

JUDICIAL VALUATION BEHAVIOR: SOME EVIDENCE FROM BANKRUPTCY

KEITH SHARFMAN*

ABSTRACT

This Article presents an empirical study of judicial valuation in the bankruptcy context, focusing on twenty-four valuation disputes in which a bankruptcy judge reached a valuation outcome between the values contended for by the parties. Two main findings emerged from the cases studied: (1) bankruptcy judges on average allocated 65.2% of the value in controversy to debtors and 34.8% to secured creditors; and (2) bankruptcy judges were more than three times as likely to allocate most of the value in controversy to debtors as they were to secured creditors. These results lend empirical support to the behaviorist intuition that loss aversion bias informs judicial decisionmaking and may have further implications for substantively neutral reform of the processes whereby valuation disputes are resolved.

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I. INTRODUCTION

Valuation litigation is notoriously unpredictable.¹ When the value of a legal entitlement is in dispute, one party typically will ask for a high valuation, the other for a low one, and each will offer evidence in support of its position. The trier of fact may in the end agree with one side or the other, but could just as easily settle upon a third value of its own choosing. The valuation inquiry is thus inherently imprecise, a discretionary exercise that depends largely on the

* Associate Professor and Philip Shuchman Scholar, Rutgers University School of Law-Newark. Many thanks to Andrew Ackerman, Allan Axelrod, Douglas Baird, Neal Buchanan, Charles Davenport, Claire Moore Dickerson, Philip Hamburger, Michael Heise, Jonathan Hyman, John Leubsdorf, Gregory Mark, Greg Mitchell, Daniel Polsby, Shawn Pompian, Jeffrey Rachlinski, Jim Rossi, Mark Seidenfeld, Mark Weiner, Jason Yeung, the Philip Shuchman Fund for Empirical Research, and participants at a symposium on the Behavioral Analysis of Legal Institutions held in the spring of 2004 at the Florida State University College of Law.

1. See, e.g., Christopher P. Bowers, *Courts, Contracts, and the Appropriate Discount Rate: A Quick Fix for the Legal Lottery*, 63 U. CHI. L. REV. 1099, 1126-29 (1996) (likening the arbitrariness of legal valuation to a "lottery").

whims and predispositions of the factfinder. Given this imprecision, conventional legal scholarship has been unable to articulate a convincing theory of legal valuation.² Rather than theorize about which valuation methodologies courts can, should, and do employ, the favored approach has been to shift away from valuation method and to focus instead on process reforms that would lead to more predictable outcomes in valuation litigation.³

Behavioral analysts of law, however, have yet to give up searching for a viable theory of legal valuation. They are unsatisfied by the failure of conventional scholarship to go beyond the “inherent imprecision” thesis and have sought ambitiously through both theory and data to offer a more robust account.⁴ The behavioral approach seeks first to understand how individuals handle questions of valuation and then to extrapolate from insights about individuals to an analysis of legal institutions.⁵ Rather than accept the claim that there is no rhyme or reason to legal valuation, behaviorists have sought to explain legal valuation outcomes that seem irrational, inconsistent, or unpredictable in light of cognitive limitations and biases to which

2. The leading treatise on the subject simply describes the law’s incoherence with respect to valuation without offering any theory to explain it. JAMES C. BONBRIGHT, *THE VALUATION OF PROPERTY: A TREATISE ON THE APPRAISAL OF PROPERTY FOR DIFFERENT LEGAL PURPOSES* 3, 7-9 (1937) (describing “the problem of judicial valuation” and “the major task of developing the theory of legal valuation”); see also James C. Bonbright, *The Problem of Judicial Valuation*, 27 COLUM. L. REV. 493, 518 (1927) (concluding “that many differences in judicially accepted property values are quite unwarranted . . . and their presence can be accounted for only by favoritisms, confusions, and ineptitudes”).

3. See Keith Sharfman, *Valuation Averaging: A New Procedure for Resolving Valuation Disputes*, 88 MINN. L. REV. 357 (2003) (proposing a valuation dispute resolution process that recognizes the plausibility of competing valuation methodologies). For similar shifts in focus from method to process in particularized contexts, see Barry E. Adler & Ian Ayres, *A Dilution Mechanism for Valuing Corporations in Bankruptcy*, 111 YALE L.J. 83 (2001). See also Douglas G. Baird, *The Uneasy Case for Corporate Reorganizations*, 15 J. LEGAL STUD. 127, 136-38 (1986) (proposing to replace judicial valuation of reorganizing firms with an auctions-based reorganization process); Lucian Arye Bebchuk, *A New Approach to Corporate Reorganizations*, 101 HARV. L. REV. 775, 785 (1988) (proposing to replace judicial valuation of reorganizing firms with the issuance of options to the firm’s stakeholders); Christian J. Henrich, *Game Theory and Gonsalves: A Recommendation for Reforming Stockholder Appraisal Actions*, 56 BUS. LAW. 697, 722-29 (2001) (proposing to replace judicial valuation of corporate appraisal with a final offer arbitration process); Mark J. Roe, *Bankruptcy and Debt: A New Model for Corporate Reorganization*, 83 COLUM. L. REV. 527, 559 (1983) (proposing to replace judicial valuation of reorganizing firms with valuations based on market sales of the reorganizing firm’s securities); Jay A. Soled, *Transfer Tax Valuation Issues, the Game Theory, and Final Offer Arbitration: A Modest Proposal for Reform*, 39 ARIZ. L. REV. 283, 304-10 (1997) (proposing to replace judicial valuation in tax litigation with a final offer arbitration process).

4. See, e.g., David Cohen & Jack L. Knetsch, *Judicial Choice and Disparities Between Measures of Economic Values*, 30 OSGOODE HALL L.J. 737 (1992), reprinted in CHOICES, VALUES, AND FRAMES 424-50 (Daniel Kahneman & Amos Tversky eds., 2000).

5. *Id.*

judges and juries are systematically (and hence predictably) subject.⁶ In particular, behaviorists claim that legal decisionmakers value losses more highly than gains and that apparent anomalies in legal valuation may best be understood in terms of “loss aversion” or “status quo preservation” biases in legal institutions that are analogous to similar biases observed in individuals.⁷ According to this view, judges and juries will tend, other things being equal, to undervalue the legal entitlements of plaintiffs⁸ and overvalue the legal entitlements of defendants relative to some “objective” valuation benchmark such as market value.

A general critique of the behavioral approach to law (that also applies specifically in the valuation context) is that while it may succeed in explaining apparent behavioral irrationalities and inconsistencies *ex post*, it does not offer more predictive value *ex ante* than the competing analytic frameworks (such as wealth maximization and rational choice theory) that it debunks and seeks to replace.⁹ A somewhat weaker version of this critique is that behaviorist explanations of legal phenomena, while useful for identifying new variables that help to explain the behavior of actors in the legal system, are nevertheless incomplete. Knowing, for example, that judges and juries are biased in a particular way (against losses, say) does not really end the search for a theory of legal valuation. At most, identification of loss aversion as a bias helps to understand legal valuation better than it was previously, but it still cannot (and indeed does not purport to) explain the legal valuation phenomenon in its entirety. Behaviorists themselves appear to agree with their critics that more data and more theories are always useful and that identification of

6. *Id.*; see also W. Kip Viscusi, *Do Judges Do Better?*, in PUNITIVE DAMAGES: HOW JURIES DECIDE 186, 206 (Cass R. Sunstein et al. eds., 2002) (“Judges are human and may reflect the same kinds of irrationalities as other individuals.”).

7. Cohen & Knetsch, *supra* note 4, at 749-69 (using the notion of loss aversion to explain such diverse legal phenomena as adverse possession, recovery of lost profits for breach of contract, enforceability of contractual modification, gratuitous promises, and repossession). On loss aversion bias more generally, see Daniel Kahneman et al., *The Endowment Effect, Loss Aversion, and Status Quo Bias*, J. ECON. PERSP., Winter 1991, at 193.

8. I use the terms *plaintiffs* and *defendants* somewhat loosely here. By plaintiffs I mean parties who seek to gain wealth through assertion of a legal entitlement, and by defendants I mean parties seeking to avoid a loss of wealth by disputing a legal claim. In the case of counterclaims, these labels are reversed.

9. See Richard A. Posner, *Rational Choice, Behavioral Economics, and the Law*, 50 STAN. L. REV. 1551 (1998) (critiquing behaviorist approaches to law, such as Christine Jolls, Cass R. Sunstein & Richard Thaler, *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471 (1998), on this ground). More generally on the similarities and differences between the two fields, see RATIONAL CHOICE: THE CONTRAST BETWEEN ECONOMICS AND PSYCHOLOGY (Robin M. Hogarth & Melvin W. Reder eds., 1987).

new variables merely advances but does not end the behaviorist inquiry.¹⁰

The empirical approach taken in this Article should therefore be welcomed by both behaviorists and their critics. If the loss aversion theory of legal valuation is incorrect, empiricism can usefully provide evidence to negate it. Conversely, if behaviorists are right that loss aversion bias is a significant explanatory variable for legal valuation, the effect ought to be empirically demonstrable not only in experimental settings but also in the “real world” of valuation litigation. With a stronger empirical foundation, the loss aversion theory of legal valuation would become less conjectural and more convincing.

To these ends, this Article identifies and studies a doctrinal area in which loss aversion bias is likely at work and endeavors to document empirically its manifestation and effects. The doctrinal area identified and examined is bankruptcy valuation litigation,¹¹ and the study’s main empirical finding is that outcomes in bankruptcy valuation litigation are consistent with a hypothesis of loss aversion bias. In addition to providing empirical evidence consistent with the loss aversion theory of legal valuation, the study also confirms anecdotal evidence that bankruptcy judges are “pro-debtor,”¹² contradicting the findings of another recent study.¹³

10. On the limits and pitfalls of empirical legal scholarship, see Symposium, *Exchange: Empirical Research and the Goals of Legal Scholarship*, 69 U. CHI. L. REV. 1 (2002); Symposium, *Empirical and Experimental Methods in Law*, 2002 U. ILL. L. REV. 791 (2002); Gregory Mitchell, *Empirical Legal Scholarship as Scientific Dialogue*, 83 N.C. L. REV. 167 (2004).

11. On bankruptcy valuation generally, see Lucian Arye Bebchuk & Jesse M. Fried, *A New Approach to Valuing Secured Claims in Bankruptcy*, 114 HARV. L. REV. 2386 (2001); Jean Braucher, *Getting It for You Wholesale: Making Sense of Bankruptcy Valuation of Collateral After Rash*, 102 DICK. L. REV. 763 (1998); Chaim J. Fortgang & Thomas Moers Mayer, *Valuation in Bankruptcy*, 32 UCLA L. REV. 1061 (1985); David F. Heroy & Adam R. Schaeffer, *Valuation in Bankruptcy*, in 26TH ANNUAL CURRENT DEVELOPMENTS IN BANKRUPTCY & REORGANIZATION 153 (PLI Commercial Law & Practice Course, Handbook Series No. 3076, 2004); and Harold S. Novikoff & Beth M. Polebaum, *Valuation Issues in Chapter 11 Cases*, SJ082 ALI-ABA 239 (2004).

12. On the alleged pro-debtor biases of bankruptcy judges, see DAVID A. SKEEL, JR., DEBT’S DOMINION: A HISTORY OF BANKRUPTCY LAW IN AMERICA 194 (2001); Mechele Dickerson, *Approving Employee Retention and Severance Programs: Judicial Discretion Run Amuck?*, 11 AM. BANKR. INST. L. REV. 93, 105 & n.66 (2003) (noting a widespread belief that “bankruptcy judges are . . . biased in favor of debtors”); Lynn M. LoPucki, *The Debtor in Full Control—Systems Failure Under Chapter 11 of the Bankruptcy Code?*, 57 AM. BANKR. L.J. 99, 247, 272-73 (1983); Greg Zipes, *Securitization: Challenges in the Age of LTV Steel Co., Inc.*, 2002 ANN. SURV. BANKR. L. 105, 116 (2002) (“Bankruptcy judges try to give debtors every advantage because they may be criticized if the reorganization case were to fail.”); and Todd J. Zywicki, *The Past, Present, and Future of Bankruptcy Law in America*, 101 MICH. L. REV. 2016, 2017 (2003).

13. See EDWARD R. MORRISON, BANKRUPTCY DECISION-MAKING: AN EMPIRICAL STUDY OF SMALL-BUSINESS BANKRUPTCIES (Columbia Law Sch., Ctr. for Law & Econ. Studies, Working Paper No. 239, 2003), available at http://papers.ssrn.com/abstract_id=461031 (last visited Sept. 8, 2004) (finding that the actual behavior of bankruptcy judges in Chapter 11 cases contradicts the conventional wisdom that they are pro-debtor). While Professor

More specifically, the study found that in cases where the bankruptcy judge reached a valuation in between those contended for by the parties (1) bankruptcy judges on average allocated 65.2% of the value in controversy to debtors (that is, loss-averse parties opposing a wealth transfer) and only 34.8% to secured creditors (that is, risk-neutral or relatively less loss-averse parties seeking a wealth transfer); and (2) bankruptcy judges were more than three times as likely to allocate most of the value in controversy to debtors as they were to secured creditors.

II. THE STUDY

A. *Motivation*

The study undertaken here tests for empirical support for the loss aversion theory of legal valuation generally and for the more specific claim that bankruptcy judges are “pro-debtor.” There is already considerable anecdotal evidence suggesting that bankruptcy judges are “pro-debtor,”¹⁴ and loss aversion bias provides a theory to explain why they might be. But more than anecdotal evidence is needed to conclude that bankruptcy judges are in fact pro-debtor, particularly since a recent empirical study has cast some doubt on the claim.¹⁵

Why look at valuation specifically in the bankruptcy context? Because if there is anything to the loss aversion theory of legal valuation, one surely would expect loss aversion bias to find expression in the valuation decisions of bankruptcy judges. Bankruptcy valuation disputes typically pit a highly risk-averse party (the debtor or unsecured creditors) against a risk-neutral or relatively less risk-averse party (secured creditors). If loss aversion indeed affects judicial valuation behavior, one would expect bankruptcy judges to tilt their valuation decisions in favor of loss-averse debtors and unsecured creditors and against risk-neutral secured creditors.¹⁶

Morrison’s study concerns the issue of liquidating business debtors and the study here deals with valuing the collateral of individual debtors, the studies are nevertheless in some tension because *a priori* one would expect bankruptcy judges to be just as averse to the losses experienced by the owners, managers, and employees of business debtors as they are to those faced by individual debtors.

14. See sources cited *supra* note 12.

15. See MORRISON, *supra* note 13 (finding, contrary to the conventional wisdom, that bankruptcy judges efficiently liquidate debtor firms rather than allow them to operate in financial distress indefinitely).

16. For a useful description of the intuition behind possible pro-debtor bias in connection with the valuation of collateral, see Theodore Eisenberg, *The Undersecured Creditor in Reorganizations and the Nature of Security*, 38 VAND. L. REV. 931, 948 (1985) (“A reorganization court dealing with a financially distressed debtor might err, even subconsciously, on the side of undervaluing collateral. Undervaluing collateral enables

Consider the following very common situation. Debtor, an individual with regular income, faces a temporary economic setback (due, say, to a fire that destroyed her uninsured home). Unable to pay her bills, she petitions for relief under Chapter 13 of the Bankruptcy Code.¹⁷ Most of Debtor's creditors are unsecured. But one of them is GMAC, which previously had financed Debtor's purchase of a GM car and had secured the loan by taking a security interest in the vehicle. GMAC's claim against Debtor will be allowed as a secured claim "to the extent of the value" of the car.¹⁸ If Debtor elects to retain rather than surrender the car, GMAC would have the right to insist that Debtor's Chapter 13 adjustment plan provide for full payment of GMAC's allowed secured claim.¹⁹ How the bankruptcy court values the car could thus affect the size of Debtor's scheduled payments under the plan. The higher the valuation of the secured creditor's collateral, the higher must be the Debtor's payments.²⁰

In her plan, Debtor will likely propose a low but plausible valuation. If GMAC objects to Debtor's plan, it will likely propose in support of its objection a higher but also plausible value. What the bankruptcy court will do is difficult to predict. It might accept Debtor's valuation, or GMAC's, or pick some number in between. The Supreme Court has tried to give bankruptcy judges some guidance on how to make valuations of this sort, instructing them to value debtor-retained collateral under a "replacement-value standard"—that is, "the cost the debtor would incur to obtain a like asset for the same 'proposed . . . use.'"²¹ But bankruptcy courts continue to be all over

the debtor to use the collateral at a lower cost and, therefore, enhances the chances for successful reorganization. Erroneous overvaluation of collateral may increase a debtor's costs to the point of endangering the reorganization. Thus, a bankruptcy court with an inclination towards a reorganization might naturally err on the side of undervaluing collateral."). Cf. Alan Schwartz, *The Enforceability of Security Interests in Consumer Goods*, 26 J.L. & ECON. 117 (1983) (recognizing that debtors may value the right to retain collateral more highly than the collateral's market value and thus more highly than would a repossessing creditor).

17. 11 U.S.C. §§ 1301-1330 (2000).

18. See *id.* § 506(a) ("An allowed claim of a creditor secured by a lien on property in which the estate has an interest . . . is a secured claim to the extent of the value of such creditor's interest in the estate's interest in such property, . . . and is an unsecured claim to the extent that the value of such creditor's interest . . . is less than the amount of such allowed claim. Such value shall be determined in light of the purpose of the valuation and of the proposed disposition or use of such property . . .").

19. See *id.* § 1325(a)(5).

20. For useful descriptions and discussions of this type of Chapter 13 valuation litigation, see Braucher, *supra* note 11; and David Gray Carlson, *Car Wars: Valuation Standards in Chapter 13 Bankruptcy Cases*, 13 BANKR. DEV. J. 1 (1996). A similar valuation issue arises when individual debtors in Chapter 7 exercise their right to redeem property under 11 U.S.C. § 722. See David Gray Carlson, *Redemption and Reinstatement in Chapter 7 Cases*, 4 AM. BANKR. INST. L. REV. 289 (1996).

21. *Assocs. Commercial Corp. v. Rash*, 520 U.S. 953, 965 (1997) (quoting 11 U.S.C. § 506(a)).

the map in applying the replacement-value standard,²² which is nearly as slippery as the statutory language it sought to clarify.²³

A non-behaviorist looking at this frequently recurring bankruptcy valuation problem might say that valuation is inherently imprecise, that bankruptcy judges are making factual determinations as best they can, and that there is little else that legal scholarship can say about how bankruptcy judges are likely to handle the valuation problem. A behaviorist, however, might say that bankruptcy judges are likely, other things being equal, to tilt in favor of loss-averse debtors and give the collateral a relatively low valuation within the zone of plausibility, rather than tilt in favor of risk-neutral secured creditors who are seeking a higher valuation in order to obtain higher payments. The study here attempts to assess the accuracy of this behaviorist intuition.

B. Framework

Like valuation disputes generally, every bankruptcy valuation dispute involves a high proposed valuation, a low proposed valuation, and an adjudicated outcome. So the key variables in assessing bankruptcy valuation judgments are (1) the debtor's proposed valuation ("D"); (2) the secured creditor's proposed valuation ("C"); and (3) the adjudicated value ("J"). A fourth relevant variable, the value in controversy, or "stakes" ("S"), may be obtained by subtracting the low proposed valuation from the high proposed valuation (which in the case of disputes over the value of debtor-retained collateral means subtracting the debtor's valuation from the creditor's—that is, $S = C - D$).²⁴ And finally, a fifth relevant variable ("P") is the percentage share of the value in controversy allocated to the debtor, which may be calculated by subtracting the adjudicated value from the creditor's

22. For a sense of the range of possibilities, compare *In re Smith*, 307 B.R. 912, 921 (Bankr. N.D. Ill. 2004) (adopting a judicial presumption to set retail price minus ten percent as a starting point for determining the replacement value of debtor-retained collateral), with *In re Tripplett*, 256 B.R. 594, 597-98 (Bankr. N.D. Ill. 2000) (declining to apply *Rash* in Chapter 7 cases and adopting a liquidation valuation standard instead). See also Kathryn R. Heidt & Jeffrey R. Waxman, *Supreme Court's Rash Decision Fails to Scratch the Valuation Itch*, 53 BUS. LAW. 1345, 1359-75, 1380 (1998) (discussing post-*Rash* valuation cases and concluding that bankruptcy valuation remains uncertain in the wake of *Rash*).

23. See *Assocs. Commercial Corp.*, 520 U.S. at 965 n.6 ("[T]he replacement-value standard . . . leaves to bankruptcy courts, as triers of fact, identification of the best way of ascertaining replacement value on the basis of the evidence presented.")

24. Note that in other contexts, the secured creditor might well favor a low rather than high valuation—*e.g.*, cases where the debtor surrenders the collateral; reorganization cases where the value in issue is the reorganizing entity itself such that the secured creditor's share would be greater the less the court decides the reorganizing entity is worth.

proposed valuation and then dividing the sum by the value in controversy (that is, $P = (C - J)/S$).²⁵

This framework has two main advantages. First, calculating the debtor's allocation not as a raw number but rather as a percentage share normalizes the variable across cases with stakes of varying sizes and thereby facilitates meaningful comparison across cases. Using percentages in this way to facilitate cross-case comparison is a common technique in legal valuation scholarship.²⁶ Second, assessing what valuation litigants obtain in court in relation to what they have asked for is a useful way to cut through the bewildering fog of rhetoric and valuation methodologies that courts employ in valuation litigation and focus instead on what courts actually do rather than on what they say.²⁷

Historically, a results-oriented focus was not the usual approach in studies of bankruptcy valuation, which tended to emphasize valuation doctrines and methods rather than the systematic study of valuation results.²⁸ Some recent work has focused more on results than has been done in the past, but has considered valuation outcomes not in relation to what the parties have asked for but rather in comparison to objective indicators of market value.²⁹ Other recent bankruptcy valuation scholarship has recognized the role and importance of party differences in valuation disputes, but has focused on contractual mechanisms for resolving such differences rather than on their relationship to litigation outcomes.³⁰

25. The idea here is that the debtor's percentage share of the value in controversy is captured by the distance between the valuation the creditor asks for and the valuation it obtains in proportion to the distance between the parties. If the court agrees entirely with the creditor's valuation (*i.e.*, if $J = C$), then the debtor's allocated share of the value in controversy is zero. Conversely, if the court entirely agrees with the debtor's valuation (*i.e.*, $J = D$), then the debtor's share is 100% (*i.e.*, $(C - J) = (C - D) = S$; therefore, $(C - J)/S = (C - J)/(C - J) = 1$). And so forth.

26. See, *e.g.*, Joel Seligman, *Reappraising the Appraisal Remedy*, 52 GEO. WASH. L. REV. 829, 850-51 (1984).

27. As Seligman explains, valuation results, rather than doctrine or method, ought to be the focus of legal valuation scholarship. *Id.* at 855 (advocating empirical analysis of corporate valuation "results themselves" rather than a "focus on how results are obtained").

28. See, *e.g.*, Fortgang & Mayer, *supra* note 11.

29. For example, a recent bankruptcy valuation study compared "negotiated reorganization values" agreed to by parties in Chapter 11 proceedings with various indirect measures of market or "intrinsic" value, such as the reorganized entity's post-reorganization market capitalization. See Marcus Bernard Butler III, *Valuation Conflicts in Corporate Bankruptcy* (2003) (unpublished Ph.D. dissertation, University of Chicago Graduate School of Business), available at http://www.ssb.rochester.edu/fac/Butler/chithesis_final.pdf (last visited Sept. 8, 2004).

30. DOUGLAS G. BAIRD & DONALD S. BERNSTEIN, *RELATIVE PRIORITY IN AN ABSOLUTE PRIORITY WORLD* (Am. Law & Econ. Ass'n Annual Meetings, Working Paper No. 59, 2004) (describing and discussing the use of options contracts to resolve valuation disputes, as in the recent Conoco bankruptcy), available at <http://law.bepress.com/alea/14th/art59> (last visited Sept. 8, 2004).

In contrast to earlier and contemporaneous work, the approach taken here is to examine how judges allocate the value in controversy in valuation litigation. That is, the valuations that litigants contend for are considered in relation to the adjudicated valuation outcomes they later obtain. Analysis of how courts allocate the value in controversy among valuation litigants is an approach to legal valuation scholarship that, so far as I know, originates with me.³¹ And the study undertaken here is the first empirical application of that approach.

C. Data Selection

With a sensible set of variables to look for, two questions remained: What data should be collected, and which of the collected data should be kept rather than discarded? My thought was to search for recent bankruptcy opinions addressing valuation disputes where each side's proposed valuation was reported along with the adjudicated outcome. I therefore searched the Westlaw bankruptcy case database for cases containing a word with the root "valu!" within close range of a word with the root "propos!" and looked at cases digested by West in its annotated version of the United States Code following 11 U.S.C. § 506(a) (the provision of the Bankruptcy Code concerning the valuation of collateral), as well as cases citing the *Rash* decision (the leading Supreme Court decision on valuing collateral in bankruptcy).

The search was, inevitably, both over- and underinclusive. Many of the cases did not involve valuation disputes at all, or involved valuation disputes but did not report all three of the variables necessary for the study. Cases falling in these categories were discarded. Other cases containing the necessary variables were surely missed.

A further category of disregarded cases merits special mention and explanation. Some of the cases generated by the search that reported data for all three variables necessary for the study (*D*, *C*, and *J*) were nevertheless discarded. This was done where the adjudicated value (*J*) was found to be equal to one of the party valuations rather than determined to be an amount in between. The reason for discarding these one-sided cases, some of which were won by the creditor³² and others by the debtor,³³ was that the judicial valua-

31. See Sharfman, *supra* note 3, at 370-71 (focusing analysis on the amount of value in controversy rather than on the overall value of the entitlement in question).

32. Identified cases allocating 100% of the value in controversy to the creditor include *Evabank v. Baxter*, 278 B.R. 867 (N.D. Ala. 2002); and *In re Russell*, 211 B.R. 12 (Bankr. E.D.N.C. 1997).

33. Identified cases allocating 100% of the value in controversy to the debtor include *In re Weathington*, 254 B.R. 895 (B.A.P. 6th Cir. 2000); *Consumer Portfolio Services, Inc. v.*

tions reported in them were less likely to be products of the exercise of judicial discretion than cases where J fell between D and C . This is so because complete adoption of one side's valuation suggests that the judge felt constrained in some way (either factually or legally) and thus was not exercising judicial discretion when making the valuation. A frequent example of this occurs when one party fails to back its valuation with any credible evidence. In such a case, the judge will usually feel constrained to adopt the other side's valuation, even if the judge might otherwise have been inclined to choose a compromise figure if the party failing to offer evidence in support of its valuation had actually presented a plausible valuation. The study was thus limited to only the clearest examples of discretionary judicial valuation—that is, cases where the judge imposed a compromise figure in between those contended for by the parties. If bankruptcy judges are motivated by loss aversion, that aversion is most likely evident in this category of cases.

In the end, after appropriately discarding cases to ensure that the sample studied would be representative, only a relatively small number (twenty-four) were left on which to perform the study. But a sample of twenty-four valuation disputes is probably large enough for the study to still be useful.³⁴ And if more cases meeting the study's criteria are found, the sample could always be enlarged in subsequent research.

D. Results

The results obtained in the study are summarized in Table 1 below. The main findings are that in the bankruptcy valuation disputes studied (1) bankruptcy judges on average allocated 65.2% of the value in controversy to debtors and only 34.8% to secured creditors; and (2) bankruptcy judges were more than three times as likely to allocate most of the value in controversy to debtors as they were to secured creditors.³⁵

Martina, No. 01 C 50424, 2002 WL 449283 (N.D. Ill. Mar. 21, 2002); *In re Bouzek*, 311 B.R. 239 (Bankr. E.D. Wis. 2004); *In re Barse*, 301 B.R. 404 (Bankr. W.D.N.Y. 2003), *aff'd*, 309 B.R. 109 (W.D.N.Y. 2004); *In re Podnar*, 307 B.R. 667 (Bankr. W.D. Mo. 2003); *In re Zell*, 284 B.R. 569 (Bankr. D. Md. 2002); *In re Ard*, 280 B.R. 910 (Bankr. S.D. Ala. 2002); *In re Duggins*, 263 B.R. 233 (Bankr. C.D. Ill. 2001); *In re Dunbar*, 234 B.R. 895 (Bankr. E.D. Tenn. 1999).

34. Compare Seligman, *supra* note 26, at 855-56 & n.115, which analyzed a data set of only twelve corporate valuation cases—a sample deemed representative enough for use in a later study. See Kenton K. Yee, *Judicial Valuation and the Rise of DCF*, PUB. FUND DIG., 2002, at 76, 81-82 (performing further tests on the Seligman sample).

35. The “more than three times as likely” figure is based on the fact that the debtor's allocated share exceeded 50% in seventeen of the disputes studied and was less than 50% in only five of the cases studied. Seventeen is more than three times as many as five.

TABLE 1
 SHARE OF VALUE IN CONTROVERSY ALLOCATED TO DEBTOR IN SELECT
 BANKRUPTCY VALUATION DISPUTES³⁶

CASES	DEBTOR'S VALUE	CREDITOR'S VALUE	ADJUDICATED VALUE	VALUE IN CONTROVERSY	DEBTOR'S SHARE
<i>In re Stark</i> , 311 B.R. 750 (Bankr. N.D. Ill. 2004)	14,500	24,850	17,475	10,350	71.3%
<i>In re Washington</i> , 2003 WL 22119519 (Bankr. E.D. Ark.)	29,500	37,825	30,000	8,325	94.0%
<i>In re Boise</i> , 2003 WL 1955759 (Bankr. D. Vt.)	8,000	8,750	8,250	750	66.7%
<i>In re Gonzalez</i> , 295 B.R. 584 (Bankr. N.D. Ill. 2003)	1,000	7,495	2,411	6,495	78.3%
<i>In re Stembridge</i> , 287 B.R. 658 (Bankr. N.D. Tex. 2002)	9,540	13,475	12,825	3,935	16.5%
<i>In re Gray</i> , 285 B.R. 379 (Bankr. N.D. Tex. 2002)	4,640	6,850	5,745	2,210	50.0%
<i>In re Cline</i> , 275 B.R. 523 (Bankr. S.D. Ohio 2001)	15,000	26,500	18,500	11,500	69.6%
<i>In re Marquez</i> , 270 B.R. 761 (Bankr. D. Ariz. 2001)	11,000	15,500	13,674	4,500	40.6%
<i>In re Ballard</i> , 258 B.R. 707 (Bankr. W.D. Tenn. 2001)	7,925	9,820	8,025	1,895	94.7%
<i>In re Richards</i> , 243 B.R. 15 (Bankr. N.D. Ohio 1999)	6,000	10,350	7,850	4,350	57.5%
<i>In re Getz</i> , 242 B.R. 916 (6th Cir. B.A.P. 2000)	7,500	8,825	7,937	1,325	67.0%
<i>In re Winston</i> , 236 B.R. 167 (Bankr. E.D. Pa. 1999)	9,150	15,280	9,537	6,130	93.7%
<i>In re Renzelman</i> , 227 B.R. 740 (Bankr. W.D. Mo. 1998)	11,272	12,950	11,471	1,678	88.1%
<i>In re Lyles</i> , 226 B.R. 854 (Bankr. W.D. Tenn. 1998)	12,375	15,650	14,450	3,275	36.6%
<i>In re McCutchen</i> , 224 B.R. 373 (Bankr. E.D. Mich. 1998)	4,000	8,025	6,150	4,025	46.6%
<i>In re Glueck</i> , 223 B.R. 514 (Bankr. S.D. Ohio 1998)	12,350	14,100	12,925	1,750	67.1%
<i>In re Oglesby</i> , 221 B.R. 515 (Bankr. D. Colo. 1998)	7,700	8,400	8,050	700	50.0%
<i>In re Younger</i> , 216 B.R. 649 (Bankr. W.D. Okla. 1998)	11,988	14,575	12,200	2,587	91.8%
<i>In re Franklin</i> , 213 B.R. 781 (Bankr. N.D. Fla. 1997)	14,000	17,000	15,418	3,000	52.7%
<i>In re McElroy</i> , 210 B.R. 833 (Bankr. D. Or. 1997) (truck)	5,600	8,603	5,950	3,003	88.3%
<i>In re McElroy</i> , 210 B.R. 833 (Bankr. D. Or. 1997) (car)	1,200	2,315	1,570	1,115	66.8%
<i>In re Sharon</i> , 200 B.R. 181 (S.D. Ohio 1996)	23,500	26,250	24,737	2,750	55.0%
<i>In re Duggar</i> , 1996 WL 537837 (Bankr. S.D. Ga.)	7,500	11,325	9,500	3,825	47.7%
<i>In re Angel</i> , 147 B.R. 48 (Bankr. D. Idaho 1992)	6,075	11,000	7,375	4,925	73.6%
AVERAGE SHARE ALLOCATED TO DEBTOR:	65.2%				

E. Analysis and Implications

The results reported here suggest that when bankruptcy judges are faced with a plausible choice between competing valuations, they are three times more likely than not to exercise discretion in favor of the debtor and on average do so in a substantial way (by the margin of 65.2% to 34.8%). The data do not themselves reveal *why* bankruptcy judges favor debtors in valuation disputes; just that they do. But loss aversion supplies a plausible explanation for the pro-debtor tilt that we observe in the cases: namely, that bankruptcy judges implicitly value debtor losses (that is, the cost of making payments to the secured creditor) more highly than creditor gains (that is, the benefit of receiving payments from the debtor).³⁷

36. The figures reported here are rounded to the nearest dollar or tenth of a percent. The overall result reported at the bottom of the table is based on an equally weighted average of the averages in the "Debtor's Share" column.

37. To be sure, it is possible to explain the data without resort to a bias theory. It may well be that secured creditors, perhaps because they are repeat players who wish to establish reputations as tough valuation litigants, are systematically more aggressive than debtors in the valuation positions that they take. But it is difficult to see why debtors (whose lawyers are repeat players even if their clients are not) would not have just as powerful an incentive to litigate aggressively.

Suppose it is true that bankruptcy judges favor debtors in valuation disputes and that loss aversion bias explains this behavior. Still it would not be clear what, if anything, should be done about it. It may be entirely sensible as a matter of bankruptcy policy to respect a judicial preference that losses should count for more than gains of equal financial size. While such a policy approach would be inconsistent with the goal of wealth maximization in the Kaldor-Hicks sense,³⁸ it would hardly be the first instance of a policy departure from that ideal. Moreover, sensitivity to loss aversion could well be utility-maximizing even if wealth-reducing. Finally, if bankruptcy judges have pro-debtor biases, non-bankruptcy judges (and juries) are likely to have them too—and so restraining pro-debtor bias in the bankruptcy area exclusively would encourage forum shopping and violate the basic principle of respecting non-bankruptcy entitlements in bankruptcy.³⁹

While this study does not suggest any need to reassess bankruptcy policy, its findings do have implications for reform of the procedures generally used to resolve valuation disputes. In previous work I have argued that “valuation averaging”—a process whereby valuation disputes are resolved by averaging parties’ valuation proposals with each other and (if they are far enough apart) with that of a neutral expert—would be a useful measure to adopt.⁴⁰ Although suggested as a substantive enactment rather than a procedural rule,⁴¹ the proposal was intended to be substantively neutral on average with respect to outcomes. A background assumption underlying the proposal was that factfinders in valuation disputes tend on average to “split the difference” roughly *equally* between the parties (though the split is not necessarily equal in any given case).⁴² For valuation disputes of the type in which factfinders tend on average to split differences equally, a fifty-fifty weighting of the respective plaintiff and defendant valuations would achieve substantive neutrality relative to average current outcomes. But for particular litigation contexts where empirical research shows that factfinders do not on average split the difference equally (for example, the sixty-five to thirty-five average allocation found here for bankruptcy valuation disputes with respect to debtor-retained collateral), valuation averaging could be implemented with substantive neutrality only by attach-

38. On wealth maximization and Kaldor-Hicks efficiency as criteria of social choice, see RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* § 1.2, at 13 (6th ed. 2003).

39. The policy of protecting non-bankruptcy entitlements in bankruptcy is often referred to as “the *Butner* principle” after the case that established the doctrine. See *Butner v. United States*, 440 U.S. 48, 55 (1979); Thomas H. Jackson, *Bankruptcy, Non-Bankruptcy Entitlements, and the Creditors’ Bargain*, 91 *YALE L.J.* (1982).

40. Sharfman, *supra* note 3, at 370-79.

41. See *id.* at 370 n.46.

42. *Id.* at 359 & nn.6-7.

ing weights to the party values used in the valuation averaging process that approximate the average results that courts reach outside it.

This is not to say that substantive neutrality is an absolute must. Rather, the point is that while substantive neutrality may or may not be something that policymakers would wish to achieve when shifting from current valuation processes to a valuation averaging-type process, the substantive impact of such a shift (if any) is something that they probably will wish to (and at any rate should) take into account. Further empirical studies of the sort undertaken here would help policymakers to do that.

III. CONCLUSION

This Article presents an empirical study of the valuation behavior of bankruptcy judges in disputes between debtors and secured creditors over the value of debtor-retained collateral. The motivation for conducting the study was to find empirical support for what a behaviorist might call the loss aversion theory of legal valuation, which is the idea that legal decisionmakers tend to value losses more highly than gains of equal financial size. An implication of the theory is that bankruptcy judges will tend to favor loss-averse debtors over gain-seeking secured creditors in disputes with potential loss consequences for the debtors (such as disputes concerning the value of debtor-retained collateral)—which is just another way of stating the conventional wisdom that bankruptcy judges tend to be pro-debtor.

Empirical support was found for both the loss aversion theory of legal valuation and the pro-debtor bias intuition. The study's main findings were that in the bankruptcy valuation disputes studied (1) bankruptcy judges on average allocated 65.2% of the value in controversy to debtors and only 34.8% to secured creditors; and (2) bankruptcy judges were nearly three times as likely to allocate most of the value in controversy to debtors as they were to secured creditors. These findings suggest that bankruptcy judges may indeed have a pro-debtor orientation. And they are consistent with, and indeed may best be explained by, the loss aversion theory.

As a normative matter, the study's findings likely do not have important implications for bankruptcy policy. While evidence of pro-debtor bias among bankruptcy judges may seem to cry out for reform, the reality is that a pro-debtor judicial tilt could well be sensible bankruptcy policy, given the widespread preference among individuals to value losses more highly than gains of equal financial value. It is true that allowing loss aversion to find expression in bankruptcy policy is at odds with considerations of wealth maximization and Kaldor-Hicks efficiency. But public policy often subordinates effi-

ciency to other concerns, and concern about loss aversion could well justify bankruptcy valuation outcomes that depart from efficiency.

The empirical study here and other potential studies of a similar nature may, however, have normative implications beyond the bankruptcy context for general reform of the processes by which valuation disputes are resolved. The study here demonstrates that party valuation differences are not on average split equally in bankruptcy valuation disputes, and similarly asymmetric difference splitting may be the norm for valuation disputes in other contexts as well. The possibility of systematically non-equal difference splitting means that shifting to more mechanical valuation procedures such as “value averaging” would in some contexts not be achievable with substantive neutrality absent the attachment of asymmetric weightings to the parties’ respective positions. Finding the appropriate calibration of these weightings for particular contexts will require further, context-specific empirical study.