual betrayal). The game further assumes that there can be no direct communication between the two prisoners. They can not overtly bargain or make other commitments that would make cooperation more creditable. There are a number of limits to this two player game, thus it translates as, at best, a rough approximation of the more complex real world. Still, like any good model, it abstracts key features of the real world into a very simple and elegant paradigm that is amenable to a variety of tests and investigations.

Axelrod's contribution was to conduct an experiment in which he solicited computer programs from around the world to develop strategies to play a repeated, computer game version of the prisoner's dilemma game. Axelrod's version involved positive pay-offs for each kind of response. He ranked successful cooperation with the highest score (six points), which was split between the players (three points for each player); successful betrayal (five points for the successful party and none for the victim) ranked second; mutual non-cooperation earned each player one point (a total payoff two points).14

Axelrod was interested in identifying how strategies work when the game was repeated many times. Repetition is a key element in his approach:

What makes it possible for cooperation to emerge is the fact that the players might meet again. ... Choices made today not only determine the outcome of this move, but can also influence the later choices of the players. The future can therefore cast a shadow back upon the present and thereby affect the current strategic situation.\(^\text{15}\)

Repetition, however, is not enough. The discount rate on the future is also a very important consideration, because developing cooperation depends on "the next move" having a large enough value relative to the present move "to make the future loom large in the calculation of total payoffs."\(^\text{16}\) In addition, the strategies of the other players are important constraints on how well any particular strategy will work.\(^\text{17}\)

Basically, Axelrod found that cooperation is a robust strategy in a world in which at least some other players want to cooperate and there are positive rewards for such cooperation. Moreover, among cooperative strategies, the best strategy is also a very simple one: tit for tat. It is, indeed, a modified version of the Golden Rule: Do to others what they have done to you, but always assume the best about them. Thus the strategy is a "nice" one.\(^\text{18}\) It assumes others want to cooperate. Its opening move is cooperative. If the other player responds cooperatively, then Tit for Tat stays cooperative, and both parties achieve a result that maximizes the long run potential gains.\(^\text{19}\) If the other player's strategy is to "cheat", i.e., betray Tit for Tat, then on the next move Tit for Tat will not cooperate. If the other strategy returns to cooperation, Tit for Tat never holds a grudge. Hence on the following move it will cooperate again.

"Mean" strategies, ones which try to trick others, tend to be self-consuming and so will drop out after a time as they face an increasingly hostile world. Non-cooperative strategies are also stable.\(^\text{20}\) But, of course, players using such a strategy will get lower returns over time. Thus, absent constraint, it would make sense for any prisoner in Axelrod's structure to seek to determine if the other prisoner will cooperate.

The book contains important strategic advice for players of such "games" as to how to create and maintain cooperation.\(^\text{21}\) Important for our purposes is that the more interactions between players, the easier it is

\(^{15}\) Id. at 12 (emphasis added).
\(^{16}\) Id. at 15.
\(^{17}\) Id.
\(^{18}\) Id. at 33.
\(^{19}\) It is a realistic maximum because, although successful betrayal would yield a greater gain in the short run, it is extremely unlikely that in the long run of repeated games, such gains would continue. It is possible to imagine a long run theoretic optimum for each party in which it continually successfully betrays the other. The only illustration that I can think of demonstrating such persistent error on the part of one party is Lucy's duping Charlie Brown every year with respect to her holding the football for him to kick. See Charles Schultz, Peanuts in the Sunday comics.
\(^{20}\) Axelrod, supra note 14, at 62-63.
\(^{21}\) Id. at 124-41.
to create and maintain a cooperative strategy. One can see this as a learning curve or a simple communications system. Either way, if the players interact more, they can more quickly and with greater certainty define each other's strategy and seek the mutual benefit in cooperation. Moreover, the information communicated is not product line or activity specific. Hence, learning from one kind of interaction can be carried over easily to any other interaction between the two players.

Another interesting and important observation is that each player should focus on its own relative gains. Axelrod propounds the maxim that it is counter productive to be "envious." One should not focus on how much the other player is getting; each player should only focus on whether or not his choices are maximizing his long run payoff.

Axelrod's version of the prisoner's dilemma game has an obvious parallel to economic behavior. The prisoner's dilemma is the equivalent of a cartel arrangement: If A induces B to behave in cartelistic manner (reduce output and raise prices), and A then cheats on B (the same as a confession implicating the other), A can make the largest profit. If A and B can each trust each other, they will share the cartel profit. Neither will be as well off as it could have been if it succeeded in betraying the other, but each will be better off than if they adopt the third possibility: competing with each other (the same thing as both confessing). Moreover, as in Axelrod's game, cartels need to operate over time to produce real benefits for their participants. The participants themselves are tied to long-term activity as well as to specific investments which means that the future will indeed cast a "long shadow" over the present. As in Axelrod's version of the game, the rewards for conspiracy are likely to be increased relative profits over a competitive (non-cooperative) solution.

Given the obvious analogy to vital antitrust issues, Axelrod's effort to test strategies to solve the prisoner's dilemma problem has great significance for understanding the problems presented to antitrust law by an economy that features large numbers of oligopolistic markets, vast conglomerate enterprise, and a sense that firms are not always as competitive as they might be. Axelrod seems unaware that he is discussing collusion and cartel building except for a few fleeting passages; yet his study, viewed from an antitrust perspective, addresses the question of the conditions under which tacit economic collusion ("cooperation") can be durable. The work also provides a theoretical context for testing claims of tacit collusion; it identifies conditions necessary for such behavior to exist; it predicts that such cooperation will be robust in the face of competitive disruption so long as the long term (the shadow of the future) is a strong influence; and it identifies specific kinds of strategies we might ex-

22. Id. at 130.
23. Id. at 110.
24. See, e.g., id. at 65.
25. There is a surprising lack of sophisticated thinking and analysis about when and how collusion will occur in industry. This gap means that Axelrod's work should be central to realistic theorizing.
PECT TO OBSERVE FIRMS EMPLOY OVER TIME IN PROMOTING COLLUSION. THERE ARE ALSO IMPLICATIONS FOR MARKET STRUCTURE BECAUSE THE MODEL PREDICTS HOW THE RELATIONSHIPS AMONG ACTORS (NUMBERS AND INTERACTIONS) WILL AFFECT ANTI-COMPETITIVE, INTERDEPENDENT CONDUCT. AS SUCH IT PROVIDES AN INTERPRETATIVE FRAMEWORK WITHIN WHICH WE CAN LOCATE BOTH HISTORICAL AND CONTEMPORARY DATA ABOUT COLLUSIVE CONDUCT, ESPECIALLY IN CONCENTRATED MARKETS.

FOR AXELROD, COOPERATION IS A GOOD THING AND BETRAYAL IS BAD. HIS PRIMARY CONCERNS ARE WITH CONTEXTS (E.G., INTERNATIONAL PEACE) IN WHICH COOPERATION IS DESIRABLE. HOWEVER, WHEN VIEWED IN TERMS OF MARKET BEHAVIOR, THE POINTS OF REFERENCE NEED TO BE REVERSED. COOPERATION IS COLLUSION AND SEeks TO CREATE, ALLOCATE AND EXPLOIT MARKET POWER. MUTUAL BETRAYAL IS SIMPLY COMPETITION ON THE MERITS IN WHICH PRODUCERS SELL AT A PRICE APPROXIMATING COST.

ONE VERY INTERESTING ASPECT OF THE GAME MODEL IS THAT IT UNDERCUTS THE CONVENTIONAL CONCEPTION OF PRICE COMPETITION. IN THE GAME CONTEXT, PROFIT MAXIMIZATION IN THE LONG RUN CONFLICTS WITH PROFIT MAXIMIZATION IN THE SHORT RUN. THE HIGHEST SHORT-RUN PROFIT RESULTS FROM BETRAYAL OF THE COOPERATING (COLLuding) OTHER PARTY. IN THE LONG RUN, HOWEVER, SUCH ACTIONS WILL INEVITABLY RESULT IN LOWER FUTURE PROFITS. THE BEST SOLUTION IN THE LONG RUN (ASSUMING THAT THE FUTURE IS NOT DISCOUNTED TOO HEAVILY) IS TO TAKE THE COOPERATIVE GAIN WHICH IS LESS THAN THE SHORT RUN MAXIMUM. THE MODEL OF PRICE COMPETITION USED IN MICRO PRICE THEORY IN WHICH MONOPOLY (SUCCESSFUL BETRAYAL) AND COMPETITION ARE THE ONLY ALTERNATIVES THUS ASSUMES WHAT NOW APPEARS TO BE A TOTALLY UNREALISTIC SET OF OPTIONS FOR MARKET PARTICIPANTS. THE BEST LONG-RUN OPTION MAY WELL BE COLLUSION!

TRADITIONAL ANTITRUST AND ECONOMIC ANALYSIS HAS ASSUMED THAT IT IS VERY HARD TO REACH AND RETAIN THE MIDDLE GROUND OF SUCCESSFUL COLLUSION.\textsuperscript{26} THE TEMPTATION TO CHEAT, IT IS ARGUED, IS SO GREAT THAT ABSENT EFFECTIVE, OVERT POLICING NO CARTEL CAN BE VERY STABLE OVER TIME. CHEATING IS ASSUMED TO BE IN THE SELF INTEREST OF EACH PARTICIPANT. THEY ARE ASSUMED TO OPERATE WITH "MEAN" STRATEGIES. THIS ANALYSIS RELIES HEAVILY ON THE ASSUMPTION OF SHORT-RUN PROFIT MAXIMIZATION. ONLY IF ENTERPRISES IGNORE THE FUTURE WOULD THE SHORT-RUN GAIN OF CHEATING BE VERY LIKELY TO OVERTHROW THE LONGER RUN ADVANTAGE OF A STABLE CARTELISTIC ARRANGEMENT. INDEED, SUCCESSFUL CARTELIZATION IMPLIES, NOT IMPLausibly, THAT RATIONAL ECONOMIC ACTORS SEEKING TO MAXIMIZE RETURNS FROM ASSETS WITH LONG LIVES RECOGNIZE THAT IN THE LONG RUN CHEATING IS NOT A VIABLE STRATEGY. CHEATING LEADS TO COMPETITION, THE THIRD AND WORST, FROM THE PERSPECTIVE OF THE PARTICIPANTS, OUTCOME. FROM A SOCIAL PERSPECTIVE, OF COURSE, CHEATING (MUTUAL BETRAYAL) IS THE PREFERRED OUTCOME; MOREOVER, IN A WORLD DOMINATED BY BETRAYERS (I.E., COMPETITORS) COMPETITION IS A STABLE RESULT. INDEED, THE SHORT RUN, STATIC PERSPECTIVE OF PRICE THEORY, THEREFORE, DECLARES THE FIRMS IN A CARTEL

\textsuperscript{26} THE BEST ARGUMENT FOR THE PROBLEMS IN COLLUSION IS FOUND IN JOHN S. McGEE, \textit{Ocean Freight Rate Conferences and the American Merchant Marine, 27 U. CHI. L. REV. 191 (1960)}. 
are behaving "irrationally" by refusing to compete on price and so capture greater profits and sales volume.

Axelrod's contribution is to show that a simple strategy for cooperation (collusion) can work very successfully. Indeed, his experiments suggest that a few colluders can ultimately come to dominate over those who follow a strategy of competition (no cooperation). This is significant on two levels. First, it suggests that when a more realistic time perspective is assumed, cooperation among competitors emerges as both rational and workable. Second, if a few firms can cooperate successfully, they will, over time, come to dominate their context. Manifestly, such cooperation has to involve a set of customers or suppliers who for one reason or another have no recourse but to deal with the colluding parties. Such context have in fact been observed in real antitrust cases and in theories about competition.\(^{27}\) It is important to recognize that the success of these collusive responses also assume key economic facts regarding limited entry and exit from the market as well as the continuity of the long run shadow of the future.

Another interesting implication of Axelrod's analysis comes from his proof that players need to focus on their own gains and not those accruing to other players in deciding on a course of conduct. The dominant theories for antitrust in the 1980s held that unequal returns to firms in concentrated industries was a refutation of the existence of collusion among firms. The assumption was that if there was collusion then all firms would have had similar profits. The Axelrod analysis of collusion shows that such an assumption is false.\(^{28}\)

The conclusions one can draw from this work is that tacit collusion is a stable and robust prospect for businesses in any market situation if the participants can establish a pattern of cooperation. But cooperation is a learned strategy, requiring the parties to understand their long run interests and to value those interests above short run interests. This in turn implies that there will be conditions under which there will and will not be a good chance to develop cooperation. Concentration, whether horizontal, vertical, or conglomerate, will increase the chances of cooperation because it will increase the interactions among any set of firms. New products, new technologies, or other dramatic changes in the given condi-

\(^{27}\) See, e.g., United States v. Container Corp. of Am., 393 U.S. 333 (1969) (sellers of boxes to specific customers colluded as to prices to that particular customer). See generally Richard S. Markovits, An Ideal Antitrust Law Regime, 64 TEX. L. REV. 251, 253-66 (1985) (arguing that in general sellers operate in an economic context in which most customers, for reasons of geography, taste or other constraints, have relatively few effective choices; hence, collusion between the first and second options can be important in exploiting customers). See also MONOPOLISTIC COMPETITION THEORY: STUDIES IN IMPACT (Robert E. Kuenne ed., 1967).

\(^{28}\) One can get the same conclusion from traditional micro-price theory. Under this theory, the marginal firm will barely break even. The theory never posited that all firms would have equal costs. Hence the theory would not predict that a cartel which included marginal firms would produce equal profits. All conspirators would be better off than in a competitive world. So long as they had no envy for the more successful conspirators, disparate profits are no bar to collusion.
tion of the market can seriously disrupt existing understandings. Entry by non-cooperative firms, when they reach certain levels in the market, can cause a rapid disintegration of cooperation. This disintegration would occur because it will be increasingly difficult to find buyers who lack access to a non-cooperative seller. In such a world, it would become very costly to continue to follow a cooperative strategy; indeed, the basic tit for tat strategy would lead all firms to engage in consistently competitive responses because there would be no observed cooperation.

The foregoing suggests the importance of strategies of exclusion and response. Limiting the potential for new entry, defining ways to punish non-cooperative behavior by existing firms, and ensuring clear communication of conduct are all important. In real world terms, creating conditions in which the future will loom large for competitors is a step toward creating a context in which tacit collusion will be a durable strategy. The strategy itself is one that can emerge out of rational interaction in specific contexts. Hence, if such collusion is undesirable, an important objective for public policy becomes avoiding such contexts.

What Axelrod contributes to conventional antitrust analysis is the information that a simple, conduct-based, non-verbal strategy can achieve and maintain cooperation under plausible conditions of concentration. Moreover, this strategy is a durable and dominant one. Thus, if firms adopt this strategy, they are likely to persist in using it unless there is a radical change in conditions.

There are several important caveats to transferring Axelrod's work directly into antitrust law. As with any model, this model simplifies and abstracts key elements. One of the most interesting is the "shadow of the future," because it is central to the pressure for cooperation. Axelrod's game involves constant future rewards. This means, first, that new entry which reduces gains is not allowed. The general suggestion one might draw is that only if future gains appear likely and stable is collusion attractive. As suggested above, this implies that parties already engaged in a cooperative game would have to adopt strategies to control and limit new entry and alternative technologies. The work of Salop and Krattenmaker on raising rivals costs is relevant here. It also suggests that such controls produce value for all participants only if there is or will be cooperation which in turn implies that the moves necessary to create conditions for anticompetitive cooperation may be constrained by free riding and collective action problems. However, where a market has evolved to create such conditions, then anticompetitive cooperation is a very attractive strategy.

Because Axelrod's game saw cooperation as a positive force, it has no antitrust type penalty. The rewards for cooperation are not discounted by the threat of liability. A possible implication of his analysis is that a

29. See Wiley, supra note 12.
sanction that captured most or all of the rewards that a specific firm expected, on a random basis, could effectively deter such cooperative conduct by limiting the shadow of the cooperative future. Interestingly, this would suggest vigorous antitrust enforcement aimed at collusion, including tacit collusion, with the actual imposition of substantial liability as a deterrent to other conspiracies. Reducing the "shadow of the future" involves either direct sanctions or changing the number of players, especially for future gains, so that cooperation is less attractive. Enforcing mutual non-cooperation (competition) requires that the expected future gains from cooperation be reduced.

Because the parameters of the game are fully defined, Axelrod gives the players no incentive to develop alternative ways to do things that might lower their operating costs or otherwise alter the expected payoff from non-cooperation. There is, thus, no dynamic in the market that underlies this model. Clearly, the impact of this lack of dynamic is that the incentives to engage in non-cooperative efforts are understated. If one can win big though developing a new product, a new production process, or some other way to alter the outcome of the game (it is as if Axelrod added an option that allowed a prisoner to escape and get all the money), then there are several futures that might have to be balanced to see which shadow is more attractive. Of course, the Axelrod strategy would predict that a major concern among firms engaged in a tit for tat prisoner's dilemma would be how to stabilize and control those risks that would disrupt their ongoing game. Once again, the obvious prediction is that one might expect to see substantial sharing of or joint ventures in research and development, lobbying to regulate or eliminate alternative methods of production (e.g., environmental controls), or other strategies that limit new entry or different methods of competition.

Finally, the question remains, is Axelrod's two player model a valid one? It does call for interaction among all strategies but only in one on one situations. If one adopts the views of Markovits and Kuenne—that the economic world is one of monopolistic competition in which for a wide range of reasons, most buyers and sellers have very limited choices—then the view that many economic decisions are consistent with a prisoner's dilemma game is plausible.31 Individual business decisions involve small group contexts in general. One would also predict that actions and decisions would appear quite different if buyers had a substantial number of equally plausible choices. Most conventional price theory is built on such a model without any empirical testing to determine whether that model has wide application in the real world of functioning markets.

The implications of Axelrod's model in a world of three or four prisoners, on the other hand, seems to be increased complexity but little substantive change. The time it would take for firms to learn whether or not

31. See Axelrod, supra note 14; Kuenne, supra note 27; Markovits, supra note 27.
all participants were cooperating could be a problem. The identification of "cheaters" (i.e., those attempting to betray cooperation) might be more complex. Indeed, these considerations lead easily to the prediction that multi-firm oligopolies would be likely to pursue strategies of organization with respect to distribution and marketing that would serve the purpose of effective coordination. The firms would do so if the future cast a substantial shadow over the present and the firm understood the gains from a workable policy of cooperation along the lines of tit for tat.

Thus, despite some reservations, Axelrod gives us a far better idea of how collusion can be created and maintained. He has tested the strategy against others and has shown that it is robust and effective under conditions not dissimilar from those governing important parts of the real economic world. The key question then becomes whether or not this explanation of cooperation has any relation to historical experience with competition or to current information about market consequences.

B. LAMOREAUX AND THE HISTORY OF CONCENTRATION

Professor Naomi Lamoreaux published her evaluation of the merger movement of 1895-1904 only a year after Axelrod's book appeared. As a result, her description, while influenced by sophisticated economic theories of oligopoly, did not draw on the insights generated by his study of repeat playing of the prisoner's dilemma game. However, her description of the evolution of market behavior in a range of industries in the period provides a very illuminating set of examples of how cooperation can and does evolve in the real world of business.

At the turn of the century there was a massive wave of consolidations—as a result of the merging of several firms in various industries—which reached a high point in 1899. Over 1800 firms were absorbed in these consolidations. These consolidations resulted in enterprises often holding very substantial shares of the market. Of the ninety-three such consolidations for which national market share data was available, seventy-two resulted in market share control in excess of forty percent and forty-two resulted in market control in excess of seventy percent. Moreover, many of the twenty-one consolidations with less than forty percent market shares involved goods such as beer where the effective market area was local or regional. These statistics would suggest that many of these combinations may also have created substantial regional market concentrations. The combinations were largely focused in in-

33. Id. at 2 and table 1.1.
34. Id. at 2.
35. Id.
36. Id. at 2 and table 1.2.
37. Id.
38. LAMOREAUX, supra note 32, at 3 and table 1.2 (7 of the 21 consolidations with less than 40% national market shares involved brewing, which was a regional or local market).
industries that had experienced rapid technological change and substantial new entry from firms with large productive capacities. The resulting industrial contexts involved some of the classic elements of the prisoner's dilemma; firms with large capacity relative to total demand, similar costs, and a mutual recognition of the potential for gains from cooperation.\(^3\) If firms could cooperate, then they would share in stable monopolistic prices. However, there were also very substantial potential gains from betrayal. For example, if others could be induced to raise prices, the betrayer could undercut the prevailing price and lock up a large, profitable part of the market. Of course, if all firms promised to raise prices and then betrayed each other, the result was the worst case for the firms: persistent non-cooperation would cause prices to fall until they reached cost, denying the new firms substantial profits.

Lamoreaux examined in detail two sets of industries. The first set experienced rapid technological or demand changes in the 1890s. These industries had substantial new entry. However, the period of rapid growth was followed by economic recession which reduced the growth in demand that had fueled entry and profit expectations.

The second group involved similar industries in terms of technological complexity and capital intensity. The second group differed from the first in that entry and growth had occurred in the 1880s so that by the time of the recession of the 1890s the firms had a longer history of experience with each other.

In both sets of industries there were very high fixed costs so that running a plant at full production meant that average total cost per unit was substantially lower. This full production in the face of declining demand meant that prices had to be discounted—often very deeply—to make sales. The discounted prices caused revenues to fall on a per unit basis. However, the fact that fixed costs were relatively substantial meant that it remained economically rational to cut prices so long as the price received exceeded variable costs and made some contribution toward the fixed costs. Thus, the industries faced a cycle of deep price cutting whenever demand declined if each firm sought to act independently.

The alternative pricing strategy was to hold prices at as nearly a constant level as was possible and adjust output. This would yield a better outcome so long as all firms cooperated. Revenue would still decline, but not nearly as much. Assuming that demand declined modestly, the losses would be shared by all firms at levels that most could comfortably afford.

In comparing the two types of industries, Lamoreaux found a marked difference. The new, expanding industries were unable to stabilize prices. They had no capacity to trust each other. Even when they entered into overt and formal conspiracies, someone would defect. The result was that price wars resumed. Indeed, the general pattern was persistent price wars

\(^{39}\) \textit{Id.} at 46-49.
during the entire period of declining demand. Only with economic
growth was there any real recovery in prices.

There was, during this same time period, a surge in consolidations.
Lamoreaux argues that most of these mergers were for anticompetitive
purposes.\textsuperscript{40} She finds no efficiency gains from these consolidations. In-
stead, the stated goals of these consolidations were to acquire control
over the industry and raise prices.\textsuperscript{41} However, most of these combi-
tations failed to achieve any noticeable power over price in this period.
Entry into some lines remained fairly easy because unintegrated suppliers
existed in sufficient number to support entry. Secondly, some firms re-
mained outside the consolidation; those firms, having comparable effi-
ciency, could and did expand production and engage in vigorous price
competition after the consolidation of competitors. As a result, the com-
bined did not have much success in raising prices so long as economic
conditions remained depressed and competitors would not cooperate.\textsuperscript{42}

In marked contrast, the comparable industries which had experienced
similar growth a decade earlier did not experience either the radical de-
cline in prices or the massive consolidation of their newer sisters.\textsuperscript{43} Ex-
amples abound of tit for tat type behavior in rail production and other
industries.\textsuperscript{44} These strategies worked. Price cutting was attempted, but it
ceased quickly with revised tacit understandings among the parties.

The most instructive period, however, came a few years later in 1907
when another economic down turn threatened to generate substantial
price competition. This time cooperation was the dominant strategy even
among the industries where price cutting had been common a decade ear-
er. The dominant firms in particular could see the long shadow of the
future. They had also, more or less self-consciously, reduced or elimi-
nated the easy ways to make entry into the particular line of business by
vertical integration which absorbed many of the key sources of inputs.
When other firms began to undercut the prevailing price, the dominant
firms would respond with price cuts to ensure that the deviant understood
that it could not gain market share by price competition. Tit for tat
worked in the paper and tin-plate industries.\textsuperscript{45} Of the steel industry gen-
erally, Lamoreaux observes:

The [U.S.] Steel Corporation maintained prices until its officers felt
that competitors were obtaining too large a share of the business.
Then (typically during downturns) U.S. Steel suddenly reduced its
quotations. . . . [O]ver time, the periods of price maintenance grew
longer and bouts of price cutting less frequent. . . . By mid-decade,

\textsuperscript{40} Id. at 87.
\textsuperscript{41} Id. at 62.
\textsuperscript{42} Id. at 62-86.
\textsuperscript{43} LAMOREAUX, supra note 32, at 62-86.
\textsuperscript{44} Id.
\textsuperscript{45} Id. at 126-34 (paper), 135-36 (tin-plate).
the independent firms had, for all practical purposes, joined U.S. Steel in a cartel to restrain production and support prices.46

What Lamoreaux describes as the history of these mass production industries is a classic example of a prisoner's dilemma game played out in a real world context. We start with a group of firms with roughly similar productive efficiency and capacity which are few in number and so recognize their interdependency. Initially, each firm recognizes that it can make greatest profits in the short run if it can induce others to cut production and raise prices, while it betrays the agreement and runs at full capacity while undercutting by a little the agreed prices. Again and again the firms tried to collude, but each time one or more firms betrayed the conspiracy. They followed a “mean” strategy. The result was full blown competition (mutual non-cooperation) in which prices fell and output remained high. In terms of the prisoner’s game, this is the worst result for the players. In terms of economic theory, this is competition (non-cooperation) from which society reaps the greatest social gain. Even large scale combination failed to deter the efforts to exploit short run opportunities. Only the renewal of substantial economic growth ended this first period of price competition.

The next step in this history were wide-spread mergers which created tight oligopoly or monopoly situations. The list of combinations that achieved over seventy percent market control is impressive. Another even larger group resulted in firms having over forty percent market shares. While past historians have argued that stock market interests or efficiency goals explained this wave of mergers, Professor Lamoreaux’s careful re-examination of these transactions convinces her that the objective behind many of the combinations was expressly anticompetitive market control.

Yet the first crest of this merger wave did not have that effect. It was overwhelmed by new entry and by vigorously competitive conduct by the remaining firms. Combination of some competitors neither created cooperation among the remaining firms nor created any exclusionary effect. The strategies remained non-cooperative. Each firm was trying to grab all it could get with the result that competition still dominated.

By the time of the next economic downturn, the new industries had learned how to cooperate. They did not compete on price; technology and entry were more restrained. Read in light of Axelrod, Lamoreaux has provided an almost perfect description of the development of a tit for tat strategy leading to stable, cooperative anticompetitive conduct in industries characterized by relatively high levels of concentration and stable technology. Another important feature of this description is the way in which the dominant firms sought to acquire control over key inputs, patents or other means that would entrench their position over time. They deliberately sought to create longer future shadows as they forced their

46. Id. at 136.
rivals to make similar investments and as they made new entry more difficult. Now the firms in the industry could see a long, mutual relationship. In such a context, even partial and limited cooperation made increasing economic sense.

The implication for the future of this history suggests that concentration does in fact breed cooperation and anticompetitive results. These results are, however, tempered by new entry and technological change, as both of these forces reduce the shadow cast by the future.

By 1907 or 1908, the Sherman Act's prohibition on monopoly was sufficiently defined as to prevent the kind of consolidations that had occurred prior to 1900. The *Northern Securities* decision in 1904 probably resolved that question even before *Standard Oil* and *American Tobacco* made merger to monopoly too risky. The effort to turn back the clock and undo more of the consolidations that had moved the economy toward cooperation and away from competition was not very successful. Even the leading cases such as *Northern Securities, Standard Oil,* and *American Tobacco* did not restore fully competitive conditions. In the case of the oil industry, over many decades, change and growth, together with the limits on new mergers, may well have moved that industry back toward workable competition. Other examples of gradual change exist.

My suggestion is that antitrust enforcers should look at Lamoreaux's report of the impact of massive consolidation in technologically developing industries and consider the relevance of that experience to new areas of similar change, such as health care and telecommunications. The long run implications of concentrated structures where barriers to new entry remain high or are enhanced is that, as cooperation among competitors evolves, there is likely to be a substantial loss of competition over time.

C. EMPIRICAL EVALUATION OF MARKET PERFORMANCE

In the mid-1980s, Ravenscraft and Scherer looked at the empirical information about the consequences of mergers. Their findings suggest that merger is not a major source of efficiency for the economy. Toward the end of the decade, Leonard Weiss collected and published a set of studies of concentrated markets which showed that these markets systematically tend to produce inefficient and undesirable results. In combination, these projects evaluating contemporary market performance strongly supported the historical work of Lamoreaux, and again suggest

51. See Carstensen, supra note 8, at 1198 (discussing the meat packing industry).
(especially Weiss) that cooperation has evolved in such markets exactly as Axelrod's experiments would have predicted.

1. The Inefficiency of Merger

Even if concentrated industries impose economic costs because the risks of collusive conduct are real, persistent, robust, and substantial, a counterclaim, strongly advanced during the 1980s, was that mergers and consolidations produced major efficiencies. If combinations generally had positive effects, then public policy would have to be very attentive to balancing the anticompetitive dangers against the potential or actual efficiency gains that such transactions produced. Indeed, as at the turn of the century, there are many policy-makers, including the new head of the FTC, Robert Pitofsky, who seem to believe that big firms are inherently more efficient and that merger is the way to create such firms. Such a policy perspective suggests that even if the merging firms obtain a larger share of the gains than a purely competitive solution would have allowed, society has, on balance, also gained.

Indeed, during the 1980s there were a spate of takeovers and mergers in which very large premiums were paid for acquired firms. It was contended in many scholarly writings, especially in the corporate law debate over takeover regulation, that such combinations had to be efficiency enhancing because no visible market power gains resulted from many of these combinations. Viewed from the perspective of the mid-1990s, it is now apparent that many expectations were exaggerated, very much like the experience of a number of the great combinations of the 1890s. Large firms went into bankruptcy as a result of their inability to service the debt they undertook. Few real successes emerged. By 1995, de-conglomeration was the watchword for many segments of the economy. The dissolution of the vast ITT enterprise is the most visible example of the changed view of the capacity of managers to control vast and dispersed enterprises.

Despite the actual events of the 1990s, the faith continues that large enterprise is good and that large combinations imply economies. Moreover, it is still the case that in combinations substantial premiums are being paid. Such premiums over prior market price suggest that the buyer must expect to get a greater gain than the prior owners. How can that occur? Improved efficiency is the answer most likely to be suggested. This is not, however, the only potential explanation for such a premium. The work of Professor Coffee, for example, suggests that the premium

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may reflect a reallocation of entitlement to the wealth produced by the corporation.\textsuperscript{55}

Some unreported work that I have done compared a sample of management buyouts with third party acquisitions of publicly traded corporations during the 1980s. I found no significant difference in the relative premiums paid. This would support the proposition that something other than enhanced efficiency explains the high prices paid in many corporate takeovers and buyouts.\textsuperscript{56} The effort to explain the prices paid in such transactions is not the focus of this discussion. Rather, I wish only to start with the observation that premiums will be paid if buyers believe that they will capture some value that justifies the price paid, whether or not that value comes from increased efficiency. The point of interest for competition policy is whether or not efficiency gains are likely consequences of such transactions. We already have Lamoreaux's analysis of the past, which showed that there were few if any gains in those transactions.

Ravenscraft and Scherer used the FTC's line of business data set to examine the consequences of mergers and acquisitions. The FTC in 1974 initiated the collection of a large body of product and plant specific data from a group of leading American corporations. The explicit goal of this project was to create a data set that would provide useful and relevant empirical data on central questions of market behavior and performance. The data set was collected only from 1974 to 1977, when the FTC, under congressional pressure, abandoned the project. It covered about 450 large American corporations. Using this data it was possible to examine the consequences of mergers and acquisitions that had occurred during the merger wave of the late 1960s and even to look backward as far as 1950 when the FTC first collected reports tracking such transactions. There are vast problems with data analyses in such an undertaking. The authors are at great pains to explain the difficulties and problems that beset any effort to make systematic statements over time about information drawn from diverse corporate records. Still, they found that the data produced some reasonably clear results.

First, the acquired companies tended to be profitable, indeed, above average in their profits prior to acquisition.\textsuperscript{57} Thus, contrary to the common notion that the acquisition of a firm reflects problems or inefficient


\textsuperscript{56} I compared the premiums paid in management buyouts with a set of comparable corporate takeovers, holding year and size roughly comparable. I found no significant difference in the premium paid as a percentage of the pre-acquisition stock price between those transactions in which management would change and those in which it would stay the same. Such a result is more consistent with the hypothesis that in acquisitions the new owners expect to reallocate control over existing wealth within the enterprise than with the theory that they will increase its total production of wealth. \textit{See} Peter Carstensen, Explaining Changes in Control of Public Corporations: A Stochastic Wealth Redistribution Hypothesis, Its Proof and Policy Implications (unpublished manuscript, on file with author).

\textsuperscript{57} \textit{Ravenscraft}, supra note 52, at 73-74.
operations, the pattern found was one of buying successful businesses which showed, if anything, increasing profitability immediately prior to purchase.

Second, despite the fact that the acquired firms were profitable prior to purchase, the results of acquisition were generally negative. "[B]y any criterion, profitability fell on average following . . . mergers."58 In marked contrast, where one of these sample firms entered a line of business without merger, it tended to show increasing profits over time.59

In part, the failure of mergers reflected efforts by acquirers to "milk" the newly acquired assets.60 This is consistent with the wealth reallocation explanation for takeover premiums. The buyer pays a premium which it recoups by extracting existing wealth from the target. Indeed, when the acquired businesses were sold off as independent units, they tended to exhibit increased operating efficiency and renewed profitability.61 In general, the consequences of acquisitions were negative and a substantial cost to the economy. "[M]erger effects help explain roughly a tenth of the productivity decline [in the Gross National Product]—a modest contribution, but not so small that it can be ignored."62

The implications for competition policy and merger analysis are reasonably clear. Mergers neither have historically been nor currently are a means of producing substantial improvements in economic efficiency. There are other reasons, related to equity and dynamics, for public policy to encourage the purchase and sale of business assets. But the up-shot of Scherer and Ravencraft's analysis is that there were few, if any, efficiency gains from mergers in general. Hence, a strict public policy toward mergers does not pose a serious threat to economic efficiency overall in the economy.

2. The Reaffirmation of the Costs of Concentration

Professor Leonard Weiss and associates re-examined the traditional hypothesis that concentrated market structures lead to higher prices.63 In the 1960s and 1970s most scholars had tested this claim by looking at the correlation between profits and concentration. The initial work had often found a general correlation. This, in turn, was regarded as evidence that tacit collusion among oligopolists had raised prices and consequently profits in such markets. Critics pointed out that if entry were a real possibility, abnormally high profits more likely reflected greater efficiency and economies of scale or scope which permitted larger firms to earn profits. Assuming easy entry, profits based on mere collusion would be very vulnerable to ordinary price competition from new entrants. As more so-
phisticated econometric analyses of the data were made, however, the correlation between structure and profit became weaker and weaker. Ultimately, the critics triumphed—but only in the sense that they established that there is no clear correlation between profit levels and concentration across industries.

In the leading survey of both theory and empirical work in this earlier period, Weiss pointed out that the theory actually predicted that prices would be higher in concentrated markets.\(^6\) The empirical tests assumed that higher prices would be reflected in higher profits. This assumption implies that the firms in such a market made no investment and incurred no special costs to protect their market structure, and that firms have some common level of efficiency that is independent of the market context. Other theorists, however, had already posited two explanations for why observed profits might be unreliable measures. As Chief Judge Charles Wyzanski put it: “[A] quiet life is the chief reward of monopoly power.”\(^6\) This is more broadly reflected in the theory of X-inefficiency developed by Leibenstein, inefficiency which theorizes that economic actors do not necessarily behave with full efficiency in all circumstances.\(^6\) A second line of thought, associated with the work of Oliver Williamson, suggests that if owners have limited power to control the allocation of monopoly profits, those profits might be dedicated to, for instance, fancy buildings and higher salaries so that the books of the enterprise would not reflect any abnormal accounting profits.\(^6\)

These various considerations made observed profits a poor measure of the consequences of concentration. Indeed, they were used, despite their many obvious weaknesses, because this kind of data is relatively available for analysis, while reliable price data is more difficult to obtain. The triumph of the critics of this line of scholarship lay, therefore, only in the convincing demonstration that reported profits bore no particular relationship to concentration. That hardly provided a conclusive resolution of the question of the consequences of concentration. In large part, the critics relied on the evidence of a lack of unusually large profits as evidence of competitiveness and efficiency in those markets. In doing so, they committed the same analytical error that they had criticized in the earlier studies.

Weiss\(^6\) started with the basic proposition that the hypothesis about concentrated markets posited that prices, and not necessarily profits, would be higher. Hence, he and various associates looked for data that

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compared prices in concentrated and unconcentrated markets. These comparisons either contrasted contemporaneous prices in concentrated and unconcentrated markets or compared prices from periods of greater and lesser concentration. The book reports at length on five studies. These included a comparative examination of cement prices—in regional markets over time, prices resulting in timber and oil land auction markets when the number of bidders varied, the impact of the European Common Market on prices in various sectors of industry, the relationship of wages to concentration, and a more complex multi-sector analysis of the relationships among changes in concentration, cost, demand and price.

In addition, Weiss surveyed studies by others covering six quite disparate economic sectors: newspaper advertising, airline fares, retailing, rail rates, live cattle purchases by meat packers, and banking. Over this wide range of industries, there was a consistent pattern that associated higher concentration with higher prices, regardless of the level of profit.

Weiss summed up the results of these studies in a table showing that, of 121 studies of the relationship of concentration to prices, 76 (62.8%) showed statistically significant positive effects for concentration and another 30 (24.8%) had positive effects that fell short of being statistically significant. Thus, over eighty-seven percent of all the studies located were consistent with the proposition that the level of concentration influences prices. In contrast, only 4 studies showed significant negative effects (3.3%), while another 11 studies showed negative effects lacking statistical significance. Summing up the results of his study, Weiss said, “I believe that our evidence that concentration is correlated with price is overwhelming.” Weiss also noted, however, that the direct costs of concentration are not “our most serious economic problem.” But this is true because this “country... has taken antitrust more seriously than any other country for close to a century.” Thus, enforced competition, in Weiss’s view, has minimized but not eliminated the direct costs of allowing concentration and its associated incentives for cooperation.

From a broader perspective, Weiss’s studies suggest that concentration does not correlate with any obvious increase in efficiency. Indeed, concentrated markets had higher prices but not higher profits. In light of the presence of higher prices in these concentrated markets, the lack of abnormal profit noted by critics now takes on a different meaning. The direct implication is that firms in the concentrated markets were less rather than more efficient when compared to firms, often of smaller absolute size, operating in competitive markets. Other empirical work, notably in the electric generation business, is consistent with this. The theory of X-inefficiency, the Williamson hypothesis of reallocated monopoly prof-

70. Id. at 283.
71. Id.
72. Id.
73. Leibenstein, supra note 66, at 392.
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its, and the potential that the protection of a stable market position may, in itself, justify extra expenditures to ensure coordination and cooperation also might contribute to a weaker, but more plausible claim: concentrated markets generally lack an inherent efficiency advantages over unconcentrated markets. Moreover, in practice such markets seem to generate higher prices. On balance, the implication is that public policy should avoid creating or maintaining concentration in markets. Indeed, the implication is that reversing concentration and stimulating competition will lower prices, although probably not by much. More importantly, but not really addressed by Weiss's analysis, firms will have stronger incentives to seek technical efficiency and innovation because it will be more likely to yield a payoff relative to efforts to promote cooperation.

Weiss focused only on the consequences of concentration and not how those consequences occurred, yet Axelrod's theory and Lamoreaux's history provide a very suggestive explanation. Concentration in a relatively stable environment creates a long future shadow. Cooperation emerges as the best option for such firms once they have discovered they can make reasonable predictions about the responses of others. The patterns of economic behavior observed in the 1890s and early 1900s have continued viability exactly because they reflect the kind of strategy that makes long-run sense: Invest in creating barriers to new entry, stabilize the technology to reduce future uncertainty, and then coordinate competition. The result is the quiet life for oligopolists and long-run decline for the economy.

III. THE REDISCOVERED LEARNING OF THE 1980s: IMPLICATIONS FOR ANTITRUST POLICY

Prior to the 1980s most individuals concerned with antitrust believed that collusion, both express and tacit, was a major problem for the American economy and that concentrated market structures were likely to produce both unilateral and interdependent anticompetitive conduct. Broadly defined per se rules were invoked to condemn agreements, horizontal and vertical, that imposed restraints despite various claims of economic efficiency. Similarly, merger among competitors where those firms had significant market shares, as well as among large firms generally, should be subject to very restrictive standards. In addition, policy-makers continually sought to find ways to eliminate or deconcentrate existing oligopoly and shared monopoly structures.

In the later 1970s, a number of studies questioned the premise of a strong relationship between structure and conduct. The two claims

74. See Pitofsky, supra note 54 (discussing X-inefficiency); Williamson, supra note 67 (discussing alternative uses of profits); Richard Posner, The Social Costs of Monopoly and Regulation, 83 J. Pol. Econ. 807 (1975) (discussing the wasteful use of monopoly profits to protect a monopoly position).

75. One of the best compendiums on this debate is INDUSTRIAL CONCENTRATION: THE NEW LEARNING (Harvey J. Goldschmid et al. eds., 1974).
made on behalf of the new learning were that concentrated structures arose in response to economies of scale and that they are not associated with anticompetitive or inefficient conduct—collective or unilateral. A second strand to this critique was that collusion itself is difficult and hard to maintain. Profit-maximizing firms will “cheat” on the cartel, and so conspiracy is not a feasible strategy except in very limited circumstances. Indeed, a few critics have gone so far as to suggest that the antitrust laws should be repealed.⁷⁶

The acceptance of this new learning about concentration and collusion lead to two consequences for antitrust policy. First, it justified a substantial de-emphasis on challenging mergers even when they created what had heretofore been considered major increases in concentration. Indeed, the combination of the belief in the efficiency of most mergers and the presumption that neither they could, nor would, have significant negative competitive effect meant that even when objectionable under the new relaxed guidelines, those enforcing the law were loath to object, and thus sought only the most limited divestiture of those parts of the business which created the greatest changes in concentration. “Fix it first” became part of the strategy of antitrust enforcement. This usually resulted in consolidating large enterprises even if the target’s parts were distributed among other large firms. The antitrust agencies defined their role as that of merger facilitators rather than as gatekeepers who were to limit the number of such combinations.

Second, the new learning undermined the traditional judicial analytic model for judging the lawfulness of mergers. Traditionally, mergers between significant competitors were subject to a strong presumption of illegality. Stimulated by the new perspectives about merger, the courts increasingly demanded proof that the particular merger being challenged would, in fact, have specific, identifiable effects on competition.⁷⁷ Such a standard imposes great burdens on those who would object and creates a range for judicial discretion that is extraordinarily broad.

Third, courts became increasingly skeptical of the anticompetitive potential of many types of restraints.⁷⁸ An element underlying that skepticism is an acceptance of the implications of the new learning: businesses act primarily to improve efficiency. Hence, any restraint or other business practice having potential (i.e., theoretical) positive effects is pre-


⁷⁷ United States v. Waste Management, Inc., 743 F.2d 976 (2d Cir. 1984); Fruehauf Corp. v. FTC, 603 F.2d 345 (2d Cir. 1979).

⁷⁸ See, e.g., Brooke Group, Ltd. v. Brown & Williamson Tobacco Corp., 113 S. Ct. 2578, 2598 (1993) (below costs prices intended to inflict harm on a competitor not unlawful when record failed to show that predator was certain to reap monopoly profits in the future); Business Elecs. Corp. v. Sharp Elecs. Corp., 485 U.S. 717, 735-36 (1988) (agreement to refuse to deal with a price cutter not unlawful when no specific resale price had been set).
sumed good absent a clear and convincing showing that it is anticompetitive.\footnote{Such cases do occur. See, e.g., Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 610-11 (1985) (refusal to deal found to have only anticompetitive purpose); Eastman Kodak Co. v. Image Technical Servs., Inc., 504 U.S. 451, 479 (1992) (refusal to sell replacement parts to competitors found to be potentially illegal exclusion); Palmer v. BRG of Georgia, Inc., 498 U.S. 46, 49-50 (1990) (agreement to exploit market found to be per se illegal).}

In this Part, I first discuss at some length the evolution of strict merger standards in the 1960s and their subsequent diminution in the later 1970s and 1980s. This sequence of events shows how the new learning justified reduced vigilance. Once the suppressed learning of the 1980s is taken into account, however, the dangers to the economy of such weakened standards becomes evident. In most respects, the most effective way to enforce competition is to retain and promote unconcentrated markets through strict merger standards. Following the discussion of merger law, I will briefly discuss the implications of the suppressed learning of the 1980s for the law governing anticompetitive conduct (both predatory actions and restrictive agreements) and that which addresses the problem of existing monopoly and oligopoly market structures.

A. The Rise and Decline of Merger Standards

1. The Pre-1980 Development of the Law

Traditional antitrust analysis in merger cases, employed a method which I call presumptive illegality.\footnote{This method is also used to decide certain kinds of conduct cases (e.g. tying) and may better explain the traditional rules on vertical restraints than does the usual “per se” label.} Once the challenger demonstrated that a merger involved parties whose market position exceeded a relevant threshold in any market, then the entire combination was presumptively illegal. The courts would not weigh the degree of applicability to the particular case of the general conclusions which justified the presumption, nor would they finely calibrate their assessment of likely outcomes. Any combination which exceeded the limit, was presumed unlawful. This was not, however, an absolute or per se illegality. Defendants might still prevail even if they lost on the issues of market definition and market share. But in rebutting the presumption, they had to fit themselves to limited categories. For example, proof that one of the parties was a failing firm would excuse its acquisition. Proof that the existing market shares created no inference about future market power because of industry peculiarities would also suffice.\footnote{United States v. General Dynamics Corp., 415 U.S. 486 (1974).} One can see the development of the rule of presumptive illegality in the case law from \textit{Brown Shoe} to \textit{Philadelphia Bank} to \textit{Continental Can}. This evolution also responded to the innovative ways in which defense lawyers tried to make each case an ad hoc exercise in evaluation.
It seems fairly certain that the Court initially had no presumption of illegality in mind. In the first decision interpreting the revised Clayton Act, Brown Shoe, the Court suggested that structural inferences while "an important consideration ... will seldom be determinative."82 Only “[i]f the share of the market ... is so large that it approaches monopoly proportions ...” will such a structural fact alone establish a violation.83 Conversely “foreclosure of a de minimis share of the market will not tend ‘substantially to lessen competition.’ ”84 The Court found that in both its vertical and horizontal aspects, the Brown Shoe merger was at neither extreme.85 Hence, legality or illegality necessarily turn on a consideration of other relevant factors—presumably non-structural considerations. However, the actual analysis reveals the difficulty of employing any but structural considerations. The vertical evaluation relied on the “very nature and purpose of the arrangement” which, of course, was to achieve vertical integration which foreclosed outside suppliers.86 But any vertical merger which exceeds the de minimis threshold will have this “most important ... factor ...” and so will suggest violation.87 In addition, the Court considered a “trend toward concentration in the industry” as relevant, but this is simply an elaboration of structural information.88 It also declared that “probable effects [of the merger] upon the economic way of life” were important.89 But that is at best a make-weight applicable to any situation. It does not differentiate cases within the two thresholds. Ultimately, the Court seems to rely on a pregnant negative as much as any other factor to justify the illegality finding on the vertical issues; the merger conferred no “countervailing competitive, economic, or social advantages.”90

The horizontal analysis is remarkably similar: “Market share ... is one of the most important factors to be considered ...”91 The significance of the shares involved was then elaborated on in an infamous passage which interpreters frequently conclude declares that mergers which may produce efficiencies are more objectionable than others.92 While that is probably not a very good interpretation of what the Court had in mind, the central observation from the perspective of the development of merger law is that the deeper analysis of the merger turns out to be simply a commentary on specific aspects of the structural (market share) facts. The Court also invoked the trend toward concentration, another

82. Brown Shoe Co. v. United States, 370 U.S. 294, 328 (1962) (vertical analysis); Id. at 343 (horizontal analysis).
83. Id. at 328.
85. Id. at 329, 344-45.
86. Id. at 329.
87. Id.
88. Brown Shoe, 370 U.S. at 332.
89. Id. at 333.
90. Id. at 334.
91. Id. at 343.
92. Id. at 344.
structural fact, to justify illegality and also emphasized the failure of the defendants to "present[ ] . . . mitigating factors. . . ." 93 Thus, despite a promise of in-depth analysis, simple, external structural facts were the only evidence the court employed that might differentiate this case from others.

A year later in the Philadelphia Bank decision, the Court expressly adopted a presumptive approach but still was unwilling to make the presumption a strong one. 94 The Court emphasized that the question was not "susceptible of a ready and precise answer in most cases." 95 "[R]elevant economic data are both complex and elusive." 96 This justified creation, for cases "in which it is possible," of a less all-encompassing factual analysis. 97 Hence,

[A] merger which produces a firm controlling an undue percentage share of the relevant market, and results in a significant increase in the concentration of firms in that market, is so inherently likely to lessen competition substantially that it must be enjoined in the absence of evidence clearly showing that the merger is not likely to have such anticompetitive effects. 98

This presumption was expressly based on the scholarly work of Bain, Mason, Machlup, and Kaysen, who all expounded a view that concentrated markets were likely to be anticompetitive. 99 In addition, the Court looked to the market shares found in various conduct cases under the Clayton Act that had justified findings of illegality. The presumption shifted the burden to the defendants to show "clearly" that such a merger lacked "such anticompetitive effects." This "effects" analysis if not constrained can easily become an ad hoc series of particularized claims for the proposition that this specific merger will not have long run bad effects.

Indeed, in Philadelphia Bank, the banks had contended that competition in banking would still be vigorous despite the merger based on the testimony of bankers and economic experts, that the existence of other small banks insured sufficient consumer choices, and that commercial banking "is . . . immune" to the "anticompetitive effects of undue concentration." 100 Such claims at their core denied the applicability of the structural model of analysis. The Philadelphia Bank opinion rejects each claim with an ad hoc analysis suggesting that it was unproven in this case rather than irrelevant. The defendants also offered three affirmative justifications for the merger (responding to Brown Shoe's call for "mitigating factors"). The opinion disposes of each in an ad hoc way which again

93. Id. at 346.
95. Id. at 362.
96. Id.
97. Id.
98. Id. at 363.
99. Id. at 363 nn.38-39.
100. Id. at 368-70.
suggests that such claims are worthy of serious attention.\textsuperscript{101} This leaves the presumption of illegality weak and apparently rebuttable by either showing that competition would some how remain in the market or that countervailing advantages result from the merger.

In the \textit{Continental Can} decision, which came a year after \textit{Philadelphia Bank}, the nature of the “anticompetitive effects” of merger were refocused on the inherent consequences of any merger and the inferences to be drawn from structural change were restated and clarified in a way that made them irrefutable.\textsuperscript{102} The primary issue in the case was market definition, but the trial judge in dismissing after the government had rested had also concluded that the record failed to justify the application of the \textit{Philadelphia Bank} presumption or that the record already rebutted that presumption. In reversing this conclusion, Justice White, writing for the Court, focused on the inherent consequences of any merger for competition between or among the combing firms as the essential anticompetitive effect of the merger.\textsuperscript{103} Thus, given that the merging firms’ shares exceeded the \textit{Philadelphia Bank} threshold, the combination would foreclose their future “actual and potential competition” between the merging parties.\textsuperscript{104} The resulting firm “acquired . . . the power” for its management to “guide the development of [the acquired firm] consistently with [the acquirer’s] interest . . . .”\textsuperscript{105} The opinion restates this same theme of consolidated control in three other ways, all of which culminate to reinforce and generalize the basic analysis.\textsuperscript{106} Again, the central theme of this discussion is that a merger inherently affects competition because it results in the elimination of the competitive freedom of the acquired party. If the structural facts are such that this is a “substantial” change in market structure, then it inherently has the anticompetitive effects arising from the fact of common control. A successful rebuttal, therefore, has to address the initial step, the presumption of the substantiability of the effect rather than offering ad hoc arguments claiming that the effect in this case given the structural change with its inherent loss of competition would some how not occur.

In addition, the opinion asserts this merger may trigger other comparable mergers.\textsuperscript{107} This is another significant effect whose non-existence can not be proven. Thus, the specific merger is not only a source of concern because of the competition that it eliminates but also because of its potential to induce parallel actions by other firms.

In sum, these are the irrefutable consequences of any merger. There is no way to disprove them because consolidated control and imitation are undeniable consequences. This makes the case specific anti-competitive

\textsuperscript{101.} \textit{Philadelphia Bank}, 374 U.S. at 370-72.  
\textsuperscript{103.} \textit{Id.} at 462-66.  
\textsuperscript{104.} \textit{Id.} at 463.  
\textsuperscript{105.} \textit{Id.}  
\textsuperscript{106.} \textit{Id.} at 463-65.  
\textsuperscript{107.} \textit{Id.} at 464.
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The effects presumption of Philadelphia Bank effectively irrebuttable. But the faith must abide that the assumed general implications of such concentration are valid. False negatives will be unlikely events. The assumption that such combinations rarely, if ever, yield efficiencies not otherwise achievable, means that false positives will create no major social loss.

This strong presumption from structural factors rested on the what courts thought they knew about the implications of concentrated markets. There were two central beliefs. First, such market structure lead to anticompetitive conduct. Prices were raised, output decreased, innovation and competitiveness sagged. Second, concentrated markets were unnecessary to achieve economies and efficiencies in production. Hence, a general predictive balancing would show that there was little likelihood of social gain from such mergers or from monopoly structures and a substantial risk of social costs. This analysis then justified a general and strong presumption against combinations which substantially moved markets toward concentration.

The courts, and especially the Supreme Court, found support for the implications of concentrated structure in advance of most work of economists on this topic. These conclusions rested on a relatively small body of empirical work and a theoretical model which invoked a very strongly deterministic relationship of structure to conduct and performance.108 Once the courts adopted this hypothesis, the scholars tested it. Out of that testing was to come the new learning of the later 1970s.

The judicial reliance on general structural inference also had a significant basis in the problems of developing administrable rules. The alternative of case specific analysis aimed at discovering the probable effects of any specific merger on market structure and conduct did not offer a consistent set of outcomes. Predicting the expected effects of a particular merger is very difficult because at that level the micro issues of managerial intent, plant specific expectations, specific customer responses and other comparable details can overwhelm the broader analysis of the transaction. In consequence, the results of such an approach would have to be ad hoc, and case specific, and unreviewable on predictable bases which would make general planning all but impossible.

As applied in the late 1960s and as codified in the 1968 Merger Guidelines, these standards were relatively strict.109 Moreover, a comparable presumptive model evolved to govern cases involving conglomerate type combinations. Its internal logic was weaker. It focused on the markets of the combining firms and declared that specific effects were likely to occur. Judicial enthusiasm for this approach was not overwhelming, but even so, by the middle 1970s it was embedded in the case law.110 Yet,


even as it was being embraced, its failure to describe the realities of the competitive impacts of such combinations was sufficiently great, that it never had strong judicial support.\footnote{111}

2. The Decline of Strong Merger Law

By the early 1970s, the two fundamental hypotheses that had supported the evolution of strong rules of presumptive illegality were under increasingly serious intellectual attack. The primary attack focused on the proposition that concentrated industries exhibited anticompetitive conduct and performance. The critics argued that if concentrated markets were not a source of serious problems with respect to excessive profits or reduced output, then a strict anti-merger policy could only harm efficiency—the only conceivable alternative explanation for such transactions. A variety of studies purported to show that profits in oligopoly industries did not significantly differ from those in more competitively structured industries. The implication drawn from this data was that there could not be collusion because there was no observable profit effect. A second body of work purported to show that profits were quite varied among participants in concentrated markets. The higher profits of market dominant firms was in turn attributed to their greater efficiency rather than to collusion. Moreover, without critical evaluation, this variance in profit levels was declared to be inconsistent with collusion. Colluders would want, so this argument suggested, equal profits.

A second line of attack focused on the second premise underlying the presumption of illegality: efficiency goals did not justify either existing concentration or combinations which increased concentration. Here the attack was less direct but the basic proposition was clear: concentration can only exist if it is efficient. In part the proof of this claim rested on a priori reasoning. Absent legal barriers to entry, only efficient market structures could survive in the long run. Hence survival was proof of efficiency. The lack of unusually high profits demonstrated that market power was not a plausible explanation for market concentrating combinations or concentrated structures. Yet they existed and were occurring; hence they must be for other efficiency reasons. Such disproofs of monopoly (anticompetitive) purpose or effect, often defined with extraordinary narrowness, were, therefore, proof of the converse.

In addition, Williamson demonstrated in a very influential article that modest improvements in efficiency could offset fairly large increments to market power.\footnote{112} This proof added powerfully to the intellectual respect-
ability of the new pro-merger, pro-concentration analysis. Even if a merger or a structure would cause some anticompetitive effects, Williamson's proof showed that modest efficiency gains could outweigh the competitive costs, leaving society, on balance, with lower cost and higher levels of production. Implicit in Williamson's argument was the idea that larger scale firms would be likely, in general, to obtain efficiency gains and that merger was the only route to achieving such scale. Only by granting these assumptions as plausible statements about the real world of economic competition can Williamson's proof have any significance for the analysis of merger.

The judicial response to the new legitimization of merger and concentrated markets was not surprising. Courts again asked much more ad hoc type questions. Was this merger likely to harm substantially some specific competitive context? The result was that the case law tipped strongly toward requirements of proof that a particular combination or particular market context was tainted with bad motives or had immediate, demonstrable bad effects.

The courts have not explicitly reversed the earlier case law which rejected the balancing of gains and losses to competition, but they have become insistent that mergers usually achieve many legitimate efficiency functions. This assumption underlies and explains why the courts now insist on stronger, more specific proof of anticompetitiveness. If the anticompetitiveness is not proven or is not "substantial," then by default, the only explanation for the combination is that it will create some sort of efficiency. The evolution of merger enforcement policy in the 1980s at both the FTC and the Antitrust Division illustrated these radical changes in merger analysis.

Current enforcement philosophy retains the structural-presumptive model, but only in the Brown Shoe sense; structural facts set some outer boundaries. But, unlike the earlier period, it is the upper and not the lower boundary which is the focal point. In any context in which non-market power explanations might have significance they are presumed valid and dispositive. Only when a merger crosses the upper boundary is there concern, but consistent with the new learning that mergers usually promote efficiency, only the most minimal intervention is permissible. Mergers are encouraged and settlements made to facilitate them.

In the late 1980s, the pendulum did begin to swing back toward a less aggressively passive attitude toward the role of government. Starting with the Bush administration, there has been a return to a mildly active antitrust stance based on some recognition that retaining effectively competitive markets is essential to desirable long run economic performance. With the return of some antitrust commitment, the question is whether the received learning of the 1980s about collusion and concentration is

really an appropriate basis for setting policy priorities for the next century.

3. Toward a Restored Pro-Competitive Merger Policy

The four works discussed in Part II of this essay, taken together, raise very serious, core questions about the theoretical and empirical basis for the claims of the new learning that a relaxed anti-merger policy is appropriate public policy. Axelrod has shown us that collusion, especially of the tacit kind involving large enterprise, is theoretically possible on terms that are durable. Both Lamoreaux's history and Weiss's survey of a wide range of empirical studies are entirely consistent with the conclusion that where the number of players in an industry is limited and the shadow of a cooperative future looms large, the result is very likely to be an evolution of cooperation. Moreover, these works show that self-conscious economic actors have strong incentives to seek out ways to organize markets and market relationships that will increase the potential for such cooperation. Greater barriers to new entry mean that all firms in the market increasingly have a shared interest in the long run future. Stabilizing technology and distribution systems to reduce the risks of disruption take on added importance once it is understood that these activities aid an underlying potential for durable collusion.

The lessons of the 1890s are clear. If concentrated market structures are permitted, as they were in that period, the result will be the search for and development of strategies that make cooperation attractive and effective. Enforced competition through strict enforcement of anti-conspiracy law, can, as Weiss suggests, minimized the harms that may result because it reduces the future shadow cast by the hope for successful and undetected collusion. But, as Scherer and Ravenscraft as well as Weiss and Lamoreaux show, society gets no net benefit from combinations that create such market structures in the first place. Enforcing effective competition is easier if the conditions for evolution of cooperation are never created. In such contexts, the future shadows of cooperative gains are never present. The shadows cast by such a future necessarily must be ones that involve vigorous competition and the consequent need to be efficient and innovative.

Retention of markets with many competitors becomes an important policy goal in itself for reasons of current and future economic behavior. This is not a populist attack on bigness. It is a proposition based on the economic costs and benefits (if any) of large scale market dominance. It is particularly important that both the Weiss study and the Ravenscraft and Scherer work failed to confirm the oft repeated claim of relative efficiency for large enterprises or for mergers involving such enterprises. This is consistent with Lamoreaux's observations about the merger wave of the 1890s. Moreover, as we have seen, it is possible to explain the premiums paid in takeovers on bases other than expected efficiency gains.
in production. Thus, the case for merger like the case for concentration turns out to be deeply flawed.

The strategy of allowing large scale combinations and concentration of assets in the broad field of telecommunications that is occurring today illustrates the kind of bad policy choice that has already undermined the success of airline deregulation. The failure to stop combinations and consolidations in the health care field is another stark example of destroying the potential for a viable, competitive market. In its place, we will have increased “cooperation” among large providers who control the scarce resource (patients) and who come, after some experience, to appreciate the long shadow of a cooperative future.

As we move into the next century, it is very hard to predict where specific market changes will occur. What one can say is that the long run economic interest in efficient and dynamic markets will be best served by a policy that discourages the concentration of markets. One can also say that these studies vindicate the common sense of the traditional law constructed to govern mergers. Concentration is generally undesirable. It should be avoided—strict rules against large mergers and consolidations will achieve that goal.

B. MONOPOLY AND OTHER CONCENTRATED MARKET STRUCTURES

In the few monopoly cases decided in prior to the 1980s, a similar trend exists toward a presumption that once the structural characteristics exist, the bad effects necessarily follow. Nevertheless, proof that the monopoly was unavoidable, a type of necessity claim, would exonerate the defendant. These cases focused on structural conditions and their alteration. A continuing problem was the scope of these presumptions. The successful dissolution of AT&T (despite the problems that many commentators have discerned) demonstrates that it is quite feasible to reorganize even very large and complex enterprises.

Because concentration was not seen as a serious negative, the law of monopoly moved toward a much more tolerant stance in the 1980s. The cases almost exclusively involved issues of conduct in which the structural character of the market was not going to be changed. In these cases, the courts and FTC correctly concluded that mere possession of monopoly power and its conscious retention or exploitation was not sufficient to create a violation. Unfortunately this analysis has been understood to apply as well to monopoly and oligopoly market structures. Thus, these


decisions rejected the older learning of *Alcoa*,\textsuperscript{116} *DuPont (Cellophane)*,\textsuperscript{117} and *Grinnell*\textsuperscript{118} that monopoly and its willful acquisition or retention constituted the offense (effectively a presumption of illegality) where a structure remedy was sought and feasible.

The suppressed learning of the 1980s, however, teaches that policy-makers should retain a serious concern for markets which are already concentrated. They do in fact perform poorly as Weiss’s studies show. Alexrod’s theory, which Lamoreaux found in historical experience, is that such market structures do in fact lend themselves to anticompetitive behavior and do not produce significant economic gains. This is true both for clearly monopoly markets, of which few exist, and for markets with substantial and lasting concentration.

What is called for is innovative solutions to the problem of creating effective remedies. The goal has to be to destroy the long shadow of a future involving cooperative control that overhangs so many of these markets. This revives the concern for lowering barriers to entry and creating uncertainty as to the future actions of other market participants. These problems were high on the agenda of antitrust for many decades. They merit continued concern.

C. Restraints and Predatory Conduct

Prior to 1980, strong rules condemned many horizontal and vertical agreements as well as many trade practices which had exclusionary effects. Starting with the *Sylvania* decision in the mid-1970s,\textsuperscript{119} the Supreme Court has backed away from these rules. Increasingly in the 1980s the Court came to articulate a view of collective agreements and exclusionary practices that emphasized their potential for enhancing efficiency. Indeed, in the *Sharp* decision, the Court professed itself unable to imagine any anticompetitive potential for non-price distribution restraints.\textsuperscript{120} While recent decisions, such as *Kodak*,\textsuperscript{121} suggest that the Court is returning to a more balanced perspective on the potential for harm that exclusionary conduct creates, the fact remains that the sea-change in thinking about restraints and explicitly anticompetitive activity remained dominant throughout the 1980s and into the 1990s.

Here again the suppressed learning of the 1980s strongly supports a more skeptical view of business conduct. It is especially important to read Axelrod’s tit for tat strategy against the pattern of conduct that Lamoreaux describes. The theory predicts that exclusionary actions directed at existing competitors will have as their goal inducing cooperation and not total exclusion. The objective is to show the wayward competitor

\begin{itemize}
  \item \textsuperscript{116} 148 F.2d at 416.
  \item \textsuperscript{118} 384 U.S. at 563.
  \item \textsuperscript{121} Eastman Kodak Co. v. Image Technical Servs., Inc., 504 U.S. 451 (1992).
\end{itemize}
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that cooperation will yield greater profits. A different strategy motives response to actual or potential entry. There exclusion is a goal because that ensures the long run future stream of profits that will arise from co-operation. If one uses this history and theory to examine cases such as Sylvania,122 Sharp,123 and Monsanto,124 the lack of any substantial, creditable efficiency gains is noticeable, but at the same time, one can readily see how the pattern of restraints might well fit into a long run scheme or plan to achieve a situation in which the future shadow of cooperation is made stronger and more substantial.

Even I concede that there are many plausible efficiency explanations for agreements, especially in the context of distribution, which also impose restraints. Exclusionary conduct is also competitive conduct, i.e., price competition which results in lower prices necessarily excludes the least efficient producers. My suggestion is not that the four books examined here in themselves justify a strict prohibition on all forms of restraints and exclusion. Rather, I suggest that the recent trend in the courts to embrace the benign explanation for such conduct and to refuse to give any credence to the anticompetitive hypotheses is misguided as a matter of theory and history.

A more balanced and skeptical examination of these cases is in order. What the suppressed learning tells is that such actions may have undesirable consequences and so should be viewed with skepticism. After all, the Sherman Act prohibits "all" contracts in restraint of trade so it is not unreasonable to impose on the proponent of a restraint which raises concerns a real burden to establish its positive contribution to economic efficiency. Similarly, when markets are concentrated and dominant firms engage in conduct having clear exclusionary effect, it is not rational, in light of the work discussed here, to ignore the potential for creating and maintaining long run, anticompetitive cooperation.

IV. CONCLUSION

The attack on the traditional view that concentration was highly suspect rested on challenges to the two key premises justifying the presumptive illegality of such situations. The challenge always rested more on logic, deductions from models, especially static models, than on empirical observation of the world. The one proposition subject to intensive tests, the profitability of concentrated industries, was always a second best test in terms of the theory being tested.

The suppressed scholarship of the 1980s presents us with a strong case for the traditional view. Historical and contemporary studies of the consequences of concentration show that they are likely to be anticompetitive. Moreover, Axelrod's work gives a far better theory to explain why such patterns of cooperation might be expected to arise and continue

122. 433 U.S. at 36.
123. 485 U.S. at 717.
over time. Axelrod's work also provides a strong theoretical justification for an expansive view of concentration. It is the links between firms that stimulate efforts to cooperate. This makes vertical and conglomerate combination more suspect than traditional theory would have suggested. It also suggests that the narrow view of the traditional theory that focused on selected markets and market arrangements may have been too constricted to detect the effects of such combinations on competition.

Finally, the new scholarship provides a basis strongly to reject the claims that concentrated markets are necessarily efficient markets and that mergers are likely to improve productive efficiency. In combination the work on corporate acquisitions and concentrated markets suggests that neither claim is valid and that alternative theory can better explain the data that we have.

In sum, the courts and the enforcement agencies should be less tolerant of concentration increasing combinations. On balance, the positive effects are few and unlikely while the negative effects are significant and more likely. The lesson of the these studies is that the effects can be indirect and hard to detect in specific situations. This justifies a strong presumption against such combinations and against conduct which reinforces such structures. It also urges that we continue to seek to define legal standards which would allow direct challenges to concentrated structures.

The history of antitrust is that defenders of business as it is and of its freedom of action will continue to make claims, as they have from the outset of the Sherman Act, that size and market dominance are important factors in achieving socially desirable economic performance. There should be no illusions: refuting the present set of claims will not silence the defenders of the established order. We can expect a new set of assertions and criticisms. The longer run lesson that might well be learned is that traditional wisdom should not be too easily overthrown in the face of carping critics. Critical examination of the critics claims will, one might reasonably expect, reveal the fallacies that they contain.