September 2020

Towards a Better Explanation of Law and Economics: Revisiting Rational Choice Theory and the Market as a Framework for Legal Decisions

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Abstract

As one of the most popular and influential legal ideologies since its inception in the late 1950s and early 1960s, there is a vast wealth of law and economics scholarship with remarkable breadth encompassing nearly every area of law. Yet despite the abundance of scholarship examining legal issues through a law and economics lens, there is comparatively little literature explaining law and economics itself. This paper seeks to overcome this gap in the literature by more clearly explaining the economic concepts on which the theory is built and the connections between these concepts. In other words, this paper aims to provide a clear, cohesive and complete overview of law and economics such that readers will be able to understand how these economic concepts relate to each other and the study of law.

Keywords

Law and Economics, Rationality, Rational Choice Theory, Efficiency.

Acknowledgements

I would like to thank my supervisor Stephen GA Pitel for his guidance, support and understanding through the years. I would like to thank Mary Morris for all of her hard work and help. On a personal note, I also want to thank my mom and all my wonderful friends.

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1.1. Introduction

As one of the most popular and influential legal ideologies since its inception in the late 1950s and early 1960s,[1] there is a vast wealth of law and economics scholarship with remarkable breadth encompassing nearly every area of law.[2] Yet despite the abundance of scholarship examining legal issues through a law and economics lens, there is comparatively little literature explaining law and economics itself. At present, most of this expository literature is encapsulated in a handful of popular introductory texts aimed at law students and undergraduate economics students.[3] On the whole, this work tends to be more practice-oriented than theoretical in that little space is devoted to explaining the theory with the bulk of the analysis instead being devoted to the application of economic principles in legal cases. These introductions focus on how to conduct an economic analysis of cases while largely skimming over theoretical components.

This paper seeks to overcome this gap in the literature by more clearly explaining the economic concepts on which the theory is built and the connections between these concepts. Drawing upon the scholarship explaining law and economics, this paper

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[1] See e.g. William M Landes, "The Empirical Side of Law & Economics"(2003) 70:1 U Chicago L Rev 167 at 167 ("economic analysis of law is widely considered the most important development in legal thought in the last fifty years"). See also Robert Cooter & Thomas Ulen, *Law and Economics*, 6th ed (Boston: Addison-Welsley/Prentice Hall, 2012) at 2 stating that law and economics has been viewed as "the most important development in legal scholarship of the twentieth century". For a Canadian context, see Michael Trebilcock, "The Prospects of 'Law and Economics': A Canadian Perspective" (1983) 33:2 J Leg Ed 288.

[2] See e.g. Richard A Posner, *Economic Analysis of Law*, 9th ed (New York: Wolters Kluwer Law & Business, 2014) at 4 and Richard A Posner, "The Law and Economics Movement" (1987) 77:2 The American Economic Review 1 at 1.

[3] Many of these books explicitly acknowledge that students are their target audience. See e.g. Daniel H Cole & Peter Z Grossman, *Principles of Law and Economics*, 2nd ed (New York: Wolters Kluwer Law & Business, 2011) at xix and David D Friedman, *Law's Order: What Economics Has To Do With Law and Why It Matters* (Princeton: Princeton University Press, 2000) at 5-6.

synthesizes the existing literature into a coherent theoretical account of law and economics. In this sense, it will build upon the prior scholarship's discussions of key economic concepts and seminal writings in order to provide a summary of the theory. The goal is to create a more integrated approach blending the varying strands throughout current explanations into a new unified whole. In other words, this paper aims to provide a clear, cohesive and complete overview of law and economics. The goal is that readers will be able to understand how these economic concepts relate to each other and the study of law.

1.2. How Law and Economics Is Explained

Typically, the existing literature explaining law and economics begins with an introductory chapter or two summarizing microeconomics. Unfortunately, these economic concepts are often presented and discussed entirely in the abstract with no readily apparent relevance to law. Hence, the literature reads as if it were an introductory microeconomics text rather than a legal theory. Although these scholars discuss how economics applies to law, they typically do so in later sections divorced from their summaries of microeconomics.[4] This isolated approach to explaining economics is problematic for law and economics both on persuasive and theoretical levels. By not clearly explaining economics' relevance to law from the outset, the scholarship is inadvertently giving skeptical readers license to dismiss the theory as irrelevant and uninteresting. This problem is exacerbated by the fact that many lawyers and law students come from humanities or arts focused backgrounds so that the very mathematical and

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[4] See e.g. Ulen & Cooter, *supra* note 1 at 11-51 and Nicholas Mercuro & Steven G Medema, *Economics and the Law: From Posner to Post-Modernism and Beyond*, 2nd ed (Princeton: Princeton University Press, 2006) at 20-25.

technical nature of microeconomics can be especially off-putting.[5] Consequently, it is preferable to build on the approach taken by some law and economics scholars who interject their discussion of economic theory with specific legal examples[6] as this would help maintain reader interest amongst the legal profession while simultaneously bolstering the theory. On a theoretical level, law and economics needs to be able to cogently explain economics' relevancy to law in order to ensure that economics is an appropriate evaluative criteria for legal rules. Without this clear explanation, the whole project of law and economics is questionable. Going forward, it would be best if economics was clearly tied to its legal applications from the beginning.

Similarly, although the existing literature rightly identifies foundational texts and core ideas within law and economics, regrettably these are often treated as unconnected standalone concepts. Typically, these ideas are presented as a seemingly disparate list without explicitly explaining how they are related and connected to each other.[7] Consequently, concepts such as the Coase Theorem, risk aversion and rational choice theory are often listed without demonstrating how they are tied together. While the description of each individual idea may be clear, this atomized approach again hurts the theory on both persuasive and theoretical levels. On a persuasive level, this tendency in the scholarship may mean that economic concepts inadvertently come across as unrelated

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[5] In keeping with some prominent law and economics texts, this paper will not rely on mathematics in the interest of furthering accessibility and comprehension. See e.g. Mitchell A Polinsky, *An Introduction to Law and Economics*, 4th ed (New York: Wolters Kluwer Law & Business, 2011).

[6] See e.g. Alan James Devlin, *Fundamental Principles of Law and Economics* (Abingdon, Oxon: Rutledge, 2015) at 20-23 (illustrating how criminal law may be viewed as an application of microeconomics after introducing these concepts).

[7] See e.g. *ibid* at ch 2.

to each other. Thus, law and economics might appear unattractive because it seemingly lacks cohesion. Likewise, on a theoretical level, this unconnected approach may give the mistaken impression that law and economics is not theoretically sound because it appears as a loose collection of ideas rather than stemming from first principles. This paper hopes to overcome any possible misconceptions in earlier scholarship by being explicit about the connections within law and economics. In particular, it aims to establish how rational choice theory is the critical assumption underlying an economic analysis.

This functional approach dominating current explanations of law and economics leads to many examples of an economic analysis in a variety of areas. The scholars tend to provide a series of papers which show how an economic approach may be used in a wide array of different areas of law including property, contract, tort, crime, family and antitrust.[8] Within each paper, scholars usually look at specific legal doctrines such as negligence or limited liability and show either how they reflect fundamental economic concepts described earlier or how these concepts could be used to properly interpret the doctrine. In this sense, the scholarship promotes the feeling of a loose science in which readers will be able to grasp economic thinking and its application to the law without necessarily understanding the principles underlying this ideological approach. The goal of these texts is to leave readers with the same useable method to employ in all sorts of different legal scenarios.

Although having many practical examples is helpful to understanding law and economics, the explanation of the application of economic concepts to law within these examples is sometimes vague and unclear. For example, some of the more popular law

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[8] See generally e.g. Posner, *supra* note 2.

and economics texts are written in a more conversational style in which they go back and forth between different economic concepts interchangeably.[9] While this approach makes law and economics more accessible, it can lead to a looseness with the material. The literature often aims for readers to "get the gist of it" and proceed with a basic understanding rather than a full-fledged account from philosophical first principles. At other points, the texts may ask the reader to determine on his or her own how the economic approach is being used and why without ever providing an explicit answer.[10] Admittedly, this is a common approach to writing texts for law students generally, not restricted to law and economics. However, in part, this also reflects a tendency to treat law and economics as self-evident. In these circumstances, the law and economics understanding is somewhat guesswork by the reader based on the ability to piece together earlier parts of the literature.

In general, the literature does not explicitly acknowledge the assumptions underlying the field. For the most part, it proceeds by discussing economic ideas in which their significance is taken as a given, unstated or implicit. Little space is devoted to a normative justification of law and economics, opting instead to proceed with a largely unstated assumed position that the theory is beneficial and worthwhile. Although some scholarship has identified the philosophical premises underpinning the theory, this usually only occurs in the criticism on law and economics which seeks to reject it.[11] The majority

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[9] See generally *ibid*.

[10] See generally *ibid*.

[11] For a strong discussion of philosophical assumptions taking a critical approach to law and economics see Jules L Coleman, "Economics and the Law: A Critical Review of the Foundations of the Economic Approach" (1984) 94:4 Ethics 649. Occasionally some proponents of law and economics explicitly discuss these assumptions. See e.g. Robert D Cooter, "The Best Right Laws: Value Foundations of the Economic Analysis of Law" (1989) 64 Notre Dame L Rev 817.

of law and economics literature does not concern itself with philosophical defences but rather wants to jump ahead to the real world application of law and economics in real cases. In fairness, this paper acknowledges that the practical reality that these texts can only devote so much space to any given topic particularly when the aim is to provide a broad overview. Still, this paper asserts that more pages should be devoted to these normative questions because they are crucial to readers' adoption of law and economics.

1.3. A Better Explanation of Law and Economics

This paper argues that the existing explanation of law and economics, while commendable for its strong real world application, should be revamped for persuasive and theoretical reasons. By providing a clearer and more complete account of law and economics, more people will adopt an economic analysis as their preferred method of legal perspective. More fundamentally, in the process of reviewing limitations in how law and economics is currently explained, the understanding of law and economics will be substantiated. Thus, this paper proceeds with both practical and theoretical objectives. It hopes to persuade others that law and economics is a worthwhile approach while simultaneously strengthening law and economics itself.

The paper outlines law and economics as a legal theory which utilizes economics to understand legal issues and cases. Under law and economics, law becomes the domain of the economist rather than the lawyer as legal problems are recast as economic problems to be understood and resolved through economic reasoning. Consequently, the paper more clearly explains the two implicit halves of economics under law and economics then is currently described in the existing literature. First, the paper overcomes the descriptive gap in the literature by synthesizing rational choice theory which is the

bedrock principle of law and economics. The critical assumption underlying economics is that people behave according to a rational choice model, meaning they aim to best satisfy their preferences given their constraints. Second, the paper discusses the other meaning of economics, the study of the allocation of scarce resources amongst competing uses in society. Economics describes the theoretical construct of perfectly competitive markets in which scarce resources are allocated to firms who then produce goods and services to meet consumer demand.

Building upon rational choice theory and the market, these concepts extended as the guiding framework for law as legal decisions are either analogized or considered identical to market decisions. The paper then describes how the market is used to understand law from both a top-down perspective focused on how lawmakers and the legal system apply legal rules and a ground-up perspective focused on how citizens choose to comply with or violate law. Law resolves conflicts over scarce resources by "mimicking the market". In other words, law facilitates the use of competitive markets by lowering transaction costs which would otherwise prevent people from making mutually beneficial bargains. Law and economics therefore reimagines legal rules as setting the rights and entitlements which determine a series of conflicts regarding the allocation of scarce resources.[12] Law is about restoring the economic and personal freedom that would have occurred if the conditions of perfect competition were met in actuality.

Finally, the paper concludes by explaining how law and economics accordingly evaluates legal rules under the economic principle of efficiency as a proxy for how well the market is functioning. While there are different definitions of efficiency, this paper

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[12] Guido Calabresi & A Douglas Melamed, "Property Rules, Liability Rules, and Inalienability: One View of the Cathedral" (1972) 85 Harv L Rev 1089 at 1090.

adopts the Chicago school, or mainstream approach, of law and economics,[13] which holds that individuals are rational self-maximizers of their own preferences and that the law both has been and ought to be interpreted with the principle of wealth maximization. In simple terms, legal rules which maximize wealth across society are desirable and those which reduce wealth are rejected. This approach requires judges to make decisions based on the aggregate social benefits minus the aggregate social costs to arrive at the greatest net benefit. Ideally, legal decisions will be made such that marginal social benefit equals marginal social cost meaning that no additional change could be made that would increase social welfare. These principles that legal rules both are and should be wealth maximizing are known respectively as the positive and normative claims in law and economics.

1.4. Limitations

At the same time, this paper is subject to certain restrictions which must be acknowledged and addressed. Although it aims to provide a summary of the theory of law and economics, there will necessarily be limitations in the extent to which certain aspects of the theory may be explored.[14] Law and economics is such a rich and sophisticated field that it is too complex to fully describe within the scope of a single paper. To the extent

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[13] While there are numerous schools of law and economics, the Chicago school is recognized as "mainstream law and economics". See Mercuro & Medema, *supra* note 4 at 94 and Thomas J Miceli, *The Economic Approach to Law*, 2nd ed (Stanford: Stanford Economics and Finance, 2009) at xxii. Similarly, most of the major texts in law and economics synthesized in this paper are written from the Chicago school perspective. See Mercuro & Medema *supra* note 4 at 94. For more on alternative schools in law and economics, see *ibid* and Ejan Mackaay, "0500 Schools: General" in Gerrit de Geet, ed, *Encyclopedia of Law and Economics*, 2nd ed (Cheltenham, UK: Edward Elgar Publishers, 2000).

[14] For example, detailed breakdowns of supply and demand matter for competition law which is not discussed.

that the paper is unable to fully discuss these areas, it refers readers to earlier scholarship such as a history of law and economics,[15] further detail on alternative schools of law and economics[16] and the encyclopedias of law and economics[17] for a fuller account.

Admittedly, some may find the focus on the descriptive rather than normative elements of law and economics strange. As a controversial theory often caricatured as politically conservative, law and economics has long generated significant hostility and skepticism among academics.[18] However, some may think it is preferable to justify a theory before explaining it, this approach does not work for law and economics. The normative justification underlying law and economics cannot be understood without first grasping how law and economics operates as a descriptive theory. This is because the normative branch of law and economics derives exclusively from its positive branch.[19] The positive branch of law and economics holds that existing law is efficient, meaning that it seeks to minimize social costs in order to maximize net social benefit. Scholars then expanded on this positive claim, known as the efficiency of the common law

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[15] See e.g. Neil Duxbury, *Patterns of American Jurisprudence* (Oxford, UK: Oxford University Press, 1995) and Heath D Pearson, *Origins of Law and Economics: The Economists' New Science of Law, 1830-1930* (Cambridge, UK: Cambridge University Press, 1997).

[16] Mercuro & Medema, *supra* note 4.

[17] Francesco Parisi, ed, *The Oxford Handbook of Law and Economics*, (Oxford: Oxford University Press, 2017) and Peter Newman, ed, *The New Palgrave Dictionary of Economics and the Law*, (London: Macmillan Reference, 1998).

[18] Main criticisms include that law and economics relies on an unrealistic and inaccurate view of rationality, that favouring efficiency over distribution skews an already unjust distribution, and that the satisfaction of preferences is an inappropriate evaluative standard for law.

[19] See similarly Mercuro & Medema, *supra* note 4 at 129-30 discussing how differences between the Chicago school's positive and normative claims may be subtle.

hypothesis, to argue that the law should be construed with efficiency as its central goal.[20] In other words, the normative claim stems from the positive branch because it largely replicates and supports the same efficiency based view of law.

Consequently, the paper accepts the normative justifications for law and economics[21] and proceeds from these assumptions in order to better focus on the unifying strands connecting the theory as a whole. In particular, it accepts that under law and economics that an unabashed defence of free markets is the best avenue for increasing human welfare.[22] Moreover, this paper accepts that the forward looking *ex ante* emphasis of law and economics is particularly useful. As an empirical method rooted in rational choice theory, law and economics provides an accurate predictive description of how people respond to law in reality. It is a valuable theory because it identifies the incentives created by law, thus guiding the formation of legal rules.

2.1. Economics in Law and Economics

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[20] Jon Hanson, Kathleen Hanson & Melissa Hart, "Law and Economics" in Dennis M Patterson ed., *A Companion to Philosophy of Law and Legal Theory*, 2nd ed (Chichester, West Sussex, UK: Wiley-Blackwell, 2010) at 300.

[21] Admittedly, these normative justifications are sometimes scant as economists are often "indifferent, even condescending" towards philosophical questions. See Cooter, *supra* note 11 at 817.

[22] This approach is justified with a pragmatic approach based in the strong empirical evidence signifying that markets increase human welfare. See generally Richard A Posner, *Overcoming Law,* (Cambridge: Harvard University Press, 1995).

Law and economics is the application of economics, primarily microeconomics or price theory, to understand and analyze legal rules and institutions.[23] Although this definition is circular, it reveals an important truth: the essence of law and economics is the use of an outside academic discipline, economics, to gain further insight into the law.[24] Simply put, law and economics is a legal theory which utilizes economics to understand legal cases and issues. As Friedman explains, law and economics "asserts that in order for legal academics to fully understand what they are doing, they must first learn economics".[25] Under law and economics, the economist shows the lawyer how to properly analyze law. This is because law and economics is an extension of economics in which economic ideas

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[23] See similarly "'Law and Economics' can be defined as the application of economic theory—primarily microeconomics and the basic concepts of welfare to examine the formation, structure, processes, and economic impact of law and legal institutions" Mercuro & Medema, *supra* note 4 at 1, Francesco Parisi, "Positive, Normative and Functional Schools in Law and Economics" (2004) 18 European Journal of Law and Economics 259 at 259 and Lewis Kornhauser, "The Economic Analysis of Law", *The Stanford Encyclopedia of Philosophy* (Fall 2017 Edition), Edward N Zalta ed, <https://plato.stanford.edu/archives/fall2017/entries/legal-econanalysis/>.

[24] The use of another discipline is not unique to law and economics as this is common in any legal theory influenced by legal realism including Marxist and feminist legal theory. See Mercuro & Medema, *supra* note 4 at 19. See similarly, Richard A Posner, "The Decline of Law as an Autonomous Discipline" (1987) 100:4 Harv L Rev 761. However, while law and economics is often regarded as an offshoot of legal realism this is an overly simplistic view. Unlike legal realism which held that all social sciences may further legal analysis, law and economics holds economics as the sole social science to be applied to the study of law. Thus, the elevation and focus on economics exclusively is a distinguishing characteristic of law and economics. See generally Duxbury, *supra* note 15.

[25] Friedman, *supra* note 3 at 12. See similarly Cole & Grossman, *supra* note 3 at xix ("[t]o understand the law, and how the legal system works, students must have a basic understanding of economic principles"). Friedman further speculates that the theory's insistence that economics is essential to the understanding of law has contributed to some legal academics' hostility towards law and economics. See *supra* note 3 at 12.

and concepts explain the formation and shape the interpretation of legal rules.[26] Consequently, law and economics involves "learning to think like an economist"[27] because it uses economic rather than "legal" reasoning to solve legal problems.[28] Thus, law and economics should be understood as economics applied to law rather than law applied to economics.[29] In particular, law and economics relies on neoclassical microeconomics and welfare economics "where the operative organizing concepts are Pareto efficiency in exchange, Pareto efficiency in production and Kaldor-Hicks efficiency (i.e., wealth maximization)".[30] These terms will be explored more fully throughout this paper.

While economics is often wrongly narrowly conceived as the study of money and markets, in actuality it is a much broader discipline. The most commonly accepted definition holds that "[e]conomics is the science which studies human behaviour as a

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[26] It is for this reason that virtually all early law and economics scholarship and a majority of the most influential law and economics scholars were economists and not lawyers by trade. See Ejan Mackaay, "0200 History of Law and Economics" in Gerrit de Geet, ed, *Encyclopedia of Law and Economics*, 2nd ed (Cheltenham, UK: Edward Elgar Publishers, 2000) at 75 (noting that only a few early law and economics scholars were lawyers).

[27] See e.g. Polinsky, *supra* note 5 at xv.

[28] Although to some extent, law and economics suggests that there is no difference between legal and economic reasoning because the theory maintains that legal reasoning is intuitively economic.

[29] Some scholars draw a distinction between the terms "law and economics" and "economic analysis of law". See e.g. Geoffrey P Miller, "Law and Economics Versus Economic Analysis of Law" (2011) 11-16 NYU Law and Economics Research Paper. However, the majority use both terms interchangeably most notably in Posner's *Economic Analysis of Law*.

[30] Mercuro & Medema, *supra* note 4 at 20. Although microeconomics is a subset of economics, the two terms will be used interchangeably throughout the paper as they are in the existing literature.

relationship between ends and scarce means which have alternative uses".[31] Although this definition is somewhat complex, it captures the essential premises of economics. Economics is concerned with the problem of the necessity of choice under scarcity. Since resources are scarce and have competing uses, there must be some way to allocate them. Economics studies how people behave under the conditions of scarcity by assuming that people act according to a rational choice model in which they try to maximize their expected benefits subject to their expected costs. Hence law and economics may be thought of as the implications of rational choice theory in a world in which resources are scare in relation to human wants.[32] Although law and economics maintains that economics is the key discipline to understanding law, law and economics itself is recognized as a distinct field from economics.[33]

2.2. Rational Choice Theory: The Heart of Law and Economics

It is no understatement to say that law and economics is premised entirely on rational choice theory. Law and economics can be considered "a systematic understanding of law

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[31] Baron Lionel C Robbins, *An Essay On The Nature and Significance of Economic Science*, 3rd ed (New York: New York University Press, 1984) at 15**.** Although there is no universally accepted definition of economics, since most accept the definition offered by Robbins, it will likewise be adopted in this paper. See Cole & Grossman, *supra* note 3 at 1, Ulen & Cooter, *supra* note 1 at 11-2 and Devlin, *supra* note 6 at 12.

[32] See Posner, *supra* note 2 at 3.

[33] For example, the *Journal of Economics Literature* formally recognized law and economics as a separate field within economics. See Mercuro & Medema, *supra* note 4 at 3. Moreover, law and economics has been institutionalized within law schools rather than economics departments. See *ibid* at 5.

through a rational choice model".[34] Rationality is the "organising principle"[35] of economics and the "fundamental assumption on which the theory is built".[36] Law and economics could not exist as a theory without the assumption of rationality.[37] Moreover, law and economics' emphasis on rationality is one of its distinguishing features as it places significantly greater weight on the view that people are rational actors than other legal theories.[38]

Yet, despite its utmost significance, rational choice theory is seldom well defined within law and economics literature. Instead, scholars rely on an implicit understanding of rationality so that "there is rarely a discussion in the legal literature about what, exactly, constitutes rational behavior".[39] Consequently, most current explanatory approaches to rational choice theory are brief and largely assumed. Most texts provide a one-sentence definition of rationality without much elaboration on the specific sub-components of this definition. They largely treat this definition as self-evident and proceed from this assumption. In part, this terse approach may reflect how most

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[34] Mackaay, *supra* note 26 at 68.

[35] Devlin, *supra* note 6 at 13.

[36] Friedman, *supra* note 3 at 17. See also Parisi, *supra* note 23 at 263 ("[t]his rationality assumption provides the basic foundation for much law and economics literature").

[37] Herbert Hovenkamp, "Rationality in Law and Economics" (1992) 60 Geo Wash L Rev 293 at 293. See similarly Russell B Korobkin & Thomas S Ulen, "Law and Behavorial Science: Removing the Rationality Assumption from Law and Economics" (2000) 88:4 Cal L Rev 1051 at 1060 and Thomas S Ulen, "0710 Rational Choice Theory in Law and Economics" in Gerrit de Geet, ed, *Encyclopedia of Law and Economics*, 2nd ed (Cheltenham, UK: Edward Elgar Publishers, 2000) at 791(both asserting that rational choice theory lies at the heart of modern economics).

[38] Steven Shavell, *Foundations of Economic Analysis of Law* (Cambridge: Belknap Press of Harvard University Press, 2004) at 4.

[39] Korobkin & Ulen, *supra* note 37 at 1060.

economists consider their definition of rational choice "to be so obvious that they never doubt it and are puzzled by those who do".[40] Although some texts offer a more detailed explanation of rational choice theory, they typically do so in a piecemeal fashion in which it is defined at various points throughout papers under different sub-headings rather than being integrated in one coherent section.[41] Neither approach is satisfactory given the central importance of rationality within law and economics. Since rationality is the lynchpin of law and economics, it is absolutely critical to understand the meaning of rational choice theory in order to grasp the field as a whole. Otherwise, if readers reject the rationality assumption presupposed by law and economics, they will, by extension, reject every other claim within the theory.

To understand what rationality is within law and economics, it is helpful to first consider what it is not. Rationality has a very precise and specific meaning within economics which differs from more colloquial and informal meanings. For example, many people use the terms "rational" and "irrational" in a moralistic sense to signify their respective approval or disapproval of others' behaviour. Thus, a person may be labelled as "irrational" merely because someone disagrees with his or her decision.[42] On the contrary, law and economics is unapologetically agnostic on questions of morality. Whether a person's action could be considered moral or immoral has no bearing

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[40] Ulen, *supra* note 37 at 792.

[41] See generally e.g. Devlin, *supra* note 6 for a scattered approach to discussing rationality across numerous subsections.

[42] See similarly Daniel M Hausman & Michael S McPherson, *Economic Analysis, Moral Philosophy and Public Policy*, 2nd ed (New York: Cambridge University Press, 2006) at 50.

whatsoever on whether that person is rational. Law and economics accepts that both moral and immoral people are rational.[43]

Similarly, rationality is also commonly defined as deliberate and consistent choice. Under this view, "the decision maker has thought about what he or she will do and can give a reasoned justification for the choice".[44] Likewise, this definition expects that these reasoned choices will be stable over time so that there are no wild swings in behaviour.[45] By contrast, rationality under law and economics need not be deliberate or even conscious.[46] There is no requirement that decision makers reflect and reason carefully in order to be considered rational. The theory does not claim that people explicitly and consciously weigh costs and benefits in order to calculate expected utility when making decisions. Rather, it asserts that people behave "as if" they were making these calculations when arriving at their choices.[47] In this sense, rational self-maximization is a largely an evolutionary subconscious process innate to all humans as a part of ordinary life. Likewise, although there is some restriction that decisions be stable across time, due to the conditions of transitivity and reflexivity, law and economics accepts that there may be wild swings in behaviour as evidenced by the sunk cost

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[43] See Hausmann & McPherson, *supra* note 42 at 64 noting that "[o]ne can be a rational villain". See also Friedman, *supra* note 3 at 8 (discussing a rational burglar).

[44] Ulen, *supra* note 37 at 791.

[45] *Ibid*.

[46] These claims will be further developed when discussing positive law and economics.

[47] Posner, *supra* note 2 at 3-4 and Friedman, *supra* note 3 at 8 ("Rationality does not mean that a burglar complies an elaborate spreadsheet of costs and benefits before deciding whether to rob your house. An armed robber does not work out a precise analysis of how shooting his victim will affect the odds of being caught, whether it will reduce the chances by 10 percent or by 20. But if it is clear that it will reduce the risk of being caught without increasing the punishment, he is quite likely to pull the trigger").

fallacy.[48] Neither of these common definitions of rationality accurately reflects the meaning of rationality within law and economics.

Rationality, under law and economics, means that people are forward-looking so that they make decisions anticipating the future with a view to maximizing their self-interest or expected utility subject to constraints.[49] Since this definition is complex, consisting of many sub-components, it is helpful to adopt a conceptual framework in order to contextualize these multiple aspects. Admittedly there is no universally accepted definition of rational choice theory.[50] However, Korobkin and Ulen argue that rationality in law and economics exists along a "continuum" depending upon "how specific and precise the predictions of the theory are".[51] They suggest that rationality ranges from "thin" versions which are relatively undemanding to "thick" versions which offer more vigorous predictions.[52] This paper will elaborate on the thinner expected utility version which is a precursor to the thick self-interest version, otherwise known as the dominant theory of rationality within law and economics.

2.3. Rationality as Expected Utility

Expected utility theory is the most popular theory within microeconomics,[53] and accordingly the foundational theory of rationality within law and economics. It is a

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[48] The conditions of transitivity and reflexivity and the sunk cost fallacy are discussed shortly in this section.

[49] Shavell, *supra* note 38 at 1, Miceli, *supra* note 13 at 1 and Posner, *supra* note 2 at 9 and 3.

[50] Korobkin & Ulen, *supra* note 37 at 1060.

[51] *Ibid*.

[52] *Ibid* at 1060-61.

[53] Korobkin & Ulen, *supra* note 37 at 1062.

behavorial theory designed to understand and predict how individuals make decisions.[54] Expected utility holds that people perform an explicit or implicit cost-benefit analysis to maximize their expected benefits and minimize their expected costs given their external constraints.[55] Although the term "utility" is used, expected utility theory is not to be mistaken as utilitarianism.[56] While early economic thinkers such as Jeremy Bentham and Adam Smith may be considered precursors of law and economics scholars, these theories are separate.[57]

Expected utility theory is a thin theory of rationality because it does not specify a person's goals or preferences.[58] Instead, the theory "says nothing about *what* people want".[59] It leaves open that an individual's utility function could be conceivably almost anything. Consequently, "utility" is defined quite broadly to include anything that contributes to an individual's satisfaction or happiness such as aesthetic tastes, altruism and a desire for fairness.[60] It is for this reason that expected utility theory does not imply self-interest. Both a person who greatly valued the well-being of others and a person who

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[54] Korobkin & Ulen, *supra* note 37 at 1062 and Ulen & Cooter, *supra* note 1 at 12.

[55] Korobkin & Ulen, *supra* note 37 at 1063.

[56] Many earlier critics dismissed law and economics as applied utilitarianism. See Richard A Posner, "Utilitarianism, Economics, and Legal Theory" (1979) 8:1 J Legal Stud 103 at 103. In time, this problem was exacerbated by a tendency in economics literature to use the words "utility" and "welfare" as synonyms. See *ibid* at 104-05. However, the two theories are distinct and not equivalent.

[57] Mackaay, *supra* note 26 at 67-68, Keith N Hylton, "Calabresi and the Intellectual History of Law and Economics" (2005) 64 Md L Rev 85 at 86 and 90-1 and Parisi, *supra* note 23 at 260.

[58] Korobkin & Ulen, *supra* note 37 at 1062.

[59]Hausmann & McPherson, *supra* note 42 at 49 (emphasis in original).

[60] Shavell, *supra* note 38 at 2.

did not care for others' well-being are utility maximizers.[61] Expected utility theory treats individuals' preferences determining their utility function as exogenous meaning that they are derived from outside economics and institutions[62] and hence outside utility maximization.[63] A person's preferences are taken as a given.

Although expected utility theory says nothing about why people want what they want, it does explain how people act based on what they want. In other words, it explains how people choose to best satisfy their goals and preferences without explaining what led them to have these goals and preferences in the first place.[64] Expected utility theory maintains that

> decision makers conduct an explicit or implicit cost-benefit analysis of competing options and select the optimal method of achieving their goals (that is, the method that maximizes expected benefits and minimizes expected costs, or maximizes net benefits), subject to external constraints.[65]

Constraints refers to the real world limitations people face when making decisions such as limited income, time, memory, calculating abilities or limited opportunities.[66] Therefore, people seek the greatest benefit for the least cost.

2.4. Decisions Under Risk and Uncertainty

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[61] Hausmann & McPherson, *supra* note 42 at 49.

[62] Cooter & Ulen, *supra* note 1 at 19.

[63] Korobkin & Ulen, *supra* note 37 at 1062.

[64] *Ibid* at 1062.

[65] *Ibid* at 1063.

[66] Gary S Becker, "Nobel Lecture: The Economic Way of Looking at Behaviour" (1993) 101:3 Journal of Political Economy 385 at 386.

Building upon the core concept of utility maximization, law and economics acknowledges the practical reality that an individual's rational self-maximization is subject to risk and uncertainty. As there are no guarantees in life, most decisions are made in the face of either of risk or uncertainty. Economics draws a distinction between these two terms by maintaining that risk is calculable whereas uncertainty is not.[67] Accordingly, economics provides a series of tools for understanding this real world problem. Thus, the term expected utility is used to signify the outcome an individual anticipates will happen.

Expected utility theory explains that an individual may be either risk-seeking, risk-averse or risk-neutral. An individual's appetite for risk affects his or her utility maximization. A risk-seeking individual prefers riskier decisions, so that he or she would prefer a smaller chance of a greater gain than a greater chance of a smaller gain. On the contrary, a risk-adverse person prefers the opposite or "the safe bet" or "sure thing". A risk-neutral individual would be indifferent between the two. For example, given the choice between a 10% chance of winning $1000 and a 100% chance of winning $100, a risk-seeking individual would prefer the former, a risk-adverse individual the latter and a risk-neutral individual would be indifferent.[68] Note that mathematically these two outcomes have the same expected value. It is an individual's attitude toward risk that shapes their desirability.

Uncertainty, like risk, acknowledges that many outcomes cannot be known in advance. However, unlike risk, uncertainty is neither probabilistic nor calculable which derails self-maximization calculations because an individual cannot properly weigh

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[67] Posner, *supra* note 2 at 4-5 explaining the distinction between risk and uncertainty under economics.

[68] Devlin, *supra* note 6 at 33-34.

benefits and costs.[69] Consequently, economics must explain how individuals make decisions involving uncertainty. Expected utility theory states that individuals implicitly weigh the probability of uncertain outcomes. Thus, people often estimate the likelihood of different outcomes even when they cannot be precisely measured.[70] These estimates allow people to implicitly assign weight to various outcomes so that they can engage in a cost-benefit analysis. Admittedly, this approach may raise complexities such as if the estimates are arbitrary or inaccurate. However economics recognizes that people still act rationally in the face of uncertainty because they taking their best bet despite not having full information.[71]

2.5. Rationality as Self-Interest

The self-interest version of rational choice theory is the dominant approach within law and economics.[72] Building upon expected utility theory, the self-interest theory of rationality likewise holds that individuals are rational self-maximizers. The difference between the two is whereas the former is indifferent to what individuals prefer, the latter assumes that people act to maximize their self-interest. Thus, the self-interest version has been referred to as a thick version of rationality because it not only specifies how people make decisions but also what their end goal or preferences are.[73] In turn, this self-interest assumption allows the theory to predict individuals' behavior. For example, it is

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[69] Posner insists that uncertainty cannot be calculated although he does not explain why. See Posner, *supra* note 2 at 4-5.

[70] For example, although the likelihood of divorce at the time of marriage is usually uncertain, people still rely on a rough estimate of whether divorce will occur. See Devlin, *supra* note 6 at 39.

[71] *Ibid* at 39-40.

[72] Korobkin & Ulen, *supra* note 37 at 1065.

[73] *Ibid* at 1064.

commonly predicted in law and economics literature that a cap on or abolition of punitive damages would lead to greater numbers of defective products. Although scholars making this prediction do not say so, they are implicitly relying on the assumption that product manufacturers are self-interested because they only care about their profit and will only regard customer health and safety if that somehow affects their end product.[74]

Admittedly, the self-interest theory of rationality is somewhat unstable as there is no consensus on its meaning within law and economics. There has been some suggestion that self-interest should be defined quite narrowly so that a person only cares about the effect of consequences on himself or herself. This view of self-interest holds that an individual is only concerned for his or her own financial gain and well-being.[75] However, most prominent law and economics scholars adopt a broader definition, namely that self-interest means anything that may contribute to an individual's satisfaction or "ends in life".[76] Moreover, they explicitly state that self-interest is not to be mistaken for selfishness as it can include consideration for others.[77] Thus, self-interest is compatible with and may include altruism.[78] However, some have suggested that the broader definition may lead to unworkable predictions.[79]

This paper argues that the narrow versus broad self-interest debate is a false dichotomy. In other words, both definitions are compelling because both contain some

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[74] *Ibid* at 1065.

[75] Kornhauser, *supra* note 23.

[76] Posner, *supra* note 2 at 3.

[77] Posner, *supra* note 2 at 4.

[78] Jeffery L Harrison, *Law and Economics in a Nutshell*, 4th ed (St Paul, Minnesota: Thomson/ West, 2007) at 55.

[79] Korobkin & Ulen, *supra* note 37 at 1065-66.

truth. Rather than taking an either/or approach in which only one definition may prevail, this paper maintains that both definitions are partly correct because some people are narrowly self-interested whereas others are broadly self-interested. However, ascertaining whether the majority of people are narrowly or broadly self-interested is an empirical question well beyond the scope of this paper.

3.1. Economics as the Allocation of Scarce Resources

In turn, this rational choice model of human behavior is extended to the principal area of study within economics: the allocation of scarce resources through the market. Admittedly, how the economic problem of the allocation of scarce resources relates to law may be somewhat obscured in existing explanatory texts for three reasons. First, as discussed previously, rationality is largely assumed within the literature. Although rational choice theory explains why and how market actors, including individuals and firms, seek to rationally self-maximize, this point is often implicit and taken as self-evident. The end result is that discussions regarding the market may inadvertently seem disconnected from rational choice theory even though the former implicitly relies on the latter. Second, existing texts are not uniform in their explanations of the market as they start from different premises depending on the scholar. This varying approach makes explanatory accounts seem somewhat inconsistent across texts. In particular, some texts open their summaries of microeconomics by taking the existence of markets as a given without explaining why they exist in the first place.[80] Others try to answer this question more definitively. Third, as alluded to earlier, stylistically these texts tend to not explicitly demonstrate how the economic idea of the market relates to law. Rather, the tendency is

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[80] E.g. Mercuro & Medema, *supra* note 4 at 20-25.

to simply provide a summary of microeconomics largely separate from law. Although this paper will adopt a similar approach in that it will first outline the standard orthodox view of markets under economics before discussing its legal application, this paper hopes to bridge the connection between economics and law. Therefore, it will begin by explaining economics and then outline how these economic concepts impact the analysis of law. Again, it is essential to provide an overview of the market solution to the problem of allocation of scarce resources because this is the guiding framework for law under law and economics.

3.2. Scarcity

Economics begins with the observation that human beings live in a world of scarcity in which there may be fewer resources available than people who desire them. Scarcity does not mean that resources are physically scarce but rather that the supply of a desired good is limited compared to the demand for it. For example, although E coli is physically scarce, as there is only a finite amount of E coli in the world, it is not economically scarce because people do not want this potentially fatal bacterium.[81] Scarcity leads to conflicts because there is a shortage of desired goods relative to people who want them. For example, if there were only two people and only one apple in the world, which they were unwilling to divide or share, they would be in conflict. In the language of economics, the apple is a scarce resource because its demand exceeds its supply as two people desire or demand the apple but there is a supply of only one available. Further assume that both people desire the apple because they want to eat it. If one person eats the apple then the other cannot and vice versa. Therefore, the apple has alternative or competing uses since

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[81] Cole & Grossman, *supra* note 3 at 3.

the one use excludes the other. Scarcity then creates real world problems of justly allocating resources.[82] The dilemma of who gets what is a very tangible and ongoing process.

3.3. The Market and Perfect Competition

Economics studies the process by which market forces allocate scarce resources by self-interested firms producing or supplying goods to meet consumer demand who are likewise acting in their own self-interest. Thus, developed countries allocate scarce resources through market economies through property rights as the market solution is to equate willingness and ability to pay with preferences which in turn serves as a rough proxy for utility.[83]

The economy is understood through the intellectual construct known as perfect competition. This theoretical market, being both purely competitive and functioning, assumes:

> (i) a large number of buyers motivated by self-interest and making the choices they expect will maximize their utility; (ii) many sellers, also motivated by self-interest, and acting to maximize their profits; (iii) individual buyers and sellers are unable to exert any control over the prices and are thus price takers; (iv) prices serve as guideposts for decision-makers in the market to (among other things) communicate scarcity; (v) products are standardized (i.e., homogenous); (vi) there are no barriers to entry or exit, which means that consumers and producers are free to enter or leave all product and factor markets; (vii) all buyers and sellers are fully informed as to the terms of all market transactions; (viii) resources are held in private property with all rights defined and assigned; and (ix) prevailing laws and property rights are fully enforced through the state.[84]

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[82] Presumably, it is preferable to not allocate resources through dictatorship or arbitrary means based on a desire for fairness. Though both are conceptually possible and unfortunately sometimes acted upon.

[83] Devlin, *supra* note 6 at 12.

[84] Mercuro & Medema, *supra* note 4 at 20.

Perfect competition takes the expected utility and self-interested theory of rational choice as the norm for firm and consumer behavior. It then adds to this theory a variety of assumptions such as that all transactions are made freely and with full consent and information. Importantly, perfect competition is an idealized construct meant to provide a useful model for economists to make workable predictions about the economy. It is not meant to provide an accurate depiction of the world as these conditions will rarely be met in practice. Perfect competition explains how producers utilize privately owned scarce resources to produce goods and services which meet the demands of consumers.[85]

The market necessitates that individuals make choices about what they desire most and how much they are willing to pay to acquire it. Since people have restricted time and income, they cannot chose to buy everything or have every experience that they would like to have[86] and accordingly must prioritize what they want most. Hence, the "economic problem is the necessity of choice under scarcity".[87] Microeconomics offers a theory, self-interested rationality, to explain how people make these decisions.[88] In economic terms, individuals choose the optimal bundle of goods and services that best satisfies their preferences given their constraints.[89] Individuals aim to self maximize because rationality requires it.[90] Hence, decisions are made at the margins in which people consider the benefit and cost of the next unit of any given good. Thus, people will

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[85] Mercuro & Medema, *supra* note 4 at 20-21.

[86] Cooter & Ulen, *supra* note 1 at 12.

[87] See Cole & Grossman, *supra* note 3 at 2-4 and Posner, *supra* note 2 at 3-4.

[88] Cooter & Ulen, *supra* note 1 at 12.

[89] Devlin, *supra* note 6 at 13-4.

[90] Cooter & Ulen, *supra* note 1 at 12.

only purchase or sell one unit more if the benefit that they would receive would be larger than the cost of purchasing or producing that unit.[91]

In practice, choices are costly because they require trade-offs in which any choice includes not only its explicit monetary price but also its opportunity cost which is the cost of foregoing alternatives.[92] For example, if a person paid $25 to eat a pizza at a restaurant then he or she would not only incur the monetary cost but also the opportunity cost of not ordering steak instead. Hence, economists often remark "there is no such thing as a free lunch". Similarly, people face information costs also known as or the costly of acquiring and comprehending information when making choices.

4.1. Incorporating Rationality and the Market: Old versus New Law and Economics

These insights from economics that humans conform to a rational choice model and that the market allocates scarce resources were initially modestly incorporated into law under what has been dubbed "old law and economics".[93] Following the leadership of University of Chicago law professor Aaron Director, who pioneered much of the economic analysis of antitrust law, early law and economics was almost entirely focused on competition matters. Although other areas of law were examined through an economic lens, such as corporate law, tax law and patent law, the old school was restricted to explicit markets

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[91] Cole & Grossman, *supra* note 3 at 5.

[92] For example, a person who chooses to eat lobster at a restaurant gives up the opportunity cost of eating chicken. See Cole & Grossman, *supra* note 3 at 4.

[93] See generally, Posner *supra* note 2.

and obvious "economic areas".[94] In this sense, the economic analysis of law was initially quite modest as it was limited to few areas.

In the 1960s and 1970s, law and economics crystallized into its modern form under the "new school" as revolutionary papers by Ronald Coase, Henry Manne, Guido Calabresi and Gary Becker expanded the economic analysis into core common law areas such as tort and contract.[95] These scholars understood economics as applicable to legal rules in areas traditionally not considered to be relevant for market behaviour, thus paving the way for economic analysis in virtually every aspect of law. Although these seminal pieces of scholarship were foundational for law and economics, they were somehow disjointed being focused on discrete areas of private and public law. It was not until a decade later when Richard Posner made the first attempt to demonstrate law and economics as an all encompassing theory throughout the entire common law in his landmark *Economic Analysis of Law*.[96] He largely repeated and summarized the findings of these earlier scholars in order to demonstrate the implicit underlying economic logic in all of law. Accordingly, although Posner did not originate all the ideas, in many respects he perfected them, earning him the role of mainstream law and economics' central figure.[97] Thus new law and economics holds that

> the economic approach is a comprehensive one that is applicable to all human behavior, be it behavior involving money prices or imputed shadow

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[94] Posner, *supra* note 2 at 29 and Mercuro & Medema, *supra* note 4 at 95-100.

[95] Posner, *supra* note 2 at 29-30 and Mackaay, *supra* note 26 at 72.

[96] Mackaay, *supra* note 26 at 76. Of course, Posner's book went beyond a merely descriptive function of summarizing prior scholarship as he also created the efficiency of the common law hypothesis.

[97] E.g. Mercuro & Medema, *supra* note 4 at 102 (acknowledging Posner as the "leading presence" of Chicago law and economics).

prices, repeated or infrequent decisions, large or minor decisions, emotional or mechanical ends.[98]

Under the new school of law and economics individuals are rational self-maximizers in all areas of their life, no matter what the decision or context.[99] This allows modern law and economics its unwavering insistence that economics is applicable to all areas of law rather than simply its obvious market areas such as competition and taxation, because much of law deals with non market behaviour such as divorce and accidents.[100]

4.2. The Problem of Social Cost

The shift from old to new law and economics began with Ronald Coase. "The Problem of Social Cost"[101] is one of the most widely cited and discussed articles in legal academia. It is the most cited article within law and economics[102] and "the most famous example of the economic analysis of law".[103] Yet despite its position as the foundational article of modern law and economics, tying rational choice theory and microeconomics to private law, it is commonly misunderstood and inaccurately summarized.[104] In part, this approach stems from George Stiglier's somewhat ungenerous view of Coase's article, coining the term "Coase Theorem" and influencing subsequent scholarship.[105] Consequently, much of

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[98] Becker, *supra* note 66 at 8.

[99] Posner, *supra* note 2 at 4.

[100] Posner, *supra* note 2 at 4. See also Miceli, *supra* note 13 at 1.

[101] Ronald H Coase, "The Problem of Social Cost" (1960) 3 Journal of Law & Economics 1.

[102] Friedman, *supra* note 3 at 45.

[103] Ulen, *supra* note 37 at 798.

[104] See generally Cole & Grossman, *supra* note 3.

[105] See generally Cole & Grossman, *supra* note 3. For more on the somewhat contentious relationship between Coase and Stiglier see generally Posner, *supra* note 22.

the current understanding of "The Problem of Social Cost" has been simplistically collapsed into the statement that absent transaction costs parties will negotiate to the efficient outcome. While Coase's article stands for this proposition, this is an overly narrow summary of his work divorced from its original context and purpose. More importantly, it fails to explain the utter centrality of "The Problem of Social Cost" within law and economics as necessary to unpacking the theory's central claims because the Coase Theorem is a step to positive and normative law and economics.

Although "The Problem of Social Cost" has broad implications for the entirety of law and economics, Coase wrote his article as a relatively focused and narrow response to the prevailing view of the day, popularized by economist Pigou, that government intervention was needed to correct market externalities. In the standard example of externalities, a factory produces harmful smoke as part of its production process which in turn pollutes a nearby residential area.[106] Since preventing the pollution would create additional production costs for the factory,[107] it has no incentive to stop polluting. It would be cheaper for the factory to pollute because that minimizes its costs. Consequently, the residents suffer the negative externality of pollution. In this instance, the private costs borne by the factory, namely the costs of its production process, diverge from the social costs, the costs of pollution on the residents. Thus, there is a negative externality, a form of market failure in which the actor does not experience the full costs

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[106] See Coase, *supra* note 101 at 837. Readers wishing for a more thorough discussion of the standard example are directed to Friedman, *supra* note 3 at 36-38.

[107] For example, by installing some devices to control or maintain the pollution.

of his or her behavior, in this case the pollution, because the cost is borne by another party.[108]

At the time of Coase's response, the then current understanding of negative externalities dictated three possible responses of state intervention to correct this market failure.[109] First, a Pigouvian tax could be levelled against the business for the amount of pollution. This tax should be priced at the same amount as the pollution thereby forcing the factory to internalize the costs of its production, correcting the negative externality. Second, the factory could be liable for the damages it caused, triggering the same process of internalizing the externality. Third, most invasively, the factory could be excluded from residential districts. In any event, Coase challenged all three options maintaining they were "inappropriate in that they lead to results which are not necessarily, or even usually, desirable".[110]

Coase flipped the prevailing understanding of externalities on its head, exposing the myth of presupposed mandatory state intervention. He began by carefully observing that contrary to the popular notion of externalities, which saw harm as a one-way monocausal relationship, this view mistakenly ignored the inherent reciprocal nature between the parties. It is not the case that the business in question is always the harm causer bearing full responsibility for the negative externality. Rather, Coase asserted, both parties negatively injure each other because externalities cannot exist without the presence of another. For example, if the factory had been polluting in an industrial area

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[108] Devlin, *supra* note 6 at 30.

[109] Again, the analysis of these three options are largely assumed and discussed briefly by Coase. See Coase, *supra* note 101 at 837.

[110] Coase, *supra* note 101 at 837.

with no neighbouring homes then there would not be a negative externality. It is only because some people chose to live next to the factory that harm occurred. Both parties are harmed by each other's presence because they have competing uses of the same space. Given then that externalities rely on an inherently reciprocal nature, the question is not which form of state intervention should be used to punish the business but rather which party should be allowed to inflict harm on the other.[111]

Coase illustrated the reciprocal nature of harm by using the economics model of perfect competition to demonstrate that parties can resolve tort disputes by negotiating to the efficient outcome, thereby eliminating any need for government intervention, through his now famous Coase Theorem hypothetical. Although the facts can be and have been explored in a variety of contexts,[112] in his original hypothetical Coase imagined a conflict involving a rancher whose cows wander into a neighbouring farmer's land, destroying some of the latter's crop.[113] He argued that absent transaction costs, the farmer and rancher would negotiate to the efficient outcome regardless of who held the initial property right. Therefore, regardless if the farmer had a legal right to not have the cows on his or her land or if the rancher had a legal right to allow his or her cattle to roam, either way the parties would negotiate to the exact same social outcome in a world of zero transaction costs.

Coase then demonstrated the theorem through a series of older common law tort cases where he showed that they all conformed to the same efficiency based logic. He

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[111] Coase, *supra* note 101 at 837-38.

[112] For example, the same conflict could be demonstrated through a conflict between a noisy pub and neighbouring residents. See Devlin, *supra* note 6 at 29-30.

[113] Coase, *supra* note 101 at 838.

argued these judges were implicitly drawing upon economic principles in their decisions. He maintained that although these judges did not invoke economic language, there nonetheless was "some recognition, perhaps largely unconscious and certainly not very explicit, of the economic aspects of the questions at issue".[114] Therefore, under Coase's view, economic reasoning in judicial decisions was largely intuitive and inherent.

Posner expanded upon Coase's foundational work by moving from the very specific tort examples outlined in "The Problem of Social Costs" into all areas of law generally. Not only would law generate efficient outcomes in the relatively contained examples discussed by Coase, but this efficiency hypothesis would explain the significantly broader entire body of common law doctrine. Thus, Posner maintained that transaction costs underlined both the positive and normative branches of law and economics, as existing legal doctrine is understood as the common law's effort to reduce transaction costs and that normatively the best legal decisions reduction transactions costs.[115]

4.3. The Market Applied to Law: Law As Prices and Law As Entitlements

Drawing largely from the work of Coase and Posner, the crucial innovation of law and economics was to take the market, a theoretical construct designed to explain the flow of scarce resources from rational profit maximizing firms to rational utility maximizing consumers, as a framework for understanding legal decisions from both the perspective of lawmakers and law abiders or breakers. No longer were markets limited to explicit

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[114] *Ibid* at 856.

[115] See generally Posner, *supra* note 22.

markets such as the stock trade, as now any legal decision can be analyzed under the "legal market". Economics can explain the behaviour of those those who enforce the law and those who obey or violate the law. Consequently, two approaches emerged the entitlement approach focused on lawmakers and the legal system which analogizes legal rules are setting the entitlements for scarce resources and the price theory approach which analogizes laws as setting prices for behavior implicitly shaping people's decisions to comply with or violate law. Although both views, co-exist throughout the scholarship, unfortunately most explanatory literature tends to be rooted in only one of these two approaches. In particular, many texts tend to only focus on the price theory view. Unfortunately, this emphasis on price theory creates inconsistency across texts and offers a somewhat myopic impression of law and economics. The better approach would be to explicitly set out that law and economics contains both a top-down approach focused on lawmakers, the entitlement view, and a ground-up approach focused on citizens, the price theory view.

4.4. Legal Rules As Prices

The rational choice model underscoring economics allows law and economics to accurately predict the real world effect of legal rules on people's behaviour.[116] This is because under rational choice theory "all relevant assumptions about individuals' desires, their knowledge, their capabilities, and the environment will have been made explicit".[117] The predictive mode is both empirical and practical, focusing on answering how changes

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[116] E.g. Shavell, *supra* note 38 at 1 and Friedman, *supra* note 3 at 9. This predictive mode is sometimes referred to as "descriptive law and economics": see e.g. Shavell, *supra* note 38 at 1. Since this term may be confused for the descriptive function of law and economics, the paper will instead use the term "predictive law and economics" to eliminate any ambiguous terminology.

[117] Shavell, *supra* note 38 at 1-2.

in law will alter behaviour. It aims to determine what effect a law will have by setting out a hypothesis to be tested against actual real world conditions. Thus, the price theory style of law and economics has a nearly endless array of questions to investigate such as whether increasing the length of imprisonment for murder will increase or decrease the murder rate or if punitive damages for products liability will encourage manufacturers to take greater care.[118] In this sense, this branch of law and economics is externally focused, concerned with how citizens interact with law and the legal system.

Closely tied to the predictive view lies the strong emphasis on *ex ante*, as opposed to *ex post*, reasoning within law and economics. Unlike the majority of legal theories which concentrate on *ex post* reasoning, accepting that the relevant harm occurred and accordingly only aiming to apportion the responsibility and cost of that harm, law and economics has broader goals. It seeks not only to address the parties in the particular case before it, but also to create incentives for similarly situated parties in the future.[119] Thus, "[l]egal rules are to be judged by the structure of incentives they establish and the consequences of people altering their behaviour in response to those incentives".[120] Law and economics has the benefit of maintaining the traditional goal of apportioning costs within any given legal case as well as positively impacting potential future cases.

The predictive view frames itself as value neutral, ostensibly illuminating the consequences of legal rules without guiding which legal rule is best. For instance, although law and economics can predict whether an increase in the penalty for speeding

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[118] See e.g. Cooter & Ulen, *supra* note 1 at 3, Miceli, *supra* note 13 at 4 and Mercuro & Medema, *supra* note 4 at 43.

[119] Posner, *supra* note 2 at 32-33 and Mercuro & Medema, *supra* note 4 at 43.

[120] Friedman, *supra* note 3 at 11 (emphasis removed).

will lead to a decrease in this behaviour, it cannot dictate whether this is a sensible change. However laudable the goal of a value neutral theory may be, critics argue that applying economics to law "shapes thought and language by determining what we look at and what we see".[121] Their argument is that law and economics, by highlighting attention to efficiency concerns, determines the scope of debate for legal change and subsequently implicitly informs the choice of legal rule. On the contrary, law and economics scholars assert that mere prediction of what effect a particular legal rule will have does not denote any particular conclusion.[122] Regardless of how neutral the predictive mode is in practice, nearly everyone agrees that analyzing what effects law will have is valuable especially as it may ultimately help determine which rule is preferable.[123]

Moreover, law and economics expands upon this function to argue that law and economics predicts the real world effect of legal rules which, by extension, may shape behaviour in a socially desirable direction.

4.5. Legal Rules As Entitlements

Utilizing economics, the study of the allocation of scarce resources, law and economics conceives of law as a battleground for allocation. Under a legal framework, the allocation of scarce resources refers not to the physical resource itself but rather the right or entitlement to that scarce resource.[124] This may be thought of as the "right to perform certain actions".[125] Since in most situations transaction costs are prohibitively high, such

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[121] Mercuro & Medema, *supra* note 4 at 44.

[122] Ulen & Cooter, *supra* note 1 at 4.

[123] Friedman, *supra* note 3 at 15.

[124] Cole & Grossman, *supra* note 3 at 6.

[125] *Ibid* citing Coase.

that parties will not be able to negotiate to the efficient outcome, there must be an objective criteria that will allow lawmakers to assign entitlements. Thus, the law should allocate scarce resources by "mimicking the market" so that entitlements are assigned to the most efficient user, replicating what would have happened in a perfectly functioning market.[126] In practice, courts are expected to either lower transaction costs facilitating competitive markets and allowing for mutually beneficial exchanges or, if transaction costs are prohibitively high, price transactions at the rate that they would have been if the parties had been able to bargain. Law and economics justifies this approach through its use of the market as a guiding analogy for legal decisions.

5.1. The Benchmark for Law and Economics: Efficiency

Under economics, efficiency is the standard used to assess how well the market is functioning. It is used to judge the total costs and benefits stemming from the allocation of entitlements to scarce resources based on individual preferences. Efficiency therefore is the "proxy for social welfare; the more efficient a given allocation, the greater welfare benefits for society".[127] In turn, efficiency is also the normative hallmark for the evaluation of legal rules under law and economics. Put simply, a legal rule or decision is good if it increases efficiency and bad if it does not.

Unfortunately, efficiency is often defined and weighed differently as well as is misunderstood in the scholarship.[128] Although different versions of efficiency co-exist within law and economics, at its heart efficiency reflects the extent to which law

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[126] See also Coleman, *supra* note 11 at 658.

[127] Cole & Grossman, *supra* note 3 at 12.

[128] Jules L Coleman, "Efficiency, Auction and Exchange: Philosophic Aspects of the Economic Approach to Law" (1980) 68:2 Cal L Rev 221 at 222.

facilitates people's ability to satisfy their preferences; the more efficient an outcome is, the better it satisfies these preferences. Typically, both economics and law and economics begin with the concept of Pareto efficiency or a Pareto improvement in which at least one person is made better off and no one else is made worse off as the result of a voluntary transaction.[129] Since neoclassical economics judges efficiency by the extent to which people's preferences are satisfied, individuals are made "better off" under Pareto efficiency because they judge their own preferences to be more fulfilled.[130] Exchanges under Pareto efficiency affect the allocation of scarce resources by placing them in the hands of those who desire them most. Consequently, Pareto efficiency is a measure of allocative efficiency which refers to "the distribution of goods and services in the economy to maximize social welfare".[131] It is an attractive standard, being strongly grounded in consent as only voluntary exchanges are possible and any exchange which will make at least one person worse off is prevented.[132]

Despite its appeal, in reality few transactions will ever be Pareto efficient as, by definition, it only applies to contracts without negative externalities.[133] Consequently, it is extremely difficult if not impossible to adopt Pareto criteria as a legal standard as the majority of legal rules produce losers. In other words, it is impossible to interpret a legal rule without making at least one party worse off.[134] Consequently, Pareto efficiency exists

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[129] Devlin, *supra* note 6 at 32.

[130] *Ibid*.

[131] Cole & Grossman, *supra* note 3 at 13.

[132] See generally Devlin, *supra* note 6 and Miceli, *supra* note 13.

[133] Cole & Grossman, *supra* note 3 at 14.

[134] See generally Mercuro & Medema, *supra* note 4.

more as an ideal rather than a practical measure. Moreover, even if possible, it suffers from two principal theoretical limitations. First, since it takes initial distributions as a given and only judges whether subsequent exchanges are efficient,[135] Pareto efficiency does nothing to correct situations where an initial distribution of goods and services is unjust. Second, similarly, it does not lead to a unique allocation but rather a multitude of different allocations. Since there are many possible allocations, these are non comparable because they all make at least one person better off. Consequently, a main criticism of efficiency based standards is that there is no way of ranking them.[136]

The difficulty in actualizing Pareto efficiency has led to the much more controversial Kaldor-Hicks efficiency or wealth maximization as the efficiency norm in law and economics. Under Kaldor-Hicks efficiency, a legal decision is considered efficient provided that the winners could theoretically compensate the losers and still experience a net gain. However, actual compensation need not take place.[137]

5.2. A Positive and Normative Theory

Law and economics is both a positive and a normative theory of law. Positive law and economics is internally focused and descriptive, being concerned with the internal consistency of legal rules.[138] Positive law and economics asserts that law, particularly

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[135] Cole & Grossman, *supra* note 3 at 14.

[136] Miceli, *supra* note 13 at 4-5. For example, if A valued a good at $1 and B valued the same good at $100, then any exchange between $1 and $100 would be efficient.

[137] It is for this reason that Kaldor-Hicks efficiency is sometimes referred to as Pareto potential efficiency to reflect that the fact that compensation need not actually occur.

[138] The Chicago school is sometimes referred to as "the positive school" in contrast to the "normative school" of Yale law and economics in scholarship. See e.g Parisi, *supra* note 23 at 264. However, to avoid confusion the paper will only use the terms positive and normative to refer to the underlying claims within the Chicago school rather than to denote different schools.

common law doctrine, has been developed in accordance with the principle of efficiency such that existing legal rules are wealth maximizing.[139] This claim, known as the "efficiency of the common law hypothesis",[140] is most closely associated with Posner whose thesis held that common law doctrine developed according to an underlying economic efficiency in order to avoid waste and maximize societal wealth.[141] In his landmark *Economic Analysis of Law*, Posner demonstrates how each common law doctrine may be conceptualized as an attempt to lower transaction costs and maximize wealth. In turn, this set up a research agenda for scholars to use concepts from neoclassical economics to determine which rules are efficient and show that the common law did in fact operate according to this principle.[142]Although the efficiency of the common law hypothesis has provoked significant debate and criticism testing its validity, this debate is outside the scope of this paper. Consequently, the efficiency of the common law hypothesis will be largely assumed notwithstanding literature contesting this claim.

As a continuation of positive law and economics, normative law and economics extends and justifies the efficiency of the common law claim as the preferable style of legal rules. Not only has law been developed in accordance with wealth maximization, as revealed by the descriptive branch, but additionally law should maximize wealth across

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[139] See Parisi, *supra* note 23 at 264.

[140] Parisi, *supra* note 23 at 264.

[141] This view has also been supported by law and economics scholars who argue that litigation tends toward efficiency. See e.g. Paul H Rubin, "Why Is The Common Law Efficient?" (1977) 6 J Legal Stud 51 and William M Landes, "An Economic Analysis of the Court" (1971) 14 J L & Econ 61. Similarly, there have been some efforts to expand the efficiency of the common law claim across legal systems. See Paul H Rubin, "Micro and Macro Legal Efficiency: Supply and Demand" (2000) 13 Supreme Court Economic Review 19.

[142] Mackaay, *supra* note 26 at 76-77.

society. Admittedly, wealth maximization as a normative principle, has been extremely controversial both within and especially outside law and economics. There is no uniformity or consensus between law and economics scholars on whether efficiency should be the goal of law and how law should be reformed to best achieve efficiency.[143] Although, wealth maximization has triggered significant hostility outside law and economics,[144] these objections are outside the scope of the paper and it accepts wealth maximization as this is normative law and economics under the mainstream view.

In turn, the positive and normative branches of law and economics center on three main areas. As Friedman explains, law and economics is principally concerned with three distinct areas of "predicting what effect particular legal rules will have, explaining why particular legal rules exist, [and] deciding what legal rules should exist".[145] In other words, law and economics has a descriptive function aimed at understanding why law has unfolded in the particular way that it has, a predictive function aimed at identifying what effect law will have and a normative function aimed at choosing what the best laws are. It seeks to understand why past law has developed, while also looking to see how law should be shaped in the future.

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[143] It is for this reason that "normative law and economics" may also be seen as an invitation to decide what normative basis law should be decided upon. This paper is only using the term normative law and economics to denote the mainstream Chicago view. See Hanson, Hanson & Hart, *supra* note 20 at 300 and Mercuro & Medema, *supra* note 4 at 48-50.

[144] See notably, the Hofstra Law Review Symposium on Efficiency including Richard A Posner, "The Ethical and Political Basis of the Efficiency Norm in Common Law Adjudication" (1980) 8:3 Hofstra L Rev Article 2, Jules L Coleman, "Efficiency, Utility and Wealth Maximization" (1980) 8:3 Hofstra L Rev Article 3 and Ronald Dworkin, "Why Efficiency? A Response to Professors Calabresi and Posner" (1980) 8:3 Hofstra L Rev Article 4. This symposium led to a small wave of scholarship in the 1980s concerned with the moral basis, or lack thereof, of wealth maximization.

[145] Friedman, *supra* note 3 at 15.

6.1 Conclusion

This paper has synthesized the major literature explaining law and economics in the hopes of providing a more coherent and complete account of the theory. It has described how law and economics rests on a rational choice theory which is the basis for explaining the allocation of scarce resources through the market. In turn, the concept of the market is analogized to all legal decisions providing an efficiency based view of law. This requires lawmakers to either lower transaction costs such that parties can either negotiate to efficient outcomes themselves or price transactions in such a way that the parties would have if there had been no transaction costs.

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