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The Regressive Effect of Legal Uncertainty

*Uri Weiss**

Abstract

Legal uncertainty has a regressive distributive effect. There are sides that gain from increasing legal uncertainty and others that lose from it. Legal uncertainty leads to regressive settlements; a shift from a more certain legal regime to a less certain one transfers wealth from risk-averse parties to risk-neutral parties via the settlements. Thus, because poor people are more risk-averse than rich people, legal uncertainty leads to a transfer of wealth from poor people to rich people. In addition, because women are—or are perceived to be—more risk-averse than men, legal uncertainty leads to a transfer of wealth from women to men. In other words, legal uncertainty has class-regressive and gender-regressive effects. Furthermore, legal uncertainty transfers wealth from parties with weak bargaining power to those with strong bargaining power. It is important to understand the regressive effects of legal uncertainty because the degree of legal uncertainty is not determined by nature; it is a choice by society.

THE REGRESSIVE EFFECT OF LEGAL UNCERTAINTY

1. HOW TO REDUCE INJUSTICE IN LEGAL NEGOTIATION

How can injustice in negotiation be reduced? This question is applicable to legal negotiations, international relations, labor negotiations, and political negotiations. Every negotiation has its own particular characteristics. In international relations, for example, there is no effective court to enforce the agreement. This paper focuses on the effects of legal uncertainty on legal negotiation. In this first section, we present a broad agenda. Thereafter, we will focus on the regressive effect of legal uncertainty. Our main recommendation is that “litigation games” with great legal uncertainty should be avoided.

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Before going deeply into our question, let us examine John Nash's definition of negotiation: "A two-person bargaining situation involves two individuals who have the opportunity to collaborate for mutual benefit in more than one way."¹ In bargaining situations, the parties have both common interests and competitive interests. There are many potential agreements that leave both sides better off, but the two sides often prefer different agreements.

The standard approach toward justice in negotiation presented by Samuelson is the following: "Perhaps the common reason for believing competition to be optimal stemmed from the recognition that no party could be hurt by exchange as compared to his position before trade, since he could always refuse to trade. *Thus, trade is better than no trade; exchange is mutually beneficial; one party does not gain what the other loses . . .*"² The first to propose this type of reasoning was Adam Smith, who said, "[T]rade which, without force or constraint, is naturally and regularly carried on between any two places, is always advantageous, though not always equally."³ The conclusion which can be drawn from this is that there are different degrees of fairness (or justice) in negotiation.

Although it is true that if two sides come to a settlement in the game they play, (i.e. in the sort of interaction they undertake), this means that they both expect to gain something from the agreement. It does not mean that the settlement was achieved in a "just game." The game can be biased in favor of one party; this can also be true in litigation.

We are interested in the following problem: legal settlements might not reflect the expected outcome of the trial on a one-to-one basis. Furthermore, they might be systematically biased in favor of rich people, repeat-players (as pointed out by Galanter⁴) and men, and biased against poor people, one-time players, and women. The bias might be such that weak people will be systematically precluded from obtaining what they are entitled to according to the law. How should these biases be reduced? How can judges and legislators prevent games in which the weak side will obtain much less than that to which it is entitled by the law? How can incentives for unjust settlement be prevented? How can we create disincentives for the strong party (such as insurance firms and banks) to refuse to pay the weak party what they are obliged by the law to pay?

It is especially important to reduce regressive biases in legal settlements because the vast majority of legal cases end in settlement.⁵ When the legal settlements

1. John F. Nash, *The Bargaining Problem*, 18 *ECONOMETRICA* 155, 155 (1950).

2. PAUL A. SAMUELSON, *FOUNDATIONS OF ECONOMIC ANALYSIS* 204 (1947).

3. ADAM SMITH, *AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS* 489 (R. H. Campbell & A. S. Skinner eds., 9th ed. 1827).

4. Marc Galanter, *Why the "Haves" Come Out Ahead: Speculations on the Limits of Legal Change*, 9 *LAW & SOC'Y REV.* 95 (1974).

5. According to Eisenberg and Lanvers "Regardless of the method of computing settlement rates, no reasonable estimate of settlement rates supports an aggregate rate of over 90 percent of filed cases, despite frequent references to 90 percent or higher settlement rates. The aggregate rate for the EDPA [District of Pennsylvania] alone was 71.6 percent and for the NDGA [Northern District of Georgia] alone was 57.8 percent, suggesting significant interdistrict variation, which persists even within case categories. We report separate settlement rates for employment discrimination, constitutional tort, contract, and tort cases in the two districts. The highest settlement rate was 87.2 percent for tort cases in the EDPA and the lowest was 27.3 percent for constitutional tort cases in the NDGA. Our results suggest a hierarchy of settlement rates. Of major case categories, tort cases tend to have the highest settlement rates, then contract cases, then employment discrimination cases, followed by constitutional tort cases." Theodore

are biased relative to the expected judgment of the court, then we fail, at least partly, to achieve some goals of the law. First, under a legal uncertainty regime, we will achieve the goal of *corrective justice* only in part. The weak side will acquire only part of the compensation to which it is entitled. In other words, we note not only a problem of distributive justice, but also one of *corrective justice*.⁶

This paper will argue that the result of legal uncertainty is that weak people can achieve only partial corrective justice. Second, that the goal of law is to minimize suffering, injustice, and arbitrariness or, in the words of the Bible, “[i]f ye oppress not the stranger, the fatherless, and the widow...” (Jeremiah 7, 6). When legal settlements are significantly biased against weak people, we cannot achieve this goal satisfactorily; the weak will be subject to arbitrary behavior. Third, legal uncertainty may move us from a rule of law to a rule of men where people might behave arbitrarily toward one another without compensating others to the degree to which they have a legal right. Fourth, that the goal of deterrence will be achieved only in the sense that the potential injurer will partly internalize the risk he imposes on society. If the agent pays xD for damage D , such that $0 < x < 1$, he will internalize only x of the risk. And fifth, that legal uncertainty might block efficient risk-shifting by insurance contracts. If the injured person is compensated for only part of her damage due to legal uncertainty, then it will be impossible to shift the full risk to the insurance company.

This is the key to the problem: legal settlements are not independent of the law. Legal negotiation is pursued in the shadow of the law, and settlements depend, *inter alia*, upon the expected outcome of the trial.⁷ Thus, when a judge decides cases, her decisions also, in effect, determine the undecided cases—the ones that are settled out of court. But legal settlements do not reflect the expected judgments on a one-to-one basis. Furthermore, they are systematically biased against weak sides. The degree of a regressive bias is not determined as a law of nature but depends upon choices made by society.

Specifically, we argue in this paper that legal uncertainty has a regressive effect. There are sides that gain from increasing legal uncertainty and others that lose from it. Legal uncertainty leads to regressive settlements; a shift from a more certain legal regime to a less certain one transfers wealth from risk-averse parties to risk-neutral parties. Thus, because poor people are more risk-averse than rich people,⁸ legal uncertainty leads to a transfer of wealth from poor people to rich people.

Eisenberg & Charlotte Lanvers, *What is the Settlement Rate and Why Should We Care?*, 6 J. EMPIRICAL LEGAL STUD. 111, 111 (2009).

6. We quote from Stanford Encyclopedia of Philosophy: “Corrective justice, then, essentially concerns a bilateral relationship between a wrongdoer and his victim, and demands that the fault be cancelled by restoring the victim to the position she would have been in had the wrongful behaviour not occurred; it may also require that the wrongdoer not benefit from his faulty behaviour. Distributive justice, on the other hand, is multilateral: it assumes a distributing agent, and a number of persons who have claims on what is being distributed. Justice here requires that the resources available to the distributor be shared according to some relevant criterion, such as equality, desert, or need. In Aristotle’s example, if there are fewer flutes available than people who want to play them, they should be given to the best performers. In modern debates, principles of distributive justice are applied to social institutions such as property and tax systems, which are understood as producing distributive outcomes across large societies, or even the world as a whole.” David Miller, *Justice*, THE STAN. ENCYC. OF PHIL. ARCHIVE (June 26, 2017), <https://plato.stanford.edu/archives/fall2017/entries/justice/>.

7. Robert H. Mnookin & Lewis Kornhausert, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L.J. 950, 996-97 (1979).

8. See KENNETH JOSEPH ARROW, *ESSAYS IN THE THEORY OF RISK-BEARING* (1971).

Additionally, because women are — or are perceived to be — more risk-averse than men,⁹ legal uncertainty leads to a transfer of wealth from women to men. In other words, legal uncertainty has both class-regressive and gender-regressive effects. Furthermore, legal uncertainty transfers wealth from parties with weak bargaining power to those with strong bargaining power. It is important to understand the regressive effects of legal uncertainty because the degree of legal uncertainty is not determined by nature; it is a societal choice.

Methodologically, we adopt the social engineering approach of Karel Popper, and we use game theory.¹⁰ However, we see the current mechanism design theory as too utopian to be applied to law, and argue that it should be replaced by a theory that will be part and parcel of social science. We adopt Karel Popper's approach of "social engineering," and follow his anti-utopian attitude: "The piecemeal engineer will, accordingly, adopt the method of searching for, and fighting against, the greatest and most urgent evils of society, rather than searching for, and fighting for, its greatest ultimate good."¹¹ In particular, we do not ask how to *achieve* legal justice in negotiation but how to *reduce* injustice in legal negotiation; we do not ask how to create just litigation games but how to prevent unjust litigation games from being played. The Utopian approach is one of the fundamental mistakes in law and economics, and in mechanism design. It is common in law and economics to search for the law that will lead to the *optimal* outcome, providing the maximum size "pie," and to think about maximizing happiness instead of minimizing pain. Mechanism design scholars, such as Leonid Hurwicz, propose to build the mechanism that will lead to the desired goal, and they apply this approach to legal institutions as well.¹² We prefer another approach: We do not try to identify games that will lead to the optimal result but to *prevent* games in which it is in the best interests of the players to come to an unjust result. Weiss and Agassi explain:

[W]e suggest that the most significant achievement of game theory is not in the design or in the applications of games but in the suggestions of what games it is unwise to play. Here we follow Popper, who said, politically, preventing pain or suffering has priority over creating pleasure. Obviously, in game theory, prevention is also much easier than application, because every game requires some conditions for its very applicability, and these are never too clear and seldom parts of game theory proper.¹³

9. Joop Hartog, Ada Ferrer-i-Carbonell & Nicole Jonker, *On a Simple Measure of Individual Risk Aversion*, TINBERGEN INST. 11 (2000), <https://papers.tinbergen.nl/00074.pdf>. See also Joni Hersch, *Smoking, Seat Belts, and Other Risky Consumer Decisions: Differences by Gender and Race*, 17 *MANAGERIAL & DECISION ECON.* 471 (1996); Martin Daly & Margo Wilson, *Risk-Taking, Intrasexual Competition, and Homicide*, 47 *NEB. SYMP. ON MOTIVATION I* (2001).

10. Game theory concerns conflicts and cooperation. Instead of studying one particular conflict, game theorists seek the common general principles that influence many sorts of interactions, including war and peace, trade, litigation, and by extension even interactions between animals and between genes. Aumann said: "Up to now all the effort has been put into resolving specific conflicts: India–Pakistan, North–South Ireland, various African wars, Balkan wars, Russia–Chechnya, Israel–Arab, etc., etc. I'd like to suggest that we should shift emphasis and study war in general." Robert J. Aumann, *War and Peace*, CORE 350 (Dec. 8, 2005), <https://core.ac.uk/download/pdf/6598622.pdf>.

11. KARL R. POPPER, *THE OPEN SOCIETY AND ITS ENEMIES* 139 (1947).

12. See LEONID HURWICZ & STANLEY REITER, *DESIGNING ECONOMIC MECHANISMS* (2006).

13. Uri Weiss & Joseph Agassi, *How Game Theory Encourages Peace* (Work in Progress).

In this paper, for example, we recommend avoiding playing the game of legal negotiation under a large degree of legal uncertainty. We do not follow the mechanism design approach expressed by Maskin in his Nobel lecture: “We begin by identifying our desired outcome or *social goal*. We then ask whether or not an appropriate institution (mechanism) could be designed to attain that goal. If the answer is yes, then we want to know what form that mechanism might take.”¹⁴ Contrary to the minimalist approach of Karel Popper, this approach is too Utopian. The law usually cannot design a particular game in real life because every situation in real life consists of many elements. Aumann said it all in his interview with Eric Van Damme 1998,

“[W]hat one needs for game theory to work, in the sense of making verifiable (and falsifiable[]) predictions, is that the situation be structured . . . Sometimes when people interview me for the newspapers in Israel, they ask questions like, can game theory predict whether the Oslo agreement will work or whether Saddam Hussein will stay in power. I always say, those situations are not sufficiently structured for me to give a useful answer. They are too amorphous. . . . Now, if you don’t have a structured situation . . . usually you can only say something qualitative . . . [Y]ou can have a theory that makes predictions on the basis of this formal structure, and you can check how often that theory works out, and you can design a system based on those parameters.”¹⁵

Furthermore, the goal of law or politics, from a liberal point of view, is not to achieve the desired end but to prevent wrongs and evils. It is not to lead us to paradise but to prevent us from entering Hell. In this paper, we take a great deal from game theory. In this work, we use the tools of game theory to see things that are not consistent with our intuition. In fact, game theory can actually change our intuition. Game theory offers a means to investigate what kind of games society should prevent. We recommend preventing people from playing the game of legal negotiation under a large degree of legal uncertainty, and other games in which it is in the best interest of the weak parties to come to settlements that provide them much less than the law allows. More generally, we recommend prohibiting litigation games that can lead to great injustice. Therefore, we recommend analyzing particularly *asymmetric* games.

The main methodological difference between our analysis of negotiation under uncertainty and the economic literature of negotiation between people who have different attitudes toward risk, such as Binmore,¹⁶ is that we do not take the uncertainty as given. Instead, in our analysis, the variable is the uncertainty.¹⁷ We think

14. Eric S. Maskin, *Mechanism Design: How to Implement Social Goals*, SCHOLAR.HARVARD.EDU 296 (Dec. 8, 2007), https://scholar.harvard.edu/files/maskin/files/eric_s._maskin_-_prize_lecture.pdf.

15. *On the State of the Art in Game Theory: An Interview with Robert Aumann*, in UNDERSTANDING STRATEGIC INTERACTION, 8-34 (Wulf Albers et. al. eds., 1997).

16. See Ken Binmore, Ariel Rubinstein & Asher Wolinsky, *The Nash Bargaining Solution in Economic Modeling*, 17 RAND J. OF ECON. 176 (1986). They describe a game in which each player makes an offer on their turn, and there is a particular risk of breakdown if the offer is rejected. We do not understand why the players cannot choose this “risk”, but we know that Rubinstein does not view game theory as teaching something about reality. *See id.*

17. Additionally, in contrast to those such as Binmore et al., we are not focused on the effect of risk aversion on bargaining power but on the disagreement payoff.

about a situation in which society can choose the degree of uncertainty, as in the game. Von Neumann and Morgenstern said, “[t]he game is simply the totality of the rules which describe it.”¹⁸ Kenneth Arrow considered that, “[t]he *rules of the game* are *social*. The theory of games gets its name and much of its force from an analogy with social games. But these have definite rules which are constructed, indeed, by a partly social process. Who sets rules for real-life games?”¹⁹ We analyze a situation in which the legislators and the judge can design the rules of the game, particularly the degree of uncertainty in the game. Our goal is not only to interpret a specific situation but also to consider how to change real-life situations—how to change the rules such that weak people will not be incentivized to settle for much less than they are entitled to under the law and to consider which situations we should prevent.

In the next section, we will propose a definition of legal uncertainty. Thereafter, we will discuss what can lead to legal uncertainty, review the literature that discusses when to prefer legal certainty to other competitive values, present the theorem that legal uncertainty leads to a transfer of wealth from risk-averse parties to risk-neutral parties, and provide an explanation for this transfer. Then, we will discuss which groups are risk-averse and propose some applications. Legal uncertainty also leads to a transfer of wealth from people with weak bargaining power to people with strong bargaining power; we note that the doctrine of champerty is a regressive one. We will discuss the effect of class action on settlement negotiations under legal uncertainty and the effect of conventional ethics on this bargaining. We will discuss the difference between the effects of legal uncertainty in torts relative to that in contracts. We will also discuss the effect of Lawyers’ Ethics when there is legal uncertainty. Finally, we will discuss the effect of legal uncertainty on legal evolution.

2. LEGAL UNCERTAINTY

2.1. Definition

When we refer to “legal uncertainty,” we refer to the variance of the expected judgment of the court. It is important to clarify that we do not address the probability of guessing the outcome, but rather, the variance of the expected judgment. Thus, standard is not necessarily more uncertain than rule, although it is more difficult to guess the outcome of a trial under a standard regime. For example, a comparative negligence regime takes the form of a legal standard. It is usually more certain than a contributory negligence regime that is in the form of a legal rule. Under a comparative negligence regime, the plaintiff might have a 33.33% probability of receiving 0, a 33.33% probability of receiving 50, and a 33.33% probability of receiving 100. Under a contributory negligence regime, the plaintiff might have a 50% probability of receiving 0 and a 50% probability of receiving 100. In this case, despite the fact that there are more possible outcomes, and because the variance of the possible outcomes is less, the comparative negligence regime is more

18. JOHN VON NEUMANN & OSKAR MORGENSTERN, *THEORY OF GAMES AND ECONOMIC BEHAVIOR* 49 (3d ed. 1980).

19. Kenneth J. Arrow, *Methodological Individualism and Social Knowledge*, 84 *THE AM. ECON. REV.* 1, 5 (1994).

certain. It is therefore more difficult to foresee the exact outcome of the case. When the remedy is standard, it can decrease legal uncertainty.

2.2. *Sources of Legal Uncertainty*

What are the sources of uncertainty? There can be uncertainty concerning the question of law which the court will apply, how the court will interpret the law, how the court will apply the law it chooses, whether the court will decide according to that law, and what the factual decisions of the court will be. For example, there may be uncertainty concerning whether the court will believe a particular witness.

There are legal systems in which there is more uncertainty and legal systems in which there is less uncertainty. We can ask what makes a legal system less uncertain concerning legal decisions. The degree of legal uncertainty depends upon parameters such as the strength of the rule of law in the system, the precision of the legislation, the laws governing evidence, and even the number of judges deciding each case.

Society establishes the degree of legal uncertainty it accepts by determining factors such as the clarity of its legislation, the method courts use to interpret the law, the status of precedent, the rules for interpreting contracts, and decisions concerning when to prefer legislating standards and when to prefer legislating rules.²⁰ Legal certainty also depends on how precise the law is, when the court must make decisions according to the law, what the court should do when the law leads to injustice, how much discretion the court should have, when authorities should be bound by the law, and how complex the legal system is, for example, in regard to questions of choice of law and jurisdiction. The above questions can be generalized to the question: When should legal uncertainty be preferred to competitive values?

2.3. *Literature Review of the debate about legal uncertainty*

Let us review the disagreement concerning the proper place of certain laws in society, as in when to prefer legal uncertainty to competitive values. This question has been discussed both implicitly and explicitly by different cultures.

Aristotle supported the rule of law, whereas “Plato” supported the rule of the philosopher king.²¹ The hero of the Plato dialogue *The Statesman* claimed that because the law is general, it leads to injustice in particular cases. Therefore, we should reject the rule of law and give the philosopher king power to determine justice in every particular case. “The legislator who has to preside over the herd, and to enforce justice in their dealings with one another, will not be able, in enacting for the general good, to provide exactly what is suitable for each particular case.”²² Let us examine the words in which the stranger in the “Statesman” of Plato made his proposal: “There can be no doubt that legislation is in a manner the business of a king, and yet the best thing of all is not that the law should rule, but that a man

20. See Pierre J. Schlag, *Rules and Standards*, 33 UCLA L. REV. 379 (1985).

²¹ I write “Plato” because Plato wrote dialogues; we cannot know what his opinion was. Thus, it is more accurate to speak about the opinions of the heroes in Plato’s Dialogues.

22. BENJAMIN JOWETT, 3 THE DIALOGUES OF PLATO, TRANSLATED INTO ENGLISH WITH ANALYSES AND INTRODUCTIONS (PG 1555) (1901).

https://webs.ucm.es/info/diciex/gente/agf/plato/The_Dialogues_of_Plato_v0.1.pdf

should rule supposing him to have wisdom and royal power.”²³ This is the explanation:

The law does not perfectly comprehend what is noblest and most just for all and therefore cannot enforce what is best. The differences of men and actions, and the endless irregular movements of human things, do not admit of any universal and simple rule. And no art whatsoever can lay down a rule which will last for all time... But the law is always striving to make one;—like an obstinate and ignorant tyrant, who will not allow anything to be done contrary to his appointment, or any question to be asked—not even in sudden changes of circumstances, when something happens to be better than what he commanded for someone . . . A perfectly simple principle can never be applied to a state of things which is the reverse of simple.²⁴

However, by the end of the dialogue, the stranger appears to change his mind: “Then monarchy, when bound by good prescriptions or laws, is the best of all the six, and when lawless is the most bitter and oppressive to the subject.”²⁵

In contrast to the hero of Plato, the approach of Aristotle in *Politics* is that in the law, you have the intellect without the passion. Therefore, we should prefer rule of law over rule of men. He also claimed, “He who bids the law rule, may be deemed to bid God and Reason alone rule, but he who bids man rule adds an element of the beast; for desire is a wild beast, and passion perverts the minds of rulers, even when they are the best of men. The law is reason unaffected by desire.”²⁶ In *Ethics*, Aristotle said, “[t]his is why we do not allow a *man* to rule, but *rational principle*, because a man behaves thus in his own interests and becomes a tyrant.”²⁷ However, the attitude of Aristotle is much more complicated than supporting strict rule of the formal law. First, Aristotle recognized as a source of law not only written laws but customary ones: “Hence it is evident that in seeking for justice men seek for the mean or neutral, and the law is the mean. Again, customary laws have more weight, and relate to more important matters, than written laws, and a man may be a safer ruler than the written law, but not safer than the customary law.”²⁸ Second, Aristotle recognized the problem that general law can lead to injustice in particular cases, but he had another solution:

[A]ll law is universal but about some things it is not possible to make a universal statement which shall be correct. In those cases, then, in which it is necessary to speak universally, but not possible to do so correctly, the law takes the usual case, though it is not ignorant of the possibility of error. And it is none the less correct; for the error is not in the law nor in the legislator but in the nature of the thing, since the matter of practical affairs

23. *Id.* at 1612.

24. *Id.* at 1611.

25. *Id.* at 1618.

26. BENJAMIN JOWETT & ARISTOTLE, THE POLITICS OF ARISTOTLE 102 (Benjamin Jowett trans., Clarendon Press 1885).

27. ARISTOTLE, THE NICOMACHEAN ETHICS 91 (Lesley Brown ed., David Ross trans., Oxford World’s Classics 2009) (1958).

28. JOWETT, *supra* note 27, at 102.

is of this kind from the start. When the law speaks universally, then, and a case arises on it which is not covered by the universal statement, then it is right, where the legislator fails us and has erred by over-simplicity, to correct the omission-to say what the legislator himself would have said had he been present, and would have put into his law if he had known. Hence the equitable is just, and better than one kind of justice--not better than absolute justice, but better than the error that arises from the absolute-ness of the statement. And this is the nature of the equitable, a correction of law where it is defective owing to its universality. In fact this is the reason why all things are not determined by law, namely, that about some things it is impossible to lay down a law, so that a decree is needed.²⁹

In the Jewish law, there is a similar controversy concerning the extent to which the judge should decide according to the law and what to do when decisions made according to the general law lead to evil in a particular case. According to Maimonides, the judge should decide according to the law also in those cases. Maimonides admits that the rule does not consider the exception and it can lead to injustice:

It is also important to note that the Law does not take into account exceptional circumstances; it is not based on conditions which rarely occur. Whatever the Law teaches, whether it be of an intellectual, a moral, or a practical character, is founded on that which is the rule and not on that which is the exception: it ignores the injury that might be caused to a single person through a certain maxim or a certain divine precept . . . We must consequently not be surprised when we find that the object of the Law does not fully appear in every individual; there must naturally be people who are not perfected by the instruction of the Law, just as there are beings which do not receive from the specific forms in Nature all that they require.³⁰

However, unlike Plato, and even Aristotle, Maimonides thought that the judge should still decide according to the law in those cases:

[I]t is impossible to be otherwise; and we have already explained (chap. xv.) that that which is impossible always remains impossible and never changes. From this consideration it also follows that the laws cannot like medicine vary according to the different conditions of persons and times; whilst the cure of a person depends on his particular constitution at the particular time, the divine guidance contained in the Law must be certain and general, although it may be effective in some cases and ineffective in others. If the Law depended on the varying conditions of man, it would be imperfect in its totality, each precept being left indefinite. For this reason it would not be right to make the fundamental principles of the Law dependent on a certain time or a certain place; on the contrary, the statutes and the judgments must be definite, unconditional and general, in accordance with the divine words: 'As for the congregation, one ordinance shall

29. ARISTOTLE, *supra* note 28, at 99.

30. M. FRIEDLANDER, MOSES MAIMONIDES: THE GUIDE FOR THE PERPLEXED (1928 ed.).

be for you and for the stranger;³¹ they are intended, as has been stated before, for all persons and for all times.³²

In contrast to Maimonides, Rabbi Isaac Ben Moses Arama adopted the view of Aristotle. He based his view on the following Talmudic passage:

R. Yohanan taught, ‘Jerusalem was destroyed because its inhabitants judged according to the law of Torah.’ Should they instead have made arbitrary judgments?! Rather, [the teaching means that] they based their judgments on a strict interpretation of Torah law, instead of acting within the line of the law.³³

He explained that those judges decided in every particular case according to the general law regardless of whether they agreed that the result was just, and by this, they destroyed the world.³⁴

According to Rabbi Joseph Caro, the judge should ask the sides whether they prefer that he decide according to the law or as a settlement. If they both choose that he decide as a settlement, he should decide within the line of the law—that is, to uphold justice in every particular case—otherwise, he must decide according to the law.³⁵ The rule is that it is sufficient that one party resist a settlement to oblige the judge to decide according to the law. However, the commentators of Caro emphasized that the judge should attempt to convince the sides to make a settlement instead of demanding a decision.³⁶ We view the law of the Jewish communities as both anarchist and legalist. It is anarchist in the sense that the Jewish court does not have a police power, and it is legalist in the sense that if one party demands it, the court must decide according to the law, and the law covers almost every situation of life in detail.

The founding fathers of classical liberalism, such as John Locke and Adam Smith, supported legal certainty. They saw it as a barrier to arbitrariness. Locke claimed that human beings have established the state in order to have clear laws, objective courts, and authorities to enforce the laws.³⁷ When the law is clear, the weak person can show the strong person that he violated the law. According to Locke:

31. *Numbers* 15:15

32. FRIEDLANDER, *supra* note 31.

33. Bava Metzia 30b: The William Davidson Talmud, SEFARIA, https://www.sefaria.org/Bava_Metzia.30b?lang=bi (last visited Oct. 31, 2018).

34. Dr. Jacob Weinroth is entitled to the credit of being the first to point out that this approach of Rabbi Issac Ben Moses Arama is similar to this of Aristotle in his disagreement with Plato. See Jacob Weinroth, *Human limitations – Man, Rule and Chance*, DAAT, 5362 (Jewish Year), 62 (Hebrew), <http://www.daat.ac.il/mishpat-ivri/skirot/61-2.htm> (last visited Nov. 5, 2018).

35. *Id.*

36. Ashkenazi, R. Y. Ba’er Heitev, commentary to Choseh'n Mishpat 12:2.

37. “Firstly, there wants an established, settled, known law, received and allowed by common consent to be the standard of right and wrong, and the common measure to decide all controversies between them. For though the law of Nature be plain and intelligible to all rational creatures, yet men, being biased by their interest, as well as ignorant for want of study of it, are not apt to allow of it as a law binding to them in the application of it to their particular cases.” JOHN LOCKE, TWO TREATISES OF GOVERNMENT 159 (Hollis ed., 1764).

[W]hoever has the legislative or supreme power of any commonwealth is bound to govern by established standing laws promulgated and known to the people, and not by extemporary decrees, by indifferent and upright judges, who are to decide controversies by those laws; and to employ the force of the community at home only in the execution of such laws, or abroad to prevent or redress foreign injuries and secure the community from inroads and invasion. And all this to be directed to no other end but the peace, safety, and public good of the people.³⁸

However, it appears that Locke did not recognize the authority of the legislator to make laws that violate human rights.

Adam Smith presented four maxims governing taxation. The most important is that the laws be clear:

The tax which each individual is bound to pay, ought to be certain and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor, and to every other person. Where it is otherwise, every person subject to the tax is put more or less in the power of the tax-gatherer, who can either aggravate the tax upon any obnoxious contributor, or extort, by the terror of such aggravation, some present or perquisite to himself. The uncertainty of taxation encourages the insolence, and favours the corruption, of an order of men who are naturally unpopular, even where they are neither insolent nor corrupt. The certainty of what each individual ought to pay is, in taxation, a matter of so great importance, that a very considerable degree of inequality, it appears, I believe, from the experience of all nations, is not near so great an evil as a very small degree of uncertainty.³⁹

American Legal realists challenged the possibility of deciding according to the law and achieving legal certainty this way. Justice Holmes wrote:

The life of the law has not been logic: it has been experience. The felt necessities of the time, the prevalent moral and political theories, intuitions of public policy, avowed or unconscious, even the prejudices which judges share with their fellow-men, have had a good deal more to do than the syllogism in determining the rules by which men should be governed. The law embodies the story of a nation's development through many centuries, and it cannot be dealt with as if it contained only the axioms and corollaries of a book of mathematics. In order to know what it is, we must know what it has been, and what it tends to become.⁴⁰

The legal realists argue that law is what the courts do, and that it is impossible to extrapolate from the law decisions that will be made in particular cases. Legal realists usually do not perceive degrees. Holmes, for example, wrote: "The prophecies of what the courts will do in fact, and nothing more pretentious, are what I

38. *Id.* at 161.

39. SMITH, *supra* note 4, at 347.

40. OLIVER WENDELL HOLMES, JR., *THE COMMON LAW* 1 (Harvard Univ. Press, 2009).

mean by the law.”⁴¹ They argue that “careful empirical consideration of how courts really decide cases reveals that they decide not primarily because of law, but based (roughly speaking) on their sense of what would be ‘fair’ on the facts of the case.”⁴² The legal realists present a legal version of *Realpolitik*. According to the *Realpolitik* movement, international agreements are not worth their paper. The legal realism movement follows this anti-formalistic approach, viewing the law in the same spirit as the *Realpolitik* view of international agreements. They have adopted the criticism of the courts of equity in the UK and apply it also to the law of commons. Legal realism is actually a reactionary romantic movement that does not perceive the difference in the influence of the law between states that have a strong rule of law and states that do not have a rule of law. Therefore, it should not be a surprise that this movement is so popular in the law school of Israel, in which there is weak rule of law,⁴³ but that it is denied or ignored by the vast majority of legal scholars.

Two legal theory movements follow the legal realist: one is “critical legal studies,” and the second is “law and economics.”⁴⁴ Critical legal studies adherents are post-moderns who resist any method of decision and thus invite arbitrariness, uncritical discussion, and unpredictability of court decisions.⁴⁵ One of their founding fathers and prophets is Duncan Kennedy, who claimed, “[t]here is a connection, in the rhetoric of private law, between individualism and a preference for rules, and between altruism and a preference for standards.”⁴⁶ In this paper, we refute his theory. We argue that standards that create uncertainty perhaps lead to justice in a

41. Oliver Wendell Holmes, Jr., *The Path of the Law*, 110 HARV. L. REV. 991, 994 (1997).

42. Brian Leiter, *American Legal Realism*, in THE BLACKWELL GUIDE TO PHILOSOPHY OF LAW AND LEGAL THEORY 51-52 (Martin P. Golding & William A. Edmundson eds., 2005). Jabez Fox claimed: “But the principle which gives to judgments the effect of law requires merely that an adjudged case which cannot be distinguished on any rational ground shall be followed. Beyond this the judge has a free hand to decide the case before him according to his view of the general good. It may be that his decision will be governed by ‘the social standard of justice,’ but the essential point is that no human being can tell how the social standard of justice will work on that judge’s mind before the judgment is rendered. It is this element of uncertainty which gives to every new judgment the force of a new rule. Without this the law would be as fixed as the law of gravitation. It is this element of uncertainty, too, which makes the practice of the law a highly intellectual pursuit. An eclipse of the sun can be predicted with such ease and certainty that the astronomer turns the calculations over to his office boy. That is not the sort of work in which judges and lawyers are engaged.” Jabez Fox, *Law and Logic*, 14 HARV. L. REV. 39, 43 (1900).

43. Joseph Agassi, *Israel: A Rule of Law or of Arrangement?*, in THE STATE OF ISRAEL: BETWEEN JUDAISM AND DEMOCRACY 235-62 (Israel Democracy Inst. ed., 2003).

44. Posner claimed: “The line of descent from Holmes includes Legal Realism, a movement that fizzled for want of a theoretical framework to guide research. Legal Realism had both normative and positive features—it was both critical and scientific. The scholarly movement that is today’s counterpart to Legal Realism as the foremost alternative to doctrinal analysis is economic analysis of law, or, as it is sometimes called, ‘Law and Economics.’ It too has both normative and positive aspects. The normative branch of the economic analysis of law can be viewed as a direct descendant of Legal Realism, by way of Guido Calabresi; the positive branch comes from outside the law, from the work of economists such as Ronald Coase and Gary Becker. Calabresi’s brand of normative economic analysis of law shares with Legal Realism a desire to perform radical surgery on the common law; for example, Calabresi wishes to do away with fault as the basic guide to allocating liability in accident cases. The positive analysts such as myself resemble traditional doctrinal analysts in believing that there really are rules of law—that the law is not wholly a matter of judicial discretion, as the more extreme Legal Realists believed. We use economics to inquire to what extent the common law is a coherent system of rules concerned with promoting efficiency.” Richard A. Posner, *The Present Situation in Legal Scholarship*, 90 YALE L.J. 1113, 1120 (1981).

45. Mark V. Tushnet, *Critical Legal Studies: A Political History*, 100 YALE L.J. 1515, 1517-18 (1991).

46. Duncan Kennedy, *Form and Substance in Private Law Adjudication*, 89 HARV. L. REV. 1685, 1776 (1976).

particular case but end up causing poor people to settle for less. The greatest impact of the law is not its effect on a particular decided case, but its effect on undecided cases.

The law and economics movement developed legal realism to reflect that what judges *do*, in deciding cases in a way that maximizes utility, is what they *should* do. Posner claimed that the common law legal rules are efficient and ought to be efficient.⁴⁷ While Adam Smith claimed that “political economy [should be] considered as a part of the science of a statesman or legislator,”⁴⁸ the law and economics scholars actually consider political economics as the science of the judge as well. The law and economics movement adopts the views of the Chicago School concerning what leads to efficiency.⁴⁹ If the mainstream of the law and economics movement actually claims that what judges should do is decide according to the economic theory of the Chicago School, regardless of the law, then the mainstream of law, and economics is an anti-democratic movement. Despite their poor culture and their philosophy, as expressed by their welfare measurements (such as Kaldor-Hicks Efficiency⁵⁰), which are a fabrication of the utilitarian theory, the law and economics scholars have achieved much by importing economical and game-theoretical methods to legal studies. They improved economic theory by discussing the role of assumption much more than economists have done, but not yet to a satisfactory degree. In the past, I taught my students that game theory can help us in answering the following questions: What are the expected results of a set of rules? What is recommended for a player in the legal game? How can the desired results be achieved by choosing the proper rules (which is actually a subset of mechanism design)? However, I now prefer another approach: Game theory can help us in investigating particularly which games should be avoided. This is, incidentally, consistent with the Talmud which, in discussing the effect of rules, does not recommend establishing rules that lead to the desired results, but resisting rules that will lead to undesired results.⁵¹ This paper is another challenge to law and economics

47. See RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* (1972).

48. SMITH, *supra* note 4, at 36.

49. Parisi claimed: “The Chicago school laid most of its foundations on the work carried out by Richard Posner in the 1970s. An important premise of the Chicago approach to law and economics is the idea that the common law is the result of an effort—conscious or not—to induce efficient outcomes. This premise is known as the efficiency of the common law hypothesis. According to this hypothesis, first intimated by Coase (1960), and later systematized and greatly extended by Ehrlich and Posner (1974), Rubin (1977) and Priest (1977), common law rules attempt to allocate resources in either a Pareto or Kaldor-Hicks efficient manner. Further, according to the positive school, common law rules are said to enjoy a comparative advantage over legislation in fulfilling this task because of the evolutionary selection of common law rules through adjudication.” Francesco Parisi, *Positive, Normative and Functional Schools in Law and Economics*, 18 *EUR. J.L. & ECON.* 259, (2004).

50. John R. Hicks, *The Foundations of Welfare Economics*, 49 *ECON. J.* 696 (1939); Nicholas Kaldor, *Welfare Propositions of Economics and Interpersonal Comparisons of Utility*, 49 *ECON. J.* 549 (1939).

51. See URI WEISS, *THE ANTIMONY OF TESTIMONY OF THE JEWISH LAW* (2018); and see those examples: 1. The Mishnah Gittin 4:6 says, “Captives are not to be redeemed for more than their worth, for ‘the general good.’” Maimonides explained this rule: “so that enemies will not pursue people to hold them captive.” MISHNE TORAH, *MATNOT ANIYIM* chp. 8, 12. In other words, the goal of this rule is to prevent the providing of an incentive to kidnap. The above-mentioned Mishnah also makes the following determination: “And captives are not to be ‘smuggled out’ of captivity, for ‘the general good.’” R. Shimon b. Gamliel says, “For the good of the captives.” Maimonides explains this rule: “. . . so that enemies will not oppress captives seriously and be very strict when guarding them.” *Id.*
2. There are a number of Halakhic rules derived from the Talmudic principle “so that the sinner does not profit [from his sin]” (e.g., Mishnah, *Zeraim*, Kahla, 2, 7). In other words, the law should not be such that it will be worthwhile to sin.

because adopting the recommendations of law and economics leads to great legal uncertainty.

Although the legal realists' ideas should be resisted, Franz Kafka's criticism of the law and bureaucracy is particularly apt. On its face, Kafka's approach appears consistent with legal realism. However, the opposite is true; what the legal realists consider to be the desired situation, Kafka views as a path to disaster. The descriptive part of Kafka and the legal realist are similar, but the normative parts are very different. He wrote in *The Trial* (original German title: *Der Prozess*):

Moreover, you said earlier that the judges can be influenced personally but now you insist that an absolute acquittal, as you call it, can never be attained through personal influence. That entails a second contradiction. 'It's quite easy to clear up these contradictions,' said the painter. 'We're talking about two different things here, there's what it says in the law and there's what I know from my own experience, you shouldn't get the two confused. I've never seen it in writing, but the law does, of course, say on the one hand that the innocent will be set free, but on the other hand it doesn't say that the judges can be influenced. But in my experience it's the other way round. I don't know of any absolute acquittals but I do know of many times when a judge has been influenced. It's possible, of course, that there was no innocence in any of the cases I know about. But is that likely? Not a single innocent defendant in so many cases?'⁵²

Kafka shows how the utopian bureaucratic model of Max Weber can lead to a disaster. But, while Kafka identified the danger, he did not view it as applying to every legal system to the same degree, and he actually described a system in which there is a complicated bureaucracy without the rule of law.⁵³ Therefore, his book is a great argument in favor of subjecting the government to the rule of law. Furthermore, in *The Problem of our Laws* Kafka wrote: "Our laws are unfortunately

3. The Mishnah says: "If two [people] deposited money with one, one has deposited a maneh (100) and the other two hundred zuz, [and afterwards] one says: 'The two hundred zuz are mine,' and the other one says: 'The two hundred zuz are mine,' [the guardian] shall give a maneh (100) to one and a maneh (100) to the other, and the balance shall be put aside until Eliyahu comes. Rabbi Yosei said: If so, what did the deceiver lose? Rather, everything shall be put aside until Eliyahu comes". BAVA METZIA MISHNAH 3, 4. Rabbi Yosei actually proposed that in this case, the result would be that each side would get zero, which would dramatically reduce the incentive of the potential liar to lie, thereby protecting the honest person in particular.

4. The Talmud says (Babba Kamma, 8): "This is a rabbinic enactment made in order that prospective borrowers should not find the door of their benefactors locked before them." The Talmud designed the rules of borrowing such that it would not be very disadvantageous to borrow. The Talmud considers that overprotection of the borrowers may be against their interest because it would make it very difficult for them to secure loans in future.

52. FRANZ KAFKA, COLLECTED WORKS 278 (2015).

53. Walter Benjamin claimed: "Kafka's work is an ellipse with foci that are far apart and are determined, on the one hand, by mystical experience (in particular, the experience of tradition) and, on the other, by the experience of the modern big-city dweller. In speaking of the experience of the big-city dweller, I have a variety of things in mind. On the one hand, I think of the modern citizen who knows that he is at the mercy of a vast machinery of officialdom whose functioning is directed by authorities that remain nebulous to the executive organs, let alone to the people they deal with. (It is known that one level of meaning in the novels, particularly in *The Trial*, is encompassed by this.)" WALTER BENJAMIN, ILLUMINATIONS: ESSAYS AND REFLECTIONS (Hannah Arendt ed., Harry Zohn trans., Schocken Books, 1968).

not widely known, they are the closely guarded secret of the small group of nobles who govern us. We like to believe that these old laws are scrupulously adhered to, but it remains a vexing thing to be governed by laws one does not know.”⁵⁴ Moreover, in *The Penal Colony*, he wrote, “[t]he basic principle I use for my decisions is this: Guilt is always beyond a doubt. Other courts could not follow this principle, for they are made up of many heads and, in addition, have even higher courts above them. But that is not the case here, or at least it was not that way with the previous Commandant.”⁵⁵ This is a clear-cut refutation of the view that certainty is the most important part of the law, or that every uncertain law is inferior to certain law. One might believe that the Kafkaesque position Kafka refutes is only a theoretical one, perhaps a straw man argument. However, this was the view of Judge Antonin Scalia in his homophobic and dark opinion in the case of *Lawrence v. Texas* discussing the constitutionality of the “sodomy” laws. He wrote, “Liberty finds no refuge in a jurisprudence of doubt.”⁵⁶ This was the Court’s sententious response, barely more than a decade ago, to those seeking to overrule *Roe v. Wade*.⁵⁷ The Court’s response today, to those who have engaged in a 17-year crusade to overrule *Bowers v. Hardwick*,⁵⁸ is very different. The need for stability and certainty now “presents no barrier.”⁵⁹

The value of legal certainty can be criticized because it leads to absurd views such as that of Scalia and that in the above-mentioned work, *The Penal Colony*. Furthermore, the value of legal certainty can be undermined by the insight of Dr. King that “everything [Adolf] Hitler did in Germany was ‘legal’ and everything the Hungarian freedom fighters did in Hungary was ‘illegal.’”⁶⁰ From the point of view of legal liberalism, when the law becomes oppressive, it loses its legitimacy and its authority; it becomes no more than a commandment by an officer or commander. Thus, it should no longer be considered a law.

Our legal approach is close to that of Aristotle, Locke, and Smith. We support the rule of law and clear laws, but we do not recognize the authority of the state to legislate oppressive laws even when the constitution “permits” it to do so. Like Dr. King, we agree with St. Augustine (or Thomas Aquinas) that “[a]n unjust law is no law at all.”⁶¹ The most important part of the rule of law is not that citizens obey the law but that rulers obey the law. This is the essence of the rule of law as a substitute for the rule of men. The rule of law is a negative value, depriving the rulers of the authority to rule inconsistently with the law. The rule of law and the social contract theory can identify which governments are illegitimate. Law is a *necessary* condition for the legitimacy of the regime, but not a *sufficient* one. Even anarchists will admit that it is better to have a government that is subject to the rule of law than to have a government that is not subject to it. But the anarchists have not discussed a second best option, i.e. what is most desirable when the abolition of the state is impossible. Similarly, the social contract theory can lead us to conclude that certain

54. Franz Kafka, *Short Cuts*, 37 LONDON REV. OF BOOKS 14 (2015).

55. FRANZ KAFKA, *THE METAMORPHOSIS AND OTHER STORIES OF FRANZ KAFKA* (2000).

56. *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833, 844 (1992).

57. *Roe v. Wade*, 410 U.S. 113 (1973).

58. *Bowers v. Hardwick*, 478 U.S. 186 (1986).

59. *Lawrence v. Texas*, 539 U.S. 558, 586 (2003).

60. Letter from Martin Luther King Jr., from Birmingham Jail (Aug. 1963).

61. Edward J. Damich, *The Essence of Law According to Thomas Aquinas*, 30 AM. J. JURIS. 79, 79 (1985).

regimes are illegitimate because there cannot be any hypothetical consent for their power. However, the social contract theory is not sufficient to provide the same legitimacy as actual consent provides.

Another justification for valuing legal certainty is that legal uncertainty leads to a transfer of wealth from the weak to the strong and causes the weak to achieve much less corrective justice than they are entitled to by law. Beyond the philosophical writings about legal uncertainty, the effect of legal uncertainty can be seen in an investigation of the negotiation of settlements.

We first propose to revise the economical interpretation of the institution of legal entitlements. It is common in the law and economics literature to translate legal entitlements or rights into money. There are many criticisms of this translation, including that it translates values into commodities and dismisses the idea of “red lines,” i.e. that there are things that shall not be done regardless of their consequences. Also, that laws constrain the social goals of maximizing the size of the pie, or increasing happiness and societal welfare, and that in courts, in contrast to political bodies, lawyers should not advocate for what is efficient but rather for what is just. I would like to offer another criticism: It is a mistake to translate legal entitlements or rights into money because it ignores the possibility that such rights or entitlements might be uncertain. It is much more apt to translate them into “securities” or stocks because of this potential uncertainty. When we think about securities, we think about both the expected return and the risk. If we use the framework of law and economics to examine entitlements/rights, we must think also about the risk; therefore, the analogy of securities is much better. A worker might prefer to have a guaranteed legal right to receive \$1,000 than to receive \$1,200 with probability 0.9; this example further refutes the validity of translating rights into money.

3. REGRESSIVE EFFECT

3.1. Theorem and Example

Legal uncertainty leads to a transfer of wealth from risk-averse people to risk-neutral people. The following example explains this theorem: A risk-neutral and a risk-averse party—a bank and a customer—are litigating about an asset with a value of 100. Under a legal certainty regime, the law is such that each side is entitled to 50% of the asset (as in the *Tallit* rule⁶²). In other words, each side has a 100% chance of receiving 50; therefore, the monetary payoff function of each side is 1×50 . In contrast to this, under a legal uncertainty regime, each side has a 50% chance of gaining all and a 50% chance of gaining nothing, i.e., each side has a 50% chance to gain 100, and 50% chance to gain 0. Hence, the payoff function of each side, in money, is $(0.5 \times 100) + (0.5 \times 0)$. We can easily see that the expected judgments of each side in the two cases are equivalent; in both cases, the expected judgment will award 50. However, the variance of the judgment in each regime is different:

62. “Two holding a garment. One of them says, “I found it,” and the other says, “I found it.” One of them says, “It is all mine,” and the other says, “It is all mine.” Then, one swears that his share in it is not less than half, and the other swears that his share in it is not less than half and it should then be divided between them.” MISHNAH BAVA METZIA, in THE MISHNAH: A NEW INTEGRATED TRANSLATION AND COMMENTARY chp. 1 (Machon Y. Trust trans., 2012).

in the certainty regime, the variance is 0, whereas in the uncertainty regime, it is 50^2 .

We know that the vast majority of cases end in settlement. Therefore, let us review the settlement outcome we will have under each regime. In the certainty regime, each side knows that there is a 100% chance that he or she is going to win 50 in a trial. Therefore, neither side is going to agree to any settlement that awards less than 50; the disagreement payoff of each side is 50. So, the only possible settlement is 50-50; where the bank receives 50, and the customer receives 50.

In contrast to this situation, under a legal uncertainty regime, the expectation of the judgment is $(0.5 \times 100) + (0.5 \times 0)$. The disagreement payoff of the risk-neutral party—the bank—will continue to be 50. For the bank, the value of the lottery of a trial is the expected judgment, which equals 50. However, for the risk-averse side—the customer—the value of the trial is less than that of the expected judgment. He or she prefers a lower, but certain sum of money to the outcome of a risky lottery. Let us assume that the value of the trial for the customer is 25.⁶³ In other words, the customer's disagreement payoff is 25, this being the minimum sum of money that the customer will agree to receive in a settlement. Then, the disagreement payoffs of the bank and the customer are 50 and 25, respectively, and the surplus is 25. Let us assume that the parties will share the surplus equally, giving each side 50% of it. This leads to an expected settlement of 62.5-37.5 in favor of the risk-neutral side—the bank.

Thus, when we shift from a legal certainty regime to a legal uncertainty regime, we change from a settlement of 50-50 to a settlement of 62.5-37.5 in favor of the risk-neutral side—the bank. In other words, the shift from the legal certainty regime to the legal uncertainty regime transfers wealth of 12.5 from the risk-averse to the risk-neutral side—from the customer to the bank. This is the regressive effect of legal uncertainty.

3.2. Theoretical Explanation of the Regressive Effect

Legal uncertainty imposes risk on the parties, and they are interested in neutralizing this risk. The mechanism for doing so is settlement. Through settlement, each side actually buys an insurance policy from the other side. The “give and take” of this insurance occurs under conditions of bilateral monopoly. In other words, the risk-neutral side actually sells an insurance policy to the risk-averse side in the course of the settlement. The greater the legal uncertainty, the higher is the risk. Therefore, the insurance policy becomes more attractive for the risk-averse side; he or she will agree to pay more to neutralize the legal risk via the settlement. Conversely, the risk-neutral side, which is not sensitive to the increase in legal uncertainty, will not agree to pay anything to neutralize a legal uncertainty of any degree. The consequence is that legal uncertainty lowers the disagreement payoff of the risk-averse side, whereas it does not change that of the risk-neutral side. Thus, the higher the legal uncertainty, the less the risk-averse side is going to receive in the settlement, and the more the risk-neutral side will receive. The greater the legal uncertainty, the more regressive will be the settlement.

63. This happens when the utility function of money is $y = x^{1/2}$ and the initial wealth of the customer is 0.

When one side is more risk-averse than the other is, the more risk-averse side will be more sensitive to the legal uncertainty, which means that the more risk-averse side will agree to pay more for the insurance than will the less risk-averse side. In other words, legal uncertainty has differing effects on people who relate differently to risk; the more risk-averse the person, the higher the sum of money he or she is ready to pay to neutralize the risk. That is, legal uncertainty lowers the disagreement payoff of a person according to his risk-aversion level; the greater the risk aversion, the greater the reduction. Thus, the more risk-averse the customer, the lower the settlement she achieves with the bank.

Now let us examine what will happen when one side is more risk-averse, and the other is less risk-averse. Let us assume that the more risk-averse side gains x from the surplus. When we shift from a legal certainty regime to a legal uncertainty regime, the gap between one side's disagreement payoff in the legal certainty regime, and that in the legal uncertainty regime represents the insurance premium that this side is ready to pay. Let us mark this premium as P , such that P_m is the premium of the more risk-averse, and P_l is the premium of the less risk-averse. The proposition that in a particular case legal uncertainty leads to a transfer of wealth from the more risk-averse side to the less risk-averse side will be valid if and only if $P_m/P_l > x/(1-x)$. Hence, if they divide the surplus equally, the side whose insurance premium is lower is interested in increasing the legal uncertainty.

4. WHICH GROUP IS MORE RISK-AVERSE?

We have now shown that legal uncertainty leads to a transfer of wealth from the more risk-averse side to the less risk-averse side, but which groups are more risk-averse? We will show that rich people are less risk-averse than poor people and that men are (at least perceived to be) less risk-averse than women. In other words, legal uncertainty leads to a transfer of wealth from poor people to rich people and from women to men.

4.1. Class-Regressive Effect

People are risk averse because they benefit more from their first dollars than from their last. With their first dollars, they acquire their most basic needs, and with their last, they acquire luxuries. If they do not know whether they will be rich or poor but they have a 50% probability of being rich and the same probability of being poor, then, when asked whether they would prefer that the rich or the poor person receive \$1,000, they choose the poor person. Because they are risk averse, their minimum acceptable settlement under conditions of legal uncertainty becomes lower than their expected gain at trial, even when there are no litigation costs.

Now, we wish to show that legal uncertainty reduces the minimum acceptable settlement of poor people much more than that of rich people; this is what makes legal uncertainty regressive. Legal uncertainty reduces the minimum acceptable settlement of poor people much more than that of rich people because the poor are more risk-averse than the rich.

In assuming this, we follow the 1972 Nobel Prize laureate in Economics (who was a great humanist economist) Kenneth Arrow, who claimed that absolute risk aversion decreases with wealth. The decreasing absolute risk aversion assumption

(“DARA”) implies that every risk a person would take now, he would still take when he becomes richer, and that there are risks he would not take now that he will take when he becomes richer.⁶⁴ Arrow said that this assumption “seems supported by everyday observation.”⁶⁵ Jiankopolos and Bernasek characterized this assumption as “consensus,”⁶⁶ and Levy, Levy and Solomon characterized it as “widely accepted.”⁶⁷ Friend and Blume wrote, “no one is likely to argue with the plausibility of decreasing absolute risk aversion.”⁶⁸

While this assumption is accepted at face value in the literature, it can be established theoretically and empirically. Theoretically, it is not clear that there is an a priori case for DARA.⁶⁹ However, let us examine the following implication of DARA. Consider an individual allocating his initial wealth between two assets, one with a fixed rate of return and the other with a random rate of return. Then one would expect that the amount (not proportion but absolute amount) invested in the risky asset should rise with initial wealth. This is a restatement of DARA. Therefore, if we accept this implication, we accept DARA. Now, let us consider how to test the assumption of DARA empirically. We cannot test the assumption directly by reference to real-life data, but we can test the above implication. Whether or not we expect it to be true a priori, it is certainly a fact that the volume of common stocks held increases with wealth, and, in fact, wealthier people (and American universities) nowadays go in for even riskier assets (collateral-backed obligations and even synthetic CDOs).⁷⁰ The assumption of DARA was accepted by several researchers.⁷¹

64. Arrow proposed this interpretation: “it amounts to saying that the willingness to engage in small bets of fixed size increases in wealth, in the sense that the odds demanded diminish”. ARROW, *supra* note 9, at 187.

65. *Id.*

66. Nancy A. Jianakoplos & Alexandra Bernasek, *Are Women More Risk Averse?*, 36 ECON. INQUIRY 620 (1998).

67. See MOSHE LEVY, HAIM LEVY, & SORIN SOLOMON, MICROSCOPIC SIMULATION OF FINANCIAL MARKETS: FROM INVESTOR BEHAVIOR TO MARKET PHENOMENA (2000).

68. Irwin Friend & Marshall E. Blume, *The Demand for Risky Assets*, 65 AM. ECON. REV. 900, 901 (1975).

69. We propose to follow the assumption of Foster and Hart in measuring riskiness—that people wish to adopt a strategy that guarantees no-bankruptcy. See Dean Foster & Sergiu Hart, *An Operational Measure of Riskiness*, 117 J. POL. ECON. 785, 786 (2009). This assumption implies that the poor will be more risk averse than the rich. This is because the rich would take any gamble the poor would take, because for every gamble in which the poor have more than the critical wealth that guarantees no-bankruptcy, the rich have even more. Moreover, the poor would avoid some gambles that the rich would take, because there are gambles in which the critical wealth that guarantees no-bankruptcy is more than the poor have, but less than the rich have. We wish to modify this assumption of Hart and Foster by proposing that people adopt a strategy that guarantees no-falling below a standard of living that commands respect (or a strategy that cannot break my life), because if I become bankrupt, this would become my creditors’ problem, not mine. Under this new assumption, the conclusion will also be that poorer people are more risk-averse.

70. Letter from Kenneth Arrow, economist and Nobel Prize in Economics Laureate, to Robert J. Aumann, mathematician and Nobel Prize in Economics Laureate (May 31, 2010).

71. The study of Jiankopolos and Bernasek showed that both men and women choose greater rates of risky investments when they are richer. Jianakoplos & Bernasek, *supra* note 67. The empirical study of Chavas and Holt “indicate that corn-soybean farmers are risk averse and that they exhibit decreasing absolute risk aversion and downside risk aversion.” See Jean-Paul Chavas & Matthew T. Holt, *Economic Behavior Under Uncertainty: A Joint Analysis of Risk Preferences and Technology*, 78 REV. ECON. & STAT. 329, 335 (1996). Guiso and Paiella used data from the Bank of Italy Survey of Household Income and Wealth (SHIW) on household willingness to pay for a hypothetical risky security. They find that risk aversion is a decreasing function of the endowment – thus rejecting CARA preferences. See Monica

Actually, even when a particular poor person has no DARA utility, if, for example, he is a risk-lover or has “increasing absolute risk aversion” (“IARA”) utility, his low economic status imposes an expectation of risk-aversion on him. Based on this expectation, he will receive a lower settlement proposal. Thus, even when a particular poor person is not risk-averse, the other side might use statistical discrimination in the negotiation, as long as this mechanism works.

Even if we do not accept the assumption of DARA, we can establish the regressivity of legal uncertainty with a different approach. We note that legal uncertainty transfers wealth from the single citizen to the partnership. Assume that the defendant is a large firm—say a partnership with ten risk averse partners, each with the same utility and the same starting point as the plaintiff. If the suit is for \$100 and has a 50% probability of succeeding, then each partner stands to lose just \$10. If the firm represents its partners’ interests, its disagreement payoff (the minimum acceptable settlement) should be $10 \times$ (the certainty equivalent of each partner’s risk). Because of their risk aversion, and because they have the same starting point, this is much closer to \$50 than the certainty equivalent of the suit itself to the plaintiff, who is just one person. This time, the class regressivity of legal uncertainty is less direct: poor people will usually receive less under a legal uncertainty regime because they are usually less united. However, if the rich side were less organized, as, for example, in a trial between the state, which represents its citizens’ interests, and a single businessman, then the single businessman would be more risk-averse given that the sides have the same “constant absolute risk aversion” (“CARA”) utility function. In this case, legal uncertainty leads to a transfer of wealth from the single businessman to the state given they have symmetrical bargaining power.

However, in the case of bankruptcy, there is an exception to the conclusion that legal uncertainty leads to a transfer of wealth from the poor to the rich. In this case, the debtor becomes a risk lover; he has the “power of no power.”⁷² Bankruptcy can be used as a commitment in the legal negotiation. If the debtor has debts of 60, and the expected sum of money to be gained in a trial is 50, then he prefers the legal uncertainty regime (in which there is a 50% chance of gaining 0 and a 50% chance of gaining 100) to a certainty regime (in which there is a 100% chance of gaining 50). This is because in the certainty regime, debtors will gain 50, all of which will go to the creditors. In contrast, in the legal uncertainty regime, there is a 50% chance of gaining 100, of which the creditors will receive 60, and the debtor will retain 40. In other words, whereas their claim is worth 0 in the certainty regime, in the uncertainty regime, the claim becomes equivalent to a lottery in which there is a 50% chance of gaining 40 and a 50% chance of gaining 0.⁷³ Debtors thus appear

Paiella & Luigi Guiso, *The Role of Risk Aversion in Predicting Individual Behavior*, *ECONOMETRIC SOC'Y LATIN AM. MEETINGS* 222 (2004). However, Eisenhauer found that the effect of wealth on life insurance demand was positive, which means that in this marketplace, the average household exhibited not DARA but IARA. See Joseph G. Eisenhauer, *Risk Aversion, Wealth, and the DARA Hypothesis: A New Test*, 3 *INT'L ADVANCES IN ECON. RES.* 46 (1997). Levy, Levy and Solomon concluded from Levy's experiment and from other experiments that “various experiments strongly suggest that there is decreasing absolute risk aversion.” Haim Levy, *Absolute and Relative Risk Aversion: An Experimental Study*, 8 *J. RISK & UNCERTAINTY* 289 (1994).

72. CHESTER KARRASS, *THE NEGOTIATING GAME* 68 (1970).

73. We wish to suggest another approach to examining this situation; a 50% chance of gaining 40 and a 50% chance of gaining 0 is actually the predicted *enforceable* judgment. We should remember to examine the predicted *enforceable* judgment, because what influences the disagreement payoff of homo-economicus parties in legal negotiations is not the *de jure* predicted judgment but the *de facto* predicted

to prefer legal uncertainty. However, it is important to remember that debtors are usually insolvent corporations, and their stockholders may prefer legal uncertainty. In addition, before people become bankrupt, they usually receive allowances. Because the majority of debtors are firms or rich people who have lost their money, they receive these allowances. So, it is still the wealthy who benefit from legal uncertainty.

4.2. *Gender Regressive Effect*

In this section, we will show that according to common belief in economics research, women are more risk-averse than men. If this belief is true, it is clear why legal uncertainty leads to a transfer of wealth from women to men. We will show that even if it is a false belief based on stereotypes, legal uncertainty still leads to a regressive transfer of wealth from women to men because litigators, who are also creatures of their culture, act on this stereotype. Hence, women are offered and expected to accept lower settlement amounts.

A number of studies have shown that women are more risk-averse than men. For example, Jiankopolos and Bernasek checked the investment portfolios of unmarried women and unmarried men and found that those of men had higher risk.⁷⁴ Jonker, Ferreri-Carbonell and Hartog examined the minimum sums of money for which men and women, respectively, would agree to exchange their lottery tickets, and found that women would agree to accept lower sums.⁷⁵ Hersch examined the daily decisions of men and women that signal their approach to risk. She found that women took less risky steps in decisions concerning smoking behavior, seat belt use, and preventative dental care, as indicated by teeth brushing and flossing, but took more risky steps in decisions concerning exercising.⁷⁶ Daly and Wilson claimed that women are more risk-averse because they have a much lower upper bound on their reproductive capacity than men. Consequently, the women who were selected by evolutionary forces are more risk-averse than the men who were selected.⁷⁷

If we accept the conclusion of the above studies, that women are more risk-averse than men, we can understand why legal uncertainty has a gender-regressive effect. Legal uncertainty leads to a transfer of wealth from the more risk-averse to the less risk-averse, and since women are more risk-averse than men, legal uncertainty leads to a transfer of wealth from women to men.⁷⁸ However, it can be claimed that the proposition of these studies—that women are more risk-averse than men—merely reflects a false, chauvinistic stereotype. This was claimed, for example, by Schubert, Brown, Gysler and Brachinger.⁷⁹ The existence of this stereotype—false or true—is also the subject of a study by Broverman, whose research

judgment, i.e., the enforceable predicted judgment. If we replace the predicted judgment with the *enforceable* predicted judgment, the proposition that legal uncertainty is regressive becomes valid also in case of bankruptcy.

74. See Eisenberg & Lanvers, *supra* note 6.

75. Hartog, Ferrer-i-Carbonell & Jonker, *supra* note 10.

76. Hersch, *supra* note 10.

77. Daly & Wilson, *supra* note 10.

78. This is the Law and Economics of Liberal Feminism.

79. See Renate Schubert, Martin Brown, Matthias Gysler & Hans Wolfgang Brachinger, *Financial Decision-Making: Are Women Really More Risk-Averse?*, 89 AM. ECON. REV. 381 (1999).

shows that students perceived women as lacking self-confidence, having a very strong need for security, being very submissive, and having more difficulty making decisions than do men.⁸⁰ Let us initially assume that this claim, that women are more risk-averse than men, is really based on a false stereotype, and we will explain why legal uncertainty still has a regressive gender effect. In an uncertainty regime, women are going to receive lower offers from a litigator who accepts this false stereotype than will men, and it is reasonable to believe that the majority of litigators accept this stereotype. In our example, in the legal uncertainty regime, the bank's litigator is going to make a lower offer to a female customer than he would to a male, even when the two are equally wealthy. This happens because the litigator assumes that a woman customer is more risk-averse than a man, and she therefore will accept a lower offer. This means that women will accept lower settlements or lose the opportunity to achieve a mutual benefit by settling.

This stereotype might *not* be corrected by the marketplace because men will be optimistic concerning the readiness of women to accept a lower proposal. They will likely behave in a "hawkish" manner in legal negotiations even when they do not believe the stereotype, and women will be incentivized to behave in a more "dovish" manner. Thus, in litigation between a man and a woman, even when a particular man knows that women are not more risk-averse than men are, it might be rational for him to act as though he maintains the stereotype that women are more risk averse. Hence, in inter-gender legal negotiations, dovish women and men who are either dovish but believe in the false stereotype or hawkish but do not believe the stereotype might represent a stable norm (or, in technical language, a Nash equilibrium).⁸¹ In groups in which this stereotype prevails, negotiators who behave as though they believe in this stereotype will be those who survive in the marketplace. Thus, in such groups, this false stereotype will not be corrected by the marketplace because negotiators will behave as though they believe it is true.⁸²

80. Inge K. Broverman, Susan Raymond Vogel, Donald M. Broverman, Frank E. Clarkson & Paul S. Rosenkrantz, *Sex-Role Stereotypes: A Current Appraisal*, 28 J. SOC. ISSUES 59 (1972).

81. A game is in a Nash equilibrium, if no player has incentive to change strategy unilaterally: each player's strategy is then the best response for the strategy of the other. See John F. Nash, *Equilibrium Points in N-Person Games*, PROC. NAT'L ACAD. SCIENCES 48 (1950).

82. Consider this example: We have a divorce litigation between a man and a woman. Each party has a 50% probability of gaining 100 and a 50% probability of gaining 0. The disagreement payoff for both man and woman is 40; however, people who believe in the chauvinistic false stereotype believe that the disagreement payoff of the woman is 30. The litigant's lawyer could be a hawk or a dove. If he is a hawk, he demands to gain at least 3/5 of the surplus, but if he is dove, he will demand to get at least 2/5 of the surplus. In other words the woman can choose between a dovish lawyer, who demands to get at least 48, or a hawkish lawyer, who demands to get at least 52. The man can hire a hawkish lawyer who does not believe in this false stereotype and therefore demands at least 52, or a hawkish lawyer who does believe in the stereotype and therefore demands at least 58, or a dovish lawyer who does not believe in this false stereotype and therefore demands at least 48, or a dovish lawyer who does believe in this false stereotype and therefore demands at least 52. Let us tabulate it:

	Dove	Hawk
Woman		
Man		
Dove who does not believe in the stereotype	50, 50	48, 52
Dove who believes in the stereotype	52, 48	40, 40

In contrast to this, in a legal certainty regime, the litigator will make equal offers to the same man and woman because the minimum acceptable settlement does not depend upon the degree of risk aversion.⁸³ It is thus clear that legal uncertainty has a gender regressive effect regardless of the truth of the stereotype.

Another prediction is that in a legal uncertainty regime, litigators will strive to develop a reputation for being risk-neutral. This will lead to a macho and contentious culture in the advocacy profession. Additionally, in an uncertainty legal regime, women may be discouraged from acting in the litigation market; that is, they will be discouraged from seeking litigator positions. Under a legal uncertainty regime, they can expect to receive lower offers from opposing parties than men will and, therefore, will achieve inferior results, causing many to leave this market.

5. APPLICATIONS

5.1. Bargaining Power Regressive Effect of Legal Uncertainty

In this section, we wish to make the point that legal uncertainty also has a regressive effect in transferring wealth from parties with less bargaining power to parties with more bargaining power.

In the above example concerning litigation between a bank and a customer, in which each of them has a 50% probability of gaining 100 and 50% probability of gaining 0, we assumed that the bank and the customer are going to share the surplus 50-50. However, a more realistic assumption is that the bank is going to receive a larger share of the surplus. This assumption is more realistic because the bank can offer a credible “take it or leave it” proposal to the customer; it has this power because it is a repeat player. A repeat player can gain a reputation for being a tough bargainer because he has a strong interest in carrying out his or her threats. The bank can also make an indirect “take it or leave it” proposal by making the proposal

Hawk who does not believe in the stereotype	52, 48	40, 40
Hawk who believes in the stereotype	40, 40	40, 40

Figure 1. Gender Negotiation Game

What are the Nash equilibria of this game? (There is a Nash equilibrium, when no player can benefit from changing her strategy unilaterally. A Nash equilibrium is a stable norm.) 1. A hawkish woman and a dovish man, which does not maintain the stereotype. 2. A dovish woman and a dovish man, which maintains the stereotype. 3. A dovish woman and a hawkish man, which does not maintain the stereotype. 4. A woman who exhibits 4/5 probability of playing dove and 1/5 probability of playing hawk and a man who exhibits 1/5 probability of playing dove and 4/5 probability of playing dove, which does not maintain the stereotype.

A Nash equilibrium represents a stable norm. We can conclude from this result that acting according to a false stereotype – such that women are more risk-averse than men are—may be a Nash equilibrium, i.e., a stable norm. This stereotype may not be corrected by the litigation marketplace. In this case, it would be rational for the woman to be a dove and for the man to be a dove who maintains the stereotype or to be a hawk who does not believe in the stereotype, i.e., to behave as though he were a dove who maintained the stereotype. Lawyers can reject this stereotype but still behave as though they accept it. In other words, the stereotype may be transformed to a norm in which people do not maintain the stereotype but in which men act hawkishly toward women, i.e., behave as though they maintained the stereotype. Even when everyone in the society maintains that the past chauvinistic stereotype is false, this stereotype may still have an effect.

83. This is the Law and Economics of Cultural Feminism.

an anchor and then raising the offer at a predictable fixed rate. For example, the bank might develop a reputation for making a first proposal of 20 that will lead to a final proposal of 25. This preserves the credibility of the bank's threat but does not create the antagonism associated with ultimatums.

We analyze this ideal situation: the bank has the power to make a "take it or leave it proposal," and the bank has full information concerning the disagreement payoff of the customer. In this case, the bank will offer the customer the customer's disagreement payoff (in our example 25) plus epsilon, and the settlement will be $(75 - \epsilon, 25 + \epsilon)$ in favor of the bank. This time, the shift from a legal certainty regime to a legal uncertainty regime transfers wealth worth 25 from the customer to the bank. Thus, in a situation in which the risk-neutral side is also a repeat player, the regressive effect will be even stronger.⁸⁴

Let us now present this scenario in a table:

Mechanism for sharing the surplus	Settlement in the legal certainty regime	Settlement in the legal uncertainty regime	Delta
Equal sharing	50-50	62.5-37.5	12.5
Take it or leave it proposal	50-50	75-25	25

Figure 2. Settlement by mechanism

84. More generally, if the disagreement payoff of the customer is $J - P$, in which J represents the expected judgment and P represents the premium the customer is ready to pay to neutralize the risk, and the bank can make a credible 'take it or leave it proposal', then the settlement outcome will be $J - P$, regardless of the risk tendency of the bank. The greater the legal uncertainty, the greater the regressive effect will be.

Even when we assume that the bank is risk averse to the same degree as the customer, as when the disagreement payoff to the bank is 25, the settlement will be regressively biased because of the difference in the parties' bargaining power. Interestingly, if we assume that the bank has the power to make a credible "take it or leave it" proposal, under the legal uncertainty regime, the settlement will continue to be $(75 - \epsilon, 25 + \epsilon)$ in favor of the bank, but in the legal certainty regime, it would be (50, 50). Let us now present this in a table:

Mechanism for sharing the surplus	Settlement in the legal certainty regime	Settlement in the legal uncertainty regime	Delta
Equal sharing	50-50	50-50	0
Take it or leave it proposal	50-50	75-25	25

Figure 3. Settlement by mechanism

There is a qualitative difference between the two effects, the first of which arises from the difference in risk aversion. Let us refer to it as the "risk-aversion regressive effect." This effect applies even when the bargaining power is symmetrical. The second effect arises from the difference in bargaining power, which we will refer to as the "bargaining power regressive effect." This effect applies even when the two sides have the same risk aversion; even then, on average, legal uncertainty leads to a transfer of wealth from the weak side to the strong side because the latter would gain a greater percentage of the surplus.⁸⁵

85. If the division of the bargaining power is such that the bank is going to receive X of the surplus and the customer is going to receive $1 - X$ of the surplus, and the disagreement payoff of each of them is 25, then the settlement will be $25 + 50X, 25 + (1 - X)50$. When the bank has stronger bargaining power (which means $X > 1/2$), then what the bank will gain in a settlement, i.e., $25 + 50X$, is greater than its expected gain in court, i.e., 50. However, what the customer will gain in settlement, i.e., $25 + (1 - X)50$, is less than his expected gain in court, i.e., 50. In other words, legal uncertainty transfers wealth of $50X$

However, in real life, the bank does not know the minimum acceptable settlement by the customer. Thus, the bank should calculate the offer it will make given its uncertainty concerning the minimum acceptable settlement to the other side. If, for example, in the case of trial, the bank should pay 50, and the bank attributes a 50.1 percentage likelihood that the customer will accept a proposal of 25, the bank will prefer offering 25 to 37.5. However, if the bank is convinced that the customer will accept a proposal of 37.5 but attributes a likelihood of less than 50% that the customer will accept a proposal of 25, the bank will prefer offering 37.5 to 25.

5.2. Regressive Effect of Champerty

So far, we have assumed that settlement is the only available means of neutralizing legal uncertainty. In the game we analyzed, there is no option to sell the legal suit to a third party. Why is this assumption important? In a world in which there is no transaction cost and there are risk-neutral litigation firms, the risk-averse—the customers—could sell their suit to a litigation firm and, if there were perfect competition in the marketplace for litigation, obtain a price equivalent to the expected value. This is so because it is worth 50 to the litigation firm, which is risk neutral. And, because there is no transaction cost, and there is perfect competition, the price paid will be 50. If one litigation firm refuses to pay more than 49, another firm will agree to pay more. In other words, if there is no transaction cost, and there are risk-neutral litigation firms and a marketplace with perfect competition, the regressive effect of legal uncertainty will be neutralized. Even if the litigation firms were not risk-neutral but were less risk-averse than the customer (which is perhaps a more realistic assumption),⁸⁶ the regressive effect of legal uncertainty would be significantly reduced by selling the suit to the litigation firm. This leads us to the question of why it is reasonable to assume that the suit will not be sold.

First, potentially, there are two important market failures based on asymmetric information and moral hazard. Asymmetric information means that the party who wants to sell its suit to a litigation firm knows more than the litigation firm about what the judgment is expected to be. The selling party knows some of the claims that the other side is going to raise. For example, assume that a person purchases a home, but there is uncertainty about whether she bought it from the legal owner of the home. The person can sell the home via a risk-neutral firm. However, one of the obstacles to such an efficient transaction will be that “the firm” understands that there is a possibility that the seller knows something that it does not. The second potential market failure is caused by a moral hazard—after the party has sold its suit, it will have no interest in cooperating with the litigation firm. A solution for this problem might be to allow only a certain percentage of the suit to be sold to the

– 25 from the side with the less bargaining power to the side with greater bargaining power, even when they have the same risk tendency.

86. We can attribute their lower risk aversion to the partnership effect. They have many partners, so each of them risks less money than does the customer by the DARA effect; the partners of the litigation firms are richer than the customer who sold them the suit, but definitely not because they litigate frequently, which does not make them less risk-averse. Another explanation we wish to suggest is that due to marketplace selection, the litigation firm’s partners or shareholders are less risk-averse than their individual clients.

litigation firm. In addition, there are, of course, other transaction costs, such as time and information collection.

Aside from market considerations, it is reasonable to assume that suits cannot be sold because the traditional doctrine of champerty forbids such trade. In the traditional common law, it is illegal for the party suing in a lawsuit (the plaintiff) to come to an agreement with another person (usually an attorney) who agrees to finance and carry the lawsuit in return for a percentage of the recovery.⁸⁷ This doctrine prevents the risk-averse side from buying an insurance policy from a litigation firm at a competitive price, rather than at a monopolistic price. In cases in which there is no transaction cost and there is perfect competition so that the transaction with the litigation firm will occur, the existence of the regressive effect depends upon the champerty. In other words, in such cases, there will be no regressive effect, unless the champerty is valid. Thus, in fact, in those cases the champerty is a *sine qua non* for the regressive effect of legal uncertainty. Champerty is a regressive doctrine,⁸⁸ having both class-regressive and gender-regressive effects. In light of this regressive effect, we can also advance a strong argument for cancellation of the champerty, as this will reduce the regressive effect of legal uncertainty.

5.3. Effect on Contracts Versus the Effect on Torts – the Regressive

Effect on Contracts

One difference between legal uncertainty in torts versus legal uncertainty in contracts claims might be that in a particular legal system, such as the Israeli system, it is illegal to sell a legal suit in torts, but legal to do so in contracts.⁸⁹ If this is true, then the party in torts cannot neutralize its risk via selling its legal suit, but can do so (in the absence of transaction costs and market failure) in contracts. Of course, in real life, there is no perfect competition, and there are transaction costs and market failures; thus, the regressivity of legal uncertainty can be only partially neutralized.

Let us now investigate other differences. Our tacit assumption during this discussion is that the parties do not have a worthwhile option to sell their legal suit in either contracts or torts. In torts, the relationship between the sides is not voluntary, but in contracts, it is. By signing contracts, the parties create their own rights and duties. How much is the regressive effect of legal uncertainty also valid in a contractual situation? How much do contracting parties anticipate the regressive effect of legal uncertainty and compensate for it *ex ante* in negotiating a contract price? We will analyze two types of games: one with sophisticated players and one with unsophisticated players.

87. PERCY H. WINFIELD, *THE HISTORY OF CONSPIRACY AND ABUSE OF LEGAL PROCEDURE* (1919); Susan Lorde Martin, *Syndicated Lawsuits: Illegal Champerty of New Business Opportunity?*, 30 *AM. BUS. L.J.* 485 (1992).

88. By means of a contingency fee, a customer may transfer the risk concerning the litigation cost to their lawyer; however, they cannot transfer the risk concerning the sum at trial by this means. Of course, we can conclude from the regressive effect of legal uncertainty that abolition of the contingency fee is regressive.

89. This is article 22 of the Israeli Torts Ordinance [New Version] 1968: “The right to remedy for any civil wrong, or liability thereof, shall not be transferable other than by operation of law”.

5.3.1. *When the players are sophisticated*

In a situation involving sufficiently sophisticated players,⁹⁰ parties will consider the regressive effect of legal uncertainty on their future settlements. Let us analyze this example: The players come to a particular agreement, and they anticipate that there is a 50% probability that the court will decide that the seller must give the buyer 5 widgets and a 50% probability that the court will decide that the seller must give the buyer 105 widgets. Additionally, the buyer is risk-averse, the seller is risk-neutral, and both anticipate that they will come to a settlement for 55 widgets. Under this agreement, the buyer will pay the seller the price of 55 widgets. If the value of a widget to the buyer is \$1, to the seller it is \$0.90, and they have the same bargaining power, then the price will be $\$55 \times 0.95 = \52.25 ; each of them will gain \$2.75 from this contract.

More generally, if the players predict that because of any sort of legal uncertainty, a contractual obligation to transfer Y implies settling for X (X also includes what the seller must restore to the buyer in present value), then they would consider a specific contractual obligation to transfer Y as a sale of X. The price of the contractual obligation to transfer Y would thus be equal to the price of selling X.⁹¹ This would neutralize the regressive effect of uncertainty concerning contracts.⁹² However, in real life, there can be settlement costs. If the expected mutual settlement costs are greater than the mutual gain from the transaction, then the transaction will be abandoned. Therefore, legal uncertainty imposes costs that might prevent efficient transactions.

Another problem with the proposed solution is that in insurance contracts, the insurance company will not wish to be obliged to compensate a party for more than 100% of the damage since this provides customer incentives adverse to the company. Therefore, if the insurance law is unclear, as when there are questions concerning which events are covered by the insurance policy, the parties will not be able to overcome this problem by obligating themselves to pay more than 100% of the damage. But this problem might be lessened because the insurance company is a repeat player. In this case, the company's reputation might replace the uncertain law. Aumann said in his Nobel lecture that "The fundamental insight is that repetition is like an enforcement mechanism, which enables the emergence of cooperative outcomes *in equilibrium*—when everybody is acting in his own best interests."⁹³

Repetition can replace the enforcement mechanism, and this is important not only when there is no enforcement mechanism, such as in international relations, but also when the law is uncertain. This can also serve as a solution in contract law, but not in torts law. The insurance company has an incentive to compensate *its client* as expected by the parties when they signed the contract, but also to pay the minimum sum of money to an injured third party. Experience teaches us that even though insurance companies are repeat players, in many places they try to pay less

90. This sophisticated behavior is not necessarily intentional; it may be a result of natural selection in the marketplace. Those contracting parties would compensate *ex ante* for the regressive effect of legal uncertainty in negotiating a contract price *as though* they were anticipating this effect.

91. Hence, legal uncertainty leads to a culture of dishonesty in trade.

92. Hence, the parties are also able to overcome the unenforceability of an illegal agreement if there is a positive – even very small – probability that the court will enforce the contract.

93. Aumann, *supra* note 11, at 354.

despite the fact that doing so negatively affects their reputation. This can be explained by the agency problem: the rational agent might try to maximize the short-term revenues of the company and not consider the reputation of the company when optimizing. This is a general problem in the system of bonuses; bonuses are awarded without considering the effect of the agent's activity on the reputation of the firm. The bonus incentivizes the agent to maximize annual revenue instead of optimize revenues over time.

Furthermore, if we assume that in making contracts, people anticipate the regressive effect of legal uncertainty, another problem arises, which is that asymmetrical information may cause contracts to fail. If there were asymmetrical information concerning the risk aversion of the customer, negotiations might be broken off, and efficient contracts would be abandoned. Consider the following example: Because of uncertainty in contract law, a particular contract will provide a 50% probability for the customer to receive 100 widgets and a 50% probability to receive 5 widgets. The value of a widget to the customer is \$1, and that to the seller is \$0.90. The customer knows its own risk-attitude, but the seller does not. Among its potential customers, 50% are risk-neutral, and 50% are risk-averse, such that their minimum acceptable settlement will be 30 widgets. The risk-neutral party, and only it, can signal its risk-attitude. For example, rich people—the “haves”—can reveal the assets they have, but poor people cannot show that they do not have assets. The parties in this case have equal bargaining power; all of this data is common knowledge. Thus, at the *settlement time*, the risk-neutral customers will signal that they are risk-neutral—which is beneficial to them—so they will achieve a settlement of 55 widgets. However, if they do not signal that they are risk-neutral at the settlement time, the customers, in effect, are signaling that they are risk averse. At the settlement time, the seller will distinguish between risk-averse customers and risk-neutral ones, and the risk-averse will obtain a settlement of only 42.5 widgets. However, since no one has any incentive to signal that she is risk-neutral at the *transaction time*, no-signal is not a signal! Thus, at the transaction time, the seller cannot distinguish between risk-averse customers and risk-neutral ones. She will not agree to sell for a price of \$42.5 (the maximum the risk-averse will be ready to pay), because in 50% of the cases, she must provide 42.5 widgets, and in 50%, she must provide 55 widgets. In the end, the risk-averse customer cannot agree to a contract with the seller, but the risk-neutral customer can.

This effect could potentially annul contracts with large stakes involving risk-averse people, in turn preventing weak people from creating a Pareto improvement by taking advantage of the mechanism of contracts to promote their interests. This effect is both inefficient and regressive. What we propose here is the insight that some contracts might become impossible based on legal uncertainty. We *do not* claim that in every case of legal uncertainty and asymmetric information concerning future settlements, transactions will be avoided.⁹⁴

94. Let us modify the above example. Because of uncertainty in contract law, a particular contract will provide a 50% probability for the customer to receive $100 + X$ widgets and a 50% probability to receive $0 + X$ widgets. Half of the customers are risk-neutral, and half of them are risk-averse such that their minimum acceptable settlement will be $25 + X$ widgets. Thus, the maximum risk-averse customer will be ready to pay is $\$37.5 + \X , but the risk-neutral customer will be ready to pay $\$50 + \X for this contract. There cannot be a transaction with the risk-averse customer if the maximum the risk-averse customer is ready to pay is less than the expected cost to the seller in a case in which there is a 50% probability that her customer is risk-averse and a 50% probability that she is risk-neutral, i.e., if $\$37.5 +$

To conclude, legal uncertainty in contract law is a type of marketplace failure that can block efficient transactions in the same way that taxes do. First, it can impose a litigation cost, particularly a settlement cost, on the parties. They know that legal uncertainty might create legal disputes concerning the performance of the contract, so they might avoid the transaction to prevent this expensive dispute. Second, it can block an efficient transaction because asymmetric information concerning the expected settlement in the future causes disputes about how to perform the contract. This failure might be overcome if the strong party is a repeat player who is incentivized to protect his reputation; in that case, the repetition will correct the results of legal uncertainty. However, we need contract law in order to enable transactions, particularly in relationships between people who cannot rely on the reputation mechanism.

5.3.2. *When the players are unsophisticated*

In real life, it is doubtful that people consider to a great extent the regressive effect of legal uncertainty on their future settlements. It is reasonable to assume that the weak side will underestimate the regressive effect of legal uncertainty on them and that this will prevent the regressive effect of legal uncertainty on contracts from being neutralized.

Furthermore, the reasonable assumption that the weak side will underestimate the regressive effect of legal uncertainty on them might answer the open question of why parties come to vague and ambiguous contracts. The strong party will benefit more from a vague contract because it creates legal uncertainty. She will prefer to be faced with a 50% probability to be legally obliged to give 100 widgets to the weak party to a 100% probability to be legally obliged to give him 50. Therefore, parties come to vague and ambiguous contracts because this promotes the interests of the stronger side, which is motivated to introduce uncertainty into the contract. When we understand that this is the situation, we are led to the conclusion that to prevent vagueness in contracts it is not sufficient to rely on the mutual interests of the parties because there is no mutual interest in having clear contracts. When we understand the reason for lack of clarity in contracts, we can start to think about solutions to this problem. To reduce vagueness in contracts, society should incentivize the stronger side not to introduce legal uncertainty. One mechanism for this is the *Contra Proferentem* rule of contract interpretation. Eric Posner claimed: “The *contra proferentem* rule, for example, might encourage the drafter to be more explicit and to provide more details about obligations. This may reduce the chance that the other party will misunderstand the contract; it also may facilitate judicial interpretation of the contract.”⁹⁵ This rule incentivizes the drafter to make the clearest contract possible. Furthermore, from the thesis concerning the regressive effect of legal uncertainty, we can learn that the strong side—who usually is the drafter—will benefit from making the contract unclear. The drafter has this interest if, and only if, she is the less risk-averse side; when the drafter is the more risk-averse side, she has no such interest. In this case, the rule can be detrimental by encouraging

$\$X < 1/2(37.5*\$0.9 + X*\$0.9) + 1/2(50*\$0.9 + X*\$0.9)$, which means there cannot be a transaction in this case if $X < \$18.75$.

95. Eric A. Posner, *There Are No Penalty Default Rules in Contract Law*, 33 FLA. ST. U. L. REV. 563, 580 (2005).

the less risk-averse side to manipulate the more risk-averse side, convincing her to introduce uncertainty into the contract. Alternative rules, such as interpreting contracts in favor of the customer may be preferable.

The *Contra Proferentem* rule motivates the less risk-averse drafter to refrain from manipulating the other side by making the contract unclear. Thus, the two parties can agree that the less risk-averse side will formulate the contract, thus reducing the cost of the transaction. Without this rule, there might be a moral hazard problem. The two parties will benefit from agreeing that the strong side will draft the contract, but will not introduce uncertainty. However, because it is in his interest to introduce uncertainty in a way that will be invisible to the weak side, the parties should not agree on this unless they can remove the incentive for the stronger party to introduce uncertainty, by, for example, adhering to the *Contra Proferentem* rule of interpretation. In other words, *Contra Proferentem* creates a Pareto improvement.

5.4. *Effects of Class Action*

Another mechanism of risk shifting can be the class action. It is common to view class action as a mechanism to solve the plaintiffs' collective action problem or as a means of reducing litigation costs. This is correct, but the mechanism of class action also has the effect of risk shifting and of modifying the balance of the bargaining power. The class action shifts the decision concerning risk *management* from the customers to the lead plaintiff. Who will be the more risk-averse decision maker? On the one hand, the lead plaintiff will be much *more* risk-averse concerning a trial because the lead plaintiff risks a greater sum of money. This is clearly true; when the suit is for a small sum of money as compensation for each customer, then each customer will be risk neutral, whereas the lead plaintiff who makes the decisions will be risk-averse. Thus, the class action will have a regressive risk-aversion effect. On the other hand, the litigation firm might comprise richer people, and if we accept DARA, they have less risk-averse utility. This will be true if we have a *small* number of poor victims. If a large litigation firm brings a suit on their behalf, then the former would be more risk-averse than the latter, and the class action would have a progressive risk-aversion effect. In both cases, given that the litigation firm has greater bargaining power than do the individual customers, the class action will also have a progressive bargaining-power effect.

In either case, the greater the number of partners participating in the litigation firm that brings the class action, the better settlement it will achieve for its customers. This constitutes a strong argument for the legal system to encourage multi-partner litigation firms to bring class actions, particularly when there is significant legal uncertainty. Furthermore, if we compensate the litigation firm with a greater percentage of the award, we make them more risk-averse because the sum they invest in the lottery becomes larger, and this has a regressive effect. If the firm were compensated too generously, it would become more risk-averse and would accept lower settlements. However, if the litigation firm were compensated with too low a percentage, it would be discouraged from bringing the suit.

5.5. Paradox of Lawyers' Ethics

The regressivity of legal uncertainty can be reduced if the risk-averse parties hire lawyers who negotiate as though they are risk neutral or are at least much less risk-averse—and the other side *knows* this. But the above-proposed solution might be blocked at least partially for the following reasons: first, if the power to decide rests with the client, then she will accept offers appropriate for the risk-averse but not for the risk-neutral. To neutralize the regressivity of the legal uncertainty, it is not sufficient that the lawyer manages the negotiation; the lawyer should also have the power to decide whether to accept an offer. Otherwise, the strong players will commit⁹⁶ themselves to low offers.

Second, lawyers are bound by ethical rules to act in the best interest of their clients.⁹⁷ Even when the lawyer has the power to decide whether to accept an offer, she must maximize the interests of her client. According to these rules, if the lawyer receives, on behalf of the client, a “take it or leave it” offer in which accepting it is good for her client, the lawyer should take it, even if rejecting it might help the lawyer’s other clients by bolstering her reputation as a tough negotiator. Let us provide an example: The lottery of a trial is worth 25 to the customer, although she will obtain 50 on average at trial. The insurance company makes a credible “take it or leave it” proposal of 30. It is in the best interest of the customer to take this proposal, but it might be bad for the other customers. That is, if the lawyer has a reputation for rejecting proposals lower than 35, the insurance company will have an incentive to propose at least 35 to her customers. (Although the insurance company might also have a counter incentive to maintain its reputation as a tough player in order to deter plaintiffs from engaging such lawyers.)

The problem is that the ethical rules of maximizing the interests of the customer prevent the lawyer from being committed to reject proposals when accepting them is good for the customer, even though it might be good for the customer to hire this committed lawyer. The ethical rules of lawyers limit the free market in a way which damages the interests of their customers by demanding an obligation to a particular customer and not to customers as a group. In fact, the rules actually create a prisoners’ dilemma between the customers; the rules block customers’ capacity to cooperate via the same lawyer in a manner parallel to trade unions. We propose considering making it legal for the customer to allow his attorney to be committed to reject proposals that damage the lawyer’s reputation as a tough bargainer or risk-neutral bargainer. There is a strong argument for why it should be legal for lawyers to represent the interests of customers as a group in a particular negotiation on behalf a single customer.

Third, even when the lawyer has the power to accept offers and acts as though her customer is risk-neutral, the customer can replace her. The insurance company

96. For commitment strategies, see Thomas C. Schelling, *An Essay on Bargaining*, 46 AM. ECON. REV. 281 (1956).

97. MODEL CODE OF PROF’L RESPONSIBILITY Canon 7 (AM. BAR ASS’N 1980) (“A Lawyer Should Represent a Client Zealously Within the Bounds of the Law”); see also MODEL CODE OF PROF’L RESPONSIBILITY EC 7-9 (AM. BAR ASS’N 1980) (“In the exercise of his professional judgement on those decisions which are for his determination in the handling of a legal matter, a lawyer should always act in a manner consistent with the best interests of his client. However, when an action in the best interest of his client seems to him to be unjust, he may ask his client for permission to forego such action.”).

might make the customer a proposal which the lawyer will reject, but the customer will accept in place of her lawyer. This makes the commitment by the lawyer much less effective, which weakens the proposed argument in favor of changing the ethical rule.

Fourth, institutions, such as insurance companies and banks, might adopt a policy of negotiating with the lawyer as though the lawyer represents the interest of the particular customer, regardless of the lawyer's policy. If the customer retains a lawyer who is committed to rejecting a low offer, even when it is in the best interest of the customer to take it, then the parties will go to trial, and the customer will lose the opportunity to obtain more in a settlement; that is, the opportunity to obtain part of the mutual benefit created by a settlement. Given that the insurance firms and the bank are repeat players, they might hire tough lawyers. Then, the best response by the customers will be to hire "uncommitted" lawyers. Fifth, the "committed" lawyers can be very expensive, so they will not serve the people whose problems they can solve.

From this discussion, it is clear that changing the ethical rules of lawyers to improve the operation of the free market could help weak people with sufficient money hire lawyers to reduce the regressivity of legal uncertainty. But they still might be blocked by different strategies of the strong parties.

Furthermore, it is possible that under the current legal rules, the marketplace allows unethical lawyers, who are willing to violate their ethical obligation in order to maximize the interests of a particular customer, to survive (and perhaps survive better in the marketplace than the ethical lawyers).

5.6. Effect of Legal Uncertainty on Legal Evolution

Some law and economics scholars, such as Rubin⁹⁸ and Priest,⁹⁹ claim that the common law system leads to the adoption of efficient rules through a process of selecting precedents. Galanter¹⁰⁰ takes a contrary view, arguing that because the selection of cases the law follows favors repeat players, the latter can play for the precedent. We wish initially to model Galanter's idea formally and then to show that legal uncertainty has a regressive effect on legal evolution.

Let us assume that there are 10 suits against a large corporation that plays for the precedent. In the first suit, the expected judgment will be 10, in the second, 20, in the third, 30, ... and in the tenth, 100.¹⁰¹ In this case the repeat player, which plays for the precedent, can offer 25 to the second, 35 to the third ... and 105 to the tenth, and the one-time plaintiffs will accept these offers. The repeat player will

98. Paul H. Rubin, *Why Is the Common Law Efficient?*, 6 J. OF LEGAL STUD. 51 (1977).

99. George L. Priest, *The Common Law Process and the Selection of Efficient Rules*, 6 J. OF LEGAL STUD. 65 (1977).

100. Galanter, *supra* note 5.

101. We can attribute the differences between the expected judgments to the likelihood that the tenth plaintiff is expected to gain more sympathy or that it was already known which particular judge would decide each case, although the cases have not been decided yet. The judgment expected of each judge is different and will create a different precedent, if the case is decided by him. This interpretation of the model also provides an argument in favor of a Supreme Court like the American one, in which all of the Supreme Court judges sit on every case, rather than the Israeli one, in which there is uncertainty concerning which Supreme Court judges will sit on each case.

litigate only with the first player, and hence the precedent will be a settlement for 10.¹⁰²

Let us now ask what would happen under a more certain legal regime. In such a regime, the range of expectations will not be between 10 and 100 but, for example, from 32.5 to 77.5. The first plaintiff would be expected to obtain 32.5 in court, the second 37.5, the third 42.5, the fourth 47.5, ... and in the tenth 77.5. On average, the plaintiffs will obtain the same (55) in each regime. However, under this regime, the repeat player will offer the second plaintiff 42.5, the third 47.5, the fourth 52.5, ... and the tenth 82.5. In the case of the first plaintiff, the repeat player will go to court and achieve a precedent of 32.5.¹⁰³ The conclusion is that in the more legally uncertain regime, precedents will be more biased in favor of the repeat players and against the one-time players. Thus, legal uncertainty leads to more biased precedents.¹⁰⁴

6. CONCLUSION

We have seen that legal uncertainty stimulates the transfer of wealth from risk-averse to risk-neutral people via settlements. Therefore, because poor people are more risk-averse than rich people are, legal uncertainty transfers wealth from the poor to the rich. Additionally, because women are (at least perceived to be) more risk-averse than men, legal uncertainty transfers wealth from women to men. This leads to the conclusion that legal uncertainty has both class regressive and gender-regressive effects.

7. APPENDIX

7.1. Model

J is the judgment the more risk-averse is expected to gain in a case at trial. (J is usually a monetary payment, but it can also be years in prison or child custody rights in a divorce conflict. When there is a rule of law, J is dependent upon the legal rule and on the findings of fact by the court).

102. We can conceive of a situation in which the repeat player will appeal only on the first case to give it a status of precedent.

103. Let us show a general example: the average judgment in both the legally certain regime and the legally uncertain regime will be J . In the former, the cases are distributed from A_e to N_e , whereas in the latter, they are distributed from A_u to N_u . In the legally certain regime, the precedent will be A_e , whereas in the legally uncertain regime, it will be A_u . When we have legal uncertainty, the variance is greater; thus, $A_u < A_e$. When we increase legal uncertainty, the minimum expected judgment will be lowered and, consequently, the precedent will be lower.

104. This may also answer the challenge, "Hey! If there is legal uncertainty, the firm may settle for less because it is interested in blocking precedents; therefore, perhaps legal uncertainty favors the weak sides." It is occasionally true that in a legal-uncertainty regime, large corporations will pay more in a particular case to assure it sets no new precedents. However, by doing this, they actually take advantage of the "prisoner's dilemma" situation that hampers the weak side. They play for the precedent, but the one-timer individual does not. Thus, occasionally under a legal uncertainty regime, the repeat player will pay more in settlements, but the result will be that by this tactic, they will modify the legal regime in their favor at the expense of the weak sides. The greater the legal uncertainty, the greater will be the bias of the precedents.

P_m is the premium the more risk-averse party is ready to pay to neutralize the risk. (This depends upon his utility function and upon the variance of J .)

P_l is the premium the less risk-averse party is ready to pay to neutralize the risk. (This depends upon his utility function and upon the variance of J .)

x is the portion of the surplus that the more risk-averse party is going to receive. (x depends upon the bargaining power, the risk tendency, the time discount, and even social stereotypes. When we have a symmetric situation, $x = 0.5$.)

Hence, the more-risk-averse disagreement payoff is $(J - P_m)$, and the less-risk-averse disagreement payoff is $(-J - P_l)$ (which means a payment of $(J + P_l)$).

Hence, under a settlement, the more risk-averse is going to receive (S_m), where $S_m = J - P_m + x(P_m + P_l)$

This means the following:

$$S_m = J - (1 - x)P_m + xP_l$$

Therefore, the distributive effect of legal uncertainty is that it shifts $(1 - x)P_m - xP_l$ from the more risk-averse to the less risk-averse, in which P_l and P_m are functions of the degree of legal uncertainty.

Therefore, legal uncertainty leads to transfers of wealth from the more risk-averse to the less risk-averse if and only if:

$$(1 - x)P_m > xP_l$$

i.e.,

$$P_m > xP_l / (1 - x)$$

When one side is risk-averse and the other is risk-neutral, then $P_l = 0$ and the distributive effect of legal uncertainty will be a transfer of xP_m from the risk-averse to the risk-neutral.

In other words, legal uncertainty has a regressive effect, and the greater the legal uncertainty, the greater the regressive effect. The more risk-averse a person is, the greater the regressive effect.

7.2. Minimum Acceptable Settlement by Initial Wealth

Let us now be more mathematical and show what is the minimum settlement acceptable to a person as a function of his wealth in a trial in which he has a 50% chance to gain 0 and a 50% chance to gain 100. We assume that his utility function for money (\$) is $U = \$/2$.

After the lottery (i.e., trial), there is a 50% chance of having $100 + w$, where w represents the initial wealth, and a 50% chance of having $0 + w$. If he wins the trial, his utility, in this situation, would be that derived from the initial wealth + that from the sum that was gained. This means that his utility would be $(100 + w)^{1/2}$. If he loses the trial, his utility, in this situation, would be only that from his initial wealth w , i.e., $(w)^{1/2}$. Therefore, there is a 50% chance that his resulting utility will be $(100 + w)^{1/2}$ and a 50% chance that it will be $(w)^{1/2}$. Hence, his utility in the situation of the trial will be $0.5(100 + w)^{1/2} + 0.5(w)^{1/2}$.

The minimum settlement (ms) she is going to accept will be one whose utility is equal to that in the situation at trial. This utility in a situation of minimum settlement is $(w + ms)^{1/2}$.

Therefore, to determine his minimum settlement, we equalize the utility in the situation at trial to that in the situation of minimum settlement, which means the following:

$$(w + ms)^{1/2} = 0.5(w + 100)^{1/2} + 0.5w^{1/2}, \text{ which means}$$

$$ms + w = 0.25(100 + w) + 2 \times 0.25(100 + w)^{1/2} \times w^{1/2} + 0.25 \times w, \text{ which means}$$

$$ms + w = 25 + 0.5w + 0.5[w(100 + w)]^{1/2}, \text{ which means}$$

$$ms = 25 - 0.5w + 0.5[w(100 + w)]^{1/2}$$

Let us now tabulate the minimum acceptable settlement as a function of the initial wealth:

Figure 4. Minimum acceptable settlement by initial wealth

Let us now show the minimum acceptable settlement as a function of the initial wealth in a graph:

Initial wealth	Minimum acceptable settlement
0	25
5	33.96
10	36.58
20	39.5
30	41.2
40	42.4
50	43.3
80	45
100	45.7
1,000	49.4
10,000	49.938
100,000	49.993753

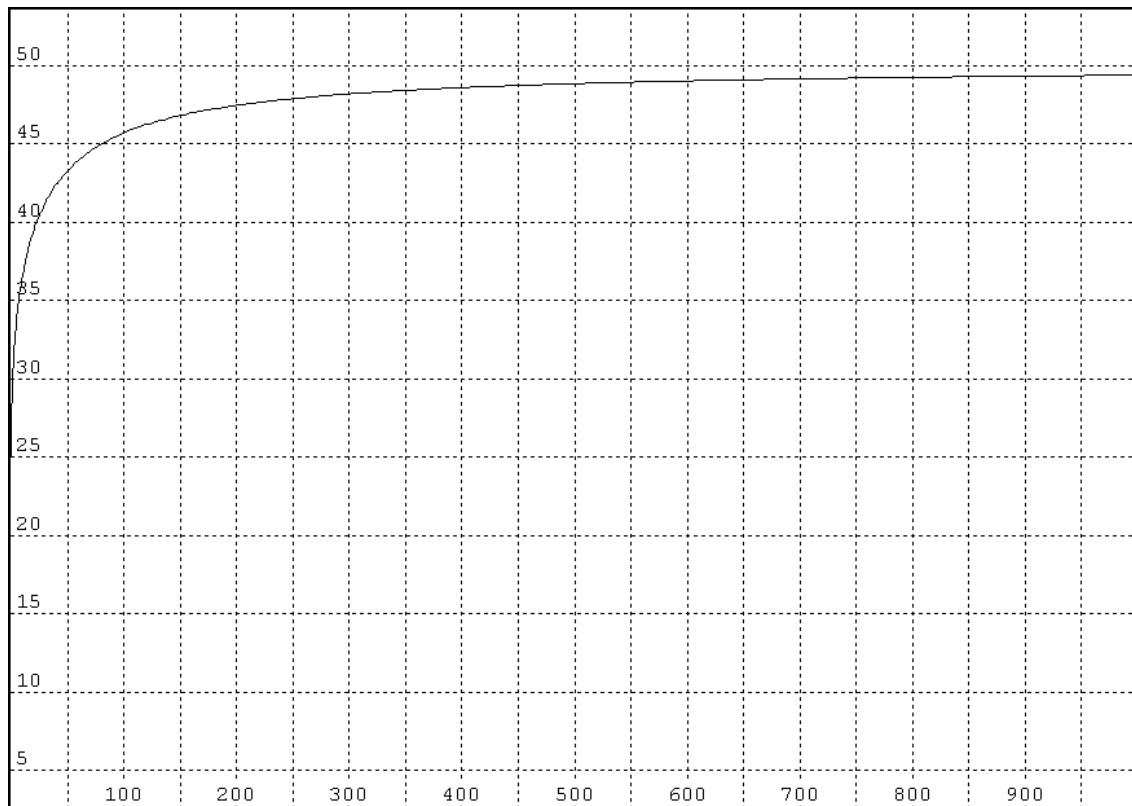


Figure 5. Minimum acceptable settlement as a function of the initial wealth

As seen in the table and the graph, when the initial wealth is less, then the minimum acceptable settlement is also less. In other words, the poorer side is more sensitive to legal uncertainty. When we shift from a legal certainty regime to a legal uncertainty regime, there is a positive correlation between the reduction in the disagreement payoff of either side and that side's initial wealth. This explains why legal uncertainty leads to a transfer of wealth from poor people to rich people.