

The Economic Analysis of Law: The Dominant Methodology for Legal Research?!

Eli M. Salzberger*

The Economic Analysis of Law will soon celebrate half a century. In recent decades it has been emerging as the dominant theoretical paradigm and scientific methodology for legal academia, and it is gradually capturing various segments of legal practice as well. Law and Economics was also acknowledged recently as a sub-field of the science of economics and some argue that law has become one of the most important areas of applied economics. Although for three decades Law and Economics prospered mainly in North America, recently it has rapidly proliferated also in Europe and elsewhere.

This short essay focuses not on the content of Law and Economics but on its context. It places Law and Economics within a grand map of legal theories, adopting Thomas Kuhn's theory of the evolution of science, and it offers a very broad definition of Law and Economics vis-à-vis the methodology of legal research, rather than its subject matter. Next the paper points to several shortcomings of most contemporary Law and Economics literature, and to the need for changes in other areas to adapt Law and Economics to the 21st century. Two major points are emphasized: the role of technology in the L&E methodology and globalization as an important factor in the positive and normative analysis of law.

* Dean and Professor of Law, Faculty of Law, University of Haifa.

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The Economic Analysis of Law, or the Law and Economics movement, will soon celebrate half a century. In recent decades it has been emerging as the dominant theoretical paradigm and scientific methodology for legal academia,¹ and it is gradually capturing various segments of policy and law making by legislatures and courts, and of the legal practice as well.² Law and Economics was also acknowledged lately as a sub-field of the science of economics with the decision by the *Journal of Economic Literature* in 1993 to classify it as an official field of economics, and some argue that law has become one of the most important areas of applied economics.³

1. The economic Analysis of Law was crowned as “widely considered the most important development in legal thought in the last fifty years” by William M. Landes, “The Empirical Side of Law & Economics”, 70 *U. Chi. L. Rev.* (2003) 167. A good indication of this dominance is the increasing number of academic journals dedicated to Law and Economics. In the USA alone, in addition to the traditional *Journal of Law and Economics* and *Journal of Legal Studies*, at least two new journals dedicated to this field have been launched in the last decade: the *American Law and Economics Review* in 1999 and the *Review of Law and Economics* in 2005. For a comprehensive bibliography see *Encyclopedia of Law and Economics*.
2. Robert Cooter and Thomas Ulen, *Law & Economics* (2003) p. 3, write: “The impact of the “law and economics” movement on legal scholarship and legal policy analysis has been astonishing. Yale Law Professor Bruce Ackerman has referred to it as “the most important development in legal scholarship of the twentieth century.” In 1984 the *Harvard Law Review* dedicated its famous Foreword to Law and Economics and the courts. See: Frank H. Easterbrook, “The Supreme Court, 1983 Term-Foreword: The Court and the Economics System”, 98 *Harv. L. Rev.* (1984) 4. For a non-USA context see also Bingyuan Hsiung, “Economic Analysis of Law: An Inquiry of its Underlying Logic”, 2 *ELER* (2006) 1, p.1, holding that “The thriving field of law and economics is a success story of interdisciplinary research, as can be seen from several different angles”.
3. See: *Law And Economics* (Richard A. Posner and Francesco Parisi – eds., 1997) p. ix, arguing that “Law and economics is probably the most successful example of the recent

Although for three decades Law and Economics prospered mainly in North America, in recent decades it has rapidly expanded also in Europe and elsewhere.⁴

For most students of law the Economic Analysis of Law needs no introduction (a fact which itself may indicate the dominance of Law and Economics).⁵ This short essay, therefore, focuses not on the content of Law and Economics but on its context. Section 1 will locate Law and Economics within a grand map of legal theories, adopting Thomas Kuhn's theory of the evolution of science. Section 2 will offer a very broad definition of Law and Economics, which also corresponds to the rationale of this volume: examining various contemporary research methods in legal research. Section 3 will point to several shortcomings in most contemporary Law and Economics literature, and to the need for changes in other areas to adapt Law and Economics to the 21st century. Section 4 will conclude.

1. The Historical Roots of Law and Economics

Legal research and the methodology employed to analyze and evaluate the law are conducted within paradigmatic thinking. The term "paradigm shift" was coined by Thomas Kuhn when he put forward a theory about the development of the natural sciences.⁶ Kuhn disputed the modernistic description of Frances Bacon, who presented scientific inquiry as one of constant and cumulative progress, like a building, which is constructed stone after stone. Kuhn argued that science develops in leaps. Regular scientific research is conducted within a set of boundaries based on presuppositions left unquestioned by the contemporary scientific community. These boundaries were dubbed by Kuhn a paradigm. Scientists in their research (and in their research agenda) are trying to complete a jigsaw puzzle, where the framework of the puzzle is pre-determined by the paradigm. However, in the course of scientific research it turns out that not all pieces fit their spots, and some pieces tend to cross the set boundaries. Scientists try to force the pieces into the spaces they think are meant for them. But at

surge of applied economics into areas that once were regarded as extraneous to economic analysis."

4. For example, The European Association of Law and Economics (EALE) is soon to convene its 25th annual conference; the program of the "European Master in Law & Economics" (EMLE) has 11 partner European universities; associations of Law and Economics were established in South America and Asia; this coming summer the First Australian Conference in Law and Economics is to take place.
5. Those who need such an introduction can refer to the two most important textbooks: Richard A. Posner, *Economic Analysis of Law* (2002), and Cooter and Ulen (supra note 2).
6. Thomas S. Kuhn, *The Structure of Scientific Revolutions* (1962).

one focal point the framework collapses. Doubts bring about rethinking of the pre-set presuppositions. The paradigm shifts; a new paradigm is constructed, which sets new presuppositions and a new research agenda. Regular scientific research continues within the new paradigm, until that too is ripe for replacement.

Kuhn's analysis can be applied to our thinking about the law and the methodology of legal research. One qualification might be in place: in the social sciences and the law different paradigms can coexist in parallel. However, one could argue that this is the case also with regard to the natural sciences, so no real difference vis-à-vis the development of knowledge exists between the different spheres of human inquiry. Be that as it may, Law and Economics is the current dominant paradigm for legal research.⁷ This statement reflects not only the increasing share of Law and Economics papers in law journals and other journals, but also the fact the Law and Economic jargon and thinking are present in many other law articles and books, which are not strictly Law and Economics works.⁸ The economic analysis of law also affects legal researchers who do not belong the Law and Economics crowd, and it infiltrates judicial decision-making and policy makers' modes of thinking and reasoning too.

Natural Law dominated legal thinking until the paradigm shift of the 18th century Enlightenment. Natural Law identified the question what law is with the question what law ought to be; identified positive analysis of law with normative analysis of law. It portrayed law as deriving from morality, either in religious form – the source of law is God, à la Thomas Aquinas, or in secular form – the source of law is human nature, à la Emanuel Kant. Legal Positivism, which emerged in the 18th century, separated the two levels of analysis – the law is not necessarily what we desire it to be, and attempted to create a science of positive law. Legal Positivism became the dominant paradigm in the context of broader changes – a meta-paradigmatic shift – and coincided with the emergence of an alternative moral theory, Utilitarianism, and with the emergence of the social sciences, among them the science of economics.

7. Oren Gazal-Ayal's argument that an important impetus for Law and Economics was the significant amount of funds offered to research in the field, for example, by the Olin Foundation, can be presented as falling in line with Kuhn's analysis of the development of science. However, it was not the funding that has brought about the dominance of Law and Economics, but the reverse: research funding reflects the dominant paradigm of the day. See: Oren Gazal-Ayal, "Economic Analysis of Law in North America, Europe and Israel" 3 *The Review of Law and Economics* (2007) 485; Oren Gazal-Ayal, "Remarks on the Past and Future of Economic Analysis", *Mechkarei Mishpat* (forthcoming in Hebrew).
8. See, for example, William M. Landes and Richard A. Posner, "The Influence of Economics on Law: A Quantitative Study", 36 *J.L. and Econ.* (1993) 385, p. 398. The authors find that the number of citations of Law and Economics papers in law journals rose from 283 in 1976-1980 to 2227 in 1986-1990.

Legal positivism claimed that the law is a pure concept, separate from morality and political philosophy, and it developed an independent methodology and doctrines to analyze law and legal institutions. Thus, for example, explanation and evaluation of the Common Law under the hegemony of Natural Law was distinctly different from the description and analysis of Common Law in the framework of legal positivism (which is yet distinct from the way Common Law is portrayed and evaluated by Law and Economics). During the 19th century the formalist approach to law, which was based on Legal Positivism, prospered. It portrayed the law as a set of coherent rules, which are clear-cut, predictable or foreseeable, and readily available. Facts were perceived as something that can be verified objectively. The legal process, therefore, was portrayed as a routine application of the law to a set of facts, and therefore, save in cases of bad judges, every reasonable judge could derive from this process the “correct” decision. Law was perceived as a closed science, and legal research was conducted in the framework of “pure” legal doctrines. The approach to law and legal research became dogmatic, and normative analysis of law was expelled from law schools.

The American Legal Realism of the mid-20th century (alongside the Scandinavian Legal Realism) tried to show that this ideal picture of law is spurious, that courts decisions are not a mechanistic application of legislation, that the law and legal rulings are influenced by the identity, ideology and politics of those who administer them – legislatures, politicians and judges. Legal Realism coincided with a crisis of legal positivism across the Atlantic brought about in the aftermath of the World War II. The Realists advocated a much more pragmatic approach to the law. But with this grand insight the Realists stopped. They pointed to the gap between the ideal formalist description of law and the reality, without a systematic attempt to explain the sources of this gap. One of the important footprints of Legal Realism was a call to the social sciences to come to the aid of legal scholars in order to study the law and legal institutions. The Critical Legal Studies (CLS) and the Law and Society movements emerged in the last quarter of the 20th century to fill the Realist chasm and explain the source of the gaps between the ideal description of the law and legal realities. One of their main insights portrays the law as a tool of dominant groups for control of other groups in society and as a tool of Western Liberalism to maintain its ideological, economic and political hegemony.

The Law and Economics movement is another offspring of Legal Realism. Indeed, it can be seen as a direct response to the Realists’ calls for help of the social sciences in analyzing the law and legal institutions. It emerged as a parallel response to the Realist challenge and is perceived, at least in the American academic context, as a rival response to the CLS. While the CLS challenges the Liberal foundations of law, the Law and Economics movement operates within these foundations. While the CLS is associated with the political left, Law and Economics is associated with the political right. In many American Law Schools these two movements became a source for

academic and political rivalry. As will be elaborated later, I do not share this political categorization. Law and Economics as a methodology is not necessarily a right-wing movement and I believe that there are many common insights of the two movements, certainly when compared to traditional “black letter” doctrine and formalist legal thinking. It is true, though, that in the American context Law and Economics was captured by the political right, a point of criticism on which I will elaborate below.

Be that as it may, the nature of the relationship between these two offspring of Legal Realism is less relevant today, because in recent years we have witnessed a significant decline of CLS, along with further expansion of Law and Economics, in both the subject areas it addresses and the methodological tools it employs. While in the past the association of Law and Economics with the political right and Capitalist or Libertarian economic thinking, which favors free markets and is against central intervention, might have been convincing, today the Law and Economic world is much more diverse. European input into this movement, Institutional Law and Economics, Behavioral Law and Economics and other sub-fields, broaden this paradigm and foster much more diversity in terms of ideologies and public policies.

While Critical Legal Studies and also Legal Realism have not become transformed into a dominant paradigm in legal research, one can talk today about Law and Economics as a dominant paradigm in the study and analysis of law, and it is becoming less and less associated solely with a specific political or ideological agenda. Whether the directions of the contemporary developments of Law and Economics can still be regarded as within the same paradigm, or whether we are witnessing a paradigmatic shift, will remain an open question here,⁹ but an answer to this question calls for a definition of Law and Economics, which leads us to the next section.

2. What is Economic Analysis of Law?

Most students of law are familiar with various Law and Economics theorems, arguments and insight, such as the Coase theorem, efficient breach, rent seeking, etc., but will be hard pressed to define Law and Economics and draw its boundaries. The same, in fact, applies to definition of Economics. To understand what Law and Economics is all about it is important first to define the science of economics. I think that this definition itself has been influenced by the Law and Economics movement.

2.1. What is Economics?

When “economics” is mentioned our intuitive thoughts turn to markets, prices, demand, supply, inflation, unemployment, etc. In fact, the 18th century founder

9. See: Uriel Procaccia, “On the Spiritual in Law”, 3 *Haifa Law Review* (2007) 127 (in Hebrew).

of the science of economics, Adam Smith, dealt with much broader issues. His analysis of the economic world was intertwined with insights into politics and culture, political theory and moral philosophy. Only subsequently did economists – first the Classical theorists and then the Neo-classicists – narrow down their interests and focus only on pure economic markets. This was partly the result of the development of more rigorous methodology and graphic models, especially by the Neo-classicists in the 19th century, with the addition of advanced mathematics in the 20th century.

However, in recent decades we have witnessed the re-broadening of economics to encompass analyses of areas outside the traditional economic markets. Politics, international relations and other types of collective decision-making are some of these new frontiers. This imperialism of economics has also reached the law – with the Law and Economics movement. In this sense, Law and Economics has an interesting common feature with Critical Legal Studies. This rival movement can also be seen as part of a broader context of the Deconstruction and Post-modern paradigms originating in the Humanities. Law and Economics and CLS are fresh attempts to return to a grand theory, abolishing the 19th century emergence of the social sciences, their division into sub-fields, each with its distinct object of research and scientific methodology, and the general division between the social sciences, the humanities, and even the exact sciences.¹⁰ Law is one of the fields in which these two grand theories collide.

The expansive course of economics can be demonstrated by its changing definitions by key economics scholars. The famous Neo-classical economist, Alfred Marshall, who invented the demand and supply curves, defined economics as “A study of man’s action in the ordinary business of life; it inquires how he gets his income and how he uses it”.¹¹ George Stigler, a contemporary economist, defined it as “Study of the operation of economic organizations, and economic organizations are social (and rarely individual) arrangements to deal with the production and distribution of economic goods and services”.¹²

These two definitions are narrow and focus on the traditional economic market. But already in 1932 economics was defined more broadly by the Lionel Robbins as “the science which studies human behavior as the relationship between ends and scarce means which have alternative uses”.¹³ This definition broadened economics to deal with every human or social choice in conditions of scarcity; and indeed, in recent years we have come to view as part of economics such fields as game theory and public and social choice, which do not necessarily focus only on human behavior

10. *The Return of Grand Theory in Human Sciences* (Quentin Skinner – ed., 1985).

11. Alfred Marshall, *Principles of Economics* (1890).

12. George J. Stigler, *The Theory of Price* (1952) p.1.

13. Lionel C. Robbins, *Essay on the Nature and Significance of Economic Science* (1932) p. 15.

in traditional economic markets. According to Robbins, every human activity has an economic aspect.¹⁴ But maybe even Robbins' definition is not wide enough to cover all that is being done today under the roof of economics. In a sense, Law and Economics believes not only that every human activity has an economic aspects, but that the economic aspects (broadly defined) can be presented as the sole or exclusive aspects of human activity.

A possibly broader and more accurate modern definition of economics focuses not on the subject matter of economics but on its scientific methodology.¹⁵ According to this suggested definition economics studies human behavior in a set situation by (1) transforming the complex reality to simplified reality, using simplifying assumptions, (2) operating a rigorous (mathematical or graphic) model on this simplified reality, (3) deriving conclusions as to the model's variables and the causal connections between them, and (4) transforming these "laboratory" results into statements and policies concerning the real world.¹⁶

The soft points of this methodology are the first and last stages – the assumptions stage and the real-world policy conclusions. One of the major points of criticism against the economic approach in general, and against the economic approach to law in particular, is that the economic models never faithfully represent reality. This criticism is not justified because the economic models do not pretend to represent reality as it is. One has to remember that even the most basic and simple model of a first-year Micro-Economics course – studying the connections of price, supply and demand of a simple product – is based on simplifying assumptions such as set tastes, set prices of other products, etc. That said, the question (on which I will elaborate later) remains as to whether the canonic models of the Economic Analysis of Law focus on the important aspects of human behavior vis-à-vis the law,¹⁷ or whether the choice of the simplifying assumptions by Law and Economics mainstream literature are neutral or biased.

14. *Id.*, p.16

15. In this direction see also Ronald Coase, citing John Maynard Keynes: "Theory of economics ... is a method rather than a doctrine, an apparatus of the mind, a technique of thinking which helps its possessor to draw correct conclusions" in: Ronald Coase, "The New Institutional Economics", 88 *Am. Econ. Rev.* (1998) 72, p.72 (papers and proceedings of the hundred and tenth annual meeting of the American economic association).

16. See also: Robert D. Cooter, "Law and the Imperialism of Economics: An Introduction to the Economic Analysis of Law and a Review of the Major Books", 29 *UCLA L. Rev.* (1982) 1260, p.1265, who writes: "Ideally, the economic approach proceeds by constructing a mathematical model, dedicating testable hypothesis from it, and conducting the tests. Thus the economic approach carries prefabricated hypothesis to the data, whereas the traditional methods builds directly from the cases."

17. Edward P. Lazear, "Economic Imperialism", 115 *Quart. J. Econ.* (2000) 99.

The advantage of economic models dealing with traditional economic markets is that their underlying assumptions are less controversial or are more faithful to reality, as it is transformed to the model. One of the key assumptions that characterize most economic models is rational behavior. *Homo economicus* behaves rationally when his decisions are geared to maximize his welfare (or utility or wellbeing). He has a set order of preferences, and he makes his choices on the basis of information. The rationality and self-maximization assumptions are less controversial when we analyze activity within the pure economic market, for example, individual decision-making with regard to methods of investing his money or whether to purchase a certain product or service. When we operate in the stock market we usually aim to make more money. Rationality is thus transgressed to maximization of wealth. But when we leave the core economic sphere this assumption, or at least its application to particular modes of decisions, becomes more controversial. How can we translate rational behavior in the context of a decision whether to get married, to enlarge one's family, to adopt a child, to commit a crime, to vote in the elections, etc. Unlike the stock market example, here we will not necessarily assume that wellbeing or utility maximization equals wealth maximization, although we can still assume that the decision maker acts to satisfy his or her order of preferences.

It ought to be noted that according to the broad definition of economics the rationality assumption is not an integral and indispensable part of economic analysis. It still dominates the work done in this field, but the new sub-branch of economics – behavioral economics – focuses on relaxing the pure, or narrow, rationality assumption, and in theory economic models can offer analyses based on the assumption that individuals are not rational or are only partly rational, or that their operation is motivated by deontological moral perceptions.¹⁸

What are the advantages of the economic methodology? One main advantage is that it is scientifically evolutionary: a simple model based on far reaching simplifying assumptions can be constructed, and gradually developed by relaxation or complication of some of these assumptions. After constructing a simple model of supply and demand and market equilibrium, we can further enrich our insights by examining what happens if full information is lacking, if uncertainty is present, if the decision-making itself is costly, etc. In this sense the Chicago school of the Law and Economics movement, which uses the basic microeconomics market model and applies it to law, can be perceived as first generation, while neo-institutional analysis or behavioral law and economics can be perceived as second or third generation.

18. For a concise overview of concept of rationality and rational behavior see: Amartya Sen, "Rational Behaviour", *The New Palgrave Dictionary of Economics* (John Eatwell, Murray Milgate and Peter Newman – eds., 1995).

Another advantage of economic thinking is that such a methodology provides us with a common language for discussion, and the debates on the subject matter of the analysis can focus on the model and its mathematical validity, on the policy conclusions from the model regarding the real world, and indeed on the simplifying assumptions. As a result from this debate we can improve the assumptions or the mathematical modeling or the policy conclusions regarding the real world.¹⁹ Other scientific approaches used in legal discourse and research also have a common language, but the terms of the economic science are much more precise and agreed. Thus, wealth, or transitivity, or rent or monopolistic and competitive price have a broader common understanding, even among non-economists, than reasonableness, or good faith (*vis-à-vis* black letter or doctrinal analysis), or hegemony, or socialization (*vis-à-vis* sociological discourse).

Yet a further advantage of the economic methodology when applied to legal questions is that it easily crosses geographical borders and different legal systems and cultures. When using doctrinal analysis the scholar is usually bound to her legal system of legal family, while an economic analysis is more detached from the local specifics and thus facilitates an easier import and export of ideas and a real global discussion of various legal issues. This advantage itself is an explanatory factor for the success of Law and Economics, as it makes it easier for scholars to publish internationally, for example, for non-American scholars to publish in the USA.²⁰ Economics, therefore, offers us not only a better tool for deliberation (we can agree on the exact points we disagree on), it is also an evolutionary study: the models can be constantly improved and made more sophisticated. This methodology, however, creates specific problems when applied to legal research, on which I will elaborate in section 3.

2.2. Economic Analysis of Law

The intersection between law and economics is not a new phenomenon. Certain legal fields are meant to regulate the activities in the traditional economic markets. The laws and legal concepts in those fields are derived from traditional economic analysis of markets, their special characteristics and failures. The "old" Law and Economics focuses on these fields. Corporation law, anti-trust or competition law and tax law are examples of the relevant legal branches within this realm, and the economic considerations here are only natural and are accommodated within the traditional market analysis of economics. The "new" Law and Economics is an approach, which

19. See also: Cooter (*supra* note 16).

20. Oren Gazal-Ayal mentions this factor as one of the reasons for the Law and Economics success, connected also to the easier path of Law and Economics scholars to obtain research grants, which according to Gazal-Ayal is a prime motivation for scholars to specialize in the field. See: Gazal-Ayal (*supra* note 7).

does not focus only on legal analysis of the economic world, but also on the economic analysis of the legal world. It is not limited to the branches of the law dealing with economic issues but views the whole legal system – private law as well as public law, substantive law as well as procedural law, and also legal institutions – as targets for economic analysis.²¹

The roots of the new Law and Economics can be found in the 18th century with the writings of Smith,²² Beccaria,²³ Condorcet,²⁴ and Bentham.²⁵ In our times it emerged as a significant branch in legal theory only in the 1960s, with a famous article by Ronald Coase, Nobel laureate for economics: “The problem of social cost”,²⁶ Worth mentioning as pioneering works are also the writings of Calabresi on the law of torts²⁷ and Demsetz and Alchian on property law.²⁸ These works coincided with the publication of two important journals, *The Journal of Law and Economics* and *The Journal of Legal Studies*. But the important impetus of the movement came in the 1970s with the popular book by Richard Posner, *The Economic Analysis of Law*.²⁹

The (modern) economic approach to law extends the traditional economic models, designed to analyze traditional markets, and applies them to non-economic markets, such as the market of crimes, the market of conflict resolution, the market of innovation, etc. It also emphasizes the role of law and legal institutions in economic and non-economic markets. In performing these tasks the economic analysis of law has also shifted traditional economic analysis to put more weight on normative analysis, pointing to the desirable legal rules and institutions to achieve certain goals (such as efficiency), a phenomenon on which I will elaborate below.

21. Cento G. Veljanovski, *The New Law-and-Economics* (1982).
22. Adam Smith, *An Inquiry into the Nature And Causes of the Wealth of Nations* (1776).
23. Cesar Beccaria, *On Crimes and Punishment* (Henry Paolucci and Bobbs Merrill – trans., 1963).
24. Marquis de Condorcet, *Essai sur l'application de l'analyse a la probabilitè des decisions rendues a la pluralite des voix (Essay on the Application of Analysis to the Probability of Majority Decisions)* (1972) (originally published in 1785).
25. Jeremy Bentham, *An Introduction to the Principles of Morals and Legislation* (James H. Burns and Herbert L.A. Hart – eds., 1970).
26. Ronald H. Coase, “The Problem of Social Cost”, 3 *J.L. and Econ.* (1960) 1.
27. Guido Calabresi, “Some Thoughts on Risk Distribution and the Law of Torts”, 70 *Yale L. J.* (1961) 499; Guido Calabresi, *The Cost of Accidents: A Legal and Economic Analysis* (1970) (hereinafter: Calabresi, *The Cost of Accidents*); Guido Calabresi, “Concerning Cause and the Law of Torts: An Essay for Harry Kalven”, 43 *U. Chi. L. Rev.* (1975) 69.
28. Armen A. Alchian and Harold Demsetz, “Production, Information Costs, and Economic Organization”, 62 *Am. Econ. Rev.* (1972) 777.
29. Richard A. Posner, *The Economic Analysis of Law* (1972).

Like the definition of economics, the definition of the economic approach towards law is not agreed. The diversity of the definitions reflects an ideological stance, among other factors. As with regard to the definition of the science of economics, I prefer the broad methodological definition, according to which the Law and Economics movement is a specific way to deal with legal questions, one that emphasizes a particular methodology.

The Law and Economics movement is engaged in two different projects: normative analysis and positive analysis, and some scholars add a third mode of descriptive work. Descriptive law and economics is an attempt to describe legal rules, judicial decisions or legal institutions using the language of economics. The emphasis here is on description rather than prediction or prescription. One of the examples of a body of literature on this level of analysis is the attempt to describe the Common Law as an efficient set of rules or as market equilibrium.³⁰

Positive economics is the major branch of economics, which seeks with the assistance of mathematical models and empirical tools to provide us with explanations of the causal connections between various variables, as well as predictions as to the effect of changes in one variable on others. The classic example for this kind of work is the microeconomics core supply and demand model. It shows the connections between price and supply on the one hand, and price and demand on the other. The model predicts that with the rise in price, demand will decrease while supply will increase. These relations are examined when other sets of variables are fixed. These theoretical causal connections can be tested empirically by means of another branch of economics, namely econometrics, and its major tool, multiple-regression.

In the realm of law what Law and Economics scholars are mainly interested at, on the level of positive analysis, is the effect of different legal rules on various phenomena which the law is set to deal with, as well as the effect different institutional factors on legal and judicial decision-making. For example, positive economic analysis of law can deal with the influence of different methods of punishment and enforcement on the level of crime,³¹ or the influence of alternative liability rules on the rate of accidents,³² or the influence of various intellectual property laws on the level of innovation,³³ or

30. See, for example: Paul H. Rubin, "Why is the Common Law Efficient", 6 *J. Legal Stud.* (1977) 51.

31. Among the pioneering works are: Gary S. Becker, "Crime and Punishment: An Economic Approach", 76 *J. Polit. Econ.* (1968) 169; Isaac Ehrlich, "The Deterrence Effect of Criminal Law Enforcement", 1 *J. Legal Stud.* (1972) 259.

32. Calabresi, *The Costs of Accidents* (supra note 27).

33. Niva Elkin-Koren and Eli Salzberger, *Economic Analysis of Intellectual Property* (forthcoming).

the influence of different procedures of judicial appointments on the degree of judicial independence and on the outcome of judicial decision-making.³⁴

Normative economic analysis is applied to rank alternative solutions, or to tell us what the desirable legal or institutional arrangements are. In other words, normative analysis tells us not what the legal rule is, or why it exists or what its effects are, but whether it is a good rule and what the desirable legal or constitutional arrangement or judicial outcome is. This branch of analysis is significant because it can help us to evaluate various legal rules and judicial decisions. In the examples we mentioned of criminal law, torts, IP laws and constitutional law positive analysis can provide us with insights about the correlations between various variables – the effect of different rules on actual behavior and social outcomes. Normative analysis, on the basis of this positive analysis, will point to the best rule. If criminal law aims only to minimize the level of crime (or the costs of crime, which include costs accruing from criminal activities and the costs of crime prevention and law enforcement), then on the basis of positive analysis we can detect the best punishment guidelines, as well as the substantive principles of criminal law. If the only aim in regulating liability for road accidents is the minimization of social costs, positive analysis can tell us that the desirable rule is strict liability rather than negligence. Similarly, if the goal of IP laws is to maximize social welfare, on the basis of positive analysis we can prescribe the optimal legal rules: creating property rights for limited periods.

To perform a normative analysis one has to define a normative objective, the source of which is outside the scope of the science of economics. In this sense, and in the framework of our broad definition of “economics”, the normative goal can be considered as one of the simplifying assumptions within the economic methodology. The leading normative goal of most economic analysis literature is efficiency. However, several competing definitions of efficiency exist: maximization of utility, maximization of wealth, Pareto optimality;³⁵ competing views also exist about the goal of efficiency: if it is the primary normative goal, as advocated by Posner,³⁶ or if it is second-best to utility maximization, unattainable due to measurement problems, as advocated by Welfare Economics. In addition, efficiency is not necessarily an exclusive normative goal. Any teleological principle, including distributional principles (e.g. Rawls’ theory of justice), can be set as the normative goal of economic analysis. A major part of constitutional law and economics relates to a different normative

34. Eli Salzberger, “A Positive Analysis of the Doctrine of Separation of Powers, or: Why Do We Have an Independent Judiciary”, 13 *Int’l Rev. L. and Econ.* (1993) 349.

35. For the definition of these criteria and the connection between them see: Jules L. Coleman, *Markets, Morals and the Law* (1988) c. 4.

36. Richard A. Posner, “Utilitarianism, Economics and Legal Theory”, 8 *J. Legal Stud.* (1979) 103.

goal (which coincides with one specific notion of efficiency), emerging from different historical roots – consensus or Pareto optimality, which evolves from the Social Contract theories of the state.³⁷ In principle, non-teleological normative principles can also serve as normative goals for normative economic analysis.

One can describe the Law and Economics movement as comprising three generations, which can be perceived as separate sub-paradigms of sorts: the traditional Chicago school, alongside the Yale school of Law and Economics; transaction cost economic analysis of law; and Neo-institutional law and economics.³⁸ I use the term “generation” because it reflects the chronological history of the movement and indeed its evolutionary nature. However, by this I certainly don’t mean to imply that the early generations are gone. The first generation – the Chicago school sub-paradigm – is very much alive. In fact, significant work in Law and Economics is being carried out in this framework. These sub-paradigms reflect a specific attitude towards the nature of the simplifying assumptions of each model, but also different normative goals, a fact sometimes overlooked.

The Chicago School takes the micro-economic model as the preferred and dominant theoretical framework for the analysis of all legal questions, including those that are not traditional market issues. The tools of micro-economic theory – the supply and demand curves – are applied to analyze the market of crimes or the market of rights or the market of innovation or the market of laws, just as they are applied to the market of apples. The Chicago framework does not distinguish rational individuals from other, more complex, market players such as firms, governments or agencies. The state, its structure and institutions are reduced through one of the simplifying assumptions to an individual decision-maker geared to maximize self-wealth. Furthermore, in the micro-economic model this “dogmatic” approach assumes that the players on both the demand side and the supply side are fully rational and motivated only by the quest to maximize personal wealth. It also assumes that everything can be transformed and measured by money units. Full information is assumed, as well as full knowledge of the legal rules that guide the players’ choices.

37. Coleman (supra note 35) c. 6.

38. For a slightly different description see: Francesco Parisi, “Positive, Normative and Functional Schools in Law and Economics”, 18 *Europ. J. Law Econ.* (2004) 259, pp.264-266. Who asserts that During its relatively short history, the Law and Economics movement has developed three distinct schools of thought. The first two schools of thought, often referred to as the Chicago or positive school and the Yale or normative school, developed almost concurrently. The functional school of law and economics, which developed subsequently, draws from public choice theory and the constitutional perspective of the Virginia school of economics to offer a third perspective which is neither fully positive nor fully normative.

Preferences are assumed to be exogenous to the analyzed market. The normative goal is assumed to be efficiency, in terms of wealth maximization, and any considerations of distributional justice are excluded. The result is a strong preference for markets and contracts and the rejection of regulation and government intervention. Only a few market failures are recognized – monopolies, public goods, externalities and information asymmetry, and these alone justify central intervention. This type of analysis associated the Law and Economic movement with the political right.

The Yale school (e.g. Calabresi), which developed in parallel to the Chicago school, uses more complex and less rigid assumptions. Thus individuals are assumed to be self-maximizers, yet their self-interest can include not only personal wealth but also other factors, such as others' wellbeing. More complex assumptions about the information and knowledge of legal rules are introduced. Likewise, on the supply side the firm or the government is perceived as a body of assets and individuals organized with certain structure and operated by agents. The supply curve is not assumed to represent only maximization of the firm's (or the supplier's) profits. On the normative side additional goals to efficiency are recognized, such as distributional justice, and the specific meaning of efficiency is more complex. These differences result in recognition of a much broader range of market failures and desirable intervention by the government. The law is perceived as strengthening the market, not as substituting it. The Chicago approach has the advantage of being simpler to model, operate and apply, and is often presented as an earlier evolutionary stage. However, such a presentation is misleading, mainly because of the normative differences between the approaches.

A transitional generation in the development of Law and Economics thinking is Transaction Cost Analysis. Its starting point is in fact an extension of the Chicago School's focus on the basic micro-economic model of markets; and it is a transitional sub-paradigm because this extension eventually gave rise to the third generation of Neo-institutional Law and Economics. The heart of Transaction Costs Analysis is the Coase theorem, which undermines the categorization of the traditional market failures, especially the analysis of the remedies to correct them. The Coase theorem predicts that in a world with no transaction costs legal rules do not matter because market transactions will bypass any inefficient legal arrangement. But since the real world does have transaction costs, Coase's analysis points at transaction costs as the focal factor to take on board when legal rules are considered.³⁹ The concept of transaction costs, which was used to analyze the interaction among individuals in the market, was broadened to include the analysis of the emergence of institutions, as substitutes for contracts, their internal decision-making process and their external interactions. For this purpose the methodological tools used for economic analysis were expanded, hence the shift to the third generation.

39. Posner (supra note 36).

The third generation of the economic analysis of law, which can be associated with the Neo-institutional sub-paradigm, is the broadest framework of Law and Economics insofar as it incorporates institutional structures as endogenous variables within the analysis of law.⁴⁰ Thus, Neo-institutional analysis views the political structure, the bureaucratic structure, the legal institutions, and other commercial and non-commercial entities as affecting each other. Political rules intertwine with economic rules, which intertwine with contracts.⁴¹ The tools used by the Neo-institutional law and economics are the traditional micro-economics or welfare economics models, alongside public choice, game theory, agency theory, institutional economics and Virginia Law and Economics.⁴²

In recent years Law and Economics has been looking in new directions. The traditional theories have been put to empirical tests,⁴³ and one of the results is the incorporation of studies and insights from the field of psychology and sociology regarding, among other factors, the rationality assumption,⁴⁴ behavior under risk,⁴⁵ path dependence in decision-making, the endowment effect,⁴⁶ and more. Fresh emphasis is placed to the role and function of social norms.⁴⁷ The recent emergence of Behavioral Law and economics, which focuses on the relaxation of the pure rationality assumption⁴⁸ and blends in empirical findings from the field of psychology, is bound

40. The emergence of this generation coincided with the foundation of a new journal in 1985, the *Journal of Law, Economics and Organization*.

41. One of the pioneers of this approach is Oliver Williamson. See, for example: Oliver Williamson, "Transaction Cost Economics Meets Posnerian Law and Economics", 149 *J. Inst. Theoretical Econ.* (1993) 99.

42. For a broad definition of Neo-institutional law and economics, which consists of the works of Coase, Williamson, Stigler, and Buchanan and Tullock, among others, see: Nicholas Mercuro and Steven G. Medema, *Economics and the Law: From Posner to Post-Modernism and Beyond* (2006) c. 5.

43. An Annual Conference on Empirical Legal Studies was launched last year.

44. One of the pioneering works is Herbert A. Simon, *Models of Man* (1957), but the great impetus to the field was the works of Daniel Kahneman (Nobel laureate in economics) and Amos Tversky.

45. E.g.: Daniel Kahneman and Amos Tversky, "Prospect Theory: An Analysis of Decision under Risk", 47 *Econometrica* (1979) 263.

46. Daniel Kahnman, Jack L. Knetsch and Richard H. Thaler, "Anomalies: The Endowment Effect, Loss Aversion and Status Que Bias", 5 *J. Econ. Pers.* (1991) 193.

47. See, for example: Robert Ellickson, *Order Without Law: How Neighbors Settle Disputes* (1991); Eric Posner, *Law and Social Norms* (2000).

48. For a foundational work see: Amartya Sen, *Choice, Welfare and Measurement* (1982).

to complicate economic analysis and push its policy recommendation still farther from those of the Chicago school. A fourth generation of Law and Economics is thus emerging.

3. Shortcomings and Challenges of the Economic Analysis of Law

Many points of criticism have been raised against the Law and Economics movement in general, and in particular against the Chicago school which is still its main sub-paradigm. In this short framework I cannot cover the wide range of critical literature so I focus on several new points, which relate mainly to the methodology of the whole project of Law and Economics, especially the challenges it faces in light of the changing world of the 21st century.

3.1 Overemphasis on Normative Analysis and the Internal Fallacy of Law and Economics

The methodology of the science of economics is positivist in nature. As explained above, the normative goal of economic analysis is exogenous to the methodology of economics. Indeed, most work in economics itself is on a positive level of analysis, aiming to provide improved bases for policy makers to make their choices according to their normative considerations. This was also the nature of the writings of one of the Law and Economics pioneers, Ronald Coase. Coase illuminated, in a revolutionary way, what the considerations for law-makers and judges in the field of private law should be, but did not point to one specific desirable legal arrangement or one specific normative goal (in this sense his 1960 article on the problem of social cost resembles his earlier article on the nature of the firm).⁴⁹ But lawyers attribute greater importance to normative analysis, which is the direct consequence of the nature of their occupation and discipline. When economics was imported into legal research by law professors, therefore, the emphasis was shifted to normative analysis, and the normative goal was presented as endogenous to economic analysis. This was the way in which Posner, for example, interpreted and applied the Coase theorem.⁵⁰

49. Ronald Coase, "The Nature of the Firm", 4 *Economica* (1937) 386.

50. Ronald Coase, "Coase on Posner on Coase", 149 *J. Inst. Theoretical Econ.* (1993) 196; Ronald Coase, "Law and Economics at Chicago", 36 *J.L. & Econ.* (1993) 239; Richard A. Posner, "The New Institutional Economics Meets Law and Economics", 149 *J. Inst. Theoretical Econ.* (1993) 73; Williamson (*supra* note 41). For more on the debate between Coase and Posner see: Antonio Nicita and Ugo Pagano, "Law and Economics in Retrospect", *New Institutional Economics: A Textbook* (Eric Brousseau and Jean-Michel Glachant – eds., 2005).

Within the varied normative criteria offered or employed by the economics methodology wealth maximization emerged as the dominant one in Law and Economics. There are at least two main reasons for this, internal and external. The internal explanation is that wealth maximization is the simplest normative criterion to work with or to model. In this sense, although in theory economics (as broadly defined above) is neutral vis-à-vis the normative goal of law, in practice it is biased towards a particular ideology as the result of its easier application. Adopting wealth maximization as the prime normative goal results in preference of markets over legal ordering, privatization rather than government intervention, and total wealth rather than distributional justice.

The external explanation is rooted in the political-ideological dominance of the Right, which coincided with the surge of Law and Economics in the 1980s. Wealth maximization was embraced by the Reagan and Thatcher regimes in the USA and the UK, and the influence of their socio-economic ideology left its significant mark on the post Reagan/Thatcher era. Thus, Labour (in the UK), the Democrats (in the US) and social democracy platforms worldwide have shifted to the right in the course of the last decades and have become very different from the ideologies of the pre-Regan/Thatcher political left and center. Wealth maximization has remained an important segment of politics and socio-economic policy. It was thus an easy path for Law and Economics scholars to adopt and entrench it.⁵¹ It is difficult to establish the exact nature of the causal relations between the ideological hegemony in the political world and the success of Law and Economics, particularly that of the Chicago school, but I believe that this causal connection is not one-sided (i.e. the influence of Law and Economics on politics) and at least it operates in both directions, as can be gathered from the appointment of two of the leading scholars of Law and Economics – Frank Easterbrook and Richard Posner – to senior judicial posts in the USA.

The founders of the Law and Economics movement had debated the normative goals and were aware of the critiques against wealth maximization, as well as of the fact that the normative goal is exogenous to the economic methodology.⁵² It seems

51. Ugo Mattei, "The Rise and Fall of Law and Economics: An Essay For Judge Guido Calabresi", *64 Md. L. Rev.* (2005) 220, p.225, asserting that: "The globalization of the economy and the global demise of the activist state, crucial to the neo-liberal project and commenced in the early 1980s by the so-called Reagan-Thatcher revolution, proved to be the ideal nurturing environment for the rise of law and economics as the most influential global mode of legal thought in the aftermath of the cold war." See also: Donald G. Gifford, "Symposium: Calabresi's The Costs of Accidents: A Generation of Impact on Law and Scholarship: Foreword", *64 Md. L. Rev.* (2005) 1, p. 8.

52. See, for example: the attitude of Posner and the criticism of Ronald Dworkin and Jules Coleman in the "Symposium: Efficiency as a Legal Concern", *8 Hofstra L. Rev.* (1980) 485.

that the younger generation of Law and Economics scholars, who were trained within the paradigm are much less aware of these normative debates and thus wealth maximization has become one of their pre-suppositions. The vast majority of Law and Economics writing today, using high degree of modeling and mathematical techniques, is grounded in the unquestioned assumption that the normative goal of their analyses is wealth maximization. If it is not the mathematics that makes this literature less accessible to the wider legal community, it is this presupposition that makes much of these writings hardly relevant for the legal world, and for the efficacy and contribution to legal research. It is noteworthy that the technological revolution of the last few decades and the rapid development of behavioral law and economics may yield improved abilities in the future to measure and compare utilities – the prime original normative goal of the science of economics, so the need to resort to wealth maximization for those who perceive it as second-best would be weakened.

The shift of emphasis from positive to normative analysis, with wealth maximization as the dominant collective normative goal, is connected to other implicit assumptions that characterize most of the new and sophisticated writings in Law and Economics: assumptions as to rational individuals' behavior and the rigid content of rationality, according to which individuals aspire only to maximize their personal wealth and that everything is convertible into money units. I will elaborate on these assumptions in the next section, but it is important to point out here that all these components produced an overlooked in-built fallacy of the Law and Economics approach with regard to the inner equilibrium between normative and positive analyses.

Many Law and Economics scholars are engaged in projects of normative and positive analyses alike. Normative analysis tries to tell us what the desirable legal or constitutional arrangement is. Positive analysis tries to explain why things are as they are or to describe legal phenomena in economic language. This distinction is crucial in Law and Economics, because positive and normative analyses are both founded on specific assumptions about human behavior; so what is the use of constructing a normative theory if the same underlying assumptions direct us to predict that the recommended solutions do not stand a chance of being selected?

In other words, an inbuilt incoherence of the Law and Economics project as a whole is that based on the rigid pre-suppositions of the paradigm, its positive analysis cannot predict the adoption of its normative recommendations. This generates a lack of inner equilibrium between normative and positive analysis. In this sense a major difference exists between free and fully competitive economic markets and the political markets. In the former, the conduct of individuals, each of whom is led by the self-interested goal of maximizing his or her preferences or utility, is expected to lead to efficient equilibrium, i.e. to utility maximization, creating equilibrium between positive and normative analyses. In the latter, self-interested conduct by politicians, bureaucrats and judges, which is the consequence of the very same pre-suppositions that are the bedrock

of the normative goals of mainstream Law and Economics, does not necessarily lead to such efficient or utility-maximizing collective choices. In other words, once central intervention is required as a result of a market failure, the economic analysis cannot predict that this intervention will lead to the desirable solutions.

This problem of lack of equilibrium between normative and positive analysis is less acute in the realm of traditional private law and, in Calabresi and Melamed's terminology, in the realm of second-order rules designed to protect allocation of entitlements.⁵³ Thus if normative analysis points to the desirable rule on the leading remedy for breach of contract, or on the leading remedy for harmful activity, or to the desirable rule on contingency fees, or to any other substantive or procedural rule, there is a fair chance that legislators, who do not have direct stakes in the selected solutions, or who are not under specific pressure to enact a certain arrangement by powerful interest groups, will vote for such an arrangement. Partly, this is the result of the high degree of generality of legislation, which cannot be perceived as acting in the benefit of certain and constant individuals or groups. Likewise, a whole body of literature attempted to show why the common law – norms derived from individual precedents of courts – is geared towards efficiency.⁵⁴ Given that efficiency is the leading normative goal, this literature points to equilibrium between normative and positive analyses.

Lack of equilibrium between normative and positive analyses is a much more acute problem in the realm of public law and in the important first-order rules on to whom to allocate entitlements. When politicians vote on rules that bind their future discretion, either through the establishment of other institutions to check and balance their output (structural rules of government – either constitutional or post-constitutional) or through constitutional or administrative substantive limitations on political power, or when they are asked to vote on allocation of entitlements, it will be difficult to present their choices as conforming with normative arguments regarding separation of powers, a bill of rights or efficiency. Assuming self-interested politicians, it is not straightforward to present the positive analysis of intellectual property laws, for example, as falling in with the normative argument, which is usually used by legal theorist to describe the concept.⁵⁵ The vast majority of Law and Economics writing ignores this internal fallacy, hence loses its relevance for the practical world.

53. Guido Calabresi and A. Douglas Melamed, "Property Rules, Liability Rules, and Inalienability: One View of the Cathedral", 85 *Harv. L. Rev.* (1972) 1089.

54. Rubin (*supra* note 30).

55. Elkin-Koren and Salzberger (*supra* note 33).

3.2 The Assumptions of Rationality and Exogenous Preferences

Just as wealth maximization has become an unquestioned component of the Law and Economics paradigm, the rigid assumptions of exogenous preferences and rational behavior are implicit in the majority of the specialized writings of Law and Economic scholars, so much so that they form part of the paradigmatic thinking. The latter usually boils down to assuming that human behavior is directed to maximizing self-wealth. Here too, the main reason for pre-assuming individual self-wealth maximizing behavior is the simplicity of modeling and applying advanced techniques of analysis, combined with the ideological belief in wealth maximization as the most desirable and prime collective goal. When wealth maximization is assumed to motivate individual conduct, the path to the collective goal of wealth maximization is straightforward (though not lacking logical and philosophical difficulties). Mainstream Law and Economics ignores the deficiencies of the shift from assuming self-maximization of utility to assuming self-maximization of wealth, for example, disregarding the decreasing marginal utility of wealth or the endowment effect.⁵⁶ The insistence of most scholars to continue the Chicago path in this realm too, therefore, makes their work of little value to the real world of law.

Likewise, the assumption of exogenous preferences, used by most Law and Economics writings, is reductionist and unrealistic, given that a number of our more important social institutions, including the law itself, are designed largely to alter preferences, not merely to structure their aggregation.⁵⁷ Ignoring this role of key social institutions such as the law, families, schools, religion and advertising, which operate largely independently of price signals and instill strong psychological aversion to stigmatized activities, decreases the attractiveness of the canonic Law and Economics literature.

Exogenous preferences are assumed by most Law and Economics writings not only because they are simpler to handle and model, but also because they are an essential component in advocating wealth maximization as the desirable normative goal. Once one expands economic models to include the possibility of preference changes resulting, among others things, from legal rules, and takes those preference changes into account in any overall normative assessment, justification for the use of the wealth maximization criterion weakens considerably. To apply the criterion, and once central intervention by the law is justified, one must first choose whether to measure

56. The decreasing marginal utility of wealth means that the utility generated from any additional unit of wealth is lower than the one from the previous unit so there is no strict correlation between wealth and happiness. For the endowment effect see: Kahneman and Tversky (supra note 45).

57. Kenneth G. Dau-Schmidt, "An Economic Analysis of the Criminal Law as a Preference-Shaping Policy", 1 *Duke L. J.* (1990) 1.

the willingness-to-pay consequences of a policy on the basis of the affected persons' pre-policy or post-policy preferences.⁵⁸ Recognizing that post-policy preferences might be different from pre-policy preferences undermines the coherence of wealth maximization as pointing to a strict recommendation as to the desirable rule or legal decision, and makes wealth maximization dependent on the order of decisions. This may be one of the reasons why so far the attempts to relax the exogenous-preferences assumption, as well as the rigid-rationality assumption, for example by behavioral scholars, still remain peripheral to the core and the quantity of contributions by the Law and Economics scholars.⁵⁹

Moreover, the technological revolution of recent decades might transform altogether the notion of the individual, who is the basic unit for economic analysis. Instead of individuals with a single identity, a specific address and distinct physical features, the atomistic unit of analysis in the emerging virtual economic and political markets is a username with a password and an electronic address. There is no strict correlation between the virtual individual and non-virtual individual, as the same physical individual can appear in the Internet as several entities, each with different identifying features and a different character, belonging to different communities. Likewise, several physical individuals can appear as one virtual entity. While conventional economic thinking, neo-institutional and behavioral law and economics included, perceives individual preferences as exogenous to the political process and to the economic markets, the new emerging world requires us to internalize not only the analysis of individual preferences but also the concept of the individual.⁶⁰

Conventional economic analysis assumes that our basic identity, which can be framed in terms of various sets of preferences, is the result of distinct historical, cultural, linguistic and even climatic backgrounds. Those background factors are pre-given and predate any formation of markets and collective action organizations, such as states or other political units. The definitions of state boundaries, however, are greatly influenced by these ancient groupings of preferences. Even if preferences change as the result of market interactions, such as successful marketing and advertising, they are initially founded upon these ancient differences, some of which are presumably almost permanent. The technological revolution can be viewed as threatening this perception, because it blurs the aforementioned historical, cultural, national and even climatic boundaries. The online information environment constitutes the human condition of

58. Gregory S. Crespi, "Does the Chicago School Need to Expand Its Curriculum?", 22 *Law and Soc. Inquiry* (1997) 149.

59. See also Ellickson's assertion about the importance of sociology for economics in: Robert C. Ellickson, "Law and Economics Discovers Social Norms", 27 *J. Legal Stud.* (1998) 537.

60. Niva Elkin-Koren and Eli M. Salzberger, *Law, Economics and Cyberspace* (2005) c. 9.

our time. The comprehensive character of the online environment makes individuals more vulnerable to external effects that shape their preferences. The emergence of media, communications and software multinational conglomerates, and the rise of new monopolies affect not only economic competition in the market for ordinary goods, but also individual autonomy.

The new individual transforms *homo economicus*, cutting him off from his historical, cultural and geographical context on the one hand, and widely exposing him to a relatively homogeneous information environment, which affects his preferences on the other hand. We are in an interim stage of the cyber-revolution. In the future we may well witness the disappearance of diversity, which fostered the definition of the unique self, leaving us with a brave new homogeneous human being. Economic analysis has to internalize one of its basic foundations: the existence of atoms individuals whose basic features are given. A fresh way of thinking, if not a fresh paradigm of economic analysis, must emerge in which these basic presuppositions with regard to individual preferences and indeed the concept of the individual are internalized. These developments also highlight traditional analytical problems with the normative goal of wealth and also utility maximization, such as the geographical unit for such maximization – whose utility or wealth we ought to maximize, and the time frame for such maximization.

All the points of criticism put forward so far can be summed up in a grand historical look at the dogmatization of the economic analysis of law. The Law and Economics movement originates from a pragmatic view of law and legal research, which characterize legal realism and which was a response to the dogmatic approach of positivism-formalism. But it became transformed into another form of dogmatism, reflected by the rigid assumptions built into its mainstream literature.⁶¹ Ironically, one of the major prophets of Law and Economics, the scholar who is primarily responsible for its dogmatic character – Richard Posner, in some of his writings in recent years reveals a much more pragmatic face. Taking into account factors such as intuition, subjectivity, ignorance, learning and political motivations, Posner's recent analysis of legal decision-making does not seem to assign economics the same role assigned by traditional theory, in which lawmaking was supposed to reflect a mechanical balancing of social costs and benefits.⁶² In these recent writings Posner returns to Holmes and

61. See also: Avery Weiner Katz, "Positivism and the Separation of Law and Economics", 94 *Mich. L. Rev.* (1996) 2229, Herbert Hovenkamp, *Positivism in Law & Economics* (1990) 815, p. 821, asserting that "The stated methodology of Chicago School Law & Economics is at once legal positivism and economic positivism".

62. Elisabeth Krecké, "Economic Analysis and Legal Pragmatism", 23 *Int'l Rev. L. and Econ.* (2004) 421.

Cardozo in advocating a pragmatic approach to law which looks “at things concretely, experimentally, without illusions, with full awareness of the limitations of human reason, with a sense of the ‘localness’ of human knowledge, the difficulty of translation between cultures, the unattainability of ‘truth’, the consequent importance of keeping diverse paths of inquiry open, the dependence of inquiry on culture and social institutions, and above all the insistence that social thought and action be evaluated as instruments to valued human goals rather than as ends in themselves”.⁶³ These interesting words from one of the key figures of the Law and Economics movement, however, does not reflect the path of most contemporary literature in this field.

3.3. The Adaptation of Law and Economics to Changing Global Environment

While the two previous sections dealt primarily with deficiencies that have characterized Law and Economics from its very beginning, this section addresses the need to adapt the movement to contemporary global changes. The Law and Economics movement was born and established itself before the technological revolution of the last three decades and the accelerated globalization process. It has not adapted yet to the new realities: the great majority of contemporary Law and Economics literature ignores the deep global changes of the last couple of decades. Several points can be emphasized in this context. The first relates to the role of technology within the economic models and legal theory.

Traditional economic models pre-assume the state of technology to be fixed or exogenous to their analysis. Take, for example, the trailblazing Coase theorem, which predicts that in a world with no transaction costs the choice of legal rule would not matter since the market would bypass any inefficient legal rule and would stabilize on efficient equilibrium. The technologies relevant to the actual examples given by Coase in his 1960 article were not likely to change significantly as a result of the choice of legal rules. (Although even in relation to trains and sparks, Pigou’s example to demonstrate the traditional economic analysis of externalities, which was subsequently overturned by the Coase theorem, one might assume that the technology of operating trains would be affected by the decision whether to hold the train companies liable for damages caused by them to the cultivated fields through which they run.) This is not the case today, when technologies are constantly evolving and the results of Coasian analysis may be different with each diverse technological advance.

The pace of technological change today is disputed and there are many ways to measure it. Some believe that the speed of the chip, which doubles every two years, is a good measure of technological change. A common assumption in the high-tech environment is that technology reinvents itself every six to twelve months. This

63. Richard A. Posner, *The Problems of Jurisprudence* (1990) p. 465.

very brief timeframe, and the elasticity of technology, call for different treatment of technology in economic analysis. The crucial shortcoming of the transaction-costs analysis, when applied, for example, to the Internet, is that it takes technological development as static. It overlooks the interdependency and reciprocity between technological developments and legal rules. This multi-layered relationship between law and technology is a key factor for understanding technological innovation in the information environment. Thus, an analysis that takes the state of technology as an exogenous component suffers from a serious shortcoming when applied to an environment with rapid technological advances and innovations. The analysis fails to consider the effect of legal rules on technological progress.⁶⁴

Technology is not the result of nature or the necessary sole outcome of pre-determined scientific progress. Scientific progress depends on investment in R&D, which in turn is likely to hinge on the legal regime and specific legal rules regarding liability. States of technology, therefore, cannot be regarded as independent factors, and should not be exogenous to the analysis of the cheapest avoider or the greatest maximizer. Indeed, the availability of certain technologies is contingent on various socio-economic factors, of which law is a prime player. If we require the steam engines of railway companies to release fewer sparks, we create a demand for more effective devices. Such a demand is likely to attract more investment in research and development of better devices, and to stimulate competition among developers and producers. Large investments and high levels of competition are likely to increase innovation in spark-reducing measures and push down the prices of such devices. The ramifications of the choice of a legal rule on the likelihood that preventive technologies will emerge are not taken into consideration by the standard Law and Economic analysis.

Technology also affects other important pillars of the standard Law and Economics analysis. Thus, agency theory, applied, for example, to analyze representative government,⁶⁵ should be revisited. Easier and relatively cheap access to information, and lower costs of collective deliberation and action, rendered by the recent technological revolution, are likely to increase the effective monitoring level and thus reduce agency costs, thereby exerting significant influence on economic analysis of politics and on the theory of the firm. The technological revolution affects the structure and role of firms in the organization of production and the use of resources. By the Coasian analysis, firms are likely to emerge when it is more efficient to organize economic activity through hierarchies than through contracts or markets.⁶⁶ The potential reduction in the organizational cost of firms would arguably turn them into a more efficient option for conducting economic activities. Yet the reduction in transaction costs of collective

64. See: Elkin-Koren and Salzberger (supra note 60) c. 8.

65. Richard A. Musgrave and Peggy B. Musgrave, *Public Finance in Theory and Practice* (1989).

66. Coase (supra note 49).

action is also evident in markets, thus changing the balance between firms and markets. If firms were conceived as the outcome of high transaction cost in markets, advanced technologies would be bound to shift activities back from firms to markets.⁶⁷

Likewise, the theory of collective action and economic analysis of the state, constitutional and public law and institutions have to be revisited. Mainstream Public Choice literature assumes that small interest groups will be able to seek rents and acquire gains through pressure on representatives at the expense of the general public. Interest groups are able to succeed in their actions because of the costs of collective action. These costs allow only small groups to organize, whose potential gain from collective action is higher than the costs of organization.⁶⁸ This theory is decisive for the normative and positive analysis of constitutional law and state institutions. The Internet lowers the costs of collective action, which in turn enables broader interest groups to organize, bringing more equality to the political markets and diffusing the impact of narrow interest groups; this will affect the traditional analysis of separation of powers, constitutional law and regulation.⁶⁹

Technology is also an emerging hidden source of law, as well as an enforcement system. Law can no longer be perceived as generated exclusively by pre-meditated rule-making processes of legislatures and courts, and even laws deliberately created by political institutions are no longer the sole monopoly of the institutions of state governments. The code has become an important source of law and an enforcement mechanism.⁷⁰ These phenomena have been overlooked so far by the mainstream Law and Economics literature. A possible explanation is that recognizing technology as an endogenous factor, in a similar way to the attitude to individual preferences, shakes up the leading Law and Economics normative goal of wealth maximization. Endogenizing technology affects the coherency of the argument in favor of wealth maximization, primarily because of the vague geographical and time units of maximization and the order in which decisions are taken, which will have much more bearing on the possible efficiency frontiers.

67. For a more radical critic see: Yochai Benkler, "Coase's Penguin or, Linux and The Nature of the Firm", 112 *Yale L. J.* (2002) 369, and rebuttal by Elkin-Korn and Salzberger (supra note 60) pp. 133-135.

68. Mancur Olson Jr., *The Logic of Collective Action: Public Goods and the Theory of Groups* (1965).

69. Niva Elkin-Koren and Eli Salzberger, "The Effects of Cyberspace on the Normative Economic Analysis of the State", *Law and the State: A Political Economy Approach* (Alain Marciano and Jean-Michel Josselin – eds. 2005).

70. Joel R. Reidenberg, "Lex Informatica: The Formulation of Information Policy Rules through Technology", 76 *Tex. L. Rev.* (1998) 553; Lawrence Lessig, *Code and Other Laws of Cyberspace* (1999).

A second feature characterizing the new world is globalization. It is itself related to the current technological revolution and the fact that markets today – both economic and political – cross traditional geographical borders and undermine the traditional structure and powers of a world divided to independent and sovereign states. Like the treatment of technology, the traditional Law and Economics models view as exogenous crucial factors, like the existence of states, the borders between them, their central governments, their enforcement powers and the correspondence of markets and states. Public Choice theory attempted to remedy part of this deficiency of traditional micro-economic theory by analyzing the emergence of the public sphere, the state, public law and collective decision-making processes. Neo-institutional theory is the broadest framework of economic analysis insofar as it attempts to incorporate Public Choice analysis into traditional microeconomics or welfare economics. Accepting Coase's insights with regard to the emergence of firms and their internal structure, Neo-institutional law and economics regard institutional structures as endogenous variables within the analysis of law. Thus, Neo-institutional analysis views the political structure, the bureaucratic structure, legal institutions, and other commercial and non-commercial entities as affecting each other. Political rules intertwine with economic rules, which intertwine with contracts.

However, if one takes on board the rapidly growing economic and political market activity that takes place in Cyberspace and its influence on traditional markets, even the complex Neo-institutional paradigm premises do not seem sufficient. Cyberspace is neither a conventional territorial entity with central government nor a traditional economic market or nexus of markets. We thus have to examine the simultaneous effects of constitutional law, public law and the political features of Cyberspace with its private law characteristics. Then we must assess whether the Law and Economics project as a whole can survive in the emerging, rapidly changing and technological-driven world. The implications of the borderless nature of Cyberspace for economic analysis are highly significant. One can no longer take the state as the relevant framework for market activities, for decision-making calculus or for institutional analysis.⁷¹ This change is significant in both the normative and positive domains. So while traditional normative law and economics analysis takes the state as the basic maximization unit, a factor with implications for the definition of externalities and the analysis of other market failures, this cannot be the case in the networked information environment or in our traditional physical environment influenced by the Internet. In a similar way to the discussion above, relaxing this assumption makes wealth maximization an incoherent normative criterion. Likewise, positive economic analysis is trickier because the identification of markets is less straightforward than in the old world.

71. For elaborate critical account see: Elkin-Koren and Salzberger (supra note 60) cc. 8-9.

To sum up, the recent technological revolution and processes of globalization shake up three major features of our organization of life: the production and consumption phenomena, the state and the individual. The Law and Economics movement has not yet addressed these deep changes.

4. Conclusion

Law and Economics has emerged as a dominant contemporary paradigm for the analysis of law.⁷² One cannot hide the fact that one of its driving forces is publication.⁷³ Legal scholars find it easier to publish Law and Economics papers because the criteria for their evaluation are more objective and more abstract, and less contingent on local law or a specific legal system, hence they appeal to broader readership and easily cross geographical and language borders. At first sight this might not seem a justified reason for the success of Law and Economics or for its methodological dominance in the research and study of the law, but looked at more deeply this phenomenon ought to be welcomed. It allows better communication among legal scholars worldwide and a real advance in the science of law and the methodology of legal research. In this sense, the explanation for the paradigmatic contemporary dominance of Law and Economics is not very different from the explanation for the dominance of previous paradigms in legal studies, they too being rooted in developments outside the immediate realm of the law.

72. As can be demonstrated by the recent words of William Landes: "... Economics has become a central part of legal education, scholarship, and practice. All major law schools have one or more economists on their faculty; many young legal scholars have both law degrees and Ph.D.'s in economics (for example, three members of the Chicago Law School faculty have both law degrees and advanced degrees in economics); economic analysis of law is widely considered the most important development in legal thought in the last fifty years; economics has been systematically integrated into most areas of law, including even art law; and economic evidence has played an increasingly important role in the practice of law not only in antitrust but in contracts, intellectual property, securities, environmental law, and discrimination law. Other indicia of the growth of law and economics include the formation of The American Law and Economics Association in 1991, which now has more than one thousand members, and the presence of five scholarly journals that specialize in economic analysis of law." William M. Landes, "Centennial Tribute Essay: The Empirical Side of Law & Economics", 70 *U. Chi. L. Rev.* (2003) 167, pp.167-168.

73. Steven G. Medema, *From Dismal to Dominance? Law and Economics and the Values of Imperial Science*, [<http://economix.u-paris10.fr/pdf/seminaires/H2S/Medema.pdf>] last checked in August 2007.

The current dominance of Law and Economics is also manifested by its influence on non-law and economic discourse, thinking and theorizing of law.⁷⁴ Indeed, formalist, comparative, law-and-society and critical scholars have a fruitful dialogue with Law and Economics. They incorporate Law and Economics insights, way of thinking, reasoning and discourse into their writings, some of which underlie new angles of critiques that are the source for innovative non-Law and Economics insights into law. This phenomenon contributes to legal scholarship and to better understanding and evaluation of the law.

It is time, however, for mainstream scholarship in Law and Economics, which originated in a pragmatist approach towards the law and became transformed over the years into dogmatic thinking, to return to pragmatism. Relaxing the rigid assumptions of the Chicago school, shifting the emphasis from normative to positive analysis and broadening the normative sources of Law and Economics, taking more seriously insights and methodologies from other social sciences, as well as from the humanities, and conducting more empirical work, are some of the avenues that ought to be strengthened in order to fulfill this task and stop the constant dwindling of the relevance and constructiveness of most contemporary writings in Law and Economics.

74. See, for example: Landes and Posner (supra note 8).

