

# PRIVATE ENFORCEMENT AND JUDICIAL DISCRETION IN THE EVOLUTION OF ANTITRUST IN THE UNITED STATES

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## ABSTRACT

The role of private enforcers in the implementation of laws against anticompetitive practices remains a subject of considerable controversy. The economic approach to the analysis of crime and punishment suggests that private rights of action can complement the information and incentives of public agents in the identification and deterrence of costly market behavior. This article studies the complementarities between public and private enforcement mechanisms. Long-term data on case filings, administrative resources, and judicial outcomes from the United States reveal that mixed regimes allow for the specialization of tasks between public and private enforcers: competition authorities focus on the regulation of dominance, while private litigants tend to identify collusion in contractual relations. The analysis further documents how judicial discretion under the rule-of-reason approach to substantive interpretation limits the predictability and credibility of legal constraints against anticompetitive practices.

*JEL*: K21; K40; L40; N42

## I. INTRODUCTION

Private rights of action complement the capacity of public administrative and prosecutorial agencies in the implementation of statutory or common laws in a wide range of areas, including the protection of human rights, conformity to health and environmental standards, regulation of corporate securities, and prohibitions against anticompetitive practices.<sup>1</sup> Victims of

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<sup>1</sup> See, e.g., Sean Farhang, *Congressional Mobilization of Private Litigants: Evidence from the Civil Rights Act of 1991*, 6 J. EMPIRICAL LEGAL STUD. 1 (2009); Eric Mongelard, *Corporate Civil Liability for Violations of International Humanitarian Law*, 88 INT'L REV. RED CROSS 665 (2006); Tom Allen, *Civil Liability for Sexual Exploitation in Professional Relationships*, 59 MOD. L. REV. 56 (1996); Michael J. Piore & Sean Safford, *Changing Regimes of Workplace Governance: Shifting Axes of Social Mobilization and the Challenge to Industrial Relations Theory*, 45 INDUS. RELATIONS 299 (2006); Yolande Hiriart, David Martimort & Jerome Pouyet, *On*

harmful acts often have better information about the particular violation than centralized government agencies and prosecutorial authorities do.<sup>2</sup> If the expected damages and probability of success in courts are high enough, in some cases, private litigants may also have stronger incentives than public agencies and prosecutorial authorities to identify and deter prohibited behavior.<sup>3</sup> On the other hand, modern administrative agencies are likely to have advantages in terms of scale and scope economies in investigation, prosecution, and punishment relative to decentralized private litigation regimes prone to duplication and delay.<sup>4</sup> They also can act in a preemptive manner, for example, by setting industry standards, monitoring compliance through inspections, or blocking potentially undesirable private transactions.<sup>5</sup> Given these basic differences, the allocation of authority to public

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*the Optimal Use of Ex Ante Regulation and Ex Post Liability*, 84 *ECON. LETTERS* 231 (2004); Wendy Naysnerski & Tom Tietenberg, *Private Enforcement of Federal Environmental Law*, 68 *LAND ECON.* 28 (1992); Edward D. Cavanagh, *The Private Antitrust Remedy: Lessons from the American Experience*, 41 *LOY. U. CHI. L.J.* 629 (2010); Gillian Hadfield & Eric Talley, *On Public versus Private Provision of Corporate Law*, 22 *J.L. ECON. & ORG.* 414 (2006); Simeon Djankov, Rafael La Porta, Florencio Lopez-de-Silanes & Andrei Shleifer, *The Law and Economics of Self Dealing*, 88 *J. FIN. ECON.* 430 (2008); John Armour, Bernard Black, Brian Cheffins & Richard Nolan, *Private Enforcement of Corporate Law: An Empirical Comparison of the United Kingdom and the United States*, 6 *J. EMPIRICAL LEGAL STUD.* 687 (2009); Nuno Garoupa & Daniel M. Klerman, *Corruption and Private Law Enforcement: Theory and History*, 6 *REV. L. & ECON.* 3 (2010).

<sup>2</sup> Private parties that have not been directly injured by an illegal act, but have access to information and relatively strong incentives to enforce public regulations, can also be granted rights of standing in order to enhance the credibility of public laws (for example, environmental, human rights, consumer, or business associations; employees or competing firms with knowledge about unlawful behavior; and so forth). For an analysis of different strategies in the design of private legal mechanisms necessary for identifying unlawful behavior in business organizations, see Pamela H. Bucy, *Private Justice*, 76 *S. CAL. L. REV.* 1 (2002).

<sup>3</sup> For historical and theoretical perspectives on the tensions between public and private legal institutions, see, e.g., Katherine Fischer Drew, *Public vs. Private Enforcement of the Law in the Early Middle Ages: Fifth to Twelfth Centuries*, 70 *CHI.-KENT L. REV.* 1583 (1995); Morton J. Horwitz, *The History of the Public/Private Distinction*, 130 *U. PA. L. REV.* 1423 (1982); Edward L. Glaeser & Andrei Shleifer, *The Rise of the Regulatory State*, 41 *J. ECON. LIT.* 401 (2003); Suzan Rose-Ackerman, *Regulation and the Law of Torts*, 81 *AM. ECON. REV.* 54 (1991); Peter H. Schuck, *FDA Preemption of State Tort Law in Drug Regulation: Finding the Sweet Spot*, 13 *ROGER WILLIAMS U. L. REV.* 73 (2008); Guido Calabresi, *Toward A Unified Theory of Torts*, 1 *J. TORT L.* 1 (2007).

<sup>4</sup> For a general review of economic theories of legal procedure, see A. Mitchell Polinsky, *Private versus Public Enforcement of Fines*, 9 *J. LEGAL STUD.* 105 (1980); Nuno Garoupa, *The Theory of Optimal Law Enforcement*, 11 *J. ECON. SURVEYS* 267 (1997); A. Mitchell Polinsky & Steven Shavell, *Public Enforcement of Law*, in *ENCYCLOPEDIA OF LAW AND ECONOMICS: CRIMINAL LAW AND ECONOMICS* (Nuno Garoupa ed., Edward Elgar Publishing 2009); Reza Rajabiun, *Private Enforcement of Law*, in *ENCYCLOPEDIA OF LAW AND ECONOMICS: CRIMINAL LAW AND ECONOMICS* (Nuno Garoupa ed., Edward Elgar Publishing 2009).

<sup>5</sup> Merger review provides a useful illustration of the potential advantages of centralized public regimes for implementation of public laws. Private rights of legal action by aggrieved

regulators and private litigants represents a core problem facing lawmakers responsible for designing substantive and procedural features of legal systems.<sup>6</sup>

The tension between the informational advantages of decentralized litigation regimes and the organizational capacity of public enforcement agencies is particularly apparent in the design of legal constraints against anticompetitive practices. This is because, in large and complex economies, collusion and price fixing between private firms can be difficult to identify—and hence deter—even by relatively sophisticated and accountable competition bureaucracies. The European Court of Justice (ECJ) summarized the informational argument for the decentralization of enforcement authority to non-state actors in *Courage v. Crehan* as follows:

The full effectiveness of Article [81] of the Treaty and, in particular, the practical effect of the prohibition laid down in Article [81(1)] would be put at risk if it were not open to any individual to claim damages for loss caused to him by a contract or by conduct liable to restrict or distort competition.

Indeed, the existence of such a right strengthens the working of the Community competition rules and discourages agreements or practices, which are *frequently covert*, which are liable to restrict or distort competition. From that point of view, actions for damages before the national courts can make a significant contribution to the maintenance of effective competition in the Community.<sup>7</sup>

The ECJ provides two basic justifications for enhancing the role of private enforcers and the development of a mixed regime. The first is a constitutional one, relating to the specific EU Treaty obligations that aim to limit the negative impact of anticompetitive agreements and abusive practices on the internal market and promote economic integration. More generally, the ECJ characterizes private litigation as a mechanism for the acquisition of information that would not be available in a system of local and central public enforcement agencies comprised of the Competition Directorate of the European Commission and the national competition agencies.<sup>8</sup>

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consumers or minority investors concerned about the costs of a particular transaction proposed by the management might constrain the prospects for inefficient mergers and acquisitions. However, decentralization of merger review can prevent or delay efficiency enhancing transactions. For further analysis of the problems in the allocation of enforcement authority in mergers cases, see Jonathan L. Dieneshaus, *Competitor Standing to Challenge a Merger of Rivals: The Applicability of Strategic Behavior Analysis*, 75 CAL. L. REV. 2057 (1987); Joseph F. Broadley, *Antitrust Standing in Private Merger Cases: Reconciling Private Incentives and Public Enforcement Goals*, 94 MICH. L. REV. 1 (1995).

<sup>6</sup> For a more detailed analysis of dilemma in the allocation of enforcement authority between public and private enforcers in different areas of law and policy, see Rajabiun (2009), *Private Enforcement of Law*, *supra* note 4.

<sup>7</sup> *Courage v. Crehan*, C-453/99, 2001 E.C.R. I-6297, ¶¶ 26 & 27 (EC) (emphasis added).

<sup>8</sup> *Id.* For discussions of the potential role of private enforcement in the development of EU competition law, see, e.g., David J. Gerber, *Modernizing European Competition Law: A*

The court does not appear to suggest that private litigants should replace the public authorities, but views them as complementary instruments that help reinforce each other in achieving the same broad objectives. However, outside the United States, competition law enforcement is almost exclusively under the jurisdiction of general-purpose competition authorities.<sup>9</sup> In the European Union, around half of the member states have had some form of specific statutory or general tort or contract basis for private actions under national competition legislations.<sup>10</sup> Nevertheless, only around 100 private claims based on national or EU substantive rules had been recorded prior to 2004, most of which had been unsuccessful.<sup>11</sup> Moreover, institutional resistance to private enforcement of competition laws exists across civil and common-law countries, as well as in jurisdictions with distinctive civil law histories (socialist, Scandinavian, German, and so on).<sup>12</sup> This suggests that formal rights of private action do not necessarily translate into an effective mixed regime for the enforcement of substantive rules under national and, more recently, EU laws.<sup>13</sup>

Resistance to the decentralization of enforcement authority to private plaintiffs in the area of competition law illustrates a basic dilemma in the

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*Developmental Perspective*, 22 EUR. COMPETITION L. REV. 122 (2001); Donncahd Woods, *Private Enforcement of Antitrust Rules: Modernization of the EU Rules and the Road Ahead*, 16 LOY. CONSUMER L. REV. 431 (2004); Michael Van Hoof, *Will the New European Union Competition Regulation Increase Private Litigation? An International Comparison*, 19 CONN. J. INT'L L. 659 (2004).

<sup>9</sup> Various studies have tried to draw lessons from the U.S. experience for the design of more robust enforcement institutions in other jurisdictions. See, e.g., Douglas H. Ginsburg, *Comparing Antitrust Enforcement in the United States and Europe*, 1 J. COMPETITION L. & ECON. 427 (2005); Donald I. Baker, *Revisiting History: What Have We Learned About Private Antitrust Enforcement That We Would Recommend to Others?*, 16 LOY. CONSUMER L. REV. 379 (2004); Cavanagh, *supra* note 1.

<sup>10</sup> Eur. Comm'n, *Study on the Conditions of Claims for Damages in Case of Infringement of EC Competition Rules* (also known as *The Ashurst Report*) (2004), available at <http://ec.europa.eu/competition/antitrust/actionsdamages/study.html>.

<sup>11</sup> *Id.*

<sup>12</sup> *Id.* For an analysis of impediments to the development of decentralized mechanisms for the enforcement of national and EU competition laws, see Reza Rajabian, *Strategic Considerations in the Emergence of Private Action Rights*, 32 WORLD COMPETITION 409 (2009).

<sup>13</sup> Attempts to enhance private rights of action in the past few years have been more successful in some EU countries than others. See Helmut Brokelmann, *Enforcement of Articles 81 and 82 EC under Regulation 1/2003: The Case of Spain and Portugal*, 29 WORLD COMPETITION 535 (2006); Selene Rosso, *Ways to Promote Workable Private Antitrust Enforcement in Italy*, 32 WORLD COMPETITION 305 (2009); Andreas Klees, *Breaking the Habits: The German Competition Law After the 7th Amendment to the Act Against Restraints of Competition (GWB)*, 7 GERMAN L.J. 399 (2006); Wolfgang Wurmnest, *A New Era for Private Antitrust Litigation in Germany? A Critical Appraisal of the Modernized Law Against Restraints of Competition*, 6 GERMAN L.J. 1173 (2005); Marc A. Sittenreich, *The Rocky Path for Private Directors General: Procedure, Politics, and the Uncertain Future of EU Antitrust Damages Actions*, 78 FORDHAM L. REV. 2701 (2010).

design of institutions for the governance of market systems. The ability of non-state actors to identify and prosecute illegal practices through the courts may increase incentives for compliance. However, it also reduces the discretion of government agencies and the courts to exempt anticompetitive behavior that might appear to be welfare-enhancing at the national level, for instance, because they are purported to reduce transaction costs, enhance investment, or promote exports.<sup>14</sup> For small economies, the informational advantages of private provision of enforcement through litigation may not necessarily outweigh the cost advantages in terms of scale and scope economies linked to centralized administrative hierarchies.<sup>15</sup> Increasing market complexity, associated with international integration and globalization, changes the relative value of the two instruments and has stimulated policy debates about the merits of private liability mechanisms against collusion and other frequently covert anticompetitive practices.<sup>16</sup>

To illustrate the basic policy problem in the design of enforcement mechanisms, consider the fact that most jurisdictions grant firms accused of illegal acts some rights to appeal adverse decisions by the competition agency to an external judicial body. In many countries, they also allow the executive branch the power to block decisions by public competition authorities when they do not appear to be in the public interest. Presumably, these channels for constraining the authority of public administrative agencies exist to limit the socioeconomic costs of (false positive) errors in the system.<sup>17</sup> While contemporary competition regimes have developed a channel for correcting this class of mistakes, most jurisdictions have resisted adopting a similar mechanism to mitigate the costs of (false negative) errors associated with information and incentive problems in public administration and agency regulation. If liability regimes enhance the efficiency of the legal system, then their absence in most countries is puzzling and represents a manifestation of what is commonly referred to as the Becker Paradox in economic theories of crime and punishment.<sup>18</sup> The U.S.

<sup>14</sup> R. Shyam Khemani, *Application of Competition Law: Exemptions and Exceptions*, presented at the United Nations Conference on Trade and Development (No. UNCTAD/DITC/CLP/Misc. 25, 2002).

<sup>15</sup> Rajabiun (2009), *Strategic Considerations*, *supra* note 12. For a theoretical analysis of the interplay between information and fixed costs in institutions for the production of public goods, see Gerven Fearon & Lutz-Alexander Busch, *Auditing and Competitive Bidding in the Public Sector*, 90 J. PUB. ECON. 657 (2006).

<sup>16</sup> Hannah L. Buxbaum, *The Private Attorney General in a Global Age: Public Interests in Private International Antitrust Litigation*, 26 YALE J. INT'L L. 219 (2001).

<sup>17</sup> Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1 (1984); Maarten Pieter Schinkel & Jan Tuinstra, *Imperfect Competition Law Enforcement*, 24 INT'L J. INDUS. ORG. 1267 (2006); Alan Delvin & Michael Jacobs, *Antitrust Error*, 52 WM. & MARY L. REV. 75 (2010).

<sup>18</sup> Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968); Michael K. Block & J. Gregory Sidak, *The Cost of Antitrust Deterrence: Why Not Hang a Price Fixer Now and Then?* 68 GEO. L.J. 1131 (1980); Gary S. Becker, *Noble Prize*

antitrust system signifies an obvious exception to this pattern of institutional development, because it relies primarily on information and investments of private businesses to identify and deter anticompetitive practices. Consequently, the U.S. antitrust experience provides a unique empirical basis for exploring factors that shape the incentives of a private enforcer to address information and incentive problems associated with purely public regimes.

Reasons for the divergence of the U.S. system from competition regimes in other common and civil law countries are not well understood.<sup>19</sup> This is because formal rights of action and the punitive damage multiplier under the Sherman Act (of 1890) and the Clayton Act (of 1914) did not lead to the emergence of a private litigation system until the 1950s.<sup>20</sup> Previous research suggests that, between 1890 and 1940, only around 400 private cases had been initiated.<sup>21</sup> This is not surprising, since the courts of that era were

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*Lecture: The Economic Way of Looking at Behavior*, 101 J. POL. ECON. 385 (1993); David D. Friedman, *Why Not Hang Them All? On the Virtues of Inefficient Punishment*, 107 J. POL. ECON. 259 (1999); Mats Persson & Claes-Henric Siven, *The Becker Paradox and Type I versus Type II Errors in the Economics of Crime*, 48 INT'L ECON. REV. 221 (2007).

<sup>19</sup> While Australia has developed a limited system of private access since the 1970s, private actions against anticompetitive practices are rare in legal systems of other English-speaking countries, such as Canada and the United Kingdom. See R. Jack Roberts, *International Comparative Analysis of Private Rights of Access* (commissioned by Industry Canada, Competition Bureau, 2000); Kent Roach & Michael J. Trebilcock, *Private Enforcement of Competition Laws*, 34 OSGOODE HALL L.J. 461 (1997); Mahmud Jamal, *Constitutional Issues in Competition Litigation*, 41 CAN. BUS. L.J. 66 (2004); Karen Yeung, *Privatizing Competition Regulation*, 18 OXFORD J. LEGAL STUD. 581 (1998). On the importance of devolving regulatory authority in developing countries, see Jean Tirole, *The Institutional Infrastructure of Competition Policy*, presented at the World Bank-CAE Conference on Governance, Equity, and Global Markets (1999). For a broad and updated review of recent developments in private antitrust law around the world, see THE INTERNATIONAL HANDBOOK ON PRIVATE ENFORCEMENT OF COMPETITION LAW (Albert A. Foer, Jonathan W. Cuneo, Randy Stutz & Bojana Vrcek eds., Edward Elgar Publishing 2010).

<sup>20</sup> This suggests that the damage multiplier under section 4 of the Clayton Act (15 U.S.C. § 15) does not fully explain why private enforcement incentives are relatively strong in the United States compared with other countries with statutory or general tort private rights of action. The statutory damage multiplier in the United States remains the source of significant controversy in the application of the Sherman Act. See Mitchell A. Polinsky, *Detrebling versus Decoupling Antitrust Damages: Lessons from the Theory of Enforcement*, 74 GEO. L.J. 1231 (1986); Jaynie L. Randall, *Does De-Trebling Sacrifice Recoverability of Antitrust Awards?*, 23 YALE J. ON REG. 311 (2006); Edward D. Cavanagh, *Detrebling Antitrust Damages in Monopolization Cases*, 76 ANTITRUST L.J. 100 (2009).

<sup>21</sup> John D. Guilfoil, *Private Enforcement of U.S. Antitrust Law*, 10 ANTITRUST BULL. 747 (1965); William F. Shughart II, *Private Antitrust Enforcement Compensation, Deterrence or Extortion?*, 3 REGULATION 53 (1990). There are some inconsistencies between historical accounts of the number of private antitrust cases filed before World War II, potentially because of differences in compiling the data from original courts documents. These inconsistencies do not change the overall picture of judicial resistance to private enforcement of statutory prohibitions against anticompetitive practices.

very hostile to plaintiffs' claims, and only a very small proportion of these cases (approximately 15) were successful.<sup>22</sup> The number of private case filings grew rapidly in the 1950s and 1960s, reaching to a peak of around 1500 cases per year by the mid 1970s.<sup>23</sup> Although during the 1980s and 1990s enforcement of competition law through the courts became increasingly difficult, the architecture of the U.S. antitrust system has remained distinctive from other countries due to its heavy reliance on private businesses to identify and invest in the prosecution of prohibited behavior.<sup>24</sup>

The design of U.S. antitrust institutions has inspired a large literature in law, economics, and other disciplines. Previous research typically adopts a normative theoretical framework and relies primarily on anecdotal evidence to evaluate the merits of different substantive and procedural design strategies. Furthermore, legal and economic studies of regulatory institutions usually separate the analysis of rules and implementation procedures. Therefore, they do not account for the joint impact of substantive and procedural design features of legal systems on the incentives of the litigants. This article aims to address these gaps in the literature by analyzing the emergence and evolution of the unique architecture of the U.S. antitrust system.

The next Part reviews economic theories for explaining the allocation of enforcement authority between public and private prosecutors. Part III analyzes the long-term evolution of public regulation and private litigation in the United States. Part IV investigates the impact of the shift to the rule-of-reason, or economic, approach to substantive interpretation on judicial outcomes and private litigation incentives during the 1980s and 1990s.<sup>25</sup>

<sup>22</sup> Shughart, *supra* note 21, at 53.

<sup>23</sup> Long-term data on private and public enforcement used in this article have been compiled from a number of different sources. The older figures on the federal agencies were part of a project to take an inventory of historical activities and are available from the American Antitrust Institute. More recent data are from the Office of the Superintendent of U.S. Courts and compilations of the sourcebook of legal statistics put together at SUNY Albany Law School. There are discrepancies between these and other data sources, since filings can be counted differently and documentation on original data collection methodology is not available. For this reason, we focus on changing patterns rather than absolute numbers, using consistent sources where possible.

<sup>24</sup> The erosion of legal constraints against anticompetitive agreements and monopolistic practices in the 1980s and 1990s is usually viewed in terms of a growing aversion to false positive errors by scholars and jurists associated with the Harvard and Chicago schools of antitrust thought. See Delvin & Jacobs, *supra* note 17; William H. Page, *The Chicago School and the Evolution of Antitrust: Characterization, Antitrust Injury, and Evidentiary Sufficiency*, 75 VA. L. REV. 1221 (1989); William E. Kovacic, *The Intellectual DNA of Modern U.S. Competition Law for Dominant Firm Conduct: The Chicago/Harvard Double Helix*, COLUM. BUS. L. REV. 1 (2007); HOW THE CHICAGO SCHOOL OVERSHOT THE MARK: THE EFFECT OF CONSERVATIVE ECONOMICS ON U.S. ANTITRUST (Robert Pitofsky ed., Oxford Univ. Press 2008).

<sup>25</sup> For discussions of basic elements and implications of the rule-of-reason, or economic, approach to antitrust liability, see William H. Page, *Antitrust Damages and Economic*

Part V summarizes the evidence and highlights why it is important to develop theories of the law that account for the interdependence between its substantive and procedural design.<sup>26</sup>

## II. POLITICAL ECONOMY OF ENFORCEMENT

The role of private enforcement in shaping legal constraints against anticompetitive practices can be viewed in terms of the objectives of the law as an economic institution. The history of antitrust has inspired two different classes of theories for characterizing the role that the law can play in shaping the behavior of market participants.<sup>27</sup> *Public interest* theories of regulation assume that public competition laws exist and operate to protect or promote interests of consumers and the general public.<sup>28</sup> This class of theories does not usually account for the presence of asymmetries in the capacity of different groups to engage in collective action in order to shape regulatory and legal outcomes. *Private interest* theories of regulation instead emphasize the possibility that narrow industrial interests can often deploy the power of the

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*Efficiency: An Approach to Antitrust Injury*, 47 U. CHI. L. REV. 467 (1980); J. Gregory Sidak, *Rethinking Antitrust Damages*, 33 STAN. L. REV. 329 (1981); William M. Landes, *Optimal Sanctions for Antitrust Violations*, 50 U. CHI. L. REV. 652 (1983); William H. Page, *The Scope of Liability for Antitrust Violations*, 37 STAN. L. REV. 1445 (1985). The erosion of *per se* rules continues to be an important issue in the United States. For instance, in 2007, the U.S. Supreme Court overruled the long-operative precedent established in *Dr. Miles Medical Co. v. John D. Park & Sons Co.*, 220 U.S. 373 (1911), prohibiting resale price maintenance on a *per se* basis. In *Leegin Creative Leather Products, Inc. v. PSKS, Inc.*, 127 S. Ct. 2705 (2007), the Court declared that minimum price agreements may benefit consumers and hence should be subject to case-by case-analysis. Proponents of the rule-of-reason in the courts tend to emphasize the costs of false positive errors in a system based on *per se* rules and private rights of action. See Maurice E. Stucke, *Does the Rule of Reason Violate the Rule of Law?*, 42 U.C. DAVIS L. REV. 1375 (2009); Delvin & Jacobs, *supra* note 17.

<sup>26</sup> Although most studies separate the analysis of substantive and procedural elements of the law, the idea that the credibility of public laws depends on their substantive design can be traced to the seminal contribution by CESARE BECCARIA, ON CRIMES AND PUNISHMENTS (1764). He argued that, to prevent crimes, one needed to “make sure that the laws are clear and simple and that the whole strength of the nation is concentrated on defending them.” The reason for this conjecture was that,

[i]n a nation indolent from the nature of the climate, the uncertainty of the laws confirms and increases men’s indolence and stupidity. In a voluptuous but active nation, this uncertainty occasions a multiplicity of cabals and intrigues, which spread distrust and diffidence through the hearts of all, and dissimulation and treachery are the foundation of their prudence. In a brave and powerful nation, this uncertainty of the laws is at last destroyed, after many oscillations from liberty to slavery, and from slavery to liberty again.

*Id.* ch. 41.

<sup>27</sup> See James M. Buchanan & Dwight R. Lee, *Private Interest Support for Efficiency Enhancing Antitrust Policies*, 30 ECON. INQUIRY 218 (1992).

<sup>28</sup> *Id.*

state for their own commercial advantage.<sup>29</sup> Ultimately, the relevance of public and private theories of regulation is an empirical question.<sup>30</sup>

James Buchanan and Dwight Lee have highlighted the limitations of the two classes of theories for explaining the U.S. antitrust experience, and they offer a positive theory of competition regulation as an efficiency enhancing institution.<sup>31</sup> They have asked why even the most severe critics of government regulation in the United States during the 1970s and 1980s (for example, Richard Posner, Robert Bork, and George Stigler) had not successfully identified antitrust as just another one of the regulatory mechanisms through which powerful firms and industry associations pursue their own interests and reduce emergent competition.<sup>32</sup> Despite numerous efforts at empirical investigation, Buchanan and Lee argued that private interest explanations for antitrust policies found little support, and they have gone on to develop a theory for explaining efficiency-enhancing competition laws.<sup>33</sup> In their model, antitrust law functions as a mechanism for monitoring a corporatist equilibrium among a set of politically powerful cartels. Since the cartels are advantaged in their capacity to influence economic policy making, they need a method to control each other's behavior.

In contrast to traditional justifications for antitrust as an instrument for deterring anticompetitive practices by private firms, this perspective explains antitrust as a self-imposed constraint by an oligarchy on its own members. They further argue that, for a coalition of cartels, it would be cheaper to shift the costs of monitoring and enforcement to the public sector. The theory of antitrust as an efficiency-enhancing institution is useful for explaining why even in environments with little democratic accountability,

<sup>29</sup> See, e.g., ROBERT H. BORK, *THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF* (Basic Books, Inc. 1978); William J. Baumol & Janusz A. Ordover, *Use of Antitrust to Subvert Competition*, 28 J. L. & ECON. 247 (1985); Edward A. Snyder & Thomas E. Kauper, *Misuse of the Antitrust Laws: The Competitor Plaintiff*, 90 MICH. L. REV. 551 (1991); Warren F. Schwartz & Abraham L. Wickelgren, *Optimal Antitrust Enforcement: Competitor Suits, Entry, and Post-entry Competition*, 95 J. PUB. ECON. 967 (2011).

<sup>30</sup> For a review of empirical evidence on the economic implications of the U.S. antitrust system, see Gregory J. Werden, *Assessing the Effects of Antitrust Enforcement in the United States*, 156 DE ECONOMIST 433 (2008). For recent cross-country studies on the links between competition regulations and market outcomes, see Hiau Looi Kee & Bernard Hoekman, *Imports, Entry and Competition Law as Market Disciplines*, 51 EUR. ECON. REV. 831 (2007); Stefan Voigt, *The Effects of Competition Policy on Development: Cross-Country Evidence Using Four New Indicators*, 45 J. DEV. STUD. 1225 (2009); Keith N. Hylton & Fei Deng, *Antitrust Around the World: An Empirical Analysis of the Scope of Competition Laws and Their Effects*, 74 ANTITRUST L.J. 271 (2007).

<sup>31</sup> Buchanan & Lee, *supra* note 27.

<sup>32</sup> *Id.*

<sup>33</sup> Although evidence supporting private interest theories of the antitrust may be weak, it is important to note that there is also little systematic evidence on the public benefits of antitrust in terms of consumer welfare in the United States. See Robert W. Crandall & Clifford Winston, *Does Antitrust Policy Improve Consumer Welfare? Assessing the Evidence*, 17 J. ECON. LIT. 3 (2003); Werden, *supra* note 30.

where there are only a few key owners of political and economic power, some political support for credible laws against anticompetitive practices can exist. The theory, for instance, can help explain how federal antitrust statutes emerged in the political environment of the late 19th and early 20th centuries. However, the theory is incomplete, because it does not account for the emergence of private enforcement as the primary mechanisms for identification and deterrence of anticompetitive practices after World War II.

It is easy to imagine that both public regulation and private rights of action can be abused by powerful firms—for example, to impose inefficient contractual terms, raise the costs of competitors to deter entry, prevent efficiency-enhancing mergers, or sustain price-fixing agreements that could unravel in the absence of competition law.<sup>34</sup> Such anticompetitive practices can have significant costs for the operation of market systems and long-term economic outcomes (that is, false positive errors).<sup>35</sup> If judicial or regulatory outcomes can be readily subverted by resourceful enterprises, it might be optimal not to have antitrust at all, because the costs of false positive errors could be larger than expected gains from legal deterrence of anticompetitive practices (that is, lower false negatives).<sup>36</sup> On the other hand, there is some empirical evidence that an effective competition regime can constrain the pricing power of incumbent firms by promoting entry and can increase aggregate productivity growth by improving the quality of broader economic and political institutions.<sup>37</sup> The institutional arrangement that minimizes both Type I and Type II errors of the system represents an efficient adaptation.<sup>38</sup>

The framework for most formal rational-choice models of enforcement institutions follows from the seminal theoretical study by Gary Becker on the economics of crime and punishment.<sup>39</sup> Becker explained and justified the increasing reliance on private litigation as a tool for enforcing public laws

<sup>34</sup> *Supra* note 29; William H. Page & Roger D. Blair, *Controlling the Competitor Plaintiff in Antitrust Litigation*, 91 MICH. L. REV. 111 (1992).

<sup>35</sup> *Supra* note 17.

<sup>36</sup> Schinkel & Tuinstra, *supra* note 17.

<sup>37</sup> Kee & Hoekman, *supra* note 30; Voigt, *supra* note 30.

<sup>38</sup> For a given set of institutional arrangements, there is usually a tradeoff between Type I & II errors. Institutional adaptations that mitigate the costs of both types of decision errors tend to be rare and hard to replicate by other jurisdictions. In fact, an efficient adaptation in one jurisdiction may not be optimal for another. Differentiation in existing components of the system is a common process in evolutionary adaptations. For an analysis of optimal substantive differentiation in the design of competition laws, see Arndt Christiansen & Wolfgang Kerber, *Competition Policy with Optimally Differentiated Rules Instead of “Per se Rules vs. Rule of Reason”*, 2 J. COMPETITION L. & ECON. 215 (2006). For overviews of economic and legal scholarship on the evolution of institutions, see Avner Greif, *Commitments, Coercion and Markets: The Nature and Dynamics of Institutions Supporting Exchange*, in HANDBOOK OF NEW INSTITUTIONAL ECONOMICS (Claude Ménard & Mary M. Shirley eds., Springer 2005); LAW, ECONOMICS AND EVOLUTIONARY THEORY (Peer Zumbansen & Graf-Peter Calliess eds., Edward Elgar 2010).

<sup>39</sup> Becker (1968), *supra* note 18.

in terms of economic efficiency. Incentives to comply with legal rules are primarily a function of the level of expected punishment, which is determined by the magnitude of punishment and the probability that it will be imposed. Since prosecution is costly and public enforcers tend to be budget constrained, they have a tendency to opt for a combination of high penalties and low probability of enforcement to achieve a target level of deterrence. Heavier punishments will cost more to apply per offence, but they also tend to reduce aggregate enforcement cost, because some offences that are deterred do not need to be punished.<sup>40</sup> A heavy punishment/low probability enforcement strategy might work for a while, but it is not feasible to increase punishments forever. Specifically with respect to monetary penalties, as their magnitude grows, a smaller number of offenders will be able to afford to pay them (that is, offenders become judgment proof). Consequently, in order to maintain a given level of deterrence, it becomes necessary to switch to less efficient forms of punishment (for example, probation and imprisonment).<sup>41</sup>

Applying severe punishments at a low probability might be socially optimal if individuals and firms are risk neutral, but it leads to both false negative and false positive errors if they have an aversion to risk.<sup>42</sup> As long as the payoff to an unlawful act is large enough, increasing the magnitude of the punishment does not necessarily force all risk-averse individuals to stop their activities. Some potential offenders will respond to a heavy punishment/low probability enforcement strategy by taking more precautions against getting caught, but they will continue their activities if the private gains are larger than expected punishments. For example, some high-cost offenders might choose to invest more in hiding their activities, while others will try to induce public enforcers to look the other way. This type of behavior helps explain why anticompetitive practices are frequently covert and difficult to address with public enforcement mechanisms. Risk avoidance in response to higher penalties lowers the expected punishment for individuals who choose to violate the law and therefore reduces deterrence.<sup>43</sup> As a

<sup>40</sup> DAVID D. FRIEDMAN, *LAW'S ORDER: WHAT ECONOMICS HAS TO DO WITH LAW AND WHY IT MATTERS* 225-29 (Princeton Univ. Press 2000).

<sup>41</sup> David D. Friedman & William Sjostrom, *Hanged for a Sheep: The Economics of Marginal Deterrence*, 22 J. LEGAL STUD. 345 (1993); Friedman (1999), *supra* note 18.

<sup>42</sup> If individuals are risk neutral, it might be desirable to set the probability of punishment as low as possible (to save on enforcement costs) and impose maximal punishments. In the presence of risk aversion, the optimal fine is generally less than the maximal, and the optimal probability will approach one as the costs of enforcement go to zero. The first corner solution is suboptimal, while the second one may not be feasible due to the costs of enforcement. See A. Mitchell Polinsky & Steven Shavell, *The Optimal Tradeoff between the Probability and Magnitude of Fines*, 69 AM. ECON. REV. 880 (1979); Polinsky & Shavell (2009), *supra* note 4; I.P.L. Png, *Optimal Subsidies and Damages in the Presence of Judicial Error*, 6 INT'L REV. L. & ECON. 101 (1986).

<sup>43</sup> Polinsky & Shavell (1979), *supra* note 42; Png, *supra* note 42.

result, with risk aversion, it might be more efficient to deter socially costly behavior by increasing the probability of apprehension and punishment, rather than the magnitude of the penalty. Because civil litigation directs private investment to the identification and deterrence of offences, it can be viewed as a platform for increasing this probability and reducing the costs of under-enforcement or false negative errors.

Heavy punishment/low probability strategies are also costly, because public enforcers and the courts are prone to false positive errors. In addition to the subjective losses imposed on the wrongfully convicted, punishing activities with limited external costs diverts resources away from investigation and prosecution of behavior with relatively large negative externalities.<sup>44</sup> The direct costs of mistaken convictions erode the ability of the public enforcement system to identify and deter harmful conduct with relatively large costs relative to private litigation regimes, particularly when the costs of imposing a punishment rise with its magnitude.<sup>45</sup> Furthermore, the potential for mistaken convictions imposes an indirect disutility on individuals and firms that are not convicted but exhibit an aversion to larger penalties.<sup>46</sup> The possibility of mistakes enhances the desirability of lower penalties, “because those who do not violate the law are subject to the risk of having to pay a fine.”<sup>47</sup> This is particularly the case in areas of law and regulation such as antitrust, where differentiating between harmful and efficiency-enhancing arrangements involves considerable uncertainties.<sup>48</sup> The combination of risk aversion and mistaken convictions suggests that applying less severe punishments more frequently can mitigate the costs of

<sup>44</sup> For perspectives on the direct costs of errors, see Richard A. Posner, *An Economic Approach to Legal Procedure and Judicial Administration*, 2 J. LEGAL STUD. 39 (1973); GORDON TULLOCK, *TRIALS ON TRIAL: THE PURE THEORY OF LEGAL PROCEDURE* (Columbia Univ. Press 1980). A growing aversion to the direct and indirect costs of false positive errors helps explain why heavy punishment and low probability strategies have been more or less abandoned by modern democratic societies. Nevertheless, it is important to point out that hang-them-all strategies that do not account for the costs of false positive errors can persist with democratic political support when the costs of the false positives are targeted at particular sub-groups of the population. See Persson and Siven, *supra* note 18.

<sup>45</sup> David D. Friedman, *Efficient Institutions for the Private Enforcement of Law*, 13 J. LEGAL STUD. 379 (1984); Persson and Siven, *supra* note 18.

<sup>46</sup> Polinsky & Shavell (1979), *supra* note 42.

<sup>47</sup> Polinsky & Shavell (2009), *supra* note 4, at 29.

<sup>48</sup> See Block & Sidak, *supra* note 18, for an analysis of the challenges in differentiating between harmful and efficiency-enhancing arrangements in the implementation of substantive rules against collusion. Generally, two types of situations exist in which efficient horizontal behavior can be mischaracterized as unlawful anticompetitive conduct by prosecutors and the courts. First, competitive parallel behavior that generates a similar price across firms might be misinterpreted as evidence of a collusive arrangement. Second, the courts might view explicit efficiency-enhancing arrangements, such as joint ventures and information-sharing agreements, as unlawful, even when there is little market power.

false positive errors associated with penalties that are substantially larger than the level of harm.<sup>49</sup>

Optimal enforcement theory suggests that legal orders that combine excessively large punishments (relative to the social costs of the illegal act) with a low probability of identification and prosecution are inefficient, because they ration the rule of law, while exacting a high price from the sub-optimal number of offenders that the public system manages to identify and prosecute. Private enforcement based on compensatory remedies emerges as a solution to the social and economic costs of (false negative) errors by increasing the probability of investigation and prosecution relative to a public regime. The application of the economic model by Becker further suggests that decentralized liability regimes based on monetary damages might also be able to reduce the prospects of false positive errors relative to a public regime:

If compensation were stressed, the main purpose of legal proceedings would be to levy fines equal to the harm inflicted on society by constraints of trade. There would be no point to cease and desist orders, imprisonment, ridicule, or dissolution of companies. If the economists' theory about monopoly is correct, and if optimal fines are levied, firms would automatically cease any constraints of trade, because the gain to them would be less than the harm they cause and thus less than the fines expected. On the other hand, if Schumpeter and other critics are correct, and certain constraints of trade raise the level of economic welfare, fines could fully compensate society for the harm done, and yet some constraints would not cease, because the gain to participants would exceed the harm to others.<sup>50</sup>

This argument is distinct from the pure informational argument emphasized by the ECJ and noted in the Introduction to this article.<sup>51</sup> For the ECJ, private enforcement enhances the credibility of EU Treaty obligations by identifying frequently covert anticompetitive practices that would go undetected in a purely public regime (that is, false negative errors). In Becker's analysis, decentralization represents an efficient adaptation, because it could mitigate the costs of both Type I and II errors relative to traditional instruments of

<sup>49</sup> Since enforcement is costly, catching all offenders will not be feasible, and the actual probability of identification and deterrence will be less than one. In this case, the optimal punishment would be the net external harm and enforcement costs, multiplied by the probability that unlawful activities are not detected and punished. This helps explain why a damage multiplier might be necessary for deterring activities that are difficult to identify. Nevertheless, higher punishments can also generate higher false positive errors. See Polinsky (1986), *supra* note 20; Landes, *supra* note 25; A. Mitchell Polinsky & Steven Shavell, *Contribution and Claim Reduction Among Antitrust Defendants: An Economic Analysis*, 33 STAN. L. REV. 447 (1981). In theory, a strong aversion to the risks of false negative errors or under-enforcement implies that the magnitude of the optimal penalty could approach the maximal (that is, the wealth of the offender in the case of fines) when the costs of false positive errors is small. See Png, *supra* note 42,

<sup>50</sup> Becker (1968), *supra* note 18, at 199.

<sup>51</sup> *Courage*, 2001 E.C.R. I-6297, *supra* note 7.

criminal law. Importantly, this hypothesis does not require the existence of corruption, regulatory capture, or asymmetric information. It follows directly from the distinctive incentive problems facing public and private enforcers. Public enforcers operate under fixed budget constraints, while private enforcers are driven by variable rewards that depend on the level of harm and expected damages that they hope to recover from their investments in litigation.

Subsequent developments of the price theoretical framework explore a number of specific channels through which private enforcement of fines enhances the efficiency of legal systems. Becker and Stigler highlighted that when the transaction costs of (Coasean) bargaining between alleged offenders and public enforcers are low (that is, easy to capture), public agencies have additional economic incentives to target offences with low social costs and to enter side-deals with violators engaged in practices with relatively large social costs.<sup>52</sup> The presence of asymmetric information between the government and public enforcement agencies accentuates this tendency.<sup>53</sup> Private rights of action can be used to bypass the authority of public enforcers, which make such side-deals less credible by increasing the transaction costs of capture.<sup>54</sup> Consequently, the threat of private actions can increase the expected probability that a punishment will be imposed relative to a purely public regime.<sup>55</sup> Furthermore, civil damage claims can reinforce the deterrence effects of public antitrust by increasing the magnitude of expected punishments.<sup>56</sup>

A large literature associated with the Harvard and Chicago schools of antitrust thought takes issue with the implication of the economic approach to the analysis of legal procedure.<sup>57</sup> Opponents of private litigation highlight

<sup>52</sup> Gary S. Becker & George J. Stigler, *Law Enforcement, Malfeasance and Compensation of Enforcers*, 3 J. LEGAL STUD. 1 (1974); Nuno Garoupa, & Daniel Klerman, *Optimal Law Enforcement with a Rent Seeking Government*, 4 AM. L. & ECON. REV. 116 (2002); Garoupa & Klerman (2010), *supra* note 1.

<sup>53</sup> Nuno Garoupa & Mohamed Jellal, *A Note on Optimal Law Enforcement Under Asymmetric Information*, 14 EUR. J.L. & ECON. 5 (2002).

<sup>54</sup> The potential for bypassing regulators through the courts can increase the costs of regulatory capture facing potential offenders and explains why private rights of action can function as a tool against corruption. Garoupa & Klerman (2010), *supra* note 1; Jean-Jacques Laffont & David Martimort, *Transaction Costs, Institutional Design, and the Separation of Powers*, 42 EUR. ECON. REV. 673 (1998); Zhijun Chen, *Private Enforcement Against Collusion in Mechanism Design* (MPRA Paper No. 873, 2006). For an analysis of the limits of private enforcement against different classes of corrupt behavior, see Andrew Samuel, *Preemptive Collusion Among Corruptible Law Enforcers*, 71 J. ECON. BEHAV. ORG. 441 (2009).

<sup>55</sup> The threat of private actions can also increase equilibrium investments in rent seeking by potential offenders and public enforcers. *Id.*

<sup>56</sup> See Michael K. Block, Frederick C. Nold & J. Gregory Sidak, *The Deterrent Effect of Antitrust Enforcement*, 89 J. POL. ECON. 429 (1981).

<sup>57</sup> For basic elements of the argument against private enforcement, see William M. Landes & Richard A. Posner, *The Private Enforcement of Law*, 4 J. LEGAL STUD. 1 (1975); William

three general reasons for doubting its relevance as an efficient institution for the implementation of public laws:<sup>58</sup> (1) economies of scale in public enforcement, (2) the impossibility of assigning private enforcers the right incentives to achieve an optimal level of deterrence, and (3) the prospects for the tragedy of the commons if private plaintiffs have access to publicly subsidized judicial infrastructure.

The history of the modern administrative state suggests that the first argument has significant merit, and the capacity of centralized bureaucratic institutions to monitor and control should not be underestimated.<sup>59</sup> The second (the “Landes & Posner impossibility theorem”) and the third (the “commons tragedy”) jointly generate the “over-enforcement hypothesis.”<sup>60</sup> This hypothesis suggests that enhancing private rights of action is inefficient because it can amount to a form of blackmail, which would paradoxically increase expected false positive errors. Arguments in legal and economic literature against private enforcement continue to emphasize basic elements of the over-enforcement hypothesis to justify imposing restrictions on the ability of private entities to engage in civil litigation against anticompetitive practices.<sup>61</sup>

The possibility of over-enforcement may be real if the rules of standing are liberal and the courts are not very accurate in interpreting the law. However, this possibility does not necessarily imply that public prosecutorial discretion is preferable to decentralization. This is because public competition enforcement might be even more prone to false positive errors than private litigation. This is particularly the case when the costs of imposing and collecting a punishment increase with the level of expected punishment, because public enforcers would have incentives to reach a private side bargain with high-cost offenders (resulting in false negatives, or under-enforcement) and target illegal acts with limited negative externalities (resulting in false positives, or over-enforcement).<sup>62</sup> Furthermore, public

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Breit & Kenneth G. Elzinga, *Private Antitrust Enforcement: The New Learning*, 28 J.L. & ECON. 405 (1985).

<sup>58</sup> *Id.*

<sup>59</sup> Benefits of coordination (for example, scale economies and reduced duplication in enforcement costs) can be attained in both public and private monopolies. See Polinsky (1980), *supra* note 4.

<sup>60</sup> *Supra* note 57.

<sup>61</sup> See, e.g., David Rosenberg & James P. Sullivan, *Coordinating Private Class Action and Public Agency Enforcement of Antitrust Law*, 2 J. COMPETITION L. & ECON. 159 (2006); R. Preston McAfee, Hugo Mialon & Sue Mialon, *Private v. Public Antitrust Enforcement: A Strategic Analysis*, 92 J. PUB. ECON. 1863 (2008); Ben Depoorter & Francesco Parisi, *Modernization of European Antitrust Enforcement: The Economics of Regulatory Competition*, 13 GEO. MASON L. REV. 309 (2005).

<sup>62</sup> *Supra* notes 45, 52-54.

antitrust can be inhospitable to unorthodox organizational arrangements in business necessary to establish credible commitments for exchange.<sup>63</sup>

The disadvantages of private litigation in terms of potential false positive errors must be viewed in relation to these well-known problems in the public enforcement of antitrust. While there might be some disagreement about the impact of enhanced private rights of action on false positive error rates of legal systems, both proponents and opponents of litigation agree about its capacity to identify and deter offences. Since most countries rely primarily on the information and incentives of public agencies to deter anticompetitive practices, real legal systems do not appear to follow the predictions of the theory—hence, the Becker Paradox.<sup>64</sup> The early history of the U.S. antitrust system and the more recent experience in the European Union illustrate that formal rights of standing do not always translate into an effective litigation regime. Consequently, the problem with using private litigation does not seem to be “over-enforcement,” as is often suggested by the opponents of decentralized mechanisms for identification and deterrence of unlawful conduct.<sup>65</sup> Since litigation is costly, risk-averse plaintiffs with knowledge about illegal acts might be reluctant to file cases against resourceful enterprises and cartels. As a result, private litigation may not always fulfill its theoretical role as a high-powered instrument for mitigating the costs of anticompetitive practices.

Accounting for the propensity of decentralized liability regimes to under-enforce the law is especially relevant for explaining the origins of modern public regulatory mechanisms in the first place. Despite the rapid development of tort law during the “Gilded Age” (between the Civil War and the progressive era), by the end of the 19th century, technological change and the growth of industrial trusts made it easier for resourceful offenders to shape judicial outcomes and eroded the capacity of existing private liability mechanisms to resolve commercial disputes.<sup>66</sup> As liability mechanisms became less efficient due to emerging asymmetries in the resources of litigants, the impetus to construct public administrative organizations with scale and scope economies gained momentum.<sup>67</sup>

<sup>63</sup> Easterbrook, *supra* note 17; Oliver E. Williamson, *Credible Commitments: Using Hostages to Support Exchange*, 73 AM. ECON. REV. 519 (1983); Oliver E. Williamson, *Delimiting Antitrust*, 76 GEO. L.J. 271 (1987).

<sup>64</sup> *Supra* note 18.

<sup>65</sup> *Supra* notes 57 & 61.

<sup>66</sup> Glaeser & Shleifer, *supra* note 3. See generally MORTON J. HORWITZ, *THE TRANSFORMATION OF AMERICAN LAW: 1780-1860* (Harvard Univ. Press 1977); Lawrence M. Friedman, *Civil Wrongs: Personal Injury in the Late 19th Century*, 12 AM. BAR FOUNDATION RES. J. 351 (1987); LAWRENCE M. FRIEDMAN, *A HISTORY OF AMERICAN LAW* (Simon & Schuster 2005); WILLIAM LETWIN, *LAW AND ECONOMIC POLICY IN AMERICA: THE EVOLUTION OF THE SHERMAN ANTITRUST ACT* (Univ. Chicago Press 1956).

<sup>67</sup> For an elegant treatment of the economic rationale for the use of public laws to structure market behavior in this era, see, John Bates Clark, *The Modern Appeal to Legal Forces in*

However, despite the political demands for antitrust, governments of the late 19th century and early 20th century lacked incentives to enforce the statutory prohibitions.<sup>68</sup> The absence of credible commitments to public enforcement in the pre-World War II period represents one explanation for the transition to a mixed regime in the second half of the 20th century.

With the adoption of the Clayton Act in 1914, lawmakers tried to address the limitations of public antitrust in terms of false negative errors by creating a private enforcement market. They further recognized that private plaintiffs may not have had strong incentives to engage in legal action against the powerful industrial trusts of that period. Consequently, they tripled the expected reward for private parties to enhance the credibility of statutory prohibitions against anticompetitive agreements and abusive practices by dominant enterprises. Nonetheless, the formal statutory mandate and damage multiplier were not sufficient to induce private plaintiffs to pursue offenders through the courts, at least until the 1950s.<sup>69</sup> The difficulty with decentralization of enforcement authority in the United States before World War II highlights that litigation regimes are also prone to under-enforcement and false negative errors. At least in the case of antitrust, empirical relevance for the “over-enforcement” hypothesis appears to be limited.

The traditional framework for the analysis of optimal enforcement assumes that public and private mechanisms function as substitutable instruments for achieving a desirable level of deterrence.<sup>70</sup> As detailed in the next parts, although private litigation became the primary instrument for identification and deterrence in the 1950s and 1960s, it did not replace the role of public enforcement agencies. Indeed, the two mechanisms grew and reinforced each other in shaping legal constraints against anticompetitive practices in the post-World War II economy. Previous literature identifies four specific channels through which private enforcement can complement traditional public administrative institutions for identification and deterrence of prohibited behavior.

First, with respect to optimal punishment, when the magnitude of the expected punishment by public enforcers is too low to deter offenders with a low degree of risk aversion, civil damages can increase the severity of the

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*Economic Life*, Presidential Address at the 7th Meeting of the American Economic Association (1894).

<sup>68</sup> For instance, no specific funds were allocated to antitrust enforcement between 1890 and 1904. The average number of cases in this period was less than two per year. For basic information on the evolution of public enforcement, see U.S. Dep’t of Justice, Timeline of Antitrust Enforcement Highlights at the Department of Justice, <http://www.justice.gov/atr/timeline.htm>.

<sup>69</sup> For sources of long-term legal data used in this article, see *supra* note 23.

<sup>70</sup> Rajabiani (2009), *Private Enforcement of Law*, *supra* note 4.

expected fine and deterrence effects of the regime.<sup>71</sup> Second, private enforcement can be used for information acquisition. Some observers view private enforcement as a tool for destabilizing cartels by allowing employees or other cartel members to reveal their knowledge about illegal acts to the public enforcers.<sup>72</sup> Third, private enforcement may mitigate moral hazard. *Ex-post* litigation can function as a form of co-insurance against risky behavior by potential offenders who can observe the enforcement level of public authorities, and adjust their behavior accordingly.<sup>73</sup> Fourth, an approach based on separation of power views private enforcement as a mechanism for constraining collusion between firms and public competition authorities and regulators.<sup>74</sup>

This article extends the literature by pointing out that public and private enforcers are likely to exhibit distinct capacities and incentives in the search for legal deterrence of anticompetitive practices. Among other factors, state bureaucracies exhibit scale economies relative to potentially dispersed groups of victims with impediments to collective action. However, information about illegal practices may be more easily obtained and understood by private agents with specific knowledge about practices in a particular market or firm. These differences create the potential for specialization in the functions that public and private enforcers provide in the identification and deterrence of offences. Because of the organizational advantages of public enforcement, in a mixed regime, they can focus on practices that are relatively easier to identify but might be hard to address through private litigation (for example, merger review and abuse of dominance). Similarly, overlapping jurisdiction enables private enforcers to specialize in addressing anticompetitive practices that would remain undetected, and hence underdeterred, in a purely administrative regime (for example, price fixing and bid rigging). The next parts investigate the relevance of this hypothesis for

<sup>71</sup> See Block, Nold & Sidak, *supra* note 56. The authors documented that private civil cases pursuant to public criminal actions increase the magnitude of expected punishments and enhance deterrence against collusive arrangements.

<sup>72</sup> William E. Kovacic, *Private Monitoring and Antitrust Enforcement: Paying Informants to Reveal Cartels*, 69 GEO. WASH. L. REV. 766 (2000); Cecile Aubert, Patrick Rey & William E. Kovacic, *The Impact of Leniency and Whistle-Blowing Programs on Cartels*, 24 INT'L J. INDUS. ORG. 1241 (2006).

<sup>73</sup> This argument is common in the regulation of safety and environmental hazards, but the same logic is relevant to the application of competition laws, since potential offenders can observe the level of commitment public enforcers have in implementing statutory prohibitions. FRIEDMAN, *supra* note 40, at 74-83; Hiriart, Martimort & Pouyet, *supra* note 1; Charles D. Kolstad, Thomas S. Ulen & Gary V. Johnson, *Ex Post Liability for Harm vs. Ex Ante Safety Regulation: Substitutes or Complements?*, 80 AM. ECON. REV. 888 (1990); Keith N. Hylton, *When Should We Prefer Tort Law to Environmental Regulation?*, 41 WASHBURN L.J. 515 (2001).

<sup>74</sup> Becker & Stigler, *supra* note 52; Garoupa & Klerman, *supra* note 1; Chen, *supra* note 54; Sean Farhang, *Public Regulation and Private Lawsuits in the American Separation of Power System*, 52 AM. J. POL. SCI. 821 (2008).

explaining the allocation of enforcement authority and the evolution of legal constraints against anticompetitive practices in the United States.

### III. EVOLUTION OF ANTITRUST IN THE 20TH CENTURY

The original intent of the U.S. Congress for the adoption of the Sherman Act has been a source of significant debate for legal, political, and economic historians.<sup>75</sup> While various interest groups engaged the Congress in promoting the adoption of the Act, the primary source of political support for its adoption appears to have been from associations of farmers, particularly from the South and the Midwest, who were concerned about rebates railroads gave to their larger customers.<sup>76</sup> In this context, the emergence of federal antitrust law represents an attempt by the state to regulate private contractual arrangements. Furthermore, the Sherman Act was adopted in an environment of rising tariff barriers that increased the capacity of emerging industrial trusts to extract rents from domestic consumers and sustain restrictive arrangements.<sup>77</sup> The adoption of the Sherman Act can also be explained as an attempt by its proponents to gain political support for protectionist trade policies and deflect attention from the costs of rising tariff barriers on downstream businesses and consumers.<sup>78</sup> Regardless of its original intent, it is apparent that Congress exhibited little interest in implementing the laws it had adopted, as documented by the initial lack of appropriations for public enforcement.<sup>79</sup>

The rest of this Part analyzes enforcement mechanisms that evolved to implement the substantive prohibitions of the Sherman Act during the 20th century. The discussion focuses primarily on indicators of public and private enforcement in order to analyze their complementary role in shaping legal constraints on anticompetitive practices. It is, however, important to point out that, in addition to competition laws, various exogenous factors including trade policy, technological change, and corporate culture, also influence the ability and propensity of firms to engage in anticompetitive conduct. Furthermore, the scope for anticompetitive practices is usually both

<sup>75</sup> For an overview of conditions and debates surrounding the adoption of the Sherman Act, see LETWIN, *supra* note 66; William L. Letwin, *Congress and the Sherman Antitrust Law: 1887-1890*, 23 U. CHI. L. REV. 221 (1956); Thomas J. DiLorenzo, *The Origins of Antitrust: An Interest Group Perspective*, 5 INT'L REV. L. & ECON. 73 (1985).

<sup>76</sup> Sanford D. Gordon, *Attitudes Towards Trusts Prior to the Sherman Act*, 30 S. ECON. J. 156 (1963).

<sup>77</sup> The Tariff Act of 1890 (the McKinley Tariff) was passed just three months after the Sherman Act and was sponsored by Senator Sherman. In a speech, which was later withdrawn from the *Congressional Record* for "revision," Senator Sherman confirmed this point and expressed concern about the potential anticompetitive impact of the tariffs. See DiLorenzo, *supra* note 75.

<sup>78</sup> *Id.*

<sup>79</sup> *Supra* note 68.

industry- and location-specific. As a result, it is not readily feasible to construct measures of anticompetitive conduct over extended periods or across different relevant markets.<sup>80</sup> The frequency of legal actions by public and private enforcers represents a broad indicator of their ability to identify and deter unlawful behavior.

### A. Public Enforcement of Law

Figure 1 presents a long-term picture of the evolution of public enforcement activities in terms of criminal and civil case filings by the U.S. Department of Justice (DOJ) and later the Federal Trade Commission (FTC), measured by the number of case filings.<sup>81</sup>

These measures document that the role of public antitrust enforcers changed significantly in the middle of the 20th century. For the first 50 years—the period remembered mostly as that of oil cartels and railroad trusts—the interest of the public sector in the implementation of the statutory mandate appears to have been limited and idiosyncratic.<sup>82</sup> When public enforcement of the law was successful, as in the famous *Standard Oil* example, government victories were slow to materialize, and the return to public investment difficult to quantify.<sup>83</sup> In terms of the absolute number of cases, the government's interest in utilizing its criminal law enforcement authority grew rapidly around 1910, but dissipated following the adoption of the Clayton Act in 1914 and the creation of the FTC. Furthermore, both civil and criminal public enforcement activities declined in the growing economy of the 1920s. During the depression of the 1930s, policymakers first continued to ease the application of antitrust law with a system of industry specific exemptions, but changed direction later in that decade.<sup>84</sup>

<sup>80</sup> For discussions of the critical importance of the concept of the relevant market in the application of antitrust law, see Gregory J. Werden, *The History of Antitrust Market Delineation*, 76 MARQ. L. REV. 123 (1992); Robert Pitofsky, *New Definitions of Relevant Market and the Assault on Antitrust*, 90 COLUM. L. REV. 1805 (1990); Adriaan Ten Kate & Gunnar Niels, *The Relevant Market: A Concept Still in Search of a Definition*, 5 J. COMPETITION L. & ECON. 297 (2009).

<sup>81</sup> See *supra* note 23 for sources of data on public and private enforcement.

<sup>82</sup> For an analysis of the volatility of antitrust enforcement and its impact of particular firms before the adoption of the Clayton Act, see George Bittlingmayer, *The Stock Market and Early Antitrust Enforcement*, 36 J.L. & ECON. 1 (1993).

<sup>83</sup> *Standard Oil of New Jersey v. U.S.*, 221 U.S. 1 (1911). For historical studies of the role of public antitrust in the regulation of the energy industry, see IDA M. TARBELL, *THE HISTORY OF THE STANDARD OIL COMPANY* (McClure, Phillips 1904); DANIEL H. YERGIN, *THE PRIZE: THE EPIC QUEST FOR OIL, MONEY, AND POWER* (Simon & Schuster 1991). *Standard Oil* and a number of other high-profile cases from the late 19th century to the early 20th century often obscure the fact that the federal governments of that period had limited incentives to enforce the Sherman Act in a systematic manner, as is documented by historical measures of public cases.

<sup>84</sup> ELLIS WAYNE HAWLEY, *THE NEW DEAL AND THE PROBLEM OF MONOPOLY: A STUDY IN ECONOMIC AMBIVALENCE* (Fordham Univ. Press 1995).

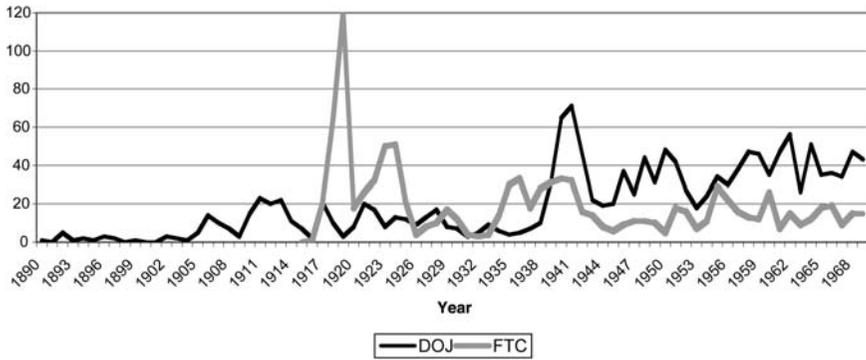


Figure 1. U.S. government activities

Support for public enforcement of the statutory mandate appears to have been inconsistent both across and within different administrations.<sup>85</sup>

Empirical evidence from the cartelization policies of the 1930s suggests that the system of exemptions from the Sherman Act may have had some positive economic benefits in specific cartelized industries in terms of employment and wage growth.<sup>86</sup> However, the relaxation of antitrust appears to have had a negative impact on production and employment in other industries, which in turn contributed to unbalanced development and the persistence of the depression.<sup>87</sup> The costs of mistakes in antitrust policies of the past represent one plausible explanation for the subsequent transition to a mixed enforcement regime that relied primarily on information and incentives of private business after World War II.

To analyze institutional changes to the architecture of the enforcement system in the 1950s and 1960s, it is important to point out that Figure 1 represents only actual case filings by the federal government. Regulatory activities of the FTC and the DOJ included a good deal more than case

<sup>85</sup> The sudden rise in the level of criminal case filings in the late 1930s can be attributed to the growing utilization of antitrust law against cartels based in other industrialized countries after the appointment of Thurman Arnold to the Antitrust Division of the Department of Justice. See TONY ALLAN FREYER, *ANTITRUST AND GLOBAL CAPITALISM, 1930-2004* (Cambridge Univ. Press 2006). Consequently, despite the apparently larger number of criminal filings, the federal government continued to lack commitment to domestic enforcement. Wilson D. Miscamble, *Thurman Arnold Goes to Washington: A Look at Antitrust Policy in the Later New Deal*, 56 *BUS. HIST. REV.* 1 (1982); Alan Brinkley, *The Antimonopoly Ideal and the Liberal State: The Case of Thurman Arnold*, 80 *J. AM. HIST.* 557 (1993).

<sup>86</sup> Harold Cole & Lee Ohanian, *New Deal Policies and the Persistence of the Great Depression: A General Equilibrium Analysis*, 112 *J. POL. ECON.* 779 (2004). However, others have found that the impact of these policies on the production of cartelized industries was negative during the depression. Evidence from the 1930s in the United States contradict the "efficient cartel" hypothesis. See Jason E. Taylor, *The Output Effects of Government Sponsored Cartel During the New Deal*, 50 *J. INDUS. ECON.* 1 (2002).

<sup>87</sup> *Id.*

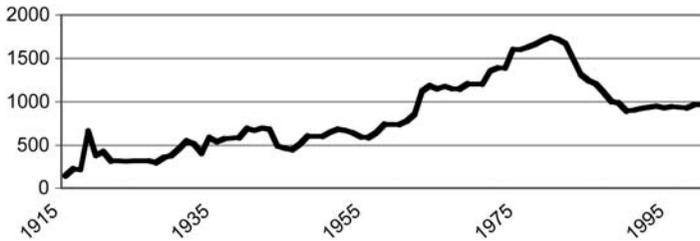


Figure 2. FTC staff

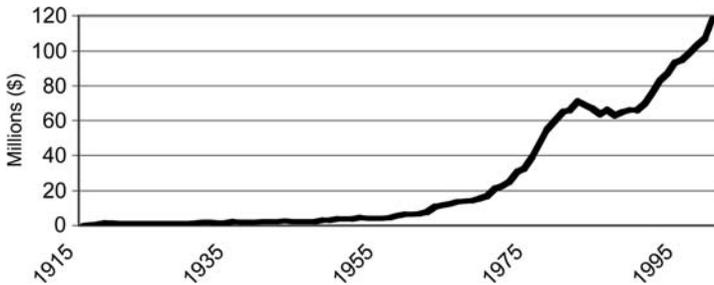


Figure 3. FTC appropriations

filings. For instance, public enforcers increasingly invested available resources in merger control, which we cannot see in the measures of case filings. Figures 2 and 3 describe public enforcement in terms of human and financial resources lawmakers made available to the FTC. These indicators are more stable than the level of civil and criminal case filings. This observation suggests that the level of public enforcement activity can be highly sensitive to the prevailing political and economic conditions. The human resource indicator also illustrates that support for public enforcement was somewhat erratic in the early stages of U.S. antitrust history. Starting with the Eisenhower Administration in the 1950s, support for public enforcement gained consistency across governments from different political parties.<sup>88</sup> Although case filings remained volatile after World War II, measures of administrative resources illustrate that the post-World War II growth of the U.S. economy coincided with an increasing use of public antitrust from the 1950s to the late 1970s. They further indicate a decline in political support for public antitrust enforcement in the early 1980s. Growing concerns about

<sup>88</sup> Richard B. Wilson, *The Eisenhower Antitrust Policy: Progressivism or Conservatism?*, 12 POL. RES. Q. 559 (1959); Theodore P. Kovaleff, *The Antitrust Record of the Eisenhower Administration*, 21 ANTITRUST BULL. 589 (1976).

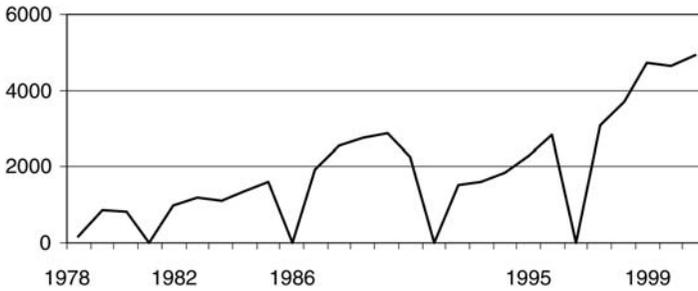


Figure 4. Pre-merger notifications

false positive errors associated with the Harvard and Chicago schools of antitrust thought help explain this observation.<sup>89</sup>

The combination of case filings and resource-based measures suggest a fundamental shift in the role that public enforcement started to play after World War II. Resources made available for public enforcement increased steadily. Case filings by government agencies first increased rapidly, but stabilized by the 1960s. This reflects the fact that public enforcers started to invest their growing resources in other policy instruments such as merger review and investigation of “hardcore” cartels.<sup>90</sup> Figures 4, 5, and 6 provide a more detailed picture of the decline in civil cases and the specialization of public agencies in merger control and criminal prosecutions.

Measures of merger control highlight the cyclical nature of merger and acquisition activity and the growing number of reported transactions under the 1976 Hart-Scott-Rodino Antitrust Improvement Act.<sup>91</sup> While the notification requirements under the Act mitigated some of the information problems in monitoring merger-and-acquisition activity, the level of merger investigations and adverse decisions actually fell in the two decades following its adoption.<sup>92</sup> Declining political support for public enforcement and the consequent resource constraints on the FTC partly explain this observation.

<sup>89</sup> *Supra* note 17, 24 & 57.

<sup>90</sup> The growing reliance on economic analysis of effects in merger review increased demands on the public enforcers starting in the late 1960s. The legal basis for the need to shift resources from civil case filings to merger analysis can be found in the Supreme Court decision in *United States v. Von's Grocery Co.*, 384 U.S. 270 (1966), argued by Richard Posner for the United States. While the majority of the Court upheld the administrative decision against the merger, Justice Stewart dissented: “The sole consistency that I can find is that in litigation under [section] 7, the Government always wins.” *Id.* at 301. He further argued that section 7 “clearly takes ‘reasonable probability’ as its standard.” *Id.* at 304.

<sup>91</sup> Hart-Scott-Rodino Antitrust Improvements Act, 15 U.S.C. § 18a (as amended 1976). See also Joe Sims & Deborah P. Herman, *The Effect of Twenty Years of Hart-Scott-Rodino on Merger Practice: A Case Study in the Law of Unintended Consequences Applied to Antitrust Legislation*, 65 ANTITRUST L.J. 865 (1996).

<sup>92</sup> The level of merger investigations and adverse decisions continued to decline until the mid-1990s. See *infra* Figure 5.

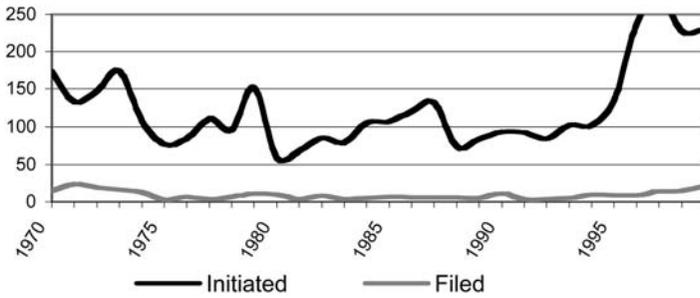


Figure 5. Merger investigations and adverse decisions

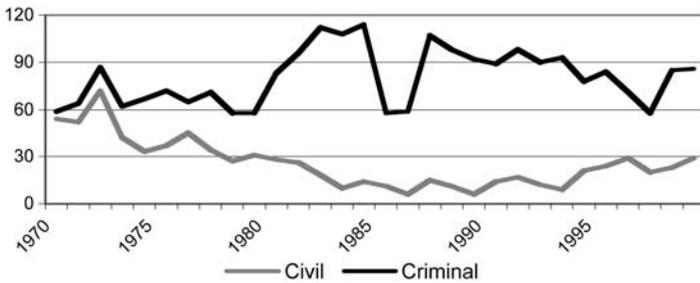


Figure 6. Antitrust division filings

A larger number of merger investigations and civil cases against abusive behavior by dominant enterprises accompanied the period of rapid economic growth in the late 1990s. Although the level of criminal cases remained relatively steady in the long term, there is some shift in the type of civil remedies used by public enforcers. A systematic reduction in the utilization of *ex post* civil case filings suggests that public enforcers increasingly devoted their scarce resources to *ex ante* merger review.<sup>93</sup> Public agencies appear to have specialized in tasks that required scale economies in investigation and prosecution, or targeted collusive arrangements that involved diffuse victims and judgment-proof offenders (for example, international cartels).<sup>94</sup>

<sup>93</sup> Relatively active merger policies during the 1990s in the United States appear to have had a positive economic impact by promoting specialization and export performance in the manufacturing industry. See Josef A. Clougherty & Anming Zhang, *Export Orientation and Domestic Merger Policy: Theory and Some Empirical Evidence*, 38 CAN. J. ECON. 778 (2005). For discussions of dilemmas in the allocation of enforcement authority between public regulators and private litigants in limiting the prospects for anticompetitive mergers and acquisitions, see *supra* note 5.

<sup>94</sup> It is important to recall that criminal antitrust cases typically rely on information from private informants within colluding enterprises that decide to expose illegal practices. See Aubert, Rey & Kovacic, *supra* note 72.

## B. Emergence of Private Litigation

The development of a relatively restrictive public enforcement regime after World War II coincided with the rapid growth in the number of private antitrust cases. This transition to a mixed enforcement architecture remains a puzzle for legal and economic history. Both the Sherman Act and later the Clayton Act had formally granted broad rights of access for “any person” to enforce substantive prohibitions against anticompetitive practices. Moreover, lawmakers of the early 20th century had predicted that the incentives for private enforcement might be weak and tried to address the potential for under-enforcement and false negative errors with the adoption of treble damages. Despite the statutory rights of standing and the damage multiplier, private actions were relatively infrequent for more than five decades after the adoption of the Sherman Act. The early history of antitrust highlights that private liability mechanism do not always succeed in solving the information and incentive problems associated with agency enforcement of statutory regulations. It also illustrates that a damage multiplier might be necessary for inducing private entities with information about illegal acts to invest in litigation, but is clearly not a sufficient condition.<sup>95</sup>

The rise in the level of civil actions after World War II can be generally viewed in terms of the changing attitude of the courts to information by private enforcers about different classes of anticompetitive practices. Data on judicial outcomes before the 1940s document that very few private antitrust cases resulted in a decision for the plaintiffs and the chance of recovering damages through the courts was close to zero.<sup>96</sup> In the cases of monopolization and abuse of dominance (under section 2 of the Sherman Act), plaintiffs had about a one-in-forty chance of success in the courts.<sup>97</sup> The probability of winning a price-fixing case (under section 1 of the Sherman Act) was substantially more than a monopolization action, but still rather unlikely.<sup>98</sup> The ease by which alleged offenders could shape judicial outcomes before World War II explains why private entities had limited incentives to invest in litigation. Figures 7 and 8 document the rapid increase in private enforcement incentives in the latter part of the 20th century by extending the data set compiled by Steven Salop and Lawrence

<sup>95</sup> Some observers of antitrust history point out that mandatory trebling of damages may have in fact made the courts more reluctant to award damages to plaintiffs in the pre-World War II period. Changes in the manner in which the courts calculated damages may have been a factor in increasing private antitrust incentives in the initial stages of the transition to a mixed regime in the 1950s. See Homer Clark, *The Treble Damage Bonanza: New Doctrines of Damages in Private Antitrust Suits*, 52 MICH. L. REV. 363 (1954).

<sup>96</sup> Guilfoil, *supra* note 21, at 750.

<sup>97</sup> *Id.* It is pertinent to note that since the numbers of recorded case filing and damage awards were low, these averages should only be viewed as general approximations.

<sup>98</sup> *Id.* Guilfoil estimated that the plaintiffs had a 1:13 chance of winning a price-fixing case, three times higher than in a monopolization case.

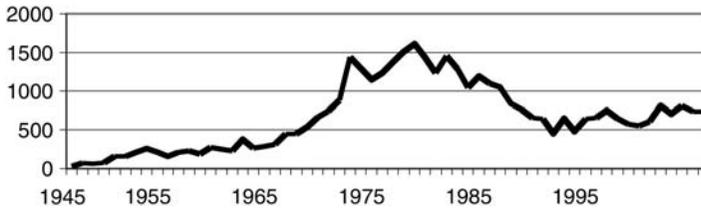


Figure 7. Private case filings

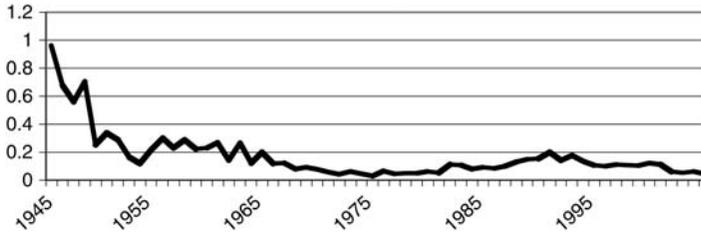


Figure 8. Ratio of public to private filings

White with more recent data from the Office of the Superintendent of U.S. Courts.<sup>99</sup>

In absolute terms, the level of private litigation increased from the early 1950s to the late 1970s, when it started a rapid decline that lasted until the mid 1990s.<sup>100</sup> Despite renewed commitment to public enforcement after World War II, the relative growth of private actions substantially outpaced that of public case filings during the emergence of the regime. In the late 1940s, there was one private case for every public antitrust action on an annual basis. By the mid-1950s, the ratio of private to public cases increased from approximately 1 to 1 to 5 to 1. Although this ratio remained more or less steady between 1955 and 1965, by the late 1970s, there were around 15 private actions for every public case. The level of private case filings declined substantially during the 1980s in both absolute terms and relative to public actions.<sup>101</sup> In addition to these long-term trends, historical measures of

<sup>99</sup> Steven C. Salop & Lawrence J. White, *Economic Analysis of Private Antitrust Litigation*, 74 GEO. L.J. 1001 (1986). For sources of more recent data, see *supra* note 23.

<sup>100</sup> The level of private case filings represents the broadest indicator of enforcement activity and can be viewed as a good proxy for the evolution of legal constraints against anticompetitive practices. However, the aggregate level of case filings has an important limitation, since multiple filings can be later consolidated in a single case. Unfortunately, narrower measures of litigation than case filings were not compiled in a systematic manner for the period under analysis in this Part. For the 1980s and 1990s, the last Part of this article provides a more detailed analysis of private enforcement at different stages of the judicial process.

<sup>101</sup> As documented in the last Part of this article, public civil actions were on a declining path since the early 1970s, as resources were increasingly focused on merger review and criminal

**Table 1.** Distribution of conflicts across sectors (percent of total)

Sector	Plaintiffs	Defendants	Share of GNP in 1978
Agriculture, forestry, fisheries	1.1	0.4	3
Mining, petroleum	0.5	0.9	2.6
Construction	2	1.3	4.7
Manufacturing	24.1	44.3	24.6
Utilities, transportation, communication	6.2	6.6	3.7
Wholesale trade	18.8	10	17.2
Retail trade	19.9	5.7	
Finance, insurance, real estate	5.8	11.2	13.8
Services	14.8	12.5	12.5
Governments	2.3	2	12.1
Trade organizations	0.7	3	
Labor unions	0.4	1.6	
Individuals	5.3	0.4	

Source: Salop & White, *supra* note 99.

public and private actions appear to exhibit some association with the business cycle in the shorter run.<sup>102</sup> To explain these institutional trends, it is important to recognize that private antitrust litigants were primarily downstream firms and competitors of alleged offenders.<sup>103</sup> Despite their statutory rights of standing, final consumers and individuals made up a small proportion of private antitrust plaintiffs.<sup>104</sup> This highlights the collective action, resource, and information problems facing diffuse groups of victims in litigation against large enterprises and organized cartels. The utilization of downstream businesses and competitors to invest in litigation represents a novel institutional adaptation that enhanced the capacity of the system to identify and deter anticompetitive arrangements between upstream suppliers. As documented in Table 1, firms in the manufacturing and trading sectors became the primary enforcers of antitrust law in the mixed regime that emerged in the 1950s and 1960s.

Some of the overall growth in the level of antitrust case filings during the decentralization process can be attributed to the general expansion of the judicial system associated with the utilization of private rights of action in the implementation of new legislative mandates besides antitrust (for example,

prosecutions. Criminal cases initially increased in the late 1940s, but they remained stable until the early 1980s, when they became increasingly common. *See infra* Figures 1 & 6.

<sup>102</sup> Ping Lin, Baldev Raj, Michael Sandfort & Daniel Slottje, *The U.S. Antitrust System and Recent Trends in Antitrust Enforcement*, 14 J. ECON. SURV. 255 (2000).

<sup>103</sup> Salop & White, *supra* note 99.

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

civil rights, environmental protection, securities regulation, and others).<sup>105</sup> Public investment in judicial infrastructure would have expanded judicial access to a larger set of potential plaintiffs and contributed to the increasing number of cases. In this context, the emergence of private antitrust litigation represents a specific manifestation of a broader trend in the U.S. legal system to employ private rights of action as the core instrument for implementing federal laws.<sup>106</sup> Beyond this general explanation, the initial growth of private actions coincided with the adoption of a more active federal antitrust policy strategy and higher levels of criminal actions.<sup>107</sup> Since evidence from criminal cases can lower the costs of litigation facing plaintiffs in a civil damage suit, some of the rise in private cases in the late 1940s and early 1950s may have been a byproduct of the larger number of criminal actions by the government. However, it is important to point out that the level of criminal cases declined in the 1950s and then remained relatively stable until the early 1980s.<sup>108</sup> Consequently, higher levels of public enforcement do not explain the large and sustained increase in the level of private actions that took place from the early 1950s to the late 1970s.

Nevertheless, the experience with public enforcement in the 1940s and 1950s may have played some role in supporting the development of a system based primarily on private enforcement. With the end of cartelization policies of the 1930s and the World War II period, the public sector became increasingly committed to the implementation of antitrust law. This is evident in indicators of public case filings and resources the Federal government made available to public antitrust agencies discussed earlier. However, as the public enforcers tried to implement the long-neglected rules of the Sherman Act, the limitations of administrative hierarchies for identification and deterrence of frequently covert anticompetitive practices became more apparent.<sup>109</sup> Some policymakers justified the need for more private actions on the basis that civil litigation would minimize the public expenditures necessary to achieve the level of antitrust deterrence that Congress had desired.<sup>110</sup> In

<sup>105</sup> For studies on the use of private litigation in different areas of law and regulation, see *supra* note 1. For a discussion of the evolving functions of the judicial system during the growth of private actions, see James Willard Hurst, *The Functions of Courts in the United States, 1950-1980*, 15 L. & SOC'Y REV. 401 (1981).

<sup>106</sup> *Id.*; Farhang, *supra* note 74.

<sup>107</sup> See *infra* Figure 1.

<sup>108</sup> See *infra* Figures 1 & 6. Part III.C provides further analysis of potential links between public and private enforcement activity.

<sup>109</sup> For a detailed analysis of justifications for private antitrust enforcement and reforms required to enhance its role as a complement to public enforcement, see Lee Loevinger, *Private Action: The Strongest Pillar of Antitrust*, 3 ANTITRUST BULL. 167 (1958).

<sup>110</sup> For example, in his testimony to Congress in 1951, Assistant Attorney General H. Graham Morrison argued that, in the absence of private suits, public enforcers would require four times as much funding. Testimony of H. Graham Morrison, *Hearings on H.R. 3408*, 82d Cong., 1st Sess. 42 (1951).

addition to this financial motive, others highlighted that private litigation can be both more flexible and impose a more credible deterrent than criminal or civil remedies available to the public authorities.<sup>111</sup> The hypothesis that private enforcement mechanisms are efficiency-enhancing because they can generate lower false negative and false positive errors relative to a purely public regime can be traced to policy debates about the allocation of antitrust enforcement authority in the 1950s.<sup>112</sup> Political and intellectual support for private actions may have influenced the path of institutional development through a number of possible channels. For example, increasing support for a more credible antitrust system may have motivated the executive and legislative branches of the federal government to appoint judges that were less hostile to private actions than the preceding generation of jurists. Concerns about under-enforcement and false negative errors by federal policymakers may also have supported the rise of private litigation by blocking attempts made by opponents of antitrust to narrow statutory rights of standing or de-treble expected damages during the formative years of the litigation regime.<sup>113</sup>

To explain the rise of private actions, it is useful to look at the evolving composition of cases. Private cases before 1940 were primarily based on general charges of monopolization or attempted monopolization (these cases accounted for 42 percent of private cases), and horizontal price-fixing cases accounted for less than 10 percent of all allegations.<sup>114</sup> After World War II, the probability of success in a monopolization case remained around one in forty, but the likelihood of the plaintiff winning a horizontal price-fixing case more than doubled (from 1 to 13 to 1 to 5).<sup>115</sup> The result of the increasing hospitality of the courts to private antitrust claims under section 1 of the Sherman Act was a rapid shift in both the level and composition of cases. The proportion of private cases against price-fixing arrangements increased from 10 percent to 50 percent of the total number of cases, while the share of monopolization filings dropped from around 40 percent to 10 percent.<sup>116</sup> This shift in the composition of cases suggests that private litigation emerged primarily as a mechanism for identification and deterrence of price-fixing arrangements, which frequently tend to be covert. It also highlights the importance of the evolving substantive framework that the courts employed to interpret statutory prohibitions against anticompetitive agreements in the transition to a mixed regime in the United States.

<sup>111</sup> Loevinger, *supra* note 109.

<sup>112</sup> This hypothesis is at the core of the economic approach to the analysis of crime and punishment outlined by Becker (1968), *supra* note 18.

<sup>113</sup> Loevinger, *supra* note 109.

<sup>114</sup> Guilfoil, *supra* note 21, at 748-50.

<sup>115</sup> *Id.*

<sup>116</sup> *Id.* The ratio of refusal to deal cases remained steady at around 25%.

Before World War II, the courts generally interpreted statutory prohibitions against both anticompetitive agreements and unilateral abusive conduct or monopolization under the rule-of-reason standard established famously by the Supreme Court in the 1911 *Standard Oil* decision.<sup>117</sup> This flexible standard granted the courts significant discretion to define the boundary of permissible market conduct for emerging industrial combinations and monopolies. However, this discretionary approach to substantive design meant that alleged offenders were almost always successful in shaping judicial outcomes and plaintiffs had little chance of success in courts.<sup>118</sup> Consequently, they invested relatively little in enforcing laws on the books. In combination with the limited and inconsistent commitment to public enforcement, the ease by which defendants could avoid punishment in private cases implied that statutory prohibitions had little credibility as economic constraints on the behavior of firms engaged in costly anticompetitive conduct. One response to this under-enforcement, or false negative error, problem by the courts involved narrowing the scope of the rule-of-reason standard by restricting the range of evidence alleged offenders could present to establish the reasonableness and legality of their anticompetitive arrangements. In its 1927 decision in *United States v. Trenton Potteries*, the Supreme Court mandated the applications of *per se* rules to the treatment of price-fixing agreements.<sup>119</sup> However, lower courts resisted applying the *per se* rule to private cases against price-fixing arrangements until the 1951 Supreme Court decision in *Kiefer-Stewart v. Seagram & Sons*.<sup>120</sup> This decision represents an important point in the evolution of the U.S. system, because bright-line rules tend to be less information-intensive to process and define the boundary of permissible market conduct in a more predictable manner.<sup>121</sup> Consequently, restrictions on the range of evidence that lower courts could consider in price-fixing cases reduced the overall costs of litigation, expanding demand for judicial resources by plaintiffs with knowledge about unlawful acts. Adoption of bright-line rules against collusion predicted the rapid rise in private actions against horizontal price fixing in the early- to mid-1950s.

Continued growth of private actions in the late-1960s and 1970s similarly followed decisions by the Supreme Court in *United States v. Arnold Schwinn* and *Albrecht v. Herald* to narrow the scope of the rule-of-reason in

<sup>117</sup> *Standard Oil of New Jersey v. U.S.*, 221 U.S. 1 (1911).

<sup>118</sup> *Supra* note 21.

<sup>119</sup> *United States v. Trenton Potteries Co.*, 273 U.S. 392 (1927). In *United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150 (1940), the Supreme Court reaffirmed this guidance.

<sup>120</sup> *Kiefer-Stewart Co. v. Seagram & Sons, Inc.*, 340 U.S. 211 (1951).

<sup>121</sup> *Christiansen & Kerber*, *supra* note 38.

**Table 2.** Types of allegations (percentage of incidence)

	Primary allegations	Combined primary and secondary allegations
Horizontal price fixing	15.7	21.3
Vertical price fixing	3.5	13.3
Dealer termination	4.4	8.9
Refusal to deal	12	25.4
Predatory pricing	3.1	10.4
Asset or patent accumulation	2.5	5.6
Price discrimination	5	16.4
Vertical price discrimination	1.7	5.8
Tying or exclusive dealing	9.6	21.1
Merger or joint venture	2.6	5.8
Inducing government action	.5	.8
“Conspiracy”	3	5.9
“Restraint of trade”	4.3	10
“Monopoly” or “monopolization”	3.7	8.8
Other	8.6	8.9
No information	25.2	13.4

Note: Percentages add up to more than 100 because of the common presence of multiple allegations in the same case.

Source: Salop & White, *supra* note 99.

the treatment of various forms of non-price vertical restraints.<sup>122</sup> Table 2 presents data compiled by Salop and White on the cause of actions, generated from a sample of cases in the 1970s and early 1980s.<sup>123</sup> Although horizontal price-fixing arrangements remained a primary target for private enforcers, litigation against non-price vertical restraints became more common after the adoption of bright-line rules by the Supreme Court. Private litigants continued to exhibit relatively limited interest in employing their standing rights against monopolistic or abusive conduct by large enterprises governed under the rule-of-reason approach to substantive interpretation (for example, monopolization, predatory pricing, and vertical price discrimination).<sup>124</sup> This observation suggests that private enforcers are more likely to take action when the boundary of permissible conduct is

<sup>122</sup> *United States v. Arnold, Schwinn & Co.*, 388 U.S. 365 (1967); *Albrecht v. Herald Co.*, 390 U.S. 145 (1968).

<sup>123</sup> Salop & White, *supra* note 99.

<sup>124</sup> Vertical price fixing represents a possible exemption to this rule, since this class of restrictions had been viewed as *per se* illegal pursuant to the 1911 Supreme Court decision in *Dr. Miles Medical Co. v. John D. Park & Sons Co.*, 220 U.S. 373 (1911). One reason for this might be that vertical price fixing can sometimes benefit both parties (that is, it can be Pareto optimal), while horizontal collusion mostly benefits the members of a cartel at the expense of downstream firms and consumers. Consequently, vertical price fixing may appear less pernicious than horizontal collusion from the perspective of firms.

relatively clear and there are credible limits on the discretion of the courts to engage in case-by-case assessment of the costs and benefits of particular actions. Part III of this article further explores this hypothesis using more detailed data on the evolution of judicial outcomes at different stages of the litigation process during the 1980s and 1990s.

Although there is an empirical correlation between bright-line rules and private enforcement incentives, it is important to point out that the direction of causality is not clear: It would be difficult say if the adoption of *per se* prohibitions encouraged private enforcement, or the demand for a more credible system of legal constraints against anticompetitive agreements motivated the courts to restrict the range of evidence defendants could provide to establish the legality of their actions. Bright-line rules and private enforcement likely reinforced each other in the emergence of a mixed regime in the United States. This interpretation of antitrust history lends support to theoretical models of litigation showing that restrictions on the ability of the courts to engage in (Bayesian) optimization on a case-by-case basis are necessary for motivating private enforcers to identify and deter offences in a robust manner.<sup>125</sup>

### C. Institutional Complements or Substitutes?

The long-term experience in the United States suggests that public and private enforcement institutions can complement each other by differentiating the functions they provide within the system. Particularly when offenders are large upstream enterprises with resources and the ability to mount a vigorous defense, litigation can be an extremely costly and unpredictable business strategy for firms with private information about illegal market behavior. As a result, private enforcement may not fulfill its theoretical role as a solution to the under-enforcement and false negative problem associated with administrative regulation. However, private actions might be the only option for the identification and deterrence of practices that government agencies think might be efficiency-enhancing, when in fact they are not. Public enforcement, on the other hand, may be the only recourse when victims face significant coordination problems or offenders are judgment proof.<sup>126</sup>

If public and private enforcers can differentiate the functions they provide in a mixed regime, there should be little association between their actions,

<sup>125</sup> See, e.g., Sylvain Bourjade, Patrick Rey & Paul Seabright, *Private Antitrust Enforcement in the Presence of Pre-Trial Bargaining*, 57 J. INDUS. ECON. 372 (2009). The authors show that, in the presence of information costs, Bayesian filtering by the courts is not necessarily optimal, and some restrictions on the range of evidence that the courts can consider are necessary to induce private litigation incentives.

<sup>126</sup> That is, offenders may be too rich or poor to care about monetary damages. For instance, declaring bankruptcy in an extreme event is a viable strategy for avoiding liability.

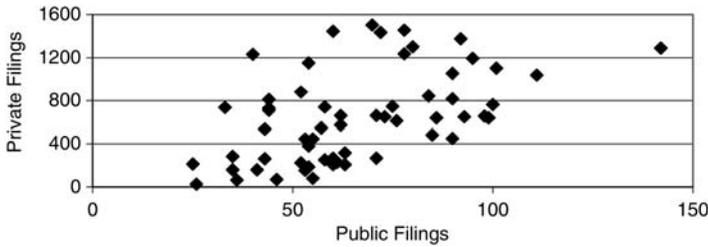


Figure 9. Private and public filings, 1945-2004

since they would tend to target different types of anticompetitive behavior. Figure 9 depicts the association between public and private case filings. There is some indication of a positive correlation between the levels of public and private enforcement activity in the very long run.

To evaluate the relevance of the evolutionary perspective on legal procedure outlined in this article, it is pertinent to note that actions by public and private enforcers can be interdependent. This could be the case, for example, when a criminal complaint is filed by public prosecutors, and then class actions follow to collect damages based on evidence produced through investment and effort by the public sector.<sup>127</sup> Analogously, sometimes public prosecutors and administrative agencies are forced to act only after information about the illegal activities is discovered from private complaints and case filings.<sup>128</sup> Information cascades between the public and private sector could explain the presence of a positive association between case filing measures in the long run. Public and private case filings might also exhibit some correlation due to exogenous factors such as the business cycle.<sup>129</sup> Figures 10 and 11 decompose the picture to two shorter periods representing the growth phase and the decline of the role of private litigation in the United States.

Figure 10 documents the growth of both public and private enforcement activity during the emergence of the mixed regime. Public and private filings exhibit a small and insignificant positive correlation (with a coefficient equal to 0.2) during the transition to the new regulatory architecture. Nonetheless, Figure 11 suggests that the possible association dissipated between 1975 and 2004. To assess the relevance of follow-on cases, this study also investigated

<sup>127</sup> In this case, private actions enhance deterrence by increasing the magnitude of expected punishment. For an analysis of the impact of compensatory damages that follow government price-fixing cases in the market for bread, see Block, Nold & Sidak, *supra* note 56.

<sup>128</sup> In this case, private rights of action would complement public actions by increasing the probability of apprehension and punishment. See, e.g., *supra* notes 72-74.

<sup>129</sup> Lin, Raj, Sandfort & Slottje, *supra* note 102.

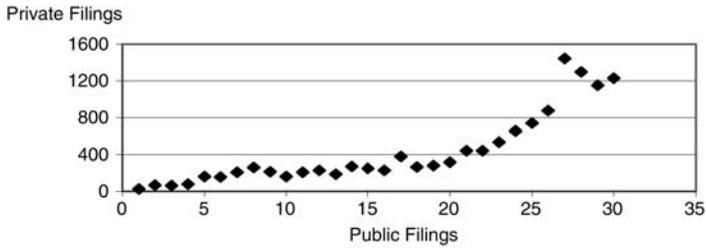


Figure 10. Private and public filings, 1945-1974

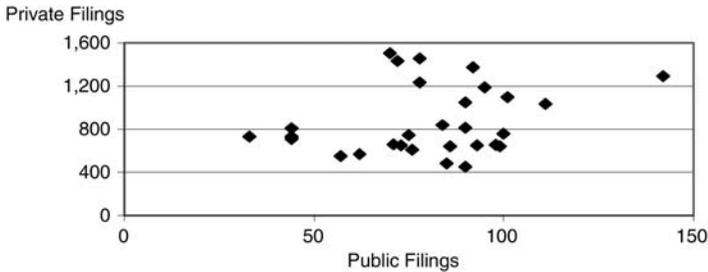


Figure 11. Private and public filings, 1975-2004

1 to 3 year lagged associations between the measures.<sup>130</sup> The length of the lag does not alter the overall picture. There is little evidence to support the hypothesis that private actions were simply free-riding on actions by public authorities or that action by the public enforcers followed private litigants. The absence of an association between measures of public and private case filings suggests that the two mechanisms responded differently to their environment and reinforced each other in shaping legal constraints on anticompetitive practices.

#### IV. RULES VERSUS DISCRETION: 1980 TO 2000

The long-term evolution of antitrust indicates that statutory rights of action and a damage multiplier are not sufficient to motivate plaintiffs with knowledge about prohibited behavior to engage in litigation against organized cartels and dominant enterprises. When alleged offenders can easily shape judicial outcomes, rational plaintiffs will have little incentive to invest in judicial conflicts. Consequently, private standing rights and the promise of a damage award will not necessarily create a credible system for identification and deterrence of collusive arrangements that are likely to go undetected,

<sup>130</sup> The results of this investigation are not reported here. This analysis also explored the interaction between case filing indicators and the rate of growth in gross national product (GNP), as an indicator of the broader economic environment. Public actions appear less sensitive to the macroeconomic climate than private case filings. Litigation levels appear to be higher when the economy is doing very well or very poorly.

and hence under-deterred, in a purely administrative system. The growth and decline in private litigation in the United States in the second half of the 20th century offers a unique empirical basis for exploring institutional innovations that might be required for motivating private enforcers to complement public antitrust regulation. Historical indicators of private actions suggest that, among other factors, private enforcement incentives depend on the interpretive framework that the courts employ to define the boundary of permissible conduct in the marketplace. The willingness of downstream firms and competitors to engage in litigation against upstream cartels increased in the 1950s and 1960s only after the courts started to impose limits on the range of evidence alleged offenders could present to establish the reasonableness and legality of their behavior. Even after the judicial system became less hostile to private claims, plaintiffs exercised their statutory rights of action primarily against anticompetitive behavior governed under *per se* rules (for example, price fixing and bid rigging). Private enforcers exhibited relatively limited incentives to use the courts as an instrument for regulating unilateral conduct of dominant enterprises, which helps explain the important role that public antitrust enforcement continued to play in the mixed regime.

The transition to a mixed enforcement regime in the 1950s and 1960s extended the authority of the Sherman Act by mitigating information and incentive problems in purely public regimes (that is, lowering false negatives). However, the combination of private rights of action and *per se* or bright-line rules against anticompetitive agreements also limited the power of the courts and public enforcers to exempt practices that enhanced social welfare and economic efficiency. By the mid-1970s, the continued growth of private cases started to generate concerns about over-enforcement and a loss of prosecutorial discretion.<sup>131</sup> The growing aversion by the courts to false positive errors motivated changes to both substantive and procedural features of the antitrust law, which can help explain the subsequent decline in private actions during 1980s and 1990s.<sup>132</sup>

The 1977 *Illinois Brick* decision limited rights of standing in civil cases to direct purchasers, excluding a wide range of possible private entities with information about illegal acts from employing civil litigation.<sup>133</sup> In restricting the statutory rights of action to “any person” to file a claim under the Sherman Act, this decision aimed to mitigate the potential for multiple claims on alleged offenders that had “passed-on” overcharges from an illegal act to other parties. The Court held that if defendants cannot use the passing-on theory as a defensive tool in private claims by a direct purchaser,

<sup>131</sup> *Supra* note 57.

<sup>132</sup> That is, the decline both in absolute terms and relative to efforts by public competition authorities. *See infra* Figures 7 & 8.

<sup>133</sup> *Illinois Brick Co. v. Illinois*, 431 U.S. 720 (1977).

indirect purchasers should also not be able to use the same theory as an offensive instrument to recover damages.<sup>134</sup> While narrowing the scope of standing rights may have reduced the costs of multiple recoveries faced by defendants, the decision neglected to consider the possibility that direct purchasers do not always have strong incentives to take legal action. In particular, direct purchasers that resell a product might themselves be parties to the conspiracy and benefit from sustaining it. In this case, the direct purchaser downstream would have limited incentives to reveal private information it has about anticompetitive agreements by their upstream suppliers.<sup>135</sup> Actions by indirect purchasers might be the only option for imposing legal constraints on this class of anticompetitive arrangements. The attempt in *Illinois Brick* to mitigate false positive errors can explain part of the rapid decline in the level of private cases in the 1980s.

In addition to important limits on statutory standing rights, aversion to false positive errors motivated a growing reliance by the courts on the rule-of-reason or economic approach to substantive interpretation.<sup>136</sup> The utilization of *per se* rules against price fixing and certain non-price restraints may have been beneficial by enhancing private enforcement incentives (that is, lowering false negatives), but restricted the range of evidence potential offenders could offer in establishing the reasonableness and legality of their actions. By the 1970s, some judges started to ignore previous Supreme Court precedents requiring the application of *per se* rules in the treatment of anticompetitive agreements—purportedly to mitigate false positive errors and promote consumer welfare.<sup>137</sup> The Supreme Court had the opportunity to discipline lower courts and restrain their growing discretion to engage in case-by-case assessments of the costs and benefits of anticompetitive arrangements. However, the Supreme Court did not choose to do so and, in the 1977 decision in *Continental Television v. GTE Sylvania*, reversed course in the *per se* treatment of vertical restraints in place since the 1967 decision

<sup>134</sup> In this case, the state of Illinois and 700 local governments had been subject to a price-fixing conspiracy by producers of concrete blocks.

<sup>135</sup> This possibility essentially captures the fact that, even though they have been separated in legal and economic analysis, horizontal and vertical anticompetitive arrangements can be closely linked in practice.

<sup>136</sup> For an analysis of emerging doctrines of standing and injury that aimed to minimize false positive errors of the system, see Page (1985), *supra* note 25. In addition to limiting the scope for recovering damages, he points out that the new doctrines were increasingly applied at an early stage in the litigation process. This observation helps explain the rapid decline in the level of case filings in the late 1970s and early 1980s.

<sup>137</sup> For an interesting illustration of the growing tendency of some judges to ignore restrictions imposed on case-by-case analysis with the adoption of bright-line rules in the 1960s and 1970s, see *Hearings on the Nomination of Judge Robert Bork to be Associate Justice of the Supreme Court Before the Senate Comm. on the Judiciary*, 100th Cong., 1st Sess. 215 (1987) (testimony of Robert Abrams, Attorney General of New York); Robert Abrams, *Bork's Private Agenda in Antitrust: Judicial Refusal to Enforce*, 19 ANTITRUST L. & ECON. REV. 19 (1987).

in *United States v. Arnold Schwinn*.<sup>138</sup> The 1979 decision in *Broadcast Music v. Columbia Broadcasting System* further encouraged lower courts to evaluate potential efficiencies and consumer-welfare gains in assessing the legality of potentially competitive arrangements among competitors.<sup>139</sup> The erosion of *per se* rules and the growing scope for the “efficiencies defense” reduced private enforcement incentives and reshaped the role of the courts in the implementation of antitrust law.<sup>140</sup>

To document this hypothesis in more detail, it is useful to look at judicial outcomes after a case has been filed.<sup>141</sup> Although indicative of long-term institutional trends, aggregate measures of case filings represent a broad picture of the evolution of the litigation system. Most cases filed with the courts never proceed to a trial and are settled through private negotiations during pre-trial bargaining. The rest of this Part investigates the changing structure of the system at different stages of the litigation process using a comprehensive data set of all private antitrust cases for the period spanning the 1980s and 1990s.<sup>142</sup> Figure 12 depicts the level of private antitrust case filings, the number of cases that went to a trial (that is, cases for which a judgment was recorded, including incomplete trials), and all completed trials.

All three indicators of private litigation broadly illustrate the decline in its role as an instrument for imposing legal constraints on anticompetitive practices. The level of case filings fell substantially in the 1980s, but stabilized by the early 1990s and even increased somewhat by the late 1990s. At the same time, the proportion of cases that were settled out of court grew substantially over the two decades. For example, in 1980, one out of every 15

<sup>138</sup> *Continental T.V., Inc. v. GTE Sylvania, Inc.*, 433 U.S. 36 (1977); *United States v. Arnold, Schwinn & Co.*, 388 U.S. 365 (1967).

<sup>139</sup> *Broadcast Music, Inc. v. Columbia Broadcasting System, Inc.*, 441 U.S. 1 (1979). The concept of antitrust injury increasingly accepted by the courts required that liability for antitrust damages be equated with the anticompetitive harm from an unlawful practice. See Page (1985), *supra* note 25; Sidak, *supra* note 25.

<sup>140</sup> The concept of antitrust injury increasingly accepted by the courts required that liability for antitrust damages be equated with the anticompetitive aspects of the unlawful practice in order to minimize the risk of false positive errors. This approach reflected the assumption that, with risk aversion, the application of treble damages can lead to over-deterrence, requiring the courts to engage in a costly and complex process of case-by-case assessment. See Page (1980), *supra* note 25; Page (1985), *supra* note 25; Sidak, *supra* note 25; Landes, *supra* note 25.

<sup>141</sup> If the evidence that the plaintiff has about prohibited behavior by the defendants is sufficiently strong, then the threat of litigation might be sufficient to motivate the parties to reach a private bargain, and filing a case may not be necessary. Nonetheless, filing a case with the courts represents an important point of escalation that is reached only after private bargaining has failed to produce a mutually acceptable private solution.

<sup>142</sup> Data on judicial outcomes are drawn from The Database on U.S. Judicial Statistics Compiled by Theodore Eisenberg and Kevin M. Clermont (2001), available at Inter-university Consortium for Political and Social Research or Cornell Law School Library, Federal District-Court Civil Cases, All Cases, [http://legal1.cit.cornell.edu:8090/fed\\_all.htm](http://legal1.cit.cornell.edu:8090/fed_all.htm) [hereinafter Database on U.S. Judicial Statistics].

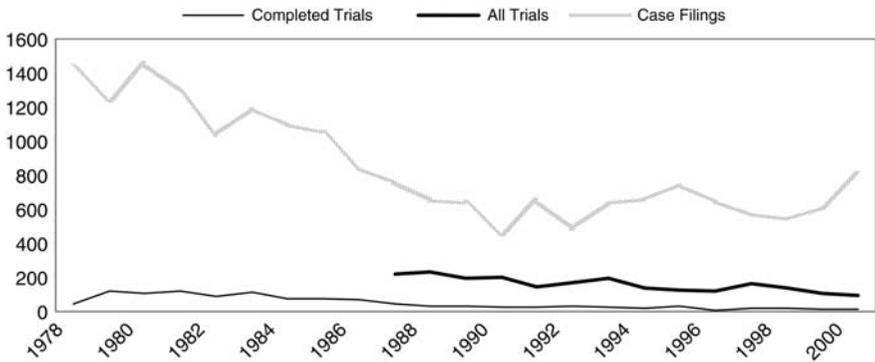


Figure 12. Evolution of private enforcement

case filings proceeded to a complete trial. By 2000, this ratio had changed to 1 in 80. This—approximately fivefold—rise in the rate of settlement prior to a final judgment documents the declining role of the antitrust trial and the growing importance of pre-trial bargaining during this period. The vanishing of the antitrust trial exemplifies a broader trend in the institutional architecture of the U.S. civil justice system.<sup>143</sup>

The settlement rates continued to grow in the 1990s even after the aggregate level of case filing had stabilized. This suggests that restrictions on private rights of standing might account for some of the initial decline in case filings in the 1980s, but they do not explain the long-term growth in settlement rates. The large and sustained increase in settlements during pre-trial bargaining documents a fundamental change in private enforcement incentives and the function of the courts in this period. To characterize this shift in the institutional environment in more detail, Tables 3 and 4 document judicial outcomes following the initial decision by private enforcers to file an antitrust claim.<sup>144</sup> Data in Table 3 show outcomes of all antitrust cases in which the litigants chose not to settle the matter during the pre-trial bargaining process and the case proceeded to a trial, including incomplete trials. Table 4 presents judicial outcomes for all completed trials in which a settlement was not achievable in the pre-trial bargaining process or during the trial.

Measures of judicial outcomes highlight a number of important observations about the evolution of the litigation system. First, the courts became more willing to shift the costs of litigation to the losing party. This trend helps explain some of the overall decline in the level of case filings and the rise in settlement rates. The higher probability of having to pay for the

<sup>143</sup> Marc Galanter, *The Vanishing Trial: An Examination of Trials and Related Matters in Federal and State Courts*, 1 J. EMPIRICAL LEGAL STUD. 459 (2004).

<sup>144</sup> Unfortunately, a longer set of historical data on judicial outcomes at this stage of the litigation process is not available.

**Table 3.** All antitrust trials: outcomes

Year	Number of Cases	Probability of winning (mean)	Percentage of Total Awards (%)			
			\$ only	\$ + other	Injunction	Costs
1987	222	0.29	73	13	12	2
1988	231	0.35	90	2	3	5
1989	195	0.24	68	7	26	5
1990	201	0.39	73	15	4	8
1991	143	0.31	48	40	10	3
1992	169	0.29	53	20	10	17
1993	192	0.58	63	33	2	2
1994	138	0.32	56	33	11	0
1995	124	0.25	27	33	7	33
1996	119	0.32	59	12	18	12
1997	164	0.24	53	13	7	27
1998	137	0.27	43	32	15	10
1999	106	0.35	31	31	13	25
2000	95	0.38	31	31	31	7

Source: Database on U.S. Judicial Statistics, *supra* note 142.

**Table 4.** Completed antitrust trials: outcomes

Year	Number of Cases	Probability of winning (mean)	Percentage of Total Awards			
			\$ only	\$ + other	Injunction	Costs
1978	45	0.5	63	12	25	0
1979	120	0.46	72	20	3	3
1980	105	0.5	79	9	9	3
1981	121	0.38	86	8	4	2
1982	86	0.49	60	25	10	5
1983	115	0.6	90	6	4	0
1984	73	0.46	78	18	4	0
1985	76	0.59	73	24	3	0
1986	72	0.4	59	38	5	0
1987	44	0.53	94	6	0	0
1988	34	0.5	84	8	8	0
1989	33	0.3	80	20	0	0
1990	23	0.33	80	20	0	0
1991	26	0.43	67	33	0	0
1992	32	0.43	77	11	0	12
1993	22	0.59	33	67	0	0
1994	19	0.61	67	33	0	0
1995	29	0.24	17	50	17	16
1996	9	0.74	80	20	0	0
1997	18	0.35	33	50	0	16
1998	21	0.5	56	22	11	11
1999	10	0.56	0	80	0	0
2000	12	0.9	57	30	13	0

Source: Database on U.S. Judicial Statistics, *supra* note 142.

expenses of the other party would have filtered some frivolous cases before they were filed or proceeded to trial. This development in legal procedure further reflects the growing aversion of the courts to false positive errors of antitrust law. However, cost-shifting to the losing party also increases the risks of investments in litigation by both plaintiffs and defendants. Higher risks of litigation would have reduced the incentives of plaintiffs with knowledge about unlawful conduct to pursue the case through the courts. Analogously, they would have increased the willingness of some defendants to settle claims during the pre-trial bargaining process rather than incurring the risks of litigation.

Second, the range of remedies that the courts imposed expanded significantly during the 1980s and 1990s. In the beginning of the period, the courts primarily relied on monetary penalties to motivate private enforcers to invest in litigation and punish offenders. With the erosion of bright-line rules, the courts handled a significantly lower number of private cases and completed fewer trials, reflective of the higher resource requirements in the application of the rule-of-reason or economic approach to substantive interpretation. Case-by-case analysis of the costs and benefits of particular anti-competitive arrangements appears to have made the courts more willing to impose injunctions and other non-monetary remedies. As the range of evidence that defendants could present to justify the reasonableness and efficiency of their actions increased, the courts started to come up with more specific solutions to the disputes. Initially serving as a platform for the application of bright-line rules against price fixing and bid rigging in contractual relations, the courts increasingly started to function as a mechanism for regulating specific industries and markets.

The impetus to engage in case-by-case assessment aimed to alleviate the potential of antitrust law to prevent welfare-enhancing industrial structures and cooperative market behavior. The growing discretion of the courts to regulate industrial behavior may also have been beneficial by allowing antitrust law to fill in some of the gaps from deregulation policies of the 1980s and 1990. Nonetheless, relative to bright-line rules, flexible standards tend to be more information-intensive to process, increase the scope for rent-seeking behavior, and are less predictable from the perspective market participants.<sup>145</sup> By expanding the range of evidence alleged offenders could present to justify their actions, the rule-of-reason or economic approach also increased the costs of processing individual disputes in the courts. Therefore, the erosion of *per se* rules meant that the courts had to devote more resources to processing individual claims. Given the scarcity of judicial resources, they could process far fewer cases and had to ration the supply of antitrust trials by encouraging litigants to resolve their disputes through private negotiations. For example, shifting the costs of a case to the losing

<sup>145</sup> Christiansen & Kerber, *supra* note 38.

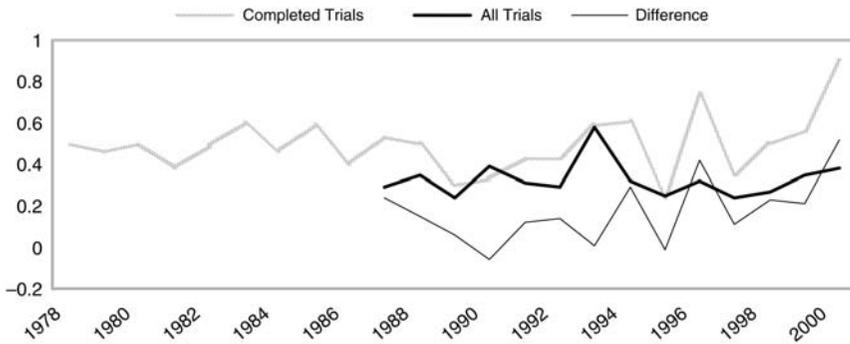


Figure 13. Judicial outcomes: probability of plaintiffs winning

party represents one mechanism that the courts employed to motivate risk-averse plaintiffs and defendants to settle privately.

Higher costs and uncertainties of case-by-case assessment can also be viewed in terms of demand for litigation by plaintiffs and defendants. From the perspective of risk-averse plaintiffs, the availability of the efficiencies defense made it more difficult to assess the value of private information about anticompetitive arrangements in terms of expected damages or rewards from investments in litigation. At the same time, the widening range of evidence that the courts were willing to consider to assess the reasonableness and legality of a particular practice increased the expected pay-off of investments by alleged offenders in their own defense. Changes to the strategic behavior of the litigants under the rule-of-reason approach explain why settlement rates have continued to grow, despite the fact that the level of case filings stabilized by the early 1990s. Differences in the probability of success at the two stages of the litigation process document this hypothesis. As Figure 13 illustrates, the chance of plaintiffs winning a completed trial was consistently and increasingly higher than their likelihood of success in pre-trial negotiations. Despite the advantages of holding out for a trial and allowing the court to decide on the merits of the case, a growing proportion of plaintiffs decided to settle their claims during the pre-trial bargaining process.

As the boundary of permissible market conduct became less clear, fewer businesses with knowledge about covert anticompetitive arrangements chose to allocate scarce resources to antitrust litigation. The evolution of litigation in the 1980s and 1990s further documents the empirical association between bright-line rules and private enforcement incentives. It also lends support to theoretical models of litigation that suggest restrictions on the discretion of courts to engage in (Bayesian) optimization are necessary for motivating private enforcers to identify and deter anticompetitive practice.<sup>146</sup> The link between the design of substantive rules and private enforcement

<sup>146</sup> Bourjade, Rey & Seabright, *supra* note 125.

documented by the U.S. antitrust experience has obvious policy implications for jurisdictions that aim to enhance the credibility of legal constraints against anticompetitive practices but rely on the rule-of-reason or economic approach to interpreting laws against anticompetitive agreements.

Although the adoption of flexible standards appears to have limited private enforcement incentives to identify and deter anticompetitive behavior (that is, increased false negatives), it is not clear whether it had the intended effect of mitigating the potential for false positive errors of antitrust. This is because the erosion of *per se* rules would have also increased the scope for rent-seeking behavior by some litigants.<sup>147</sup> As the boundary of permissible conduct became less clear and the range of possible judicial outcomes expanded, opportunistic plaintiffs would have had stronger incentives to engage in strategic litigation—for example, to impose contractual terms on other firms, erect legal barriers to competition, or raise the costs of a competitor.<sup>148</sup> Facing the threat of treble damages, injunctions, and possibly years of prolonged discovery, a growing proportion of defendants may have decided to settle claims against them rather than incurring the risks and expenses of litigation under the rule-of-reason or economic approach to substantive interpretation. This interpretation of the evidence helps explain why settlement rates increased, even though the average probability of success by plaintiffs remained relatively stable.

## V. CONCLUSION

Competition law is usually viewed as an exercise in the regulation of monopolies and large enterprises by the state. This view may be true in most jurisdictions, but it is inconsistent with the empirical experience from the United States. The development of the U.S. manufacturing sector in the 1950s and 1960 coincided with a sharp rise in the private enforcement of laws against anticompetitive practices. Despite the new institutional barriers to private actions that started to emerge in the late 1970s, civil litigation has remained the primary instrument for the identification and deterrence of anticompetitive practices in the United States. This unique experience is particularly relevant in the context of more recent attempts in the European Union to enhance incentives of private plaintiffs to invest in competition law enforcement.<sup>149</sup> The scope for private damage claims also represents a central element of debates in other areas of law and policy, including the regulation of securities markets, the protection of human rights, and the mitigation of environmental hazards.<sup>150</sup>

<sup>147</sup> Christiansen & Kerber, *supra* note 38.

<sup>148</sup> *Supra* notes 29, 57 & 61.

<sup>149</sup> *Supra* notes 7-13.

<sup>150</sup> *Supra* note 1.

Political economy theories of legal procedure provide two broad classes of models for characterizing the role of public regulation and private litigation. The traditional framework of the optimal enforcement literature investigates the capacity of public and private enforcers for achieving a desirable level of deterrence.<sup>151</sup> Consequently, this class of theories assumes that the two mechanisms represent substitutable instruments for realizing the same objective. A second class of theories relaxes this assumption and explores private enforcement as a tool for complementing information and incentives of public administrative agencies and prosecutorial bodies.<sup>152</sup> The evolution of the U.S. antitrust system provides a basis for exploring the empirical relevance of these theories.

Using various measures of public and private enforcement, this article explored a basic theoretical hypothesis from law and economics on the importance of information costs for institutional design.<sup>153</sup> In an ideal world with costless and complete knowledge, case-by-case analysis and administrative hierarchies are likely to represent an optimal design strategy in terms of minimizing expected false positive and false negative errors within a legal system. With incomplete and asymmetric information, bureaucratic or judicial decision-makers may not be able to accurately differentiate and evaluate claims of anticompetitive conduct. This leads to a serious dilemma in designing substantive rules and mechanisms for the identification and deterrence of offences. On one hand, a competition regime based on clear and predictable *per se* prohibitions on price fixing and bid rigging may encourage the disclosure of information in private transactions, enhance market contestability, and improve general institutional quality. However, a binding competition regime may prevent some transactions considered efficient or in the public interest. In the short term, regulatory or judicial discretion might be beneficial in mitigating these (false positive) errors but would limit private enforcement incentives and the credibility of the law (increasing false negatives). In the longer run, flexible standards can also encourage resourceful enterprises to invest in antitrust litigation as a strategic tool for increasing competitors' costs, imposing non-market contractual terms on other parties, or sustaining collusive arrangements.

This article analyzed various indicators of antitrust regulation and litigation to identify institutional innovations that allowed the U.S. system to resolve these tensions. For more than five decades after the adoption of the Sherman Act, commitment by the federal government to public antitrust enforcement was both limited and idiosyncratic. Attempts by lawmakers to encourage private actions, for instance with the adoption of a damage

<sup>151</sup> For an overview of the implications of the two classes of models in different areas of law and regulation, see Rajabiun (2009), *Private Enforcement of Law*, *supra* note 4.

<sup>152</sup> *Supra* notes 71-74.

<sup>153</sup> For an early and influential exposition of this hypothesis, see BECCARIA, *supra* note 26.

multiplier, were unsuccessful for a number of decades. The early history of antitrust casts serious doubt on the relevance of the “over-enforcement” hypothesis.<sup>154</sup> In fact, it highlights that private litigation systems are also prone to under-enforcement and false negative errors.

The emergence of a mixed enforcement regime after World War II significantly expanded the ubiquitous authority of the Sherman Act by allowing public and private enforcers to differentiate the functions they provide. The informational advantages of private enforcers enabled them to specialize in addressing anticompetitive agreements among competitors in procurement and pricing. Such agreements are frequently covert and would be hard to detect in a purely public enforcement regime. With the adoption of bright-line rules against anticompetitive agreements, the courts became less hostile to private claims by downstream entities and competitors with knowledge about illegal acts. Public antitrust agencies differentiated themselves by focusing on concerns about structural dominance and abusive practices by large enterprises—which tend to be easy to observe but difficult to address through a decentralized litigation regime. Consequently, public and private enforcers reinforced each other by targeting different types of anticompetitive practices and applying distinct classes of substantive prohibitions.

The erosion of the U.S. system in the 1980s and 1990s further suggests that private litigation incentives crucially depend on the design of the substantive framework the courts employ for interpreting the statutory prohibitions. Discretion by courts to exempt anticompetitive practices that appear efficient or welfare-enhancing might have some short-term advantages in lowering the false positive error rate of the legal system. However, reliance on the rule-of-reason or economic approach to substantive interpretation by the courts increases litigation costs and reduces private enforcement effort. This can increase both false positive and false negative error rates, because relative to bright-line or *per se* rules, flexible standards are more information intensive to process and generate uncertainties about the boundary of permissible market conduct. Higher costs and risks of litigation reduce the incentives of some plaintiffs with knowledge about costly anticompetitive arrangements to pursue offenders through the judicial system in a robust manner. Furthermore, in the longer term, judicial discretion can encourage strategic litigation by resourceful enterprises that hope to exploit the uncertainties of the rule-of-reason approach to extract an easy settlement from defendants. The evolution of judicial outcomes at different stages of the litigation process documents the dynamic inconsistency between short- and long-term objectives in the design of laws against anticompetitive practices. The interdependence of bright-line rules and decentralized litigation mechanisms helps explain why formal rights of action often fail to materialize into credible and predictable legal constraints.

<sup>154</sup> *Supra* notes 57 & 61.