

1 An Introduction to Law and Economics

For the rational study of the law the black-letter man may be the man of the present, but the man of the future is the man of statistics and the master of economics. . . . We learn that for everything we have to give up something else, and we are taught to set the advantage we gain against the other advantage we lose, and to know what we are doing when we elect.

Oliver Wendell Holmes.
THE PATH OF THE LAW, 10 HARV. L. REV. 457, 469, 474 (1897)¹

To me the most interesting aspect of the law and economics movement has been its aspiration to place the study of law on a scientific basis, with coherent theory, precise hypotheses deduced from the theory, and empirical tests of the hypotheses. Law is a social institution of enormous antiquity and importance, and I can see no reason why it should not be amenable to scientific study. Economics is the most advanced of the social sciences, and the legal system contains many parallels to and overlaps with the systems that economists have studied successfully.

Judge Richard A. Posner, in MICHAEL FAURE & ROGER VAN DEN BERGH, EDS., *ESSAYS IN LAW AND ECONOMICS* (1989)

UNTIL RECENTLY, LAW confined the use of economics to antitrust law, regulated industries, tax, and some special topics like determining monetary damages. In these areas, law needed economics to answer such questions as “What is the defendant’s share of the market?”; “Will price controls on automobile insurance reduce its availability?”; “Who really bears the burden of the capital gains tax?”; and “How much future income did the children lose because of their mother’s death?”

Beginning in the early 1960s, this limited interaction changed dramatically when the economic analysis of law expanded into the more traditional areas of the law, such as property, contracts, torts, criminal law and procedure, and constitutional law.² This

¹ Our citation style is a variant of the legal citation style most commonly used in the United States. Here is what the citation means: the author of the article from which the quotation was taken is Oliver Wendell Holmes; the title of the article is “The Path of the Law”; and the article may be found in volume 10 of the *Harvard Law Review*, which was published in 1897, beginning on page 457. The quoted material comes from pages 469 and 474 of that article.

² The modern field is said to have begun with the publication of two landmark articles—Ronald H. Coase, *The Problem of Social Cost*, 3 J. L. & ECON. 1 (1960) and Guido Calabresi, *Some Thoughts on Risk Distribution and the Law of Torts*, 70 YALE L.J. 499 (1961).

new use of economics in the law asked such questions as, “Will private ownership of the electromagnetic spectrum encourage its efficient use?”; “What remedy for breach of contract will cause efficient reliance on promises?”; “Do businesses take too much or too little precaution when the law holds them strictly liable for injuries to consumers?”; and “Will harsher punishments deter violent crime?”

Economics has changed the nature of legal scholarship, the common understanding of legal rules and institutions, and even the practice of law. As proof, consider these indicators of the impact of economics on law. By 1990 at least one economist was on the faculty of each of the top law schools in North America and some in Western Europe. Joint degree programs (a Ph.D. in economics and a J.D. in law) exist at many prominent universities. Law reviews publish many articles using the economic approach, and there are several journals devoted exclusively to the field.³ An exhaustive study found that articles using the economic approach are cited in the major American law journals more than articles using any other approach.⁴ Many law school courses in America now include at least a brief summary of the economic analysis of law in question. Many substantive law areas, such as corporation law, are often taught from a law-and-economics perspective.⁵ By the late 1990s, there were professional organizations in law and economics in Asia, Europe, Canada, the United States, Latin America, Australia, and elsewhere. The field received the highest level of recognition in 1991 and 1992 when consecutive Nobel Prizes in Economics⁶ were awarded to economists who helped to found the economic analysis of law—Ronald Coase and Gary Becker. Summing this up, Professor Bruce Ackerman of the Yale Law School described the economic approach to law as “the most important development in legal scholarship of the twentieth century.”

The new field’s impact extends beyond the universities to the practice of law and the implementation of public policy. Economics provided the intellectual foundations for the deregulation movement in the 1970s, which resulted in such dramatic changes in America as the dissolution of regulatory bodies that set prices and routes for airlines, trucks, and railroads. Economics also served as the intellectual force behind the revolution in antitrust law in the United States in the 1970s and 1980s. In another policy area, a commission created by Congress in 1984 to reform criminal sentencing in the federal courts explicitly used the findings of law and economics to reach some of its results. Furthermore, several prominent law-and-economics scholars have become federal judges and use economic analysis in their opinions—Associate Justice Stephen Breyer of the U.S. Supreme Court; Judge Richard A. Posner and Judge Frank Easterbrook of the U.S. Court of Appeals for the Seventh Circuit; Judge Guido Calabresi of the U.S.

³ For example, the *Journal of Law and Economics* began in 1958; the *Journal of Legal Studies* in 1972; *Research in Law and Economics*, the *International Review of Law and Economics*, and the *Journal of Law, Economics, and Organization* in the 1980s; and the *Journal of Empirical Legal Studies* in 2004.

⁴ William M. Landes & Richard A. Posner, *The Influence of Economics on Law: A Quantitative Study*, 36 *J. L. & ECON.* 385 (1993).

⁵ See, e.g., STEPHEN M. BAINBRIDGE, *CORPORATION LAW AND ECONOMICS* (2002).

⁶ The full name of the Nobel Prize in Economics is the Bank of Sweden Prize in the Economic Sciences in Memory of Alfred Nobel. See our book’s website for a full list of those who have won the Nobel Prize and brief descriptions of their work.

Court of Appeals for the Second Circuit; Judge Douglas Ginsburg, and former Judge Robert Bork of the U.S. Court of Appeals for the D.C. Circuit; and Judge Alex Kozinski of the U.S. Court of Appeals for the Ninth Circuit.

I. What Is the Economic Analysis of Law?

Why has the economic analysis of law succeeded so spectacularly, especially in the United States but increasingly also in other countries?⁷ Like the rabbit in Australia, economics found a vacant niche in the “intellectual ecology” of the law and rapidly filled it. To explain the niche, consider this classical definition of some kinds of laws: “A law is an obligation backed by a state sanction.”

Lawmakers often ask, “How will a sanction affect behavior?” For example, if punitive damages are imposed upon the maker of a defective product, what will happen to the safety and price of the product in the future? Or will the amount of crime decrease if third-time offenders are automatically imprisoned? Lawyers answered such questions in 1960 in much the same way as they had 2000 years earlier—by consulting intuition and any available facts.

Economics provided a scientific theory to predict the effects of legal sanctions on behavior. To economists, sanctions look like prices, and presumably, people respond to these sanctions much as they respond to prices. People respond to higher prices by consuming less of the more expensive good; presumably, people also respond to more severe legal sanctions by doing less of the sanctioned activity. Economics has mathematically precise theories (price theory and game theory) and empirically sound methods (statistics and econometrics) for analyzing the effects of the implicit prices that laws attach to behavior.

Consider a legal example. Suppose that a manufacturer knows that his product will sometimes injure consumers. How safe will he make the product? For a profit-maximizing firm, the answer depends upon three costs: First, the cost of making the product safer, which depends on its design and manufacture; second, the manufacturer’s legal liability for injuries to consumers; and third, the extent to which injuries discourage consumers from buying the product. The profit-maximizing firm will adjust safety until the cost of additional safety equals the benefit from reduced liability and higher consumer demand for the good.

Economics generally provides a behavioral theory to predict how people respond to laws. This theory surpasses intuition just as science surpasses common sense. The response of people is always relevant to making, revising, repealing, and interpreting laws. A famous essay in law and economics describes the law as a cathedral—a large, ancient, complex, beautiful, mysterious, and sacred building.⁸ Behavioral science resembles the mortar between the cathedral’s stones, which support the structure everywhere.

⁷ See Nuno Garoupa & Thomas S. Ulen, *The Market for Legal Innovation: Law and Economics in Europe and the United States*, 59 ALA. L. REV. 1555 (2008).

⁸ Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972).

A prediction can be neutral or loaded with respect to social values. A study finds that higher fines for speeding on the highway will presumably cause less of it. Is this good or bad on balance? The finding does not suggest an answer. In contrast, suppose that a study proves that the additional cost of collecting higher fines exceeds the resulting benefit from fewer accidents, so a higher fine is “inefficient.” This finding suggests that a higher fine would be bad. Efficiency is always relevant to policymaking, because public officials never advocate wasting money. As this example shows, besides neutral predictions, economics makes loaded predictions. Judges and other officials need a method for evaluating laws’ effects on important social values. Economics provides such a method for efficiency.

Besides efficiency, economics predicts the effects of laws on another important value: the distribution of income. Among the earliest applications of economics to public policy was its use to predict who really bears the burden of alternative taxes. More than other social scientists, economists understand how laws affect the distribution of income across classes and groups. While almost all economists favor changes that increase efficiency, some economists take sides in disputes about distribution and others do not take sides.

Instead of efficiency or distribution, people in business mostly talk about profits. Much of the work of lawyers aims to increase the profits of businesses, especially by helping businesses to make deals, avoid litigation, and obey regulations. These three activities correspond to three areas of legal practice in large law firms: transactions, litigation, and regulation. Efficiency and profitability are so closely related that lawyers can use the efficiency principles in this book to help businesses make more money. Economic efficiency is a comprehensive measure of public benefits that include the profits of firms, the well-being of consumers, and the wages of workers. The logic of maximizing the comprehensive measure (efficiency) is very similar to the logic of maximizing one of its components (profits). A good legal system keeps the profitability of business and the welfare of people aligned, so that the pursuit of profits also benefits the public.

II. Some Examples

To give you a better idea of what law and economics is about, we turn to some examples based upon classics in the subject. First, we try to identify the implicit price that the legal rule attaches to behavior in each example. Second, we predict the consequences of variations in that implicit price. Finally, we evaluate the effects in terms of efficiency and, where possible, distribution.

Example 1: A commission on reforming criminal law has identified certain white-collar crimes (such as embezzling money from one’s employer) that are typically committed after rational consideration of the potential gain and the risk of getting caught and punished. After taking extensive testimony, much of it from economists, the commission decides that a monetary fine is the appropriate punishment for these offenses, not imprisonment. The commission wants to know, “How high should the fine be?”

The economists who testified before the commission have a framework for answering this question. The commission focused on rational crimes that seldom occur unless the expected gain to the criminal exceeds the expected cost. The expected cost

depends upon two factors: the probability of being caught and convicted and the severity of the punishment. For our purposes, define the expected cost of crime to the criminal as the product of the probability of a fine times its magnitude.

Suppose that the probability of punishment *decreases* by 5 percent and the magnitude of the fine *increases* by 5 percent. In that case, the expected cost of crime to the criminal roughly remains the same. Because of this, the criminal will presumably respond by committing the same amount of crime. (In Chapter 12 we shall explain the exact conditions for this conclusion to be true.) This is a prediction about how illegal behavior responds to its implicit price.

Now we evaluate this effect with respect to economic efficiency. When a decrease in the probability of a fine offsets an increase in its magnitude, the expected cost of crime remains roughly the same for criminals, but the costs of crime to the criminal justice system may change. The costs to the criminal justice system of increasing a fine's probability include expenditures on apprehending and prosecuting criminals—for example, on the number and quality of auditors, tax and bank examiners, police, prosecuting attorneys, and the like. While the cost of increasing the probability of catching and convicting white-collar criminals is relatively high, administering fines is relatively cheap. These facts imply a prescription for holding white-collar crime down to any specified level at least cost to the state: Invest little in apprehending and prosecuting offenders, and fine severely those who are apprehended. Thus, the commission might recommend very high monetary fines in its schedule of punishments for white-collar offenses.

Professor Gary Becker derived this result in a famous paper cited by the Nobel Prize Committee in its award to him. Chapters 12 and 13 discuss these findings in detail.

Example 2: An oil company contracts to deliver oil from the Middle East to a European manufacturer. Before the oil is delivered, war breaks out and the oil company cannot perform as promised. The lack of oil causes the European manufacturer to lose money. The manufacturer brings an action (that is, files a lawsuit) against the oil company for breach of contract. The manufacturer asks the court to award damages equal to the money that it lost. The contract is silent about the risk of war, so that the court cannot simply read the contract and resolve the dispute on the contract's own terms. The oil company contends that it should be excused from performance because it could do nothing about the war and neither of the contracting parties foresaw it. In resolving the suit, the court must decide whether to excuse the oil company from performance on the ground that the war made the performance "impossible," or to find the oil company in breach of contract and to require the oil company to compensate the manufacturer for lost profits.⁹

War is a risk of doing business in the Middle East that one of the parties to the contract must bear, and the court must decide which one it is. What are the consequences of different court rulings? The court's decision simultaneously accomplishes two things. First, it resolves the dispute between the litigants—"dispute resolution." Second, it guides future parties who are in similar circumstances about how courts might resolve their dispute—"rule creation." Law and economics is helpful in resolving

⁹ For a full discussion of the cases on which this example is based, see Richard A. Posner & Andrew Rosenfield, *Impossibility and Related Doctrines in Contract Law*, 6 J. LEGAL STUD. 88 (1977).

disputes, but it particularly shines in creating rules. Indeed, a central question in this book is, “How will the rule articulated by the lawmaker to resolve a particular dispute affect the behavior of similarly situated parties in the future?” And, “Is the predicted behavior desirable?”

The oil company and the manufacturer can take precautions against war in the Middle East, although neither of them can prevent it. The oil company can sign backup contracts for delivery of Venezuelan oil, and the manufacturer can store oil for emergency use. Efficiency requires the party to take precaution who can do so at least cost. Is the oil company or the manufacturer better situated to take precautions against war? Since the oil company works in the Middle East, it is probably better situated than a European manufacturer to assess the risk of war in that region and to take precautions against it. For the sake of efficiency, the court might hold the oil company liable and cite the principle that courts will allocate risks uncovered in a contract to the party who can bear them at least cost. This is the principle of the least-cost risk-bearer,¹⁰ which is consistent with some decisions in cases that arose from the Middle Eastern war of 1967. Chapters 8 and 9 consider this principle’s foundation.

Example 3: *Eddie’s Electric Company* emits smoke that dirties the wash hanging at *Lucille’s Laundry*. *Eddie’s* can completely abate the pollution by installing scrubbers on its stacks, and *Lucille’s* can completely exclude the smoke by installing filters on its ventilation system. Installing filters is cheaper than installing scrubbers. No one else is affected by this pollution because *Eddie’s* and *Lucille’s* are near to each other and far from anyone else. *Lucille’s* initiates court proceedings to have *Eddie’s* declared to be a “nuisance.” If the action succeeds, the court will order *Eddie’s* to abate its pollution. Otherwise, the court will not intervene in the dispute. What is the appropriate resolution of this dispute?

Efficiency requires *Lucille’s* to install filters, which is cheaper than *Eddie’s* installing scrubbers. How can the court produce this result? The answer depends on whether or not *Eddie’s* and *Lucille’s* can cooperate. First, assume that *Eddie’s* and *Lucille’s* cannot bargain together or cooperate. If *Lucille’s* wins the action and the court orders *Eddie’s* to abate the pollution, *Eddie’s* will have to install scrubbers, which is efficient. However, if *Lucille’s* loses the action, then *Lucille’s* will have to install filters, which is inefficient. Consequently, it is efficient for *Lucille’s* to lose the action.

Now, consider how the analysis changes if *Eddie’s* and *Lucille’s* can bargain together and cooperate. Their joint profits (the sum of the profits of *Eddie’s* and *Lucille’s*) will be higher if they choose the cheaper means of eliminating the harm from pollution. When their joint profits are higher, they can divide the gain between them in order to make both of them better off. The cheaper means is also the efficient means. Efficiency is achieved in this example when *Lucille’s* and *Eddie’s* bargain together and cooperate, regardless of the rule of law. Ronald Coase derived this result in a famous paper cited by the Nobel Prize Committee when he received the award. Chapter 4 elaborates on this famous result.

¹⁰ The principle assumes that the entire loss from nonperformance must be allocated by the court to one of the parties. Alternatively, the court might divide the loss between the parties.

III. The Primacy of Efficiency Over Distribution in Analyzing Private Law

We explained that economists are experts on two policy values—efficiency and distribution. The stakes in most legal disputes have monetary value. Deciding a legal dispute almost always involves allocating the stakes between the parties. The decision about how much of the stakes each party gets creates incentives for future behavior, not just for the parties to this dispute but also for everyone who is similarly situated. In this book we use these incentive effects to make predictions about the consequences of legal decisions, policies, rules, and institutions. In evaluating these consequences, we will focus on efficiency rather than distribution. Why?

By making a rule, the division of the stakes in a legal dispute affects all similarly situated people. If a plaintiff in a case is a consumer of a particular good, an investor in a particular stock, or the driver of a car, then a decision for the plaintiff may benefit everyone who consumes this good, invests in this stock, or drives a car. Most proponents of income redistribution, however, have something else in mind. Instead of contemplating distribution to consumers, investors, or drivers, advocates of income redistribution usually target social groups, such as the poor, women, or minorities. Some people passionately advocate government redistribution of income by class, gender, or race for the sake of social justice. A possible way to pursue redistribution is through private law—the law of property, contracts, and torts. According to this philosophy, courts should interpret or make private laws to redistribute income to deserving groups of people. For example, if consumers are poorer on average than investors, then courts should interpret liability rules to favor consumers and disfavor corporations.

This book rejects the redistributive approach to private law. Pursuing redistributive goals is an exceptional use of private law that special circumstances may justify but that ought not be the usual use of private law. Here is why. Like the rest of the population, economists disagree among themselves about redistributive ends. However, economists generally agree about redistributive *means*. By avoiding waste, efficient redistribution benefits everyone relative to inefficient redistribution. By avoiding waste, efficient redistribution also builds support for redistribution. For example, people are more likely to donate to a charitable organization that efficiently redistributes income than to one that spends most of its revenue on administration.

A piquant example will help you to appreciate the advantages of efficient redistribution. Assume that a desert contains two oases, one of which has ice cream and the other has none. The advocates of social justice who favor redistribution obtain control over the state and declare that the first oasis should share its ice cream with the second oasis. In response, the first oasis fills a large bowl with ice cream and sends a youth running across the desert carrying the bowl to the second oasis. The hot sun melts some of the ice cream, so the first oasis gives up more ice cream than the second oasis receives. The melted ice cream represents the cost of redistribution. People who disagree vehemently about how much ice cream the first oasis should give to the second oasis may agree that a fast runner should transport it. Also they might agree to choose an honest runner who will not eat the ice cream along the route.

Many economists believe that progressive taxation and social welfare programs—the “tax-and-transfer system,” as it is usually called—can accomplish redistributive goals in modern states more efficiently than can be done through modifying or reshuffling private legal rights. There are several reasons why reshuffling private legal rights resembles giving the ice cream to a slow runner.

First, the income tax precisely targets inequality, whereas redistribution by private legal rights relies on crude averages. To illustrate, assume that courts interpret a law to favor consumers over corporations in order to redistribute income from rich to poor.¹¹ “Consumers” and “investors” imperfectly correspond to “poor” and “rich.” Consumers of Ferrari automobiles, skiing vacations, and the opera tend to be relatively rich. Many small businesses are organized as corporations. Furthermore, the members of unions with good pension plans own the stocks of large companies. By taxing income progressively, law distinguishes more precisely between rich and poor than by taking the indirect approach of targeting “consumers” and “investors.”

Second, the distributive effects of reshuffling private rights are hard to predict. To illustrate, the courts cannot be confident that holding a corporation liable to its consumers will reduce the wealth of its stockholders. Perhaps the corporation will pass on its higher costs to consumers in the form of higher prices, in which case the court’s holding will redistribute costs from some consumers to other consumers.

Third, the transaction costs of redistribution through private legal rights are typically high. To illustrate, a plaintiff’s attorney working on a contingency fee in the United States routinely charges one-third of the judgment. If the defendant’s attorney collects a similar amount in hourly fees, then attorneys for the two sides will absorb two-thirds of the stakes in dispute. The tax-and-transfer system is more efficient.

Besides these three reasons, there is a fourth: Redistribution by private law distorts the economy more than progressive taxation does. In general, relying on broad-based taxes, rather than narrowly focused laws, reduces the distorting effects of redistributive policies. For example, assume that a law to benefit consumers of tomatoes causes a decline in the return enjoyed by investors in tomato farms. Investors will respond by withdrawing funds from tomato farms and investing in other businesses. Consequently, the supply of tomatoes will be too small and consumers will pay too high a price for them. This law distorts the market for tomatoes.

For these reasons and more, economists who favor redistribution and economists who oppose it can agree that private legal rights are usually the wrong way to pursue distributive justice. Unfortunately, lawyers without training in economics seldom appreciate these facts.

We have presented several reasons against basing private law on redistributive goals. Specifically, we discussed imprecise targeting, unpredictable consequences, high transaction costs, and distortions in incentives. For these reasons, the general principles of private law cannot rest on income redistribution. (In special circumstances, however, a private law can redistribute relatively efficiently, such as a well-designed law giving crippled people the right to sue employers for not providing wheelchair access to the workplace.)

¹¹ Courts might *always* find in favor of the individual consumer when he or she sues a corporation regarding liability for harms arising in the use of the corporation’s products.

**Web Note 1.1**

Besides efficiency, what other policy values should matter to making law and applying it? In *Fairness Versus Welfare* (2002), Louis Kaplow and Steven Shavell of the Harvard Law School say “None.” Others disagree. See Chris Sanchirico, *Deconstructing the New Efficiency Rationale*, 86 *CORNELL L. REV.* 1005 (2001), and Daniel Farber, *What (If Anything) Can Economics Say About Equity?*, 101 *MICH. L. REV.* 1791 (2003).

There is a more complete discussion of this literature under Chapter 1 at the website for this book and links to additional sites of interest.

IV. Why Should Lawyers Study Economics? Why Should Economists Study Law?

The economic analysis of law unites two great fields and facilitates understanding each of them. You probably think of laws as promoting justice; indeed, many people can think in no other way. Economics conceives of laws as incentives for changing behavior (implicit prices) and as instruments for policy objectives (efficiency and distribution). However, economic analysis often takes for granted such legal institutions as property and contract, which dramatically affect the economy. Thus, differences in laws cause capital markets to be organized differently in Japan, Germany, and the United States. Failures in financial laws and contracting contributed to the banking collapse of 2008 in the United States and the subsequent recession, which was less severe in Japan and Germany. Also, the absence of secure property and reliable contracts paralyzes the economies of some poor nations. Improving the effectiveness of law in poor countries is important to their economic development. Law needs economics to understand its behavioral consequences, and economics needs law to understand the underpinnings of markets.

Economists and lawyers can also learn techniques from each other. From economists, lawyers can learn quantitative reasoning for making theories and doing empirical research. From lawyers, economists can learn to persuade ordinary people—an art



Stern Warning for Students

If you are like most students who read this book—scholars of the highest moral caliber—you need not upset yourself by reading the rest of this paragraph. If you are one of those wicked students—we get a few every year—here is a stern warning for you. According to traditional Chinese beliefs, sinners are tried and punished in ten courts of hell after they die. The sixth court tries the sin of “abusing books,” punishable by being sawn in half from head to toe. The eighth court tries the sin of “cheating on exams,” punishable by being cut open and having your intestines ripped out. So don’t you dare abuse this book or cheat on the exams!

that lawyers continually practice and refine. Lawyers can describe facts and give them names with moral resonance, whereas economists are obtuse to language too often. If economists will listen to what the law has to teach them, they will find their models being drawn closer to what people really care about.

V. The Plan of This Book

To benefit from each other, lawyers must learn some economics and economists must learn some law. Readers can do so in the next two chapters. Chapter 2 briefly reviews microeconomic theory. If you are familiar with that theory, then you can read the material quickly as a review or skim the headings for unfamiliar topics. As a check, you might try the problems at the end of Chapter 2.

Chapter 3 is an introduction to the law and the legal process, which is essential reading for those without legal training. We explain how the legal system works, how the U.S. legal system differs from the rest of the world, and what counts as “law.”

Chapter 4 begins the substantive treatment of the law from an economic viewpoint. The chapters on substantive legal issues are arranged in pairs. Chapters 4 and 5 focus on property law; Chapters 6 and 7, on tort law; Chapters 8 and 9, on contract law; Chapters 10 and 11, on resolving legal disputes; and 12 and 13, on criminal law. The first chapter of each pair explains the basic economic analysis of that area of law, and the second chapter applies the core economic theory to a series of topics. So, Chapter 6 develops an economic theory of tort liability, and Chapter 7 applies it to automobile accidents, medical practice, and defective products. Chapters 4 through 11 deal with laws where the typical plaintiff in a suit is a private person (“private law”), and Chapters 12 and 13 deal with criminal law where the plaintiff is the public prosecutor (“public law”).

Suggested Readings

At the end of every chapter we shall list some of the most important writings on the subject. Please check the website for this book (www.cooter-ulen.com) for additional resources.

BOUCKAERT, BOUDEWIJN, & GERRIT DE GEEST, EDs., *ENCYCLOPEDIA OF LAW AND ECONOMICS* (rev. ed., 2011).

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