Public choice theory and antitrust policy

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Abstract We survey the pioneering contributions of Robert Tollison to the theory and practice of antitrust law enforcement. Inspired by his period of service during Ronald Reagan's first administration as Director of the Federal Trade Commission's Bureau of Economics. Tollison was the first scholar to apply public choice reasoning to the question why antitrust frequently fails to achieve its stated goal of protecting consumers against unwarranted exercises of market power. In supplying evidence that the outcomes of antitrust processes are shaped more by special interests than by the public's interest, he was instrumental in launching a wholly new research program.

Keywords Antitrust policy · Interest-group theory of government · Public choice · Federal Trade Commission

1 Introduction

Robert Tollison is the original freakoconomist. Long before Steve Levitt and his journalist co-author were ensconced on the best-seller list (Levitt and Dubner 2006), Bob was extending the frontiers of positive economic science in previously unexplored directions. His fertile, Virginia-trained mind conceived ways of applying the economist's toolkit to the industrial organization of the Medieval Catholic Church; to the causes and consequences of economic and social regulation; to voting, legislative processes, the executive and judicial branches of government; to interest-group politics; to constitutional political economy; to college and professional sports; to deficit finance; to the history of economics and economic history; to rent seeking; to the growth of government; to immigration; to the Federal Reserve; and too many more to list. We know Bob Tollison and we know Steve Levitt, at least by reputation. Steve Levitt is no Bob Tollison.

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Other contributors to this volume will summarize Tollison's important contributions to the literatures of sports economics—or "sportometrics", as he calls it (Goff and Tollison 1990), the political economy of regulation, the economics of religion, the history of economics, and empirical public choice. Our purpose here is to focus on the corpus of the work Bob stimulated in the area of antitrust law enforcement.

As we shall see, prior to about 1980, scholars who studied antitrust policymaking came away puzzled by evidence they uncovered pointing to a significant gap between the theory of antitrust—widely but not unanimously accepted as a policy tool meant to protect consumers against abuses of market power in the economy—and its application in actual law enforcement practice. The outcomes of large numbers of antitrust cases brought by the U.S. Department of Justice's Antitrust Division, the Federal Trade Commission (FTC) and private parties since passage of the Sherman Act (1890), the Clayton and FTC acts (1914) seemed inconsistent with a law-enforcement philosophy guided by a consumer-welfare standard.

To mention a few leading precedents, a merger involving firms with de minimus market shares that would have created a more effective competitor in an otherwise unconcentrated market had been blocked.¹ A plaintiff had won a judgment against aggressive rivals despite remaining profitable throughout an alleged predatory pricing episode.² A selling practice having theoretically ambiguous (both efficiency- and market-power-enhancing) effects had been declared illegal per se.³ Even when the antitrust authorities attacked plausibly anticompetitive acts or practices, the remedies they imposed often were ineffective or perverse (Elzinga 1969). More generally, nearly three-quarters of a century of American antitrust law enforcement seemed to have had only modest effects on industrial concentration, on merger activity and on the presumed prevalence of collusive price-fixing agreements (Stigler 1966). What was going on?

Economists have since the beginning been critical of specific applications of the antitrust laws.4 As a matter of fact, seeing the emergence of the great "trusts" in the latter half of the 19th century as a natural and mostly unobjectionable response to the robust competitive forces triggered by the emergence of national markets and large-scale production methods, a majority of the profession opposed the Sherman Act of 1890 (Gordon 1963). But it was not until the 1950s that a coherent intellectual critique of antitrust began being developed by the members of what would later become known as the Chicago School (Posner 1979). Bringing neoclassical price theory to bear on business practices previously assumed (often wrongly so) to be anticompetitive on their face, such as tying arrangements and resale price maintenance, and marshaling "new learning" about industrial concentration (Goldschmid et al. 1977) that ran counter to the "big is bad" mindset evident in the prosecutorial decisions of the Antitrust Division and the FTC, Chicago-schoolers in essence concluded that improved antitrust law enforcement was simply a matter of getting the economics right. Informed of their past errors, lawyers, judges and even economic experts would begin applying the antitrust laws in the ways they supposedly were intended to be applied, namely, promoting competitive market conditions and enhancing the welfare of consumers.5

The Chicago School's scholars, in other words, explained antitrust's manifest failures as resulting from error and ignorance. But errors could be corrected and ignorance dispelled

¹U.S. v. Von's Grocery Co., 384 U.S. 270 (1966).

²Utah Pie Co. v. Continental Baking Co. et al., 386 U.S. 685 (1967).

³Dr. Miles Medical Co. v. John D. Park & Sons Co., 220 U.S. 373 (1911).

⁴For a review of the vast literature criticizing individual antitrust cases, see Rubin (1995).

⁵The Chicago School's distinctive approach to antitrust was codified in Posner (1976).

if the law enforcers and the courts received the proper sort of instruction in microeconomic theory. The necessary instruction was of course something that Chicago-trained economists could provide.

However, the Chicago School's prescription for antitrust contradicted the conclusions it drew from studies of other types of government regulation. As one of the leading lights of the Chicago School once observed, "an explanation of a policy in terms of error or confusion is no explanation at all—anything and everything is compatible with that 'explanation'" (Stigler 1975b: 140). Critical thinking about antitrust could not remain in an intellectual vacuum forever, and evidence that other forces were at work in the antitrust bureaus soon began becoming available.

Two scholars, Susanne Weaver (1977) and Robert Katzmann (1980), gathered information from interviews with agency staff and other sources to uncover the factors influencing antitrust case selection practices at the Antitrust Division and the FTC. Both studies found that decisions to prosecute antitrust law violations were swayed heavily by incentives and constraints internal to the antitrust agencies themselves, such as staff career objectives and the availability of budgetary resources. Turnover among the lawyers employed at the two bureaus was quite high, with large percentages of the attorney staff having four years of experience or less, and equally large percentages expecting to resign within two years, most intending to seek higher paying jobs at the private antitrust bar. The salience of private interests in decision-making at the public antitrust agencies was echoed in a third study published at about the same time. According to Richard Posner (1979: 86),

the principal attraction of [Federal Trade] Commission service to lawyers who wish to use it as a steppingstone to private practice lies in the opportunities to gain trial experience.... It is the experience of trying cases, the more the better, not the social payoff from the litigation, that improves the professional skills and earning prospects of FTC lawyers.

And so, by 1980, two distinct explanations for antitrust's policy failures were in the air. One, the Chicago School's, focused on the underlying economic theories—and largely found them wanting. The other pointed to bureaucratic behavior as a possible culprit. The time was ripe for a fresh approach that might lead to a better understanding of the antitrust policy process. Opportunity arrived with Ronald Reagan's resounding defeat of Jimmy Carter in the November 1980 presidential election, the incoming president's appointment of James C. Miller III as chairman of the Federal Trade Commission, and Miller's selection of one of his former University of Virginia graduate student colleagues, Bob Tollison, to head the FTC's Bureau of Economics. Both men had earned their doctorates in an intellectual environment that combined hardnosed Chicago-style price theory with the then-emerging public choice research program, ideal preparation for managing an agency charged with enforcing laws having substantial economic content.

In what follows, we trace the development of the public choice perspective on antitrust, a revolution in thinking launched by Bob Tollison while working in the "belly of the beast" (Tollison 1983). Section 2 supplies more background on the state of the economic literature in the middle 1970s, positioning Bob squarely at the center of the scholarly debate about the purposes and effects of antitrust law enforcement. We next turn our attention, in Section 3, to a summary of the ideas he formulated at the FTC, ideas which continue to produce new contributions to the literature a quarter century on. As will be seen, Tollisonian analysis of antitrust advanced in two stages. First, old, previously untested assumptions about antitrust were undermined. Then, perhaps what is more important, a new paradigm was proposed and its predictions confronted by data. Tollison's fundamental insight was that the economic

model of rational self-interest, which, when applied by public choice scholars to explain the behavior of individuals in nonmarket settings supplied a positive, testable alternative to orthodox, largely normative "public interest" explanations of government, could also fruitfully be applied to the realm of antitrust policy. Section 4 offers some concluding remarks.

2 Prolegomenon to a public choice perspective

Robert Tollison has ever been an intellectual middleman, exploiting better than most scholars the gains accruing to the specialization and division of academic labor. Bob's comparative advantage is in ideas, which, along with an urgency learned at the knee of his dissertation adviser James Buchanan to get things down on paper, he graciously (and to his own benefit, of course) shares with his colleagues, who do most of the heavy lifting. In his first foray into antitrust, Bob collaborated with William Long and Richard Schramm to produce what turned out to be a provocative and controversial paper on the determinants of the cases selected for prosecution by the Justice Department's Antitrust Division (Long et al. 1973).

The three of them set out to compare the actual distribution of antitrust cases across industries with the pattern that one would expect to observe if the Antitrust Division's law enforcers allocated their resources with the goal of maximizing consumer welfare. Richard Posner (1970) had opened the door to serious analysis of antitrust law enforcement as a byproduct of his important and detailed study of antitrust cases instituted since 1890. He explored several explanations for their variation over time, reporting, for example, that neither changes in the economy's overall level of activity (as measured by GNP) nor changes in partisan control of the White House could account for changes in the level of antitrust enforcement. But Posner did not draw any policy conclusions from his finding; lacking a model of optimal antitrust enforcement, he had no standard for judging whether the actual level and pattern of cases initiated over time comported with it.

Enter Bob Tollison. Long et al. (1973) were to our knowledge the first economists to formulate and estimate a model of rational antitrust: Given a limited annual budget, an antitrust agency guided by the interests of consumers would survey the performances of industries, rank them in descending order according to the sizes of the deadweight welfare losses found, and then bring law enforcement actions seriatim until the agency's budget had been exhausted. By selecting cases on the basis of their potential net benefit to society—the expected reduction in allocative inefficiency achieved by enforcing the law minus the cost of prosecuting the alleged law violator—antitrust in a first-best world would serve the pro-competitive purpose most often attributed to it.

Long, Schramm and Tollison tested the hypothesis of rational antitrust law enforcement by regressing the number of antitrust cases instituted against U.S. industries on various industry-specific measures of consumer welfare loss. Their empirical model performed best in predicting case-bringing activity when industry size, gauged in terms of total sales, was entered as a proxy for welfare loss. Overall, however, the evidence failed to support the thesis that the Antitrust Division's decisions to prosecute were grounded in benefit-cost principles. Specifically, the regression results suggested that "the composite measures of the potential benefits from antitrust action ... tested—the welfare-loss triangle or together with excess profits—appear to play a minor role in explaining antitrust activity." The authors concluded that "much of the explanation of antitrust activity clearly lies outside our model" (Long et al. 1973: 361–362).

The impact of the Long, Schramm and Tollison article is evident from the amount of the follow-up work it quickly generated, work that produced additional support for its original

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conclusions. Two other researchers sought to fine-tune and extend Long, Schramm and Tollison's empirical model. John Siegfried (1975)—turnaround times at the journals evidently were much shorter then!—noted that the high (two-digit SIC) level of aggregation of the Long, Schramm and Tollison dataset blurred possibly important distinctions between firms in less coarsely defined industries. He therefore reran the regressions on a significantly more disaggregated industry sample.

Some of the results reported by Siegfried were startling: contrary to the predictions of the consumer-welfare model, more antitrust cases were associated with *greater* levels of excess profits and *lower* levels of welfare loss.⁶ However, when Siegfried refined his model further to include improved measures of industry profitability, its explanatory power plummeted and the initial coefficient estimates lost their statistical significance. The algebraic signs on several of Siegfried's independent variables were unstable and, "in fact, none of the coefficients is very robust in this whole analysis. That fact, coupled with the trivial proportion of the linear variation [in case-bringing activities] explained by the independent variables suggests that economic variables have little influence on the Antitrust Division" (Siegfried 1975: 573). Long, Schramm and Tollison's empirical results evidently were robust and their conclusions sound.

Further confirmations of their work followed. Observing that antitrust cases are brought against firms, and not entire industries, Peter Asch (1975) reported estimates of a regression model similar to those specified in the two previous papers, but using firm-level data. (Asch also ran separate regressions for the Antitrust Division and the FTC.) Although Asch was able to explain a greater percentage of the variation in antitrust case-bringing activity across the economy than either Long, Schramm and Tollison or Siegfried had been able to explain, at the end of the day his findings were not consistent with any particular hypothesis about the determinants of antitrust law enforcement. He remarked that the "appropriate interpretation" of his results was "not entirely clear," perhaps even "puzzling," and concluded that "case-bringing activity cannot be characterized as predominantly 'rational' or predominantly 'random'..." (Asch 1975: 579–581).

The puzzling inability of consumer-welfare models to predict antitrust law enforcement activity in the aggregate was duplicated the following year in a study of price-fixing conspiracies (Asch and Seneca 1976). Antitrust complaints alleging unlawful collusion over the period running from 1958 through 1967, the evidence suggested, tended to target ineffective cartels rather than successful ones that might have caused significant harm to consumers. More specifically, the firms charged with participating in unlawful price-fixing comparable firms not so indicted.⁷ In somewhat of an understatement, Asch and Seneca (1976: 1) wrote that "the meaning of these results is not fully obvious" and then went on to conclude that "the findings raise some question about the effects both of collusive conduct and of public policies to restrict such conduct."

Coupled with the large number of scholarly journal articles and books conducting and reporting on postmortems of individual antitrust cases, the empirical literature pioneered by Long et al. (1973) made it obvious that, whatever good intentions Congress may have had in passing the Sherman, Clayton and FTC acts, the enforcers of those laws were motivated by something other than the welfare of consumers. Perhaps this was because, despite the intellectual inroads of the Chicago School, antitrust lawyers and economists, the

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⁶One interpretation of this evidence is that antitrust law enforcers have trouble identifying and distinguishing firms that unlawfully and profitably exercise market power from those whose profits are based on efficient resource use. See, e.g., Demsetz (1973), Peltzman (1977) and Fisher and McGowan (1983).

⁷For a more recent study reaching the same conclusion, see Marvel et al. (1988).

law enforcement agencies and the courts collectively were still in thrall to the so-called structure-conduct-performance paradigm, which held that undue industrial concentration was the chief source of the anticompetitive behavior perceived to be endemic to unfettered private markets. Left unchecked, large firms in concentrated industries, either unilaterally or in concert with their few rivals, routinely exploited their market power by bankrupting smaller competitors, excluding potential new entrants, stifling innovation, and raising prices above competitive levels.

Or so the story went. Big was bad. In order to protect the public from the abuses of private monopoly, mergers between competitors frequently must be blocked, a plethora of exclusionary practices forbidden, and collusive price-fixing agreements ruthlessly ferreted out and undone. If, at bottom, dismantling large firms was the only way to reduce industrial concentration and restore competitive market conditions, then so be it. With a more textbook-like atomistic market structure, lower prices and lower profits surely would follow.

The remarkable aspect of this way of thinking is that, despite obvious and repeated failures in application—failures that economists themselves had identified and acknowledged faith in the antitrust laws remained unshaken. The value of a vigilant and vigorous antitrust policy rarely was questioned, even by the members of the Chicago School. Near the end of his long and productive scholarly life, George Stigler remarked that

if you propose an antitrust law, the only people who should be opposed to it are those who hope to become monopolists, and that's a very small set of any society. So it's a sort of public-interest law in the same sense in which I think having private property, enforcement of contracts, and suppression of crime are public interest phenomena. (Hazlett 1984: 46)⁸

It took Bob Tollison to put the pieces of the puzzle together. Influenced by the Chicago School's interest-group theory of government (Stigler 1971; Peltzman 1976), by his presence in Charlottesville during the heady, formative years of the Virginia public choice tradition, and by his own mental appetite for putting the predictions of positive economics to empirical test, Bob recognized that antitrust policy's failures could not plausibly be explained (or excused) on the basis of error or ignorance. The chief officials of the two federal antitrust agencies-the Attorney General, the Assistant Attorney General for Antitrust, the chairperson and members of the Federal Trade Commission-are political appointees; the members of their staffs are government employees with short-term or longer-term career goals. Both agencies interact with firms wanting to avoid prosecution and with aggrieved individuals and firms seeking redress for the economic injury allegedly done to them by others in violation of the antitrust laws. Congress determines the budgets of the Antitrust Division and the FTC; important congressional committees monitor and exercise oversight responsibilities with respect to their activities. A constellation of private interests consequently is in play in the arena of antitrust, just as it is in all other settings where public policies are formulated and implemented.

It was thus natural to ask—although only Bob Tollison did ask—whether interestgroup politics might explain his and others' failure to find evidence supporting a rational, consumer-welfare-oriented model of antitrust law enforcement. After all, as the logic of collective action (Olson 1965) teaches, compared with individual firms, industry trade associations, labor unions and other organized groups having important financial stakes in

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⁸The opinions of the Chicago School have not changed much since then. Judge Posner (2001: viii) wrote recently that his "chief worry at present is not [antitrust] doctrine or direction, but implementation." For more commentary on the influence (or lack thereof) of economics on antitrust policy, see McChesney (1998).

the outcomes of antitrust proceedings, the mass of unorganized consumers is at a serious competitive disadvantage when it comes to influencing public policy processes in a geographically based representative democracy.

3 Dr. Tollison goes to Washington (again)

The reactions to Ronald Reagan's election in the corridors of FTC headquarters and of the satellite building in Foggy Bottom housing the Commission's Bureau of Economics were both positive and negative.⁹ Change was in the air. Staff members poured over bootlegged copies of the Reagan Transition Team reports on the two federal antitrust agencies in anticipation of the new world of antitrust looming on the horizon. Sales of Clarkson and Muris (1981) soared.¹⁰ As Tollison (1983) later described it, President Reagan's selection of William Baxter to head the Justice Department's Antitrust Division and his appointment of James C. Miller III to the chairmanship of the FTC—the first (and still only) professional economist to serve in that position—signaled a return to "bread-and-butter" antitrust law enforcement. Unwieldy cases that had dragged on for years with no end in sight against, at the Justice Department, IBM and AT&T,¹¹ and the major American oil companies and producers of ready-to-breakfast cereal at the FTC,¹² either were dismissed or settled. For the next eight years, at least, the two agencies would focus their law enforcement.¹³

Following his confirmation as FTC chairman, Jim Miller named Bob Tollison as Director of the Bureau of Economics, an organization staffed by the largest group of professional economists in Washington working on antitrust and consumer protection related matters. Bob's appointment to that post allowed him to apply his knowledge of public choice theory hands-on to the empirical mystery that must have been troubling him since 1975. If antitrust enforcement could not be explained in welfare-analytic terms, what did explain it? If antitrust did not advance the public's interest, whose interests did it advance? Tollison's new position enabled him to move on from explaining what antitrust was not (or what it should be) to what it in fact was. The cross-fertilization of antitrust and public choice proved to be gratifyingly productive.

¹²In the Matter of Exxon Corp. et al., FTC dkt. no. 8934; In the Matter of Kellogg Co. et al., FTC dkt. no. 8833. The famous (or more appropriately infamous) "cereals case" was the subject of a subsequent article by Shughart et al. (1998).

⁹At the time, the first-named author was a young staff economist at the Bureau of Economics, having joined the Commission in mid 1979.

¹⁰Succeeding Tom Campbell, later a member of California's delegation to the U.S. House of Representatives, Timothy Muris was President Reagan's second appointee to the post of Director of the FTC's Bureau of Competition, the unit comprising the attorneys responsible for the agency's antitrust mission.

¹¹U.S. v. American Telephone and Telegraph Co., 74 Civ. 1968 (1974); U.S. v. International Business Machines Corp., 69 Civ. 100 (1969).

¹³The views carried to Washington by the President Reagan's first Assistant Attorney General for Antitrust are laid out in Baxter (1980). For details on the bureaucratic battles won and lost at the Federal Trade Commission, as seen through the eyes of its then-chairman, see Miller (1989). Yandle (1987) summarizes events circa 1981–1984 from the perspective of the FTC's Executive Director. Meiners and Yandle (1989) supply a wide-ranging survey of regulation and deregulation over the course of Reagan's two terms in the White House. The ephemeral nature of the Reagan-era antitrust reforms is discussed in Shughart (1989, 2000).

A fairly standard characterization of how geographically based representative democracy works in practice suggests that legislators receive a higher payoff from promoting local interests than from taking vague policy positions on behalf of economic efficiency or the national interest (McCormick and Tollison 1981). For example, individual members of Congress work hard to attract military bases, public works, and other sources of federal funding to their states and districts (and vigorously oppose proposals to reduce or eliminate such spending) not because the programs promote the welfare of society as a whole, but rather because they directly benefit their own constituents, while the cost of financing them is borne by the taxpayers in general, most of whom reside—and vote—in other states and districts.

Antitrust policy is not fundamentally different in this respect. Suppose, for example, that a merger leading to improved economic efficiency is proposed. The shareholders whose wealth will thereby be enhanced, and the consumers who will benefit from better products, lower prices, or both, ordinarily will be dispersed geographically and not organized into a cohesive group. If the merger is consummated there will be losers as well as gainers. Consolidation often leads to the elimination or transfer of jobs as outmoded production facilities are closed and company offices are moved to new locations. Such possibilities not only threaten the livelihoods of the managers and rank-and-file workers employed by the merger partners. Nearby suppliers, local business owners and local governments also stand to lose as customers disappear and tax bases shrink. Those individuals and groups whose jobs and financial wellbeing are on the line rationally will appeal for political help either in stopping the merger or in seeing that the antitrust authorities condition their approval of the merger on keeping plants open or on selling them to a buyer who will. The politicians representing the affected districts and states rationally will respond to such demands. Failure to do so will result in a loss of wealth for his or her constituents, and a loss of votes for the politician.14

The enforcement of the antitrust laws supplies many other opportunities for using political influence to affect outcomes. Given that litigation is costly and that an adverse ruling can damage reputations and expose defendants either to criminal penalties, monetary fines, or both, the firms targeted by antitrust complaints plainly have reason to attempt to deflect actions taken against them. Rivals can exploit antitrust processes to gain protection from aggressive competitors. Wealth is at stake in every antitrust proceeding and the individuals and groups who will gain or lose thus have incentives to lobby their political representatives to advance their interests, offering votes, campaign contributions, and other forms of support to those who agree to intervene.

When Bob Tollison took over as Director of the Commission's Bureau of Economics in 1981, it was no secret that the FTC routinely was subject to political pressure. During the previous decade, congressional interference in antitrust matters pending at the FTC had been documented by, among others, *The Nader Report on the Federal Trade Commission*

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¹⁴One of the first major mergers to come before the FTC after the Miller-Tollison team took charge followed Mobil Oil's announcement that it intended to acquire Marathon Oil. (Mobil was for the most part interested, not in ownership of Marathon's oil refining and distribution assets, but rather in gaining control of the company's proven crude oil reserves.) According to Miller, Howard Metzenbaum (D-OH), then chairman of the powerful Senate Judiciary Committee, told him in no uncertain terms that the proposed merger would be consummated only "over his dead body". Marathon was headquartered in Ohio. Elected to fill Metzenbaum's Senate seat, Mike DeWine (D-OH), a member of the Judiciary Committee in his own right, voiced strong opposition to the merger of Staples and Office Depot. The headquarters of Office Max, at the time the nation's third-largest office supply superstore, also is located in the State of Ohio. For more details on the second transaction, see Shughart (1998).

(Cox et al. 1969)¹⁵ and Susan Wagner (1971).¹⁶ But, it was Richard Posner's (1969) University of Pennsylvania Law Review article on the Commission that prompted Tollison to coin the phrase "antitrust pork barrel" and to test the predictive power of that idea in what would become his first published application of public-choice reasoning to the antitrust policy process.

3.1 The antitrust pork barrel

Writing in 1969, Richard Posner charged that the Federal Trade Commission's antitrust mission was impaired significantly by congressional influence. He emphasized that every member of Congress is obligated to protect and further the interests of the citizens of the political jurisdiction he or she has been elected to represent. Specifically, because "the welfare of his constituents may depend disproportionately on a few key industries[;] ... promotion of the industries becomes one of his most important duties as a representative of the district."

Not all members of Congress are created equal, though. Congressional authority with respect to the Commission's budget requests and confirmation of political appointees to senior agency positions is concentrated in the hands of members of a few key oversight and budget committees. A legislator occupying a seat on one of these committees consequently has "a great deal of power to advance the interests of businesses located in his district however unimportant the interests may be from a national perspective." Posner concluded that a major reason that FTC investigations seldom serve the public's interest is that may are initiated "at the behest of corporations, trade associations, and trade unions whose motivation is at best to shift the costs of private litigation to the taxpayer and at worst to harass competitors."

Joined by the late Roger Faith and Donald Leavens, then a doctoral student in economics at George Mason University, Tollison assembled data on the antitrust cases instituted by the FTC over the years 1961 through 1979 (Faith et al. 1982). After identifying the committees and subcommittees of the U.S. House and Senate having oversight and budget responsibilities with respect to the Commission, the authors tallied the number of antitrust actions targeting firms headquartered in the districts or states represented by committee members that had been dismissed relative to the total number of actions brought against those firms. They then tested whether this ratio was significantly different from the percentage of actions dismissed against firms headquartered in districts or states not represented by the relevant committee members.

Dividing their full dataset into two subsamples, 1961–1969 and 1970–1979, periods before and after the publication of two external studies highly critical of Commission poli-

¹⁶Wagner (1971: 211) supplied a similar anecdote:

In September 1969, despite vigorous dissents from his colleagues, Commissioner Elman ... told a Senate group that congressional pressure "corrupts the atmosphere" in which his agency works. He charged that congressmen make private, unrecorded calls on behalf of companies seeking FTC approval of multi-million dollar mergers.

¹⁵ The authors of the Nader Report had written that,

according to the Joseph W. Shea, Secretary of the FTC, any letter the commission gets from a Congressman's office is specially marked with an expedite sticker. The sticker gives the letter high priority, assuring the Congressman an answer within five days. No distinction is made between letterswhether from complaining constituents, which Congressmen routinely "buck" over to the FTC, or those from Congressmen themselves. (Cox et al. 1969: 134)

cymaking,¹⁷ Faith, Leavens and Tollison reported differences in the ratios of FTC antitrust cases dismissed to complaints issued for two Senate committees, one Senate subcommittee, and five House subcommittees. The results suggested that complaints issued by the Commission against firms headquartered in the states and districts represented by the members of these committees were more likely to be dismissed than were the complaints issued against firms headquartered elsewhere. The geographical bias in case dismissals was particularly striking in the House, especially so for the Judiciary Committee's Subcommittee on Monopolies and Commercial Law, on which representation continued to be important for firms targeted by antitrust complaints even after the "reforms" implemented in the wake of the Nader and ABA reports. Faith et al. (1982: 342) concluded from the evidence that "representation on certain subcommittees is apparently valuable in antitrust proceedings."

"Antitrust Pork Barrel" was the first scholarly article systematically to look for (and find) evidence of congressional influence on the antitrust law enforcement process. In the context of emerging public choice thinking about administrative agencies, it foreshadowed a study published the following year by Barry Weingast and Mark Moran (1983). Similar to the results reported by Faith, Leavens and Tollison, Weingast and Moran showed that FTC activity in four policy areas (mergers, credit reporting, textile labeling and cases charging violations of the Robinson-Patman Act's proscription on price discrimination) was positively correlated with the scores assigned by the Americans for Democratic Action (ADA) to the voting records of the Commission's oversight committee members and, moreover, that turnover in oversight committee membership triggered policy reversals at the FTC, helped launch the "congressional dominance" model of bureaucratic behavior. Prior to that time, it generally was assumed that government agencies, especially so-called independent agencies like the Federal Trade Commission, by and large were free to pursue their own policy agendas. The results of Faith, Leavens and Tollison and of Weingast and Moran suggested, on the contrary, that bureaus are highly responsive to the policy preferences of their congressional overseers. The congressional dominance model is now a cornerstone of rational choice approaches to the study of bureaucracy (Chang et al. 2001).

3.2 The positive economics of antitrust policy

Bob Tollison energized the staff of the Bureau of Economics with his enthusiasm for applying the theories and methods of positive economics to antitrust law enforcement. In addition to fulfilling his day-to-day responsibilities as bureau director, reviewing and submitting written recommendations to the five-member Commission on memoranda produced by the economics staff relating to one of the many action items on the documentary trail leading from the issuance of a complaint to the final disposition of a case, all of which were transmitted through his office. Bob quickly assembled around him a group of like-minded colleagues to formalize and test the ideas that bubbled to the surface in his new job. Here were new, for the most part unexploited data on law enforcement actions in the areas of antitrust and consumer protection regulation; on the penalties imposed on firms found to be in violation of the law; on the internal organizational structure and budget of an independent public agency; on the palpable tensions frequently evident between the Commission's lawyers and economists; on the voting records of the commissioners, a simple majority of whom must agree before the Commission can act; and much more.

17 One was the aforementioned Nader Report (Cox et al. 1969); the other was issued by the American Bar Association (1969).

As happens often when an intellectual revolution is getting underway, the Tollisonian approach to antitrust and antitrust enforcement agencies inspired others to look for new applications of his ideas and insights. Tollison's band of intellectual brothers and sisters quickly began producing a series of academic papers that defined and elaborated the public choice perspective of antitrust.18 The core of that perspective was laid out in Shughart and Tollison (1985), which summarized some of the early results produced by the youthful research program, most of which had by then only started appearing in print.19 In what to our knowledge was the first of these contributions, Altrogge and Shughart (1984) examined data from 57 civil penalty cases before the Commission between 1979 and 1981. A regression model designed to explain variations in the fines imposed on firms determined to be in violation of previously issued FTC cease-and-desist orders relating to advertising practices, product labeling, credit reporting, and other consumer protection matters produced evidence that more substantial monetary penalties were assessed on smaller firms (as measured by total sales). The amounts of the fines imposed also were found to be influenced by various mitigating and aggravating circumstances that reflected the order violator's financial condition, the firm's degree of culpability, whether or not remedial measures other than monetary penalties also were ordered, and institutional factors associated with the FTC's statutory authority and type of violation alleged.

Interestingly, however, the Commission's written opinion as to the extent of consumer injury caused by a particular violation had a surprising impact on the size of the fine imposed. All else equal, when any judgment was made about the significance of the injuries sustained by consumers as a result of failure to comply with a cease-and-desist order, be it large or small, fines were more than 60% *lower*, on the average, than when the Commission did not address the subject at all. Although Altrogge and Shughart confirmed that the majority of the variation in civil penalty amounts was explained by variations in firms' total sales revenues, their key finding suggested that fines did not increase proportionately with size: Everything else being the same, the fines levied by the FTC represented greater fractions of the annual sales of small firms than of larger ones. In showing that civil penalties functioned like a regressive tax on law violators, Altrogge and Shughart cast some doubt on the conventional wisdom holding that small business is the FTC's main constituency.

Amacher et al. (1985) tested an implication of the Stigler (1971)-Peltzman (1976) interest-group theory of government suggesting that regulators would have incentive to redistribute wealth between producers and consumers over the business cycle so that neither group captures all the benefits of an expanding economy nor bears all of the costs associated with a contracting one: "Share the gain, share the pain", as Jack Hirshleifer (1976: 243) put it. Amacher et al. estimated a regression model designed to explain variations over time, from 1915 through 1981, in the number of antitrust cases instituted by the FTC, paying particular attention to the years following passage of the Robinson-Patman Act (1937), which amended Sect. 2 of the Clayton Act and sharpened the teeth of the statutory proscriptions on price discrimination. Insofar as it was intended to protect independent retailers from aggressive price competition from the large national chains (Ross 1984), Sect. 2 is condemned by most antitrust scholars as anti-consumer. As such, more vigorous Robinson-Patman enforcement by the FTC tends to benefit small producers at consumers' expense and, moreover, that

¹⁸The most complete statement of the public-choice approach to antitrust is Shughart (1990), to which the interest of a publisher was drawn, not by Shughart and Tollison (1985), but by Shughart (1987). Also see Shughart (1995, 2003).

¹⁹Many of the articles summarized below ultimately would be collected, published for the first time, or reprinted in Mackay et al. (1987).

protection would be more valuable during economic contractions when competitive market forces would otherwise push prices down.²⁰ Amacher et al. reported evidence that the Commission's Robinson-Patman enforcement activity was countercyclical over the more than half-century of data examined, rising during periods of recession and falling during periods expansions, thus lending support to the wealth-transfer hypothesis of regulation.

Evidence of distributional gains and losses also was found in an empirical analysis of the Commission's advertising substantiation program (Higgins and McChesney 1986). Case selection under that program, which requires advertisers to have evidence supporting their product claims in hand prior to making them, regardless whether they are true or could, in fact, be proven to be true, tended to target heterogeneous industries-those populated by many firms having disparate market shares and reputations-rather than more highly concentrated industries consisting of a small number of relatively large firms. Higgins and McChesney hypothesized that such a law enforcement strategy would be observed if the FTC was more interested in transferring wealth (from small firms to large) than in preventing consumers from being misled by false or deceptive advertising messages. That hypothesis gained further support from evidence the two authors adduced from the capital market. The introduction of the Commission's ad substantiation program in 1972 generated positive and significant abnormal returns for the owners of large publicly traded advertising agencies, suggesting that those agencies benefited from the FTC's break with its traditional method of regulating advertising, which relied on an after-the-fact evaluation of a claim's "capacity to deceive." Extra weight was added to the wealth-transfer hypothesis by those same large advertising agencies, which strongly opposed what they characterized as Chairman Miller's attempt to "tamper with the existing obligation" of advertisers to substantiate their claims ahead of time (Higgins and McChesney 1986: 163).

One intriguing institutional feature of American antitrust policy is that the relevant statutes—the Sherman, Clayton and FTC acts—are enforced by two separate federal agencies whose jurisdictions overlap. Prior to 1948, when the Supreme Court held that the Commission could, under Sect. 5 of the FTC Act, challenge business practices that also would offend the Sherman Act,²¹ the FTC and the Antitrust Division by and large operated independently of one another, so independently that they occasionally found themselves investigating the same company simultaneously.²² Shortly thereafter the two agencies negotiated a "liaison agreement" which ushered in a period of information exchange and case allocation procedures whereby their law enforcement efforts were coordinated and rationalized.

That event supplied the conditions of a natural experiment ripe for study through the Tollisonian lens of antitrust analysis. Simply put, the "liaison agreement" created a government cartel, replacing what had been interagency competition with collusion. Higgins et al. (1987) modeled bureaucratic rivalry between the Antitrust Division and FTC as competitive Cournot duopoly before 1948, and collusive oligopoly afterwards. They then tested the model's predictions on a dataset comprising the real, inflation-adjusted annual budgets of the two agencies and all antitrust cases instituted by them, by year, from 1915 through 1981. The empirical results supported the theoretical predictions: although aggregate an titrust case production was roughly the same before and after 1948, budgetary expenditures per case more than doubled in the years following the liaison agreement's implementation.

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²⁰Relief from price-cutting pressures might likewise help stabilize cartels during economic downturns (Stigler 1975a: 183).

²¹Federal Trade Commission v. Cement Institute, 333 U.S. 683 (1948).

²²RCA and Alcoa are two examples from the Roaring Twenties. The particulars are recounted in Blaisdell (1932: 241-243).

Put differently, the liaison agreement "resulted in the same amount of antitrust enforcement as competitive enforcement, but at twice the cost in real budget dollars." The authors concluded that their findings "provide support for Niskanen's (1968: 293) contention that 'the passion of reformers to consolidate bureaus with similar output ... seems diabolically designed to ... increase the inefficiency (and, not incidentally, the budget) of the bureaucracy" (Higgins et al. 1987: 177).

Because the resources of the Antitrust Division and FTC necessarily are limited, the case for an activist law enforcement regime for the most part rests on deterrence-the idea that successfully prosecuting one defendant will discourage other firms from engaging in similar anticompetitive behavior.23 Building on Posner's (1970) detailed statistical study of antitrust policy and, in particular, his finding that, between 1964 and 1968, approximately 14% of the defendants in the criminal cases instituted by the Justice Department previously had been convicted of antitrust law violations, Shughart and Tollison (1987) studied recidivism rates among firms charged of violating the laws enforced by the FTC. They analyzed data on all law enforcement matters initiated by the FTC between 1914 and 1982, about half of which involved allegations of antitrust law infractions, the remainder being consumer protection matters. Shughart and Tollison's dataset comprised 12,244 cases that had proceeded beyond the investigation stage; 9159 of these were tried before an administrative law judge and 3085 were settled by consent decree. The authors found that cases involving recidivists accounted for about 23% of the total. So-called compliance matters, in which defendants were found guilty of failing to comply with a previously issued Commission order, were responsible for roughly 70% of the 2830 cases instituted against firms charged more than once of violating the law. De novo charges against defendants having had at least one earlier encounter with the FTC comprised the other 30% of the recidivist cases.

What do these findings have to say about the social-welfare consequences of enforcing the antitrust and consumer protection laws? Shughart and Tollison (1987: 274-275) found that many of the industries exhibiting high recidivism rates, such as apparel and accessories, recreation equipment, and food and beverages, tend to be unconcentrated and thus very unlikely to be sources of substantial consumer-welfare loss. They therefore conjectured that the relatively high recidivism rates in the FTC data were better explained by staff career goals and other bureaucratic incentives, especially a strong motive to produce "visible" output easily observed by relevant congressional oversight committees (Lindsay 1976), which shift the Commission's efforts toward the "easy kill" and away from more complex law-enforcement matters having the potential for producing larger social welfare gains. Accumulating "scalps on the wall" is more rewarding for government litigators than slogging away at one big case that may drag on for years.

Similar arguments were advanced to explain the ineffectiveness of the remedies imposed by the FTC in merger cases (Rogowsky 1987).24 Because the personal reward structure facing the government's antitrust attorneys offers larger payoffs for generating new complaints and trying new cases, the remedy phase of law-enforcement proceedings tends to be an afterthought. Once the government has prevailed on liability, staff attorneys and upper-level bureau management have an incentive to resolve the relief issue quickly in order to move on to other investigations that promise to proceed to trial and produce a new scalp. The prosecutors may therefore propose a weak remedy (or accept such a remedy when offered by

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²³ See Baker (2003) for a recent statement of this point of view.

²⁴Extending the work of Elzinga (1969), Rogowsky (1986) examined the remedial measures-typically divestiture of assets-imposed in the 104 merger cases filed by the FTC between 1968 and 1981, determining that relief was "deficient" or "unsuccessful" in 68 of them.

the defendant) simply to conclude the negotiations so that a final judgment can be entered closing out the case. It could also be true that remedies tend to be ineffective because the allegations of unlawful behavior made in the government's complaint are weak or meritless. Insofar as cases are selected for prosecution, not because of potential social-welfare gains, but because of the prospect of expeditious settlement either by trial or consent order, weak allegations can be disposed of promptly by asking for weak relief measures.

As the foregoing summary suggests, Tollison and his colleagues ranged widely over the landscape of public-choice issues raised by antitrust law enforcement at the Federal Trade Commission. To reiterate, Bob has been important, not only for his own scholarship, but as a catalyst for the research agendas of many others. In addition to the studies mentioned here, the research agenda Tollison inspired produced papers on the Commission's internal budget process (Mackay 1987; Yandle 1987, 1988), its relations with Congress (Kovacic 1987).27 patterns of Commission voting (Bond and Miller 1987), and factors influencing the commissioners' collective decisions to settle or litigate antitrust cases (Langenfeld and Rogowsky 1987).26 Virtually all of these early studies were grounded in positive economic theory and empirical testing, one of the hallmarks of Bob Tollison's approach to the many fields of economics that have engaged his attention. His approach was especially fruitful in the area of antitrust. It helped reignite the longstanding scholarly debate on the efficacy of an activist antitrust regime, which had for the most part been dominated by normative thinking and commentaries on individual antitrust cases. In the early 1980s, Tollison began shifting the literature toward systematic empirical analysis. And, as we shall see, there was much more to come.

3.3 The interest-group theory of antitrust

There is a specter that haunts our antitrust institutions. Its threat is that, far from serving as the bulwark of competition, these institutions will become the most powerful instrument in the hands of those who wish to subvert it. (Baumol and Ordover 1985: 247)

The theory of rent seeking (Tullock 1967) suggests that individuals and groups will invest resources to position themselves to earn returns in excess of normal and to prevent expropriation of their wealth (McChesney 1997). The enforcement of the antitrust laws affords many such opportunities. A law that allows a merger to be blocked when it augurs greater market concentration and higher prices for consumers is also a law that can be exploited by rivals to prevent the creation of a more efficient and, hence, more effective competitor. Laws that prohibit price discrimination "where the effect may be to substantially lessen competition or tend to create a monopoly" or that simply proscribe "unfair methods of competition" can also be used to prevent price-cutting by aggressive rivals or to discipline a cheating cartel member.

The decision to "invest" in antitrust is no different than any other capital-budgeting problem the firm confronts. Faced with the loss of sales to a new or established rival, the managers of the firm can respond by reducing prices, improving product quality, increasing advertising expenditures, or taking any number of other actions, or combination of actions,

²⁵For a model describing how organizing the FTC as a five-member commission facilitated congressional oversight, see Goff et al. (1986).

²⁶Coate and Kleit (1995) later examined the decision to settle litigate from the point of view of firms on the receiving end of FTC merger challenges.

characteristic of the competitive market process. Alternatively, management can appeal to government for protection. They can lobby for favorable legislation, attempt to influence a regulatory ruling, or instigate an antitrust lawsuit either on their own account or by supplying information about a possible law violation to the Antitrust Division or FIC. The strategy adopted in any particular situation simply is a matter of selecting the one that offers the largest expected benefit net of cost.²⁷

The rent-seeking insight led to recognition that a constellation of private interests typically coalesces around an antitrust law enforcement action, including those of the firms involved directly in the proceedings; their competitors, customers, suppliers, and employees; the staff members and upper-level management of the agency responsible for investigating the antitrust complaint and initiating action; and the agency's congressional sponsors. Thus, the next generation of contributions to the literature adopted a more nuanced approach to evaluating the forces shaping the law enforcement process. As this subsection's epigraph suggests, these studies produced evidence that the antitrust laws not only often failed to achieve their stated objective of promoting competition, but instead actually made markets less competitive.²⁸

Coate et al. (1990) examined internal FTC records on all "second requests" issued under the Hart-Scott-Rodino Premerger Notification Act between June 14, 1982 and January 1, 1987.29 The resulting dataset included 70 Commission merger law enforcement actions. In 27 of these, the FTC voted out a complaint challenging the merger under Clayton Act §7; in the other 43 cases, the merger was allowed to proceed without opposition. A regression model designed to explain the Commission's decisions to challenge a merger or not included variables measuring the extent of agreement between the staff attorneys and economists assigned to the case with respect to market concentration, the height of barriers to entry, and the likelihood of collusion post-merger. Coate, Higgins and McChesney also looked for evidence of political influence by controlling for the amount of news coverage of the proposed transaction and the number of times commission officials had been called to testify before congressional committees during the 12-month period centered on the date of the second request. All of the economic variables were found to have a statistically significant impact on the Commission's decisions: The greater the level of market concentration pre-merger, the higher entry barriers were thought to be, and the greater the perceived risk of post-merger collusion, the more likely it was that a merger would be challenged. So, too, were the political variables: More news coverage and more congressional interest were shown to cause the FTC to challenge more mergers. The authors concluded that, "Greater appreciation of the ways that antitrust works, and in particular the role of politics in the process, should begin to dispel the notion that antitrust can be viewed as driven simply by Congressional and bureaucratic concerns for competition" (Coate et al. 1990: 24).

In addition to documenting systematic political influence on the merger law enforcement process, Coate, Higgins and McChesney found that when the FTC's lawyers and economists disagreed on the economic issues of market concentration, barriers to entry and probability

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²⁷McCormick (1984) provides a review of the literature on the strategic use of antitrust and regulatory processes.

²⁸See McChesney and Shughart (1995) for a useful introduction to this literature.

²⁹ "Second requests" are authorized by the Commission when it believes that a proposed merger may produce anticompetitive effects in the relevant market and therefore seeks additional information from the merger partners for the purpose of evaluating the transaction in more detail. Chapter 9 of Shughart (1997) provides details on the Hart-Scott-Rodino premerger review process.

of collusion, the Commission typically sided with its attorneys. That same finding was produced in a follow-on study of the determinants of FTC enforcement of the merger guidelines (Coate and McChesney 1992: 292): "Both economist and attorney evaluation of guidelines factors appear to have an impact" on decisions to challenge mergers. Nevertheless, "at the margin, attorneys seem to have more influence at the Commission" Coate and McChesney's results also supplied evidence that models of Commission decision-making that include political variables explain a greater proportion of FTC merger challenges than models that only contain economic variables.

Working outside the public-choice tradition, Weir (1992) investigated how the British Monopolies and Mergers Commission ruled on transactions referred to it between 1974 and 1990. To his apparent surprise, various economic indicators associated with a proposed merger's likely competitive impact, such as probable effects on prices and costs, carried little, if any, weight in deciding whether or not to challenge it. Opposition by the target firm was the only variable that consistently made it more likely that the Commission would contest a proposed merger. It certainly is not unknown for lobbying by interested parties, including private antitrust suits filed by takeover targets, to help defeat proposed mergers of U.S. companies.³⁰

Weir's contribution illustrates that, by the early 1990s, the idea of evaluating antitrust policy with the tools and methods of positive economics had begun moving beyond the Tollison orbit. As a matter of fact, some important contributions to the literature were being published independently at about the same time the first of the studies undertaken by Tollison's FTC colleagues were appearing in print. Capital market evidence reported by Eckbo and Wier (1985), for example, suggested strongly that the mergers challenged by government generally would not have produced anti-competitive effects and, indeed, that the competitors of the merger partners seemed to have been the chief beneficiaries of the merger law enforcement process. In confirming the findings of earlier studies by Eckbo (1983) and Stillman (1983), Eckbo and Wier thus showed that merger case selection had not improved since passage of the Hart-Scott-Rodino Act.

Interest-group theory offered an explanation for such findings and Tollison, along with other scholars influenced directly or indirectly by him, continued to test that theory in a variety of antitrust contexts. Thomas DiLorenzo (1985) and Boudreaux et al. (1995) revisited the origins of the Sherman Act, which George Stigler (1985) singularly had failed to explain even to his own satisfaction. DiLorenzo suggests that the first U.S. antitrust statute may have been a political stalking horse intended to blunt opposition to the protectionist McKinley tariff, enacted by Congress three months later and, perhaps not coincidentally, also sponsored by Senator John Sherman of Ohio.³¹ The second study produced evidence that lobbies—especially rural cattlemen and butchers—from the Midwestern farm states were decisive in securing passage of the Sherman Act as a way of thwarting competition from Chicago's newly centralized, large-scale meat-processing facilities.³²

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³⁰Two examples are Grumman Corp. v. LTV Corp., 665 F.2d 10 (2d Cir. 1981), and Marathen Oil Co. v. Mobil Corp., 669 F.2d (6th Cir. 1982). For others, see Baumol and Ordover (1983) and Shughari (1998).

³¹DiLorenzo's important paper also shows that in the decade prior to passage of the Sherman Act output in the industries dominated by the "trusts" was expanding faster than industrial production as a whole, and that prices in the trust-dominated industries consequently were falling more steeply that the consumer price index, which declined by 7% between 1880 and 1890.

³²Libecap (1992) suggests that meat inspection laws originated during the same period as part of a two pronged political strategy (the Sherman Act being the second prong) orchestrated by small barchess to hand icap their larger, more efficient rivals.

Ekelund et al. (1995) uncovered interest-group motives of a different sort underlying the Clayton Act, finding that the new (in 1914) law transferred wealth to two groups of firms, namely, relatively large national firms already engaged in interstate commerce and small firms operating exclusively intrastate. That wealth transfer came at the expense of growing firms on the threshold of interstate expansion insofar as the Clayton Act threatened to deny them low-cost means (such as holding companies, merger, exclusive dealing and other so-called vertical restraints of trade), of accomplishing that objective.³³

Private interests of yet other origins were revealed by Mark Cohen (1989, 1992) in two studies of the penalties imposed by judges on firms determined to be guilty of criminal Sherman Act offenses. After assembling a dataset consisting of more than 600 indictments handed down from 1955 through 1980, Cohen found that, other things being the same, jail sentences tended to be longer, fines tended to be higher, and *nolo contendere* pleas were less likely to be accepted over the government's objection when the judge hearing the case perceived an opportunity for promotion to a higher federal court.³⁴ Other results suggested that the more crowded the sentencing judge's court docket the heavier, on the average, were the criminal penalties received by antitrust defendants whose cases proceeded to trial and subsequently ended in conviction. Since harsher expected penalties supply incentives for defendants to settle their cases prior to the commencement of trial, Cohen interpreted this finding as implying that judges use the discretion available to them partly to ease their own workloads.

Politicians, bureaucrats, businesses targeted by antitrust complaints, businesses seeking protection from competitive market forces and, indeed, judges have important stakes in the antitrust law enforcement process. Had this essay been written about more traditional forms of economic or social regulation, few scholars, including diehard Chicago-schoolers, would object to the conclusion we draw here about antitrust, that it, like public policy in general, rarely operates in the public's interest, but is instead shaped, and frequently deformed, by the interplay of private interests, each of which, because they can selectively be helped or hurt by governmental action, rationally pursues goals that subvert the competitive process rather than enhancing it (McChesney 1986). Antitrust-and law enforcement in generalnevertheless still is assumed by many to be immune to political influence. Thanks to the pioneering work of Robert Tollison, however, and to the substantial work his initial insight inspired, that assumption now rests on the flimsiest of foundations. At the very least, the defenders of an activist antitrust policy agenda no longer can rest their case on wishful thinking and blind faith in the good intentions of its practitioners. They must instead back their claims with hard evidence. It takes a model to beat a model, as Bob would say. And the public-choice model of antitrust policymaking that he formulated in the early 1980s is supported by an impressive body of scholarship. Even the Brookings Institution seems to have realized belatedly that the antitrust emperor has no clothes (Crandall and Winston 2003).

³³George Bittlingmayer (1985) argues that the government's early efforts to enforce the Sherman Act, which prompted businesses to substitute consolidation for inter-firm coordination, were at least in part responsible for triggering the "Great Merger Wave" of the late 1800s and early 1900s. He later examined the period of the first New Deal, when antitrust law enforcement was held in abeyance under the National Industrial Recovery Act, and concluded that, rather than leading to cartel output restrictions, firms took advantage of the NIRA's suspension of antitrust to increase production (Bittlingmayer 1995).

³⁴Cohen measured judicial promotion opportunities by controlling for the number of vacancies on the appeals court in the sentencing judge's district, the judge's own length of service on the federal bench, and whether or not the judge had the same political party affiliation as the sitting president.

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