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GROPING AND COPING IN THE SHADOW OF MURPHY'S LAW: BANKRUPTCY THEORY AND THE ELEMENTARY ECONOMICS OF FAILURE

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Cognoscenti will recognize that my title was inspired by Mnookin & Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L.J. 950 (1979).

Two persons with excellent credentials as followers of Murphy, Lucy McGough (an Aggie's daughter and granddaughter) and Bruce Johnsen (an Aggie by profession) corrected errors in earlier drafts of this paper. Jay Westbrook and Lynn LoPucki also made several helpful suggestions. If any of them overlooked any errors, it is not their fault; nor should I be blamed. That any remain can only be explained by Murphy's Law.

Edsel Murphy is the only philosopher ever to have metaphysically accounted for the occurrence of bankruptcies. Admittedly, his famous First Law[1] is nonspecific. It covers *all* of life's misunderstandings, misfortunes and failures. Murphian thinkers have nevertheless always recognized that bankruptcies were among the distinct disasters Murphy had implicitly predicted and explained. Ironically, no lawyer, judge, or scholar of bankruptcy law has ever made that same short deductive leap.

Murphy taught that if we fail to understand failure, we fail to understand. Our profession has ignored his teaching and fallen into that trap. Bankruptcy scholars lack any systematic theory which explains the behavior of people in trouble. (Indeed, given our disregard of Murphian philosophy, it is doubtful whether the development of such a theory could ever have been possible.) We don't even have any empirical information about how failing debtors behave.

All we do know is that bankruptcy is not working as a creditors' remedy. General creditors don't get paid by bankrupts.[2] Murphy's

1. Murphy's Law is so well known that it seems pedantic to footnote its content. Nevertheless, the Law itself suggests that if it is important for a person to know it, that person might not. I will, therefore, restate it here. Murphy's Law (in its weaker formulation) holds that *Whatever can go wrong, will.* A stronger version has been derived from Sullivan's Co-Proposition which states that "Murphy was an optimist." This has been taken to mean, when restated in rigorous form, that the basic law is subject to the condition that *Nearly everything can go wrong* yielding the so-called strong version of the law which can be simplified as "Nearly everything *will* go wrong." This paper takes no position on whether the weaker or stronger version best reflects empirical reality.

2. *See, e.g.*, Countryman, *Code Security Interests in Bankruptcy*, 75 COM. L.J. 269 (1970) (concluding, from extensive personal inquiries with bankruptcy practitioners and judges, that general creditors don't get paid much by bankrupts). Murphians were generally unsurprised to learn this and, on the whole, felt that had Professor Countryman really understood what Murphy was saying, he could have saved himself a bundle of work. Others have worked even harder to establish that same fact, however. *See, e.g.*, D. STANLEY & M. GIRTH, BANKRUPTCY: PROB-

Law foretells that neither theoretical voids nor lack of information will inhibit experts from expressing opinions. Predictably, bankruptcy scholars assume that the "problem" of zero collections in bankruptcies can somehow be cured by clever tinkering with bankruptcy law.[3]

This study departs from that tinkering tradition. One of its conclusions springs directly from an early corollary of Murphy's Law, Seamus O'Reilly's Irrelevance of Repair Rule ("Attempts to fix things are not only doomed but also meaningless"). The logic linking Murphy's Law to O'Reilly's Rule is straightforward: if things cannot ever be made to perform as they were intended to, it is futile to try to repair them. I show below why bankruptcy law can never be made to work

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LEM, PROCESS, REFORM 88, 127, 130 (1971) (reporting that while, in most cases, unsecured creditors received nothing, general creditors in personal bankruptcies received an average of 7% of their proved and allowed claims; creditors of business bankrupts received an average of 8%); T. SULLIVAN, E. WARREN & J. WESTBROOK, AS WE FORGIVE OUR DEBTORS: BANKRUPTCY AND CONSUMER CREDIT IN AMERICA 199-229 (1989); Sullivan, Warren & Westbrook, *Folklore and Facts: A Preliminary Report From the Consumer Bankruptcy Project,* 60 AM. BANKR. L.J. 293 (1986) (reporting the likelihood, based on an extensive empirical study, that consumer bankrupts have few distributable assets by the time they are in bankruptcy); Buckley, *The Bankruptcy Priority Puzzle,* 72 VA. L. REV. 1393, 1411 (1986) (reporting on a similar 1968 Canadian study showing the average unsecured creditor in a Canadian bankruptcy recovered less than 6%); Herbert & Pacitti, *Down and Out in Richmond, Virginia: The Distribution of Assets in Chapter 7 Bankruptcy Proceedings Closed During 1984-87,* 22 U. RICH. L. REV. 303, 311 (1988) (reporting that nothing is distributed to creditors in 96% of all cases studied); LoPucki, *The Debtor in Full Control — Systems Failure Under Chapter 11 of the Bankruptcy Code, Parts 1 & 2,* 57 AM. BANKR. L.J. 99, 247 (1983) (reporting similar results from a study of Chapter 11 filings in one district).

3. *See, e.g.,* LoPucki, *A General Theory of the Dynamics of the State Remedies/Bankruptcy System,* 1982 WIS. L. REV. 311, 363-65 (assuming that if bankruptcies occurred sooner, creditors would get paid more, and proposing that bounties be paid to creditors to encourage them to initiate early proceedings). Since most bankruptcies are consumer bankruptcies and, therefore, most of the unpaid creditors in bankruptcies are creditors of consumers, a lot of the heat has focused on proposals to deny discharges to consumer debtors by various revisions of the current law. See Nimmer, *Consumer Bankruptcy Abuse,* LAW & CONTEMP. PROBS., Spring 1987, at 89 for a comprehensive review of this extensive literature.

Not all writers proposing to modify the Bankruptcy Code (Code) to treat unsecured creditors better in bankruptcies specifically rest their arguments on the fact that those creditors now receive nothing. *See, e.g.,* Carlson, *Successor Liability in Bankruptcy: Some Unifying Themes of Intertemporal Creditor Priorities Created by Running Covenants, Products Liability, and Toxic-Waste Cleanup,* LAW & CONTEMP. PROBS., Spring 1987, at 119 (current creditors could collect more if only they could liquidate the debtor's assets free of servitudes); Countryman, *The Concept of a Voidable Preference in Bankruptcy,* 38 VAND. L. REV. 713, 772-76, 813-16 (1985) (criticizing the exemption from preference attack of payments made in the ordinary course of business, and of a similar exemption for small preferences by consumer debtors, because those exemptions violate the equal treatment policy); Eisenberg, *Bankruptcy Law in Perspective,* 28 UCLA L. REV. 953, 992-97 (1981) (arguing that pre-filing conversions of nonexempt property into exempt property ought to be avoidable, for similar reasons). Even so, such proposals implicitly assume that the unsecured creditors must not already be receiving favorable enough treatment. Otherwise the recommended tinkering would not be worth fiddling with. Not all the proposed tinkering is intended to make the unpaid unsecured creditors better off, of course. *See, e.g.,* Baird & Jackson, *Corporate Reorganizations and the Treatment of Diverse Ownership Interests,* 51 U. CHI. L. REV. 97 (1984) (arguing that existing interpretations of the Code's automatic stay provisions tend to disfavor unduly *secured* creditors).

as it is supposed to and can never be fixed.[4] It follows that tinkering is a waste of time.

The Murphian argument does not stop there, however. Another corollary, O'Shaunessey's Irony, holds "It is *good* that remedies don't succeed." Attempted repairs are often worse than wasteful. They can also be retrogressive. Bankruptcy law is itself an attempt to correct previous conditions that made unpaid creditors unhappy. If it worked, we would all be worse off. I show below that the best bankruptcy estates are the empty ones. The people who don't get paid are the very ones who shouldn't get paid. That showing should introduce Critical Murphian Studies to the legal community, and, thus, belatedly obtain for Murphy the recognition he so richly deserves.

Part I briefly examines the conventional explanation for bankruptcy's defining characteristic, its default distributional rule.[5] It concludes that the conventional explanation is insufficiently informative for us to tell whether the Bankruptcy Code (Code)[6] is actually working or not. Part II argues that the only existing systematic attempt to explain bankruptcy law, the so-called "Creditors' Bargain" Theory, is inadequate for two reasons. First, the predictions it generates are belied by real-world events. Second, it is mistaken on theoretical grounds, primarily because it ignores how debtors are likely to manage their assets. Part III presents the Murphian theory of failing behavior, the hypothesis that the debtors are efficient liquidators of their own declining affairs. This Part shows how both solvent and insolvent debtors faced with losses can be expected to manage their assets in optimal ways without bankruptcy legislation. Part IV summarizes the conclusions drawn from elementary Murphian theory and suggests another weakness in the Creditors' Bargain model: it disregards the ben-

4. Although the remainder of this article will break the logic of this deduction into many discrete substeps, it also follows directly from Murphy's Law itself. Belaboring the obvious, suppose the purpose of the Bankruptcy Code is to achieve state of affairs *A*. Murphy's law predicts (in its weaker form) that if there are contingencies permitting the arrival at the state Not-*A*, Not-*A* is where things will wind up. The strong version of the law, of course, insists that such contingencies *always* will exist. This Article makes only the weaker claim that they do exist, not that they must, although, in candor, the likelihood that they might ever not exist is minuscule. The foregoing thought is not original with this writer. O'Rourke's First Legislative Corollary formulated in 1913 ("Reality will thwart the intentions of Congressmen, if it is true that they had any") said as much.

5. I speak here of bankruptcy as a creditors' remedy system only. It is true that our bankruptcy law also provides significant benefits to debtors, most importantly in the form of partial or total discharge from debt. So many people closely identify debtor protection with bankruptcy that my assertion of the importance of bankruptcy's creditor protection scheme might seem controversial. In segregating debtor protection from creditors' remedies for purposes of analysis, I am only following the conventional distinctions found in other works which will be discussed here. *See* sources cited *infra* note 18.

6. 11 U.S.C. §§ 101-1330 (1988).

efits of having debtors distribute their own assets. From the existing theory, it projects reasons for believing that optimal distributions are likely to occur without the intervention of bankruptcy. It ends by speculating on why we are tempted to adopt and then tinker with bankruptcy law, even in the face of the O'Conner Construct ("You can't fine-tune a mess").[7]

I. THE POVERTY OF PARITY POLICY: WHAT EQUALITY THEORY DOESN'T TELL US

The first theorem derived from Murphy's Law was developed by Murphy himself, and came to be known as Edsel's Edict. It states: "The better you think you understand what's going on, the less likely it is that you really do." This study begins by showing that bankruptcy scholarship proves the validity of the Edict.

Classic bankruptcy law, as I will use that term, is a collective creditors' remedy with one defining feature: the procedure provides in advance just how the proceeds recovered by the collective will be distributed among its members. The fundamental policy of bankruptcy law, goes the ritual incantation, is to obtain equal treatment for creditors of the same class (at least in "straight" bankruptcies).[8] That at least, is surely Congress' intent.[9] Professor Countryman recently documented that intent as he traced the history of preference law.[10] Suppose the debtor pays one creditor but not another. The provisions in the Code that void the preferential payment could have been justified because Congress disapproved either of the debtor's reasons for making payment or of the creditor's for collecting it. Since Congress

7. I am indebted to Stephan Kinsella, LSU Law Center Class of 1991, for leading me to O'Conner's observation.

8. "The theme of the Bankruptcy Act is 'equality of distribution'; and if one claimant is to be preferred over others, the purpose should be clear from the statute." Nathanson v. NLRB, 344 U.S. 25, 29 (1952) (citation omitted); *see also* 3 J. MOORE & L. KING, COLLIER ON BANKRUPTCY ¶ 60.01, at 743 (14th ed. 1977); REPORT OF THE COMM. ON THE BANKRUPTCY LAWS OF THE UNITED STATES, H.R. DOC. NO. 137, 93d Cong., 1st Sess. pt. 1, at 19 (1973); *cf.* Bebchuk, *Toward Undistorted Choice and Equal Treatment in Corporate Takeovers*, 98 HARV. L. REV. 1695, 1780-87 (1985), for an analogous argument that equality is equity in the distribution of tender offer proceeds.

The specific equality required by the Bankruptcy Code is pro rata equality. If the debtor has assets of $100 to be distributed, and has only two creditors owed, respectively, $600 and $400, the assets will be distributed to the creditors in proportion to the size of their claims or $60 to the first creditor and $40 to the second.

9. *See* 11 U.S.C. § 726(b) (1988). Bruce Johnsen, a fellow follower of Murphy, pointed out that in discussing congressional intent I had ignored his own contribution to Murphian thought. The Johnsen Judgment opines that any legislator's intent is nearly always to take wealth from one pocket and to move it in the most practical but direct fashion into another pocket, preferably his own. The text accompanying note 107 *infra* indicates how the Judgment helps to explain § 726(b).

10. Countryman, *supra* note 3, at 714-25.

made the motives of both irrelevant when it defined which transfers were avoidable, nothing explains why Congress outlawed preferences except an intent that the two creditors be treated "equally."[11]

The troubling thing about that conclusion is, however, that there seems to be no good reason why Congress should care. Professor Weisberg has convincingly shown that the morality of equal treatment among creditors is and always has been controversial.[12] Congress itself has also been ambivalent about strict pro rata equality. Distributions in reorganizations under Chapters 9, 11, 12, and 13 of the Code can be made "unequally." Reorganization plans can sort creditors into fluid and differing classes for the purposes of treating them differently.[13]

Moreover, if Congress thought bankruptcy law was needed to achieve "equality," either its conclusion was superfluous or its reasoning morally and logically incoherent. If creditors were in fact "equal," there is no reason to believe that they would not be treated accordingly. Imagine a world in which all creditors were clones. Debtors would have no reason to prefer one clone over another. If one did receive more than another, the difference in treatment would, by definition, be simply random. Risk-neutral clones would be indifferent as between a guarantee of being paid equally with all the other clones, or a random chance of being preferred or disfavored in a random amount. Over a volume of credit transactions, the outcome would be the same. Bad debt would be evenly distributed across the population of creditor clones. Bankruptcy law would be unnecessary in order to guarantee ultimate "equal" pro rata treatment. Consequently, the problem must be that creditors are not in fact "equal" to each other, in which case we are left to wonder why Congress wants unequal people to be treated equally.[14]

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11. *Id.* at 748.

12. Weisberg, *Commercial Morality, The Merchant Character, and the History of the Voidable Preference,* 39 STAN. L. REV. 3 (1986).

13. *See* 11 U.S.C. §§ 1122, 1123(a)(1)-(4), 1222(a)(3)-(b)(2), 1322(a)(3)-(b)(2), § 901(a) (1988). The congressional commitment to "equality" is also undercut for the claims of specific creditors. Since pro rata distributions are computed using the amount of a creditor's "allowed claim" and the claims of certain creditors are not "allowed" in as full measure as are the claims of other creditors, the distributional formula does not result in "equal" treatment of the disfavored claims except in a formal sense. *See* 11 U.S.C. § 502 (1988).

14. Risk-averse clones would, of course, prefer guaranteed to random treatment. There are at least theoretical reasons for believing that when creditors are firms, they will evaluate credit risk from a risk-neutral standpoint. *See, e.g.,* Schwartz, *Security Interests and Bankruptcy Priorities: A Review of Current Theories,* 10 J. LEGAL STUD. 1, 22-24 (1981) (corporate management's goal of maximizing the market value of corporate stock implies risk-neutrality). Individuals, of course, are assumed to be risk-averse. Pro rata distribution treats individuals and firms the same. Another way of framing the mystery in the congressional formula is to ask why Congress would want to treat the most risk-averse creditors exactly like the least risk-averse.

It is no answer to say that "equal" treatment of different people is nevertheless a normative standard worth pursuing for itself. Appeals to simple "equality" can not justify the pro rata equality required by the Bankruptcy Code. Indeed, most unsecured creditors left in bankruptcies *are* treated "equally." They all receive zero. Simple "equality" may justify pro rata distributions, but it also justifies dividing the estate per capita, equalizing the percentage of total wealth lost by each creditor, and a host of other possible formulae which possess an attribute of formal "equality." Choosing among equality formulae is impossible without pointing to normative standards other than "equality" itself.[15] Consequently, bankruptcy's pro rata formula cannot be explained by a desire for simple "equality." The formula must instead be justified by a wish to foster some other unarticulated underlying norm, but we are left in the dark about what that norm is. While we remain in the dark, bankruptcy policy is incomprehensible. If, on conventional grounds, we do not know why it exists or how it can be justified, it is difficult to know whether or not bankruptcy law is working. It is also difficult to justify any proposals to change it.

II. POOLS, PRISONERS AND PIES: THE PERILOUS PARABLES OF BANKRUPTCY LAW

Anti-Murphian scholars[16] believe there is an underlying normative criterion which justifies bankruptcy equality, to wit: wealth maximization. They argue that pro rata distribution of debtors' estates tends to encourage efficient behavior. Murphian theory implies that nonequality is the only distributional standard which is wealth maximizing, which suggests that those scholars' attempts to justify bankruptcy are misguided. In this Part, I examine their argument.

No one proposes that all creditors' remedies be collective proceedings.[17] Understanding bankruptcy law thus means understanding why

15. Weston, *The Empty Idea of Equality*, 95 HARV. L. REV. 537 (1982).

16. *See* writers and works cited *infra* note 18.

17. For the obvious reason that it would be pointlessly costly to involve Creditors *A, B, C, . . . M* in what is essentially a disagreement between the debtor and Creditor *N*. If a collective proceeding is relatively easily available, the failure of *A, B, C, . . . M* to initiate it is evidence that they are indifferent about the outcome of the Debtor/*N* dispute. In this connection, it is interesting to note that only a tiny percentage of all bankruptcy proceedings are commenced involuntarily. *See, e.g.*, REPORTS OF THE PROCEEDINGS OF THE JUDICIAL CONFERENCE OF THE UNITED STATES AND ANNUAL REPORT OF THE DIRECTOR OF THE ADMINISTRATIVE OFFICE OF THE UNITED STATES COURTS Table X, at 133 (1977) (reporting that only 0.6% of all petitions filed from 1968 to 1977 were involuntary cases). If the debtors' estates are empty when the proceedings are voluntarily commenced, however, it is difficult to imagine that creditors could not have proved the grounds necessary for the grant of an involuntary petition. 11 U.S.C. § 303(h)(1) (1988) provides that the petitioning creditor need merely show that the debtor is generally not paying her debts as they become due.

and when collective proceedings are appropriate. Anti-Murphians have attempted to explain bankruptcy law by likening the insolvent-debtor/creditors relationship to a "common pool" or "prisoner's dilemma."[18] Those metaphors have proved useful in explaining law and legal institutions. They illustrate circumstances in which fighting over who gets the pieces reduces the size of the pie. Competitive behavior of that sort leads to suboptimal allocation of scarce resources by wasting possible pie.[19] Law can be economically justified if it induces actors to replace such situationally destructive competition with more efficient cooperative activity. This essay does not challenge the usefulness of those heuristics. It does question whether they apply to bankruptcy.

My argument begins by recasting the Anti-Murphian pool, prisoner and pie images into an appropriate Murphian form. In Murphian poetics the vulture symbolizes the force which regulates reality. Pictures of pools and pies elicit unrealistically pleasurable, possibly optimistic images. Even the prisoner metaphor evokes notions that disasters are voluntarily avoidable. Rigorous Murphian analysis requires a root of appropriately hopeless hue, which is why the vulture, and not fishing, pastry, or even plea-bargains must constitute our starting point.[20]

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18. *See generally* Baird, *A World Without Bankruptcy,* LAW & CONTEMP. PROBS., Spring 1987, at 173, 183-84; T. JACKSON, THE LOGIC AND LIMITS OF BANKRUPTCY LAW 28-31 (1986); Jackson, *Avoiding Powers in Bankruptcy,* 36 STAN. L. REV. 725 (1985); D. BAIRD & T. JACKSON, CASES, PROBLEMS, AND MATERIALS ON BANKRUPTCY 31-35 (1985) (arguing that the debtor/multiple creditor relationship, functioning in a regime of state "grab-law" creditors' remedies, creates perverse incentives leading to a common pool problem in which each creditor in serving his own self-interest gains less from his actions than he might harm the other creditors and that creditors would, therefore, in the absence of information, agree to pro rata sharing to preserve the benefits of collective action in liquidating and paying out the debtor's estate); R. EPSTEIN, TAKINGS 224-28 (1985) (same); Jackson, *Bankruptcy, Non-Bankruptcy Entitlements, and the Creditors' Bargain,* 91 YALE L.J. 857 (1982); *see also* Scott, *Through Bankruptcy with the Creditors' Bargain Heuristic,* 53 U. CHI. L. REV. 691, 700-07 (1986) (suggesting that creditors might adopt a loss-sharing formula like the general average in admiralty, which resembles the pro rata distribution in bankruptcy, because they are risk-averse, and sometimes the incentives to avoid or reduce risks need not be dampened by loss-sharing agreements); Jackson & Scott, *On the Nature of Bankruptcy: An Essay on Bankruptcy Sharing and The Creditors' Bargain,* 75 VA. L. REV. 155 (1989) (arguing that creditors might agree to pro rata sharing as a form of catastrophe insurance, but concluding that the administrative costs of accomplishing such an objective may outweigh the insurance benefits).

As the reader can well imagine, the subject of perverse incentives, the rock on which Jackson, Baird, and Scott build their cases, is a subject dear to the hearts of Murphians. Thus to claim, as I will below, that things are not as perverse as they seem may sound like heresy. My defense is that once perversity becomes accepted fact, a new and higher state is reached, that of metaperversity, in which the perverse thing to think is that things aren't so perverse after all.

19. *See generally* R. AXELROD, THE EVOLUTION OF COOPERATION (1984).

20. It is worth speculating whether the choice of too-rosy metaphors explains why the Anti-Murphian analysts went wrong, but that is beyond the scope of this study. The 14th corollary ("If things seem to be coming your way, you're in the wrong lane") indicates that might have happened.

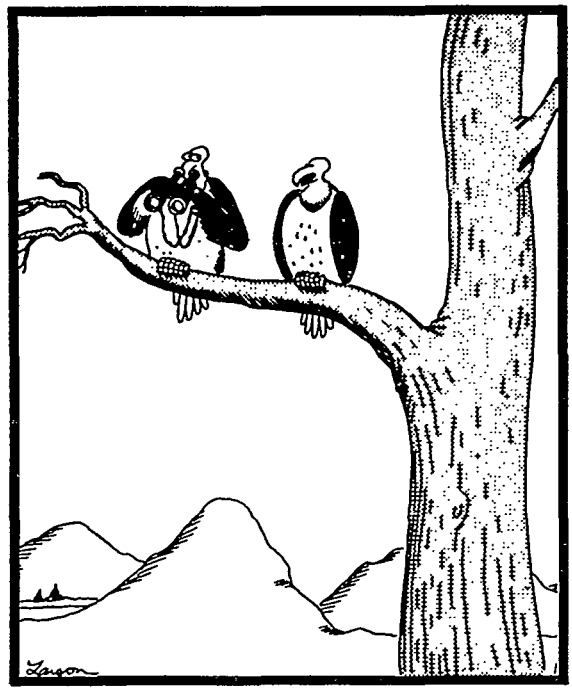
A. *The Parable of the Vultures — Reflections on Common Pools*

Once upon a time, a vulture cruised the desert observing critters plodding over the sand. It ignored several fat ones. When meaty critters die, there is enough food for everyone and thus no reason to linger and watch them. Eventually, however, the vulture saw a dying critter which didn't have enough flesh on its bones to feed the entire flock. That discovery led the vulture to begin circling to ensure that when death came, it would be first in line to chomp on the carcass. Other vultures saw the first one circling. Guessing what was afoot and not wishing to miss an impending feast, they too joined the circle. Soon, the entire flock was going round and round.[21]

Each vulture noted that as other members joined the circling flock, prospects of getting a full meal diminished. Skittish vultures became overeager[22] and were tempted to sneak in and snarf up some sirloin

21. *Cf.* T. JACKSON, *supra* note 18, at 16 (arguing that the first-in-time priority system typical of nonbankruptcy creditors' remedy systems induces creditors to duplicate the costs of monitoring debtors and to waste resources racing to courthouses to be first in line with claims to the debtor's assets).

22. THE FAR SIDE



"Julian ... you're cheating."

even while there was life left in the failing critter.[23] As a result, the critter was prematurely dismembered. Many unfed vultures wondered whether, had the critter been able to reach a water hole, it might have put on enough meat to feed the entire flock. Worse, the carcass was not butchered as part of a plan to yield rib-eyes and roasts. Torn up in a free-for-all, valuable cuts became chopped meat.[24]

The moral of the story is simple: Murphy's Law primes Pareto Optimality.[25] Nature, in all of its disastrous manifestations, is always necessitating interactions which make someone worse off. Despite the time and energy vultures spend circling, watching[26] to see whether other vultures are circling, and disguising their own activity, their diet consists of little hamburger and almost no T-Bone.

The Anti-Murphians, unfortunately, have not been content merely to replicate the proof of this essential Murphian insight. They claim an ideal bankruptcy-type act could ameliorate the vultures' problems.[27] The claim that Congress could repeal Murphy's Law is transparently preposterous. Only Murphy's Law itself could explain why anybody would take such a claim seriously.[28] Nevertheless, to establish the superiority of the Murphian Model, it will be useful to clear the underbrush first. The mistakes of the Anti-Murphians are

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23. *Compare* Baird, *supra* note 18, at 183 (in the absence of a collective assessment strategy, creditors will rush to claim a debtor's assets regardless of recuperative potential) *with* A. SCHWARTZ & R. SCOTT, COMMERCIAL TRANSACTIONS, PRINCIPLES AND POLICIES 777 (1982) (arguing that under nonbankruptcy law, creditors have perverse incentives to collect too early). As Murphy would have predicted, however, there is also significant scholarly opinion that under *bankruptcy* law, the incentive system changes so that creditors end up trying to collect too late. *See, e.g.*, T. JACKSON, *supra* note 18, at 205-06; Lopucki, *supra* note 3.

24. *Cf.* T. JACKSON, *supra* note 18, at 14-15 (describing administrative costs, and the waste that might occur from piecemeal dismemberment of a debtor's estate under state "grab-law" creditors' remedies).

25. Pareto Optimality (so named for Italian Economist Vilfredo Pareto, its first formulator) is a normative welfare criterion used by economists to evaluate varying states of economic affairs. A situation is said to be "Pareto Optimal" when it is impossible to effect a change benefiting one individual without harming someone else. *See, e.g.*, W. BAUMOL, ECONOMIC THEORY AND OPERATIONS ANALYSIS 561 (4th ed. 1977). For a discussion of the significance of the Pareto criteria and other competing economic welfare measures, see Coleman, *Efficiency, Exchange, and Auction: Philosophic Aspects of the Economic Approach to Law*, 68 CALIF. L. REV. 221 (1980).

26. *See supra* note 22.

27. *See, e.g.*, sources cited *supra* note 18.

28. Not everyone does. *See, e.g.*, Countryman, *supra* note 3, at 823-27; Eisenberg, *Commentary on "On the Nature of Bankruptcy": Bankruptcy and Bargaining*, 75 VA. L. REV. 205 (1989); Nimmer, *Negotiated Bankruptcy Reorganization Plans: Absolute Priority and New Value Contributions*, 36 EMORY L.J. 1009, 1011 (1987); Roe, *Commentary on "On the Nature of Bankruptcy": Bankruptcy, Priority, and Economics*, 75 VA. L. REV. 219 (1989) (all criticizing the Creditors' Bargain metaphor). Although the doubters do not base their disagreements on Murphian grounds, the fact that disagreement exists about erroneous ideas has been cited as evidence for the proposition that it is the weaker rather than stronger form of Murphy's Law which actually prevails in the real world.

best exposed by considering the scenario envisioned by their prescriptions.

B. *The Fable of Flankruptcy — Cures for the Common Pool*

The vultures realized the flock would prosper if they all agreed to schedule the banquet at the optimal moment, butcher the carrion into choice cuts and distribute portions equally. Flock members could then engage in productive activity (like cruising for new carrion or sleeping) instead of spying on each other and circling, and yet eat flank steak instead of scraps. Holdout and free-rider problems prevented them from agreeing, however. Fortunately, Congress realized the vultures needed to be saved from themselves and enacted an optimal collective scavenging law, adopting the terms that the vultures would have bargained for had they been able to agree — a Flankruptcy Act.

Murphians observed that the carcass was a conspicuous nonparty to the Vultures' Bargain.[29] Cynics agreed that the Flankruptcy Act had been predicted by Mulligan's Mandate for Multi-Party Conflicts ("Let's you and me agree before the fight to gang up and clean him out").[30] The Vultures' Bargain proponents implicitly assume that carcasses do not care if they are ganged up on or not, and assert, "What's good for vultures is good for carcasses."[31]

Whatever its motivation, The Flankruptcy Act had predictable features. There was an automatic "King's-X" on the death of the carrion to prevent any vulture from sneaking bites before the others arrived.[32] To discourage the overeager from trying to evade the King's-X rule, premature biters were required to regurgitate any chunks eaten *pre-mortem.*[33] Butchers were appointed to cut up carcasses which, by replacing frenzied *ad hoc* carving committees, lowered butchering ex-

29. Countryman, *supra* note 3, at 827 n.603.

30. The possibility of collusion between any two players in three-party games makes outcomes of such games unpredictable. *See, e.g.,* H. RAIFFA, THE ART AND SCIENCE OF NEGOTIATION 257-74 (1982).

31. *Cf.* T. JACKSON, *supra* note 18, at 13 (asserting that the happiness of debtors can be derived from the happiness of creditors: "If the creditors have to protect themselves by means of a costly and inefficient system [referring to state creditors' remedies], Debtor is going to have to pay more to obtain credit."). It is possible, of course, that debtors would agree to a bankruptcy act so long as there were goodies in the act for them as well. *See, e.g.,* Baird, *supra* note 18, at 174 (arguing that early English bankruptcy legislation provided a discharge for debtors in order to induce them to cooperate with their creditors). This paper does not discuss the discharge feature of the current Bankruptcy Code.

32. *Cf.* T. JACKSON, *supra* note 18, at 151 (arguing that the purpose of 11 U.S.C. § 362 (1988) which provides for an automatic stay of all collection activity upon the commencement of bankruptcy proceedings is to stop individual creditor activity that might undermine the collective enterprise).

33. *Cf.* 11 U.S.C. § 547 (1988); T. JACKSON, *supra* note 18, at 125 ("Approached from the perspective of the common pool, preference law exists to prevent creditors from trying to change

penses.[34] Butchers were charged with distributing the carved carrion to members of the flock in equal portions.[35]

The fable makes interesting literature. Anti-Murphians, however, argue it shows vultures can live happily ever after, a conclusion that does not follow. The notion that anybody could live happily ever after violates every known Murphian principle.

If we enact a bankruptcy law it should be engineered to do as little damage as is possible. My disagreements with the Anti-Murphians on engineering questions only amount to quibbles.[36] The point of the parable for the Anti-Murphians, however, is not that bankruptcy could and should be made better but that a world *with* a bankruptcy law is better than a world *without* one. *That* Murphian theory denies. The denial is credible. Vultures' Bargains do not seem to be very profitable.

1. *The Factual Flaws of Flankruptcy*

Even within the logic of the parable, a Flankruptcy system has costs. Whether we ought to have Flankruptcy is not a question of metaphor or theory, but rather of numbers.[37] Do the benefits exceed the costs? Efficiency, even using a weak measure, is after all potentially an empirical concept. The existing numbers do not suggest the ending of the vulture story is a happy one.[38] Although better data might discourage us less, it is difficult to believe that the point of the Vultures' Bargain was to adopt a regime in which vultures end up with little or nothing. Maybe the failure of the existing mandate for collective behavior to produce any apparent benefits for the cooperating actors results from small defects in the present terms of the mandatory charter. That is the tinkerer's basic hope. If the Vultures' Bargain theory has in fact been largely implemented, but the predicted benefits to the vultures do not materialize, it is equally possible that something is wrong with the theory.

The Anti-Murphians acknowledge that replacing an array of indi-

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their existing position vis-à-vis other creditors in anticipation of bankruptcy's collective proceedings (or having the debtor do it for them).").

34. *Cf.* 11 U.S.C. §§ 702, 323, 704 (1988).

35. *Cf.* T. JACKSON, *supra* note 18, at 30 (explaining that the division of the debtor's estate might vary in a real, negotiated creditors' bargain, but that lacking information about the bargaining strengths and skills of all of the involved creditors, pro rata is about the best one could do in coming up with a formula for the actual distribution).

36. See Eisenberg, *A Bankruptcy Machine That Would Go of Itself*, 39 STAN. L. REV. 1519 (1987), for someone else's quibbles.

37. This much, at least, has been recently conceded even by Anti-Murphians. *See* Jackson & Scott, *supra* note 18, at 203.

38. For the numbers, see sources cited *supra* note 2.

vidualized remedies with a mandatory collective process imposes costs on the community of vultures which result from either the inability or failure to engineer perfectly a Flankruptcy system.[39] After passage of the Act, the vultures' expectations change as their prospective remedies shift from the old to the new system. Some perceive the new regime to be disadvantageous in some cases, so they expend resources trying to keep the flock out of a Flankruptcy proceeding for some carcasses. Others, for similar opportunistic reasons, may seek to initiate proceedings in inappropriate circumstances. Drafting precise rules which stop such strategic behavior is difficult. Administering looser standards is equally costly, requiring extensive, and therefore expensive, inquiry into motives.[40]

There are other costs of Flankruptcy, however, which the Anti-Murphians do not explicitly acknowledge. Flankruptcy requires the formation of a "firm" with appointment of "management" (a trustee vulture or butcher) and conflicts of interest among its "owners." The creation of firms can be explained on efficiency grounds when transaction costs of organizing productive activity using market contracts are high,[41] but conducting business in that form never comes free.[42] Administering a firm, even one with the narrow mission of scavenging a single carcass, spawns agency costs as the management tries to expropriate the gains the owners hoped to obtain by forming the firm, and the owners struggle with each other for control. Conflict doesn't go away in firms. It merely takes a different form.[43]

The inability to engineer an appropriate division of any carcass under the collective system imposed serious social costs on the community of vultures. The Flankruptcy Act regulated only salvaging of carcasses that had already been found. It did not coordinate the butchering and distributing of dead carcasses with other vulture activity (like cruising in search of new carrion) which remained unregulated, but it affected that behavior nonetheless. In the pre-Flankruptcy state of nature, there was some greater-than-pro-rata payoff to vultures for being strong, swift, or clever. The prospect of larger rewards for finding carrion which might not have to be shared tended

39. *See, e.g.*, Eisenberg, *supra* note 3, at 957-58; Jackson & Scott, *supra* note 18, at 197-202.

40. Jackson & Scott, *supra* note 18, at 197-202.

41. Coase, *The Nature of the Firm*, 4 ECONOMICA 386 (1937).

42. Indeed, the "Ain't no free lunches" rule was one of the earliest Murphian discoveries.

43. *See generally* O. WILLIAMSON, MARKETS AND HIERARCHIES: ANALYSIS AND ANTITRUST IMPLICATIONS (1975). This observation was also one of the early fruits of the Critical Murphian Studies Movement. Liam O'Brian, an early Murphian, formulated it in a more precise fashion, to wit: "The costs of administration will expand so as to be greater than or equal to the value of the estate."

to induce the most efficient scavengers to cruise, looking for dying critters. The pro rata outcome under Flankruptcy, which promised the weak and lazy vultures a free ride from the activity of their stronger brothers and sisters, diminished the incentive for the strong, swift, and clever to search for new carrion. The Act thus tended to eliminate the gains (even if they were only in the form of scraps) to the flock from the extra carcasses which might have been found by the strong had they the former, larger incentive to search. As a consequence, by the time carrion was found by the flock, much if not all of the meat had rotted off the bones. The corpses with meat on them seemed to have fewer pounds of it. That led to proposals to pay a bounty to any vulture discovering a corpse.[44]

There is an analogous potential social cost of bankruptcy.[45] To the extent it works, it eliminates part of the competitive advantage of creditors who are master monitors[46] and capable collectors, raising the cost of credit to the level charged by less efficient creditors. Whether our lower credit costs gained by eliminating common pools outweigh our losses from having to borrow at rates which protect less effective lenders is a question to which we have no direct answer. At present, creditors actually get very little out of bankruptcy so the savings we obtain from a supposedly superior salvage technique look small. Since most bankruptcy estates are empty ones, it may be that the superior collectors already do get paid, so we may not be paying extra. The free riders may be getting nothing. In that case, of course, bankruptcy is a pure waste, since it costs us to undertake the proceedings, but we do not really get anything for it. (The butchers, however, may live happily ever after.)

A pro rata formula can be justified only as the best we can do *lacking more information* (at the time the statute is being drafted).

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44. *See, e.g.*, T. JACKSON, *supra* note 18, at 207; Lopucki, *supra* note 3, at 363-68. Of course, bounties are difficult to design. Among other things, vultures competing for bounties tend to look just like vultures competing for carcasses, with much duplication of effort, attempts to disguise it, etc. Indeed, the argument that priority systems among creditors might be justified as devices which prevent such waste has been made by Anti-Murphians in other contexts. *See* Jackson & Kronman, *Secured Financing and Priorities Among Creditors*, 88 YALE L.J. 1143 (1979); Levmore, *Monitors and Freeriders in Commercial and Corporate Settings*, 92 YALE L.J. 49 (1982). For an analysis of a similar problem suggesting that such duplications of effort are likely to be inevitable, see also Goldberg, *Fishing and Selling*, 15 J. LEGAL STUD. 173 (1986).

Indeed, if the theory of Flankruptcy is that its collective nature is intended to benefit vultures, one would expect the vultures to be initiating a substantial portion of these beneficial proceedings. In fact, it is the carcasses who are the movers in most cases. *See supra* note 17.

45. *See, e.g.*, Weston, *Some Economic Fundamentals for an Analysis of Bankruptcy*, LAW & CONTEMP. PROBS., Autumn 1977, at 47, 48 (1977) (arguing that while complete relaxation of bankruptcy laws may harm borrowers more than help them, *some* further relaxation would enhance the existing social benefits of the credit system, providing "greater net social benefits").

46. *See supra* note 22.

Real vultures, like real debtors and creditors, in real cases know which vultures are strong and which are weak. The pro rata requirement is intended to force them to behave as though they were ignorant. The information they have (but must disregard) as parties to a legislated pro rata creditors' or vultures' bargain, is socially valuable. Making life run as though people are ignorant wastes the value of their information which is likely to be substantial. Real creditors striking real, presumably optimal bargains would arrive at distributional terms shaped by that information. The "Bankruptcy Bargain" is thus, even in theory, suboptimal. In order to evaluate the bargain paradigm it must be compared with the claim that somehow debtor or creditor behavior, as shaped by nonbankruptcy law, is likely to be defective. Even if common pool problems resulted in suboptimal distributions, two suboptimal regimes must be compared. It is Murphian Truth that life is nothing but the process of choosing between evils. The issue always is: which is the lesser? I suggest below that debtors are likely to make distributions of their diminishing assets using real, not hypothetical, information and, by doing so, tend to optimize the value of the distributions to the debtor and creditors as a group. For now I conclude only that bankruptcy is not delivering what the theory promises and that the case for an Act improved by any sort of tinkering is, at best, unproved.

2. *The Logical Problems with the Parable*

One reason why the benefits predicted by the parable seldom materialize is that the logic of the parable is flawed. Debtor-creditor games are different from vulture-carrion games. Since the Anti-Murphian logic assumes the games are alike, its foundations are faulty. Even brilliant engineering cannot save a structure erected on that assumption. The Bargain Theory errs by ignoring the economics of failure in our real Murphian world.

Common pools have unowned, nonreactive resources in the pool. The fish in the sea, the oil and gas in the ground, and the soil and grass in the tragic feudal commons do not care who captures them.[47] In our fable, the forlorn critter caught dying in the desert is likewise a purely passive character in the plot. Dead, he does not care how his carcass is butchered or which vulture gets the stew meat and which gets the soup bones. In real debtor-creditor relationships, debtors are not pas-

47. For examples of analyses of common pools, see Friedman, *The Economics of the Common Pool: Property Rights in Exhaustible Resources,* 18 UCLA L. REV. 855 (1971) (mentioning oil and gas reservoirs and fisheries among other examples); Hardin, *The Tragedy of the Commons,* 162 SCIENCE 1243 (1968) (unowned grazing land).

sive. For that reason, such relationships do not generate common pools. Moreover, the classical prescription for solving a common pool problem is to create property rights in the assets in the pool.[48] In the real Murphian world, the pool consisting of the debtor's assets is already "owned" by someone — the debtor. Bankruptcy law cannot, therefore, be justified as an efficient solution for a common pool.

To adapt the parable to reality, assume that critters are in herds owned by debtors and replace the vultures in the story with a number of equally hungry creditors. If the owner-debtors can be forced by any nonbankruptcy creditors' remedy to dole out the value of the critters to creditors, those debtors have every interest in butchering the critters at the moment they achieve optimum weight into optimal proportions of steak and hamburger.[49] In other words, once a property right is granted to a debtor over her own assets she will maximize their value for her own benefit. In doing so, she will take into account the costs to her creditors as well.

For the logic of the pool argument to hold, incentives for the owner of pool assets to react must somehow disappear. That allegedly happens on "insolvency."[50] If all the benefits from feeding and carefully butchering the critters will inevitably be captured by creditors, the debtor allegedly no longer has any incentive to maximize asset value.[51] Hence, the argument goes, control should pass to the creditors who do have the incentive, if they are forced to act cooperatively.

The insolvency argument is both factually and theoretically in error. Insolvency is not the point at which the maximization motive shifts from debtors to creditors if insolvency is measured by the market. Market value is an imperfect measure of the value of the assets to

48. *See, e.g.*, Friedman, *supra* note 47, at 872-84; Hardin, *supra* note 47, at 1245.

49. Without creditors, debtors may maximize in another fashion — if the debtors prefer hamburger, they will butcher it that way. Stated didactically, people will maximize the value of their assets according to their own preferences. That value is not necessarily the market value. Nevertheless, in order to minimize losses, when one has creditors whose claims can only be satisfied by a market transaction, one will then have an incentive to maximize market values as well.

50. T. JACKSON, *supra* note 18, at 122.

51. Common pool theorists do predict that debtors will react to losses by acting perversely. They assume that insolvent debtors are willing to engage in high risk behavior since, after the insolvency point, they keep the gains from undertaking risk, but the losses are imposed on their creditors. *See, e.g.*, Baird & Jackson, *Fraudulent Conveyance Law and Its Proper Domain*, 38 VAND. L. REV. 829, 833-34 (1985). The perversity assumption conflicts with the passivity presumption. The more at-risk-to-creditors assets the debtors have available to gamble with, the better off debtors are. This means it is unlikely that they will remain passive even if they are insolvent. My argument below challenges the notion that many debtors are truly insolvent when all their wealth is taken into account, and shows that there are forces which lead debtors to want to hold wealth in forms accessible to creditor seizure. In any case, the perversity presumption may justify stronger or better creditors' remedies, but does not justify a collective remedy, since if it is true, it tends to negate the existence of a common pool.

their owners who ordinarily value them for their infra-marginal rents (consumer or producer surpluses) and their marginal quasi rents.[52] Thus market-insolvent debtors have incentives to maximize the value of the assets in their portfolios to retain as much of the rents as possible.

Not only is the "insolvency" assumption unjustifiable, but also in the real Murphian world the market-insolvent debtor can gain by choosing which creditors to pay. The available data indicate that insolvent debtors do liquidate and distribute their own estates until they have no distributable value to any remaining creditors.[53] That is far beyond the point of market insolvency (the level at which the market value of the debtor's assets is just under the aggregate of the creditors' claims). Such observed behavior provides strong indication that the debtor passivity implicitly assumed in the Creditors' Bargain model exists in theory but not in the real world.[54] What we need is either a new world which actually suffers from the defect of debtor docility or a new theory which explains the behavior of failing debtors. Inasmuch as revising the world to make it match the theory is the more difficult choice, I will take the easy route and explore the principles of failure.

III. INTRODUCTION TO MURPHIAN ECONOMICS: ASSET MANAGEMENT IN THE FACE OF FAILURE

The affinity between Murphian philosophy and economics was recognized in the early histories of both disciplines. Indeed, one of the first triumphs of economics, the Malthusian theory, resulted from

52. *See, e.g.*, D.B. Johnsen, Specialization, Specificity, and Contracting (1988) (working paper, Business and Public Policy Group, Texas A & M University; manuscript on file at the *Michigan Law Review*); J. HIRSHLEIFER, PRICE THEORY AND APPLICATIONS 218-21, 390-92 (3d ed. 1984). This point will be elaborated upon in Part III *infra*. For present purposes, it can be simply explained as follows: People value their nonmarginal assets more than the highest bidder in the market values them. Otherwise they would sell out to that bidder. That is why it is plausible to say that market prices do not reflect how much people value their assets. The difference between how much people value their assets as they are currently being used, and the amount they value those assets in their next best use (which may be by converting them to cash in the market) is what we mean by "surpluses" and "rents." If, for example, you would be willing to pay as much as $1.50 for a gallon of gasoline, but the market is currently offering it to you at $1.00, you have fifty cents of "rent" in the gallon you just bought. If you used that money to buy a beer which was barely worth fifty cents to you, your rent takes the form of that beer.

53. The data cited *supra* note 2 strongly supports this conclusion.

54. It is possible that the prevalence of zero-asset bankruptcy cases could also be explained by pre-petition levies and garnishments. This is not my experience, or that of most of the practitioners to whom I have spoken, but it is still possible. A recent study of over 1500 bankruptcy cases showed that of the over 15,000 creditors making claims in those cases, only about four percent had commenced any pre-bankruptcy collection proceedings. T. SULLIVAN, E. WARREN & J. WESTBROOK, *supra* note 2, at 305. Nevertheless, the theory developed below will also indicate that those creditors who do levy or garnish and thereby make recoveries are probably the ones who should recover.

Malthus' attempt to confirm that Lullihan's Lemma ("If at first you don't succeed, don't be surprised.") applied to economic phenomena. Somewhere we lost the insight that the dismal science grew from the same root as the dialectics of doom. In this part I hope to reestablish that lost connection. I will use economic assumptions, thus establishing that both economics and collection law are really incomplete subbranches of the Murphian Cosmos.

In Part II, I showed that the common pool explanation for the existence of classic bankruptcy law suffers from an implicit logical error — it assumes debtors will remain passive when faced with failure. The passivity presumption effectively permits theorists to ignore the existence of debtors. Anti-Murphians focus entirely on the direct relationship between predators and assets, the interaction which creates the common pool problem. Murphian theory, by contrast, assumes that the interaction between creditors and assets will be mediated by the actions of debtors, the very characters whose existence we can easily observe but whom Bargain Theorists ignore. The data suggest that debtors are not passive, but instead react to creditors or vultures with the result that bankruptcy estates are mostly empty. What remains to be shown is *how* they can be expected to react and whether those reactions should be praised or condemned.

It is customary when confecting theories, even those about life in the shadow of Murphy's Law, to begin by making assumptions. I shall start by presupposing six facts about the world. The first two are plausible to anyone sensitive to the Murphian muse and, therefore, will be retained throughout the argument. They are:

(1) That debtors (or "Victims" to use the precise Murphian terminology) not only exist, but also are rational. (Murphy never said that folks don't try their best. He merely questioned whether they gained much by it.)[55]

(2) That the world is also populated by a number of marauding mutant rational vultures who eat pots of gold and when gold gets scarce, snack on other assets as well.[56]

The final four facts illustrate the essential difference between the

55. Unfortunately Murphy was never explicit on why he felt this way, so that even to this day it is unclear whether we should credit him rather than Herbert Simon with authorship of the bounded rationality concept. *See* H. SIMON, MODELS OF MAN (1957). On the other hand, he may have sensed instinctively that divining precisely how people rationalize is itself a complicated question. *See, e.g.*, Scott, *Error and Rationality in Individual Decisionmaking: An Essay on the Relationship Between Cognitive Illusions and the Management of Choices*, 59 S. CAL. L. REV. 329 (1986).

56. If you prefer less colorful abstractions, this can be rephrased as an assumption that the effects of losses are mediated through the rationality of individual economic actors, like vultures or creditors.

Murphian and Anti-Murphian world views. We shall begin by assuming, *mistakenly:*

(3) That everything of value in the world is perfectly divisible into infinitely small units;

(4) That all those units are costlessly traded in perfect markets;

(5) That all those assets are edible as far as vultures are concerned;[57] and

(6) That Congress has abolished creditors' remedies, which means, of course, that but for contributory stupidity and other manifestations of Murphy's Law, there would be no creditors either.[58] (The decision to ignore the existence of creditors here was not intended as a perverse reaction to the decision of the Anti-Murphians to ignore debtors. I am merely being explicit and will abandon the assumption before arriving at any ultimate conclusions.)

The relaxation of each of these assumptions, in turn, and their replacement with their real-life (*i.e.,* Murphian) converses will demonstrate the errors which underlie the false presumption of victim passivity, and at the same time demonstrate how praiseworthy the behavior of Victims really is likely to be. A few other assumptions will also be made as they become relevant.

A. *Dealing with Disaster: Elementary Loss Minimization by Victims Owning Divisible Assets in Worlds with Perfect Markets*

I shall start by presupposing that vultures worry about whether Victims have wealth. Since none of this would be of interest unless, at least occasionally, Victims do, we will initially take it for granted that Victims own Things that vultures want. For simplicity, we will begin by assuming that there are only two kinds of assets in the world, beer and gasoline. The question that remains is: what happens to those Things when things go sour.

It has long been known that if a Victim has a stock of Things, he probably has a variety. Victims prefer having some gasoline and some beer to having a lot of one and none of the other because the more gasoline each has, the less another gallon is worth to him. Conversely

57. The Murphian edibility assumption rephrased in more conventional terms can be restated as: All assets in the world are desired by all vultures for their own sake; or, more colloquially, "I want whatever you have." We will consider a world in which debtors, for example, can own assets that creditors might never want when this assumption is later relaxed.

58. This means, of course, that I am assuming that all Victims are solvent (since they have no debt). For a quibble on my implicit assumption that the absence of legal remedies necessarily means the absence of creditors, and therefore that there is no debt so a Victim can never be under water (*i.e.,* insolvent), see Goetz & Scott, *Enforcing Promises: An Examination of the Basis of Contract,* 89 YALE L.J. 1261 (1980); Kronman, *Contract Law and the State of Nature,* 1 J.L. ECON. & ORG. 5 (1985).

the fewer cans of beer each owns, the more he is willing to work or pay to get another. Economists call that phenomenon the "Law of Demand." Victims who start with a lot of gasoline, therefore, will trade some of it to get beer. If they own these Things to make profits,[59] they will sell off gasoline, and buy beer until the extra money they expect to make by keeping a gallon of gas is more than they think they will earn by trading it for another can of beer. On the other hand, if they own either or both Things for personal consumption, they will trade off gasoline until the anticipated extra value of keeping the last gallon is more than the extra value they count on getting from trading it for another quantity of beer.[60]

Both producer and consumer Victims suffer heartburn because just when they have their inventories of gasoline and beer adjusted to an optimal ratio, things change. Possibly the market price of beer goes up; maybe Jack the Ripper endorses beer on television; perhaps techniques are invented which permit what was formerly done with a lot of beer to be done with a lot less. Those events may make the gasoline left in our Victim's portfolio relatively more valuable to him than beer. The rise in beer prices raises the opportunity cost of holding beer relative to the cost of holding gasoline, and thus will induce the owner to sell off a few of the now high-priced beers, and replace them with a few gallons of the now relatively cheaper gasoline.[61] The television endorsement and the technological change may make our owner desire beer less than he used to so he will sell some off, replacing it with the (relatively) more highly desired gasoline. In any event, changes in taste or technology and fluctuating market prices for assets harass

59. As would a saloon owner who tried to lower delivery costs by picking up his inventory with his own truck at his supplier's brewery.

60. The discussion oversimplifies by positing that portfolios are adjusted by actual barters of beer for gasoline. In the ordinary conduct of either life or business, the trade-off decisions are more likely to be made in the context of deciding how much of an expended stock of an asset to replace for cash in a market. The point that the last item in any collection is worth less than the first to buyers and worth more to sellers is not dependent on the bartering context. Readers whose common sense is not attracted by this proposition may find it helpful to contemplate more concrete examples, like how much they might be willing to pay for a second and then a third giant sized onion and anchovy pizza with one already in front of them on the table; or, whether when trapped for a couple of days in the desert with a thousand cans of cold beer, they would charge a prospector they encounter there the same for a can as they would charge had they only a single can left. Those dissatisfied by barnyard-level economics or more comfortable with formal presentations, graphs, equations, and the works may wish to consult a standard economics text which discusses the consequences of declining marginal utility of goods for consumers and declining marginal productivity (increasing marginal costs) of inputs for producers. *See, e.g.*, W. FELLNER, MODERN ECONOMIC ANALYSIS chs. 14-16 (1960).

61. Folklore has it that this phenomenon torpedoed the famous Texas Hunt Brothers in their attempt to corner the silver market. When the market value of their flatware skyrocketed, many more folks than the Hunts anticipated decided that it was too expensive to eat with, compared with what else could be purchased with the proceeds if it were melted down and sold.

profit or value maximizing Victims into redoing their portfolios all over again. Thus do Murphians explain the existence both of brokers and Bromo-Seltzer.

Similar adjustments are occasioned by changes in wealth.[62] Pop quizzes in Econ 101 always have questions like: "What if a lucky fellow receives a surprise bequest of gasoline from his mother-in-law's second cousin?" The answer is something like: "His equilibrium is disturbed by the necessity that he decide how much of the new gasoline to keep, and how much to trade for new beer. He will end up with extra quantities of both if they are superior goods[63], sell both if they are inferior,[64] or buy the superior good and sell off the inferior one. If they are complements,[65] they will be bought (or sold) together. The relative proportions bought or sold will depend on their respective income elasticities of demand (Engle Curves). Etc. Etc."[66]

Windfalls, of course, explain nothing about bankruptcy. Murphians have always complained that quizzes assume wealth increases. Tests never ask: "What if an asset-eating vulture came and snarfed up a six-pack of Victim's beer?" Bankruptcy lawyers and creditors, however, are very interested in what Victims might do when they experience losses. By symmetrical conversity, losing Victims will buy replacement beer (or some inferior goods). Gasoline will, therefore, be traded for the replacements. Just as windfall recipients maximize the value of new wealth by making a series of investment decisions, debtors in the real world minimize the impact of losses by redoing their portfolios, making an analogous set of *disinvestment* decisions.[67] If

62. Note that there is also a wealth (income) effect of the price changes and taste changes hypothesized in the preceding paragraph. If, for example, the market price of beer declines, the beer owner is poorer after the price change. The decline in wealth may affect how he decides to change the ratio of beer to gasoline in his portfolio. This effect is in addition to the incentives to readjust ratios caused by the changes in relative beer/gasoline prices. *See, e.g.*, R. MILLER, ECONOMICS TODAY, THE MICRO VIEW 34-36 (5th ed. 1985).

63. Superior goods are those for which the demand increases with increasing wealth. Steak or diamonds are prototypical. In a two-asset world, of course, alternative investments in superior (or inferior) goods are not possible. The reference to their existence here thus is getting slightly ahead of our story.

64. Inferior goods are those for which demand rises as wealth declines. Beans or potatoes tend to replace steak or diamonds in people's inventories as they experience difficulties.

65. Complementary goods are those whose value increases when used in combination with each other. Computers and printers, for example, are complements. Substitute goods have the opposite relationship; typewriters and word processors are an example.

66. J. HIRSHLEIFER, *supra* note 52, at 98-106 and 327-44 gives a more complete answer for consumer portfolios and producer portfolios respectively. Like most other economists, he shows his Anti-Murphian biases. The mathematical functions which he labels the "Income Expansion Path," for example, could and probably should in the Murphian Universe be called the "Income Contraction Path" instead. *Id.* at 99.

67. Disinvestment means, of course, that future income is sacrificed to enhance present income. That people in trouble begin to consume their savings, or attempt to accelerate future

portfolios of wealth consisted solely of gasoline and beer, we know gasoline will be sold off when there is a loss of beer.[68]

By now you may be wondering "who cares?" Other vultures would prefer the beer were left for *them* to guzzle. The Victim probably wishes he had never heard of vultures. But these preferences are weak since a can of beer is, after all, a small asset. Even were six taken, six times a small value still adds up to a small loss. Nevertheless, even if Victims and the other vultures rue the loss, does anybody mind when the Victim thereafter converts some gasoline back into beer? Not when there are perfect markets for gasoline and beer. If gasoline can always be costlessly traded for beer, any vulture who prefers gasoline can seize beer and costlessly convert it back again into gasoline. In a perfect two-asset world, the Victim would thus minimize his losses by adjusting the proportions of the assets held in his portfolio, and no vulture would care what the proportions were.[69] Pareto Murphy, Edsel's second son, actually noted that this seeming tendency toward optimality constituted a potential counterexample to his father's law.[70] We shall investigate the errors which led to this

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income into the present by borrowing more, is a testable hypothesis that emerges from Murphian theory.

68. To be perfectly theoretically correct, we do not know whether this will happen for certain. We do know that rational Victims will be systematically influenced by what is called the "substitution effect" to behave in this manner. The loss, however, may also trigger a "wealth" or "income effect" in the Victim, which will change his behavior in a nonsystematic manner. *See, e.g.*, W. BAUMOL, *supra* note 25, at 209-12.

69. Strictly speaking, this need not always be true. It happens that I am indifferent about whether your portfolio consists of Gizmos or Doodads. If the assets in question were heroin, or Saturday Night Specials, I might feel differently. Some of my fundamentalist and feminist friends care a great deal about whether someone they have never met might be losing his or her soul or sensitivity by collecting pornography. I have Marxist acquaintances who care on different grounds — primarily that nobody should have any wealth at all because they might use it to oppress people. They conclude we should turn our wealth over to politicians to protect ourselves from each other, at least until we all finally undergo complete personality changes. That view has always struck me as having interesting Murphian implications.

The Bankruptcy Code does seem to reflect some desire to encourage certain types of activity and to discourage other types on essentially political grounds. *See, e.g.*, 11 U.S.C. § 507(a)(5) (1988) (giving priority to persons who store grain and fish with bankrupt warehouses, but no such favoritism to people who store other goods); 11 U.S.C. § 502(b)(6)-(b)(7) (1988) (disallowing claims by holders of certain leases and employment contracts when similar long-term contractual claims by holders of economically similar contracts are allowed). These provisions may reflect society's views that those who invest in catching fish and growing grain are good and that those who invest in rental real estate or job specific skills are bad. In general, however, our law of property and creditors' remedies does not seem to address specific concerns that people should or should not hold certain types of assets. You may take my assertion that the vultures don't care, therefore, as one that the law generally doesn't care. The model being formulated here does deal below, *see infra* text following note 98, with the consequences that creditors may care about the *market value* if not the specific identity of the assets in which debtors choose to invest.

70. Mrs. Edsel Murphy was Italian. Pareto was her maiden name. Only in a Murphian world could it happen that a distant relative of his in-laws would decades later formulate a welfare criterion which closely resembles this early false step in the development of Murphy's metaphysics.

unwarranted apprehension, when we drop our un-Murphian assumptions about the world.

Suppose now that Victim has three types of wealth rather than two. Besides gasoline and beer, he owns liquid laundry detergent. Like gasoline, detergent can be sold off to replace lost beer. We know from a two-asset world that losses lead to disinvestment. How will a Victim choose between detergent and gasoline when he disinvests? If gasoline and detergent are equally divisible into very small units, and if those units can be costlessly exchanged for beer, a Victim will be indifferent about which to trade first because the value of the last ounce of detergent he owns will be precisely equal to the value of the last unit of gasoline. (Otherwise, in a world in which one could costlessly be converted into the other, he would already have traded the less for the more valuable of the two.) Furthermore, which he trades first doesn't matter much because after the first unit of one asset is traded, the next unit will be one of the other assets (because the last remaining unit of the untraded class will now, by hypothesis, be worth less than the former next-to-last item of the class selected initially). In other words, we expect in a perfect world that Victim's response to minor misfortune is to disinvest proportionately in all his other assets to replace those lost.

That would be fine with all vultures. Why? Because in a three-asset world, just as in the two-asset version, the vulture needn't care about which assets Victims decide to own. Any vulture can costlessly convert whatever she grabs into whatever she wants most. To summarize, in a perfect world, Victims will minimize the impact of losses by readjusting their portfolios. Vultures won't care what assets Victims hold and what they do with them in making the readjustments. In a perfect world, therefore, Victims are likely to be the optimal liquidators of their own affairs. By the same token, however, the Victim is also indifferent about which asset the vultures choose to seize. He can replace any seized asset by costlessly converting any others he owns and thus will end up with an optimal portfolio regardless whether it is he or the vultures who choose which assets are to be consumed.[71]

If all assets in the world are literally and figuratively liquid, we have shown that both Victims and vultures would be indifferent to each others' behavior. Indifference suggests passivity, of course. In a perfect world things turn out perfectly no matter what happens. Nobody need care what happens in such a world, but then again, chang-

71. This conclusion is simply another application of the Coase theorem, that in a world without transaction costs, optimal resource allocation will be reached regardless of the allocation of property rights. *See* Coase, *The Problem of Social Cost,* 3 J.L. & ECON. 1 (1960).

ing anything because of that indifference also would be unnecessary. Murphians have seldom taken comfort from that theoretical possibility.

B. *Loss Minimization with Indivisible Assets in Well-Functioning Markets*

Alas, the world isn't perfect, as Murphy well knew. Assets don't come in finely divisible units, but rather in discrete economic lumps. Suppose critters come in three varieties, Goodzes, Betrs, and Bezzts, and Victim owns one of each. Each weighs one hundred pounds and can be sold for butchering for one dollar per pound. Victim, however, has trained his Goodz to play the fiddle, his Betr to juggle flaming torches, and his Bezzt to walk on a tightrope. As performing animals, their values no longer depend on their divisibility into pounds of meat, but rather on what they will bring if sold to circuses.[72] Figure One portrays such a portfolio.

Suppose, as shown, Victim would pay as much as $1600 for his Bezzt, $1200 for his Betr, and $800 for his Goodz.[73] If we treat the dotted line as the market price for each asset (assuming a perfect market), each can be costlessly converted to $800 cash.[74] Initially it appears irrational that Victim would tolerate this state of affairs. Why hasn't he sold the Goodz for $800 and used it to purchase another

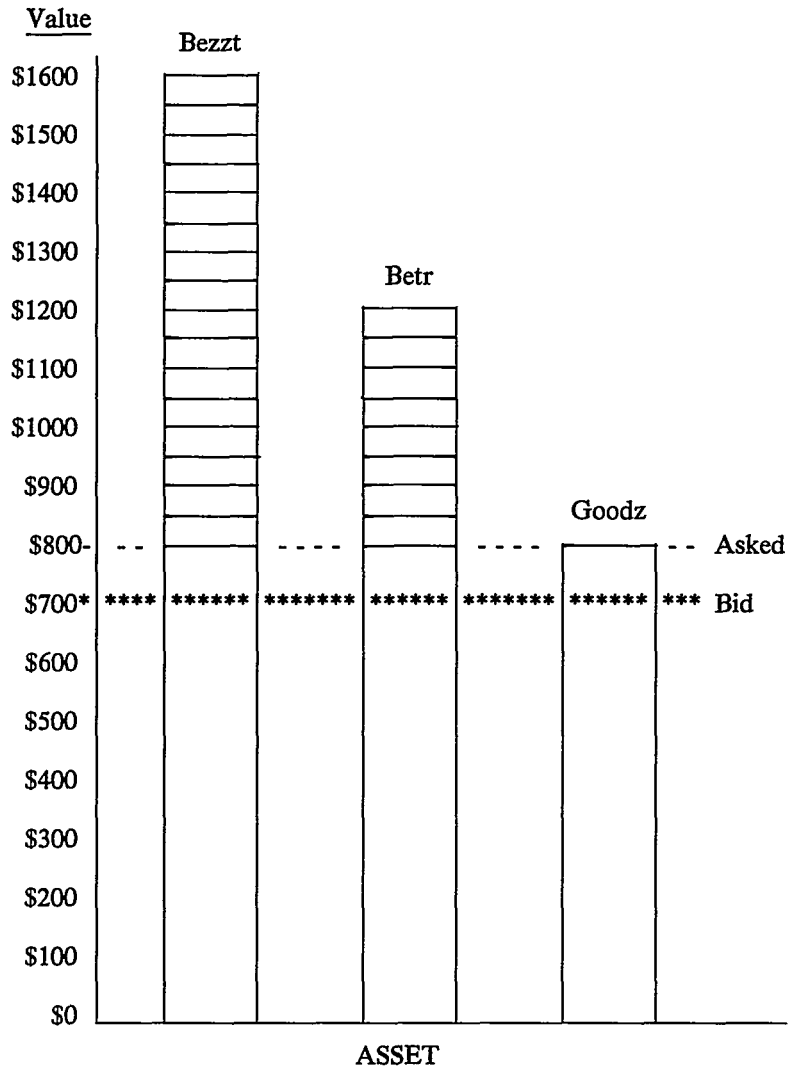
72. Of course, if there were ways to accomplish it legally, the *services* of the animals could be sold by some divisible time unit. Indeed, in an economic sense, the value of any asset is the presently capitalized value of its future services which are nearly always potentially divisible. In a world in which the extension of economic credit cannot be legally protected, however, it is difficult to make such divisions by contract. Since vultures are unlikely to wait long enough for debtors to divide their assets over time, we will ignore that possibility in the analysis that follows.

73. This assumption means that, if he had no Bezzts, he would buy one if the market price were less than $1600, and if there were no markets, the Victim wouldn't agree to sell one for less than that amount. Of course, since there *is* a market price in the figure ($800) he wouldn't really pay more than $800 to any seller since he could always get what he wanted on the market for that price. Also, since there is a market, he would *take* anything over $800 for his Bezzt, use $800 of the sale proceeds to replace it and keep the balance as an increase in wealth. In the absence of markets, what he would pay and what he would take are identical at the margin. The differences between the market values in the diagram and the Victim's values (the lined areas in the diagram) arise from the presence of rents. Why do rents exist? For individuals, willingness to pay much more than the current market price can be ascribed to strongly felt needs or desires for the good in question. Some people want tightrope-walking Bezzts a lot more than others. For firms, rents usually arise because the asset is very specialized, and thus extremely valuable to the firm, but not to other buyers in the market who do not have the specialized use for it. *See* references cited *supra* note 52.

74. The assumption that the market prices are the same for each of these assets is made simply for analytical convenience. The point illustrated, that market prices do not reflect the Victim's values so that he does have preferences about the assets in his portfolio which do not correlate with market prices, is simply made more clear. A more elaborate model which assumed different market prices and rents for different assets would reach the same conclusion, but the argument would be more complicated.

FIGURE ONE

THE INDIVISIBLE ASSET PORTFOLIO



Bezzt worth $1600 to him? Recall the declining value phenomenon underlying the law of demand.[75] Although the first Bezzt is worth $1600 to him, he values the second at less than $800. If trained Bezzts only come in indivisible chunks, the portfolio shown above can be optimal and is worth $3600 to its owner.

Now suppose Victim's Bezzt is eaten by a vulture. In Murphian

75. *See supra* text accompanying note 60.

reality, losses are no longer insignificantly small. Even though his assets have equal market prices, the Victim values them differently. He will sell the asset he values least, the Goodz, for $800 and use the cash to replace the bolted Bezzt.[76] (If the vulture ate the less highly prized Betr, the result is the same so long as it could be replaced by sale of the same Goodz.) When markets function well, Victims can convert any disaster into losses of the least valued assets in their portfolios. Whichever asset the vulture eats, the Victim's inventory, after adjustment, will consist of one Bezzt and one Betr. When markets work well, Victims are indifferent about *which* assets are lost (or seized) just as vultures are indifferent about which assets Victims maintain for them to grab, because either can costlessly use the markets to convert any asset they retain or grab into whichever substitute of equal market value yields them the greatest rent. Table One, below, illustrates the Victim's history after the vulture raid.

TABLE ONE
ADJUSTMENTS TO PORTFOLIOS OF INDIVISIBLE ASSETS IN A WORLD WITH PERFECT MARKETS

Assets	Original Position	After Loss	After Adjustment
Bezzt	$1600		$1600
Betr	1200	1200	1200
Goodz	800	800	
Value to Victim	3600	2000	2800
Market Value	2400	1600	1600

While nothing can reduce the market value of the loss Victim has suffered, the portfolio adjustment apparently permits him to limit his losses to that amount, and convert the loss of an asset which has high rents to him into the loss of an asset with zero rents. In other words, the adjustment makes the portfolio more valuable to the Victim, but need not affect its *market* value.

The apparent loss may understate the impact of the vulture raid on the Victim, however. Losses, even minimized by a portfolio adjustment, are not necessarily limited to the $800 illustrated in the table. Another consequence of the seizure, which I shall designate as a "wealth effect," may occur as well. Table One credits Victim with valuing his portfolio, after adjustment, at $2800 which means we as-

76. The wealth loss may cause the Victim to adjust by buying some inferior good, instead. So long as the inferior good purchased is traded in markets as perfect as the market for Bezzts and Goodzes, however, that possibility does not affect the analysis.

sume the rent values for his Bezzt ($800) and his Betr ($400) remain the same after the loss as before. However, the very notion of a rent incorporates an assumed contingency. Rents are determined by comparing present values of assets to their owners with their alternative values in other possible circumstances such as their sale value in a market or their value in some other use.[77]

In the absence of any markets, the Victim holding the readjusted portfolio would refuse any offers for either the Bezzt or the Betr of less than $1600 and $1200 respectively; but as long as potential offerors can obtain Bezzts and Betrs in the market for $800, the prospect of such offers actually being made is minimal. The contingency with which we are concerned in a Murphian World is not the existence of such unlikely future offers but instead the probability that losses will continue.

If the vultures now seize the replacement Bezzt (the future state of the world which, for bankruptcy purposes, we care about), Victim will agree to take $800 from the market for the Betr so that the cash can be used to replace the Bezzt a third time. Thus, in the only contingency that counts, the seizure of the Bezzt not only reduces the value of the portfolio by the amount of the market value of the least valued asset but also potentially destroys the rent value of the least valued asset in the *remaining* portfolio (or the next-to-the-least valued asset in the initial collection). The more likely it is that the Betr will have to be used to preserve the value of the Bezzt, the more its value sinks from the *ex ante* $1200 to a bankruptcy level of $800. This $400 additional loss is the wealth effect which must be accounted for as a result of the vulture raids.

While the Victim might *say* that he values his Betr at $1200, and several swamis serving as expert witnesses might certify that he speaks the truth, the loss of the Goodz took away any resources Victim could use to demonstrate his willingness *to pay for* a new Betr.[78] If any fur-

77.

> To be precise, an asset's quasi rent must always be qualified . . . . This is because there are many alternative future states of the world that will reduce the market value of the asset in its current use and simultaneously determine the character and value of its next best use. More important, it is the value of the asset in its next best use under each specific contingency that determines the relevant quasi rent.

D.B. Johnsen, *supra* note 52, at 8-9; "In practice, moreover, all rents are quasi rents." *Id.* at 8 n.9.

78. If the Victim would not *take* $1200 for the Betr that remains in his portfolio, it can be argued that the surplus or quasi-rent value remains. The decision to define surpluses in terms of what he would *pay* instead is a conservative assumption in the context of this analysis, which is made for two reasons. First, if demonstrable incentives exist for Victims to control their own affairs under conservative assumptions, it is obvious that under the less restrictive premises, the argument is even stronger. Second, to the extent that we conduct this analysis for the purposes of eventually attempting to fashion legal rules, there is an additional reason for being conserva-

ther losses occur, Victim will in fact be not only unwilling, but also unable to replace the Betr. In an environment of continuing losses, it is difficult to credit any claim that the Betr rent is worth anything to him. In effect, the loss of the least valuable asset in the portfolio also destroys the rents of the next-to-the-least valued asset.[79] Thus the Bezzt raid cost Victim not only the market value of the Goodz which was sold, but also the surplus value of the Betr.

This model illustrates two simple but very general points about the dynamics of failure. First, as losses in wealth occur, Victims will attempt to minimize them by making portfolio adjustments in efforts to reach optimal holdings. Second, because assets are indivisible, the portfolio will not be liquidated proportionately. Portfolio adjustments start with the liquidation of assets whose surplus, idiosyncratic, or specialized values to their owners are lowest relative to their market values. The assets that remain in portfolios after adjustment, accordingly, tend to be those with the highest relative idiosyncratic or specialized values to their owners. The more portfolios have been diminished by disaster, the less their market value explains why their owners prize them. That is one reason why debtors who are insolvent by a market measure are likely to be highly motivated to preserve the assets they have left and thus unlikely to be passive when facing risks of continuing losses.

The concentration of specialized or idiosyncratically valued assets in portfolios reduced by losses need not result from the adjustment decisions of wealth maximizing Victims alone, however. To the extent that Victims do not have incentives to make adjustments, vultures have incentives to seize the fungible assets, leaving the specialized ones behind. Figure Two below shows why.

In this case, the Victim owns the same three assets. The previous example, to simplify the analysis, equated the market prices for the three assets. In this case for similar purposes, the value to the Victim is the same for each of the assets ($1600) but the market prices vary — as shown by the starred lines, with Bezzts fetching $800, Betrs $1200, and Goodzes $1600.[80] A vulture seizure of any asset will not cause the

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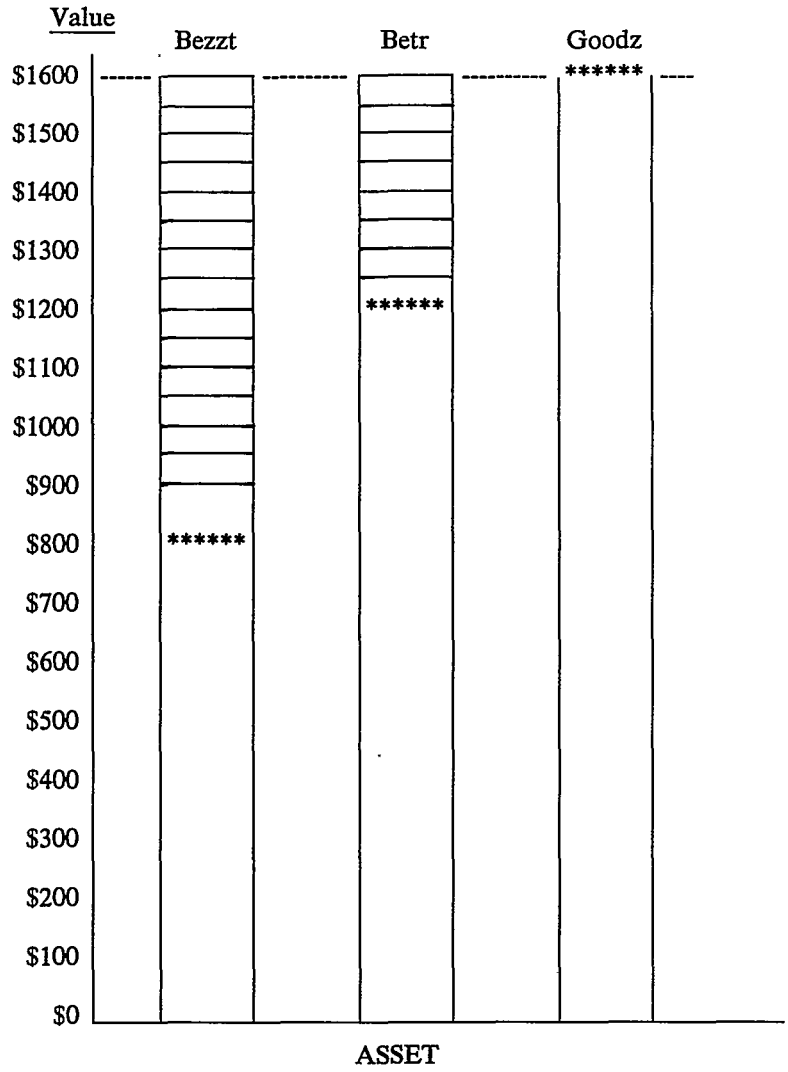
tive. Rules which credit people for valuing things beyond the extent that they can objectively show invite claims of entitlements to things based on strategic overstatements of their supposed values to the holders. Even Anti-Murphians concede this point. *See, e.g.*, T. JACKSON, *supra* note 18, at 126-27 (justifying the use of market values in bankruptcies, even though true subjective values are the relevant ones when attempting to predict and induce behavior by creating legal rules).

79. This observation should be credited to O'Malley who formulated an early corollary stating that "Disasters are even worse than you imagine."

80. Just as we showed that for the portfolio in Figure One declining demand could make it optimal, this portfolio can be optimal as well. The reason the Victim does not sell off a $1600

FIGURE TWO

THE INDIVISIBLE ASSET PORTFOLIO — TWO



Victim to make any post-raid portfolio readjustments. Just as before the raid the Victim would be indifferent to which asset was seized, afterwards he is indifferent as between any of the possible combinations of two remaining assets. The Victim passivity induced by this indifference does not justify any alarm, however.

Goodz to buy two $800 Bezzts is that a second and third Bezzt are each worth less than $800 to him.

When the Victim is apt to be passive, a vulture will prefer to seize Goodzes first, and Betrs second. A Goodz can be traded for more of the things the seizing vulture wants than can the Betr or Bezzt. Given that a seizure is inevitable, the choice of which to seize will be optimal. The vulture can benefit more by the appropriate selection without making the Victim any worse off. Even when assets are indivisible, as long as markets permit vultures to trade things they seize and Victims to readjust their portfolios costlessly, losses are minimized whether it is the Victim or the vultures who control the choice of assets to be seized. The end result, which leaves the Victim's portfolio concentrated with more specialized and idiosyncratically valued assets, is the same.

C. *Loss Minimization with Indivisible Assets in Worlds of Imperfect Markets or Expensive Conversion Techniques*

Transaction costs create unhappiness. When access to markets is costly, new preferences may arise about the order in which assets are seized. Eventually, transaction costs will limit Victims' abilities to make adjustments altogether.

1. *The Consequences of Asymmetrical Costs*

The costs of converting Goodzes into Bezzts may differ as between Victims and vultures. Suppose that vultures desire Goodzes not for their taste, but rather for their market convertibility into gold. In costly, imperfect markets, no Victim would expend resources converting his assets into a form preferred by vultures, but rather would let the vultures do their own converting. But suppose that vultures must use Goodz auctions held at courthouses for making the conversion and further that courthouse auctions fetch less gold per Goodz than trades on the bullion market could net, but only for Victims. The differential in conversion costs means that Victims will not, even in the circumstances in Figure Two, be indifferent to which assets vultures seize. To illustrate with numbers, suppose that Victim can get $1600 for a Goodz on the bullion market but that vultures can net only about $1000 at an auction. If, just prior to the raid, the Victim makes the conversion, he can satisfy the vultures' desire for a Goodz and have $600 in gold left over.[81]

81. This possibility may not have much utility in a world where vultures cannot be limited to accepting the gold, of course, and in which the timing of their raids cannot be reasonably anticipated. When creditors' remedies are invented and vultures are converted into creditors, these theoretical difficulties, as should be obvious, will be significantly ameliorated.

It will also be true that if vultures are superior liquidators in a regime where the profits from that superiority must be shared with Victims, Victims will permit vultures to do the liquidating.

To generalize, Victims will prefer to liquidate their own assets when they have access to superior conversion techniques, and to delegate the task of liquidation to vultures when vultures have superior access. Victims will tend to select first for liquidation those assets which can be most cheaply converted. Vultures' welfare need not suffer if Victims act on those preferences. As Victims' fortunes decline, the assets remaining in their portfolios will thus tend to be those which are more costly for them to convert to other forms. There are good reasons, which we shall soon explore,[82] why Victims may wish to hold the extra gold gained by controlling the liquidation. The existence of cost differentials in access to conversion techniques gives Victims incentives not to remain passive (indifferent about which of a collection of equally valued assets the vultures may seize) and ultimately shapes the character of the assets held in portfolios compressed by misfortune.

2. *Transaction Costs as Constraints*

Even when the conversions cost Victims and vultures the same, those costs have other effects on Victims' incentives. Recall the original vulture seizure of our Victim's $1600 Bezzt from Figure One. If it is costly to resort to markets, transaction costs will affect the sort of adjustments that will be possible. At minimum, the total losses will be increased by the cost of the adjustments. With indivisible assets, however, the point will eventually be reached on the slide toward poverty at which there are constraints on adjustment which are more expensive than just the conversion costs themselves.

In Figure One above,[83] the possibility that access to markets can be costly is shown by quoting dual prices for assets — bid prices which owners can count on receiving, and asked prices which nonowners must anticipate having to pay.[84] If assets are indivisible, the added costs of conversion will make a simple asset-sale-and-repurchase port-

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Thus, were the vultures creditors here, and they rather than the victim could obtain $1600 by sale of the Goodz, but had to be satisfied with $1000, the amount of the debt, Victim would prefer that vultures handle the sale. In any case, it is likely that Victims will act to see that assets are liquidated by the superior liquidator. The data *supra* note 2 indicates that debtors liquidate their assets before they choose bankruptcy. Since they seldom seem to prefer permitting bankruptcy trustees to be liquidators, it is likely they doubt the supposed superiority of bankruptcy as a liquidation process.

82. *See infra* section III.D.

83. Figure One can be found between notes 74 and 75 *supra.*

84. The differences are presumably a function of the costs of marketing, whether they be in the form of brokerage commissions, or rather in the losses from having capital tied up in unwanted assets for the period of waiting time needed to receive an optimum bid price, search costs of locating a high enough bidder, and the like.

folio adjustment impossible for the Victim; while he receives $700 on the sale of his Goodz, it takes $800 to buy the replacement Bezzt so that a market conversion is impossible.[85] The vulture loss remains at $1600 and cannot be reduced by a one-step portfolio adjustment. The Victim may choose to retain the post-prandial portfolio of a Betr and a Goodz. On the other hand, he may choose to make a more substantial adjustment by selling both the Betr and the Goodz, raising $1400 in cash, and spending $800 of that cash to replace the Bezzt, leaving a portfolio of a Bezzt and cash. The seizure and wealth losses using both strategies are summarized in Table Two, below.

TABLE TWO
ADJUSTMENTS TO PORTFOLIOS OF INDIVISIBLE ASSETS
IN A WORLD OF IMPERFECT MARKETS

Asset	Original Position	After Loss	After Adjustment
Bezzt	$1600		$1400[86]
Betr	1200	1200	
Goodz	800	800	
Cash			600
Value to Victim	3600	2000	2000
Market Value (Bid)	2100	1400	1300[87]

If transactions are costly, it eventually becomes impossible for Victims to minimize the impact of losses by resorting to markets. The portfolio as it existed immediately after the vulture raid is worth to the Victim exactly what the only available adjusted portfolio is worth to him.

85. The possibility may have occurred to you that given these bid and asked prices, Victim could locate an owner of a Bezzt who wants a Goodz and trade, thus apparently wiping out the $100 assumed cost of access to the market. The sad truth is, however, that it may cost more than $100 to locate and bargain with such an individual in the real Murphian world. A fellow Murphian who is a professional Aggie as well, Mike Pustay, suggested that I close this loophole.

86. The reason why the replacement Bezzt's value is $1400 instead of $1600 is explained by the wealth effect and the requirement that values be objectively verifiable. *See supra* note 78 and accompanying text. Since in the event of any future raids, the Victim's ability to do anything with his portfolio is constrained by the market price for Bezzts plus the value of his cash, $1400 is all the wealth available to him to preserve his existing Bezzt or acquire a new model, even though he would not sell one for less than $1600.

87. The possibility illustrated here that the market value of the portfolio after an adjustment is actually reduced raises the prospect of a conflict between the welfare of Victims and that of vultures. The general conditions for such conflicts and means of resolving them are discussed below. *See infra* text accompanying note 98.

D. *Loss Minimization in a World with One Well-Functioning Market*

The risk of being disabled by transaction costs from making loss-minimizing adjustments creates a desire to hold divisible and cheap-to-convert assets like gold and ultimately a demand for liquidity and credit. Table Three shows what would have happened had the Victim in Figure One held $800 in costlessly convertible gold or cash instead of his Goodz which could be converted only at an adjustment expense of $100.

TABLE THREE
ADJUSTMENTS TO PORTFOLIOS OF MIXED ASSETS IN A WORLD WITH SOME WELL-FUNCTIONING MARKETS

Asset	Original Position	After Loss	After Adjustment
Bezzt	$1600		$1600
Betr	1200	1200	800[88]
Cash	800	800	
Value to Victim	3600	2000	2400
Market Value (Bid)	2100	1400	1400

Comparing Tables Two and Three, one can see that if even one asset (like cash) can be nearly costlessly traded, optimal portfolio adjustments can still be made even in a world with mostly costly markets. By holding $800 in cash the Victim can reduce the potential loss by $400 when, by holding a Goodz worth $800, he cannot. Indeed, with only a small change in the numbers, the Victim's cash holdings need not be even $800. Had the Victim holding three expensive-to-convert assets, as in Figure One, held in addition only $100 in cash, he could have, at the cost of that $100 needed to buy access to the markets, made the same savings in adjusting his portfolio. In a world without creditors' remedies, of course, when borrowing even a hundred dollars is impractical, he has no option but to keep his marginally valued assets in cash.

E. *Optimal Coping in Environments of Advanced Failure, in the Absence of Markets*

O'Flaherty's Fiat, "There is synergy in slippage," limits any strategy for protecting values in indivisible items by holding cheaply liquidated, divisible assets. One limit in a Murphian Universe is the

88. The reason why this number is $800 instead of $1200 is explained in *supra* note 86.

certainty that vulture losses will continue. The protective liquid assets will either be exhausted making portfolio readjustments, or will be directly consumed by vultures. (It is not only Victims who care about the costs of resorting to markets. Vultures seizing cash can convert it into tastier items at lower cost than critters can be similarly converted, so vultures will also tend to seize cash first.)[89]

Inevitably, then, the Victim's holdings will be reduced to illiquid assets. The specialization or idiosyncratic values of these assets are likely to be so high, their market values probably so low, and the markets in which they are traded so expensive to enter, that the use of markets as means of minimizing losses at this point can be disregarded.[90] Optimistically, presume that the two remaining assets are a Bezzt and a Betr and, again for convenience, assume that their market values are the same as in Figure One, to wit: $700 (bid). What other strategies are available to a Victim bent on preserving the surplus values in those items?

Since their (net) market values are equal, the Victim has no reason to believe that vultures are likely to seize the remaining items in any particular order, so the probabilities of losing either asset in a future raid are equal. If losses are to occur, Victim, left without any other means to minimize their impact, has a definite preference that Betrs rather than Bezzts go first. To restate the significance of this differential in Victim/vulture incentives, the absence of costless markets creates a strong desire in the Victim to control rather than leave to chance the *order* in which vultures consume his indivisible assets. Vultures are generally indifferent to the order.

There are obvious gains to be made by an agreement between Victims and vultures, that Betrs will be the appetizers, leaving Bezzts, if they are to be eaten at all, left only for desserts.[91] Indivisibility, however, makes it difficult to find ways to share those gains. The law of property which permits sales of fractionalized interests in specific indivisible assets, and borrowing which transfers a contingent interest in unspecified property, both are obvious techniques for creating other ways to share such gains. Unfortunately, both are impractical until

89. Thus, given the inevitability of seizure, vultures will, in optimal fashion as above, seize from mixed portfolios containing liquid and illiquid assets, just those which Victims would choose for them to seize.

90. There exist occasional minor possibilities that Betrs can, at some expenditure of labor, be trained to walk tightropes. The point is that markets are not the only process by which an asset can be converted into another form. As long as the available nonmarket conversion techniques are costly, however, the existence of such possibilities does not alter the above analysis.

91. The gains to be shared equal the rents saved in the Bezzt discounted by the probability that it too may eventually be seized.

after remedies are invented. (Once they are, however, grants of security interests, which are the equivalent of the sale of a fractional (contingent) property right, could be justified as efficient ways for Victims to liquidate their own affairs. It would follow that bankrupts' estates would be heavily weighted with encumbered assets.)[92]

Protective or insurance measures might reduce the probability of future vulture raids. Victim's best strategy is first to take steps which increase the probability that if disaster visits again, only the Betr will be lost. Wealth maximizing strategies in the face of such risks include hiding the Bezzt behind the Betr, preparing to offer the Betr up without a fight using it as a distraction, or disguising the Bezzt to look like a lower-valued asset. Those activities, given the conundrum that there is nothing better that *can* be done, are nevertheless desirable, even optimal behavior.[93] They increase the probability that eventual disaster will be minimized inasmuch as the vultures are indifferent about which asset they seize, but the Victim has strong preferences which can be satisfied if vultures are induced to choose Betrs before Bezzts.

Even these protective steps consume resources, however. Given the indivisibility of Victim's assets, he has no such resources easily available. He really has only two choices. One is to sacrifice the Betr in exchange for cash or other divisible assets which can be protectively deployed. If the probability of future vulture losses is very high, if the costs of protective measures are low, and their efficacy is likely to be high, he will make that choice. The lower the probability of eventual loss, the more expensive and less effective the available protective measures are, the more likely it is that the Victim will select the only other option, which is to do nothing at all.

A decision to do nothing looks like passivity, but in circumstances of extreme distress inertia can be optimal. Whether it is turns on whether there are open but unavailed-of opportunities worth taking to redeploy or adjust the portfolio.[94] As long as *immediate* loss is less than certain, Victims have incentives to maximize the value of their assets. Of course, with probabilities as high as ninety-nine percent (or with the expected duration of even totally effective protective meas-

92. A recent empirical study indicates that this is the case. T. SULLIVAN, E. WARREN & J. WESTBROOK, *supra* note 2, at 185-87, 306.

93. Even so, and for reasons that are not always easy to understand, some of these measures fit into the category of bankruptcy crimes, which means that they are grounds for denials of a discharge and possible ineligibility for certain other relief. *See, e.g.*, 11 U.S.C. § 727(a)(2) (1988) (concealing property from a creditor is grounds for denial of a bankruptcy discharge).

94. The mere fact that we may, after the fact, speculate that there were some possible alternatives is ambiguous. Bounded rationality does not require that the Victim be perfect, only that he try his best. After-the-fact discovery of roads not taken may confuse bounded rationality with passivity.

ures down to a few minutes) the discounted expected value of his future portfolio is very low. Not many steps to preserve its value are likely to be cheap enough to be worth taking. Given the indifference of the Vultures, the choice we want the Victim to make is to do nothing.

The intensity of the Victim's incentives to maximize the value of his portfolio is a continuous rather than binary function of two variables: the probability that the last asset will be seized, and the expected timing of the seizure. Utter passivity occurs only in the extreme case of *certainty* of *immediate* seizure when there is no possible action that can be taken by the Victim to affect either the order, timing or the probability of the seizure losses.[95] If the probability of seizure is less than total, or if the order or timing of the seizure is uncertain, Victims have incentives to maximize their asset values. The Common Pool justification for bankruptcy legislation is built on the extreme case of absolute debtor certainty of immediate seizure of his last asset. Until that point is reached, victims still have incentives to react. While such incentives exist, there is no common pool problem.

There is some logic to the notion that the probability of seizure of one's last asset by creditors is very low until the point of market insolvency is reached. At the insolvency point, however, it remains low. Debtors would become certain that post-insolvency reactions cease to be worthwhile only in a world which possesses a number of very unreal, non-Murphian features. Among them, at minimum, are: that all creditors can costlessly determine exactly when the point of insolvency is reached, that the odds of the insolvency being permanent are 100%, and that creditors can costlessly and immediately exercise their right to seizure. Because those assumptions fly in the face of Murphy's Law, we can dismiss them. (Indeed, if Murphy's Law were invalid so that those assumptions were true, all creditors acting on their own would be fully paid from the proceeds of their perfect seizures anyway, so we wouldn't ever have to worry about passing bankruptcy acts. Collective proceedings would be unnecessary.)

95. Note that these conditions for passivity are exclusive, and "insolvency" per se is irrelevant. None of the conclusions reached above would change if vultures were turned into creditors and Victims into debtors whose debts far exceed the value of their assets, but which do not mature for 10 years. The insolvency as a source of passivity argument contains the unstated assumption that under the current law of creditors' remedies, the more insolvent you are, and the closer the time at which your debts mature, the higher the likelihood that creditors will end up seizing your assets in the near future. There are, of course, other features of the real world that also affect that probability, some of which are discussed below.

F. *Loss Minimization in a World Having Inedible (Non-Property) Assets*

The above conclusions assume everything of value in the world is edible. Before abandoning that assumption, it is first necessary to demonstrate that assets exist which are inedible in varying degrees. Much wealth takes that form — which means that vultures really aren't interested in everything Victims value.

1. *Port(folio)traits of Failures*

Figure Three describes, in abstract terms, the wealth a typical Victim will seek to maximize. All his assets are put into boxes describing characteristics of wealth that Victims and vultures may care about. The southwest box is full of Things like Bezzts, Betrs, and Goodzes — assets held in an illiquid form. Likewise, the southeast box contains Things in which others have rights along with the Victim, like his mortgaged house and joint bank account. All the contents of these two boxes are designated "Property" which is a collection lawyer's way of saying that a sheriff could get his hands on these Things, a fact of some keen interest to creditors who might wish to employ sheriffs if creditors' remedies are ever invented. As far as vultures are concerned, property is what is edible. Once sheriffs do become useful, some property might be declared exempt from their clutches, *i.e.,* made inedible by legislation. Inedibility can result, however, not only from statutes, but also from the forces which underlie Murphy's Law.

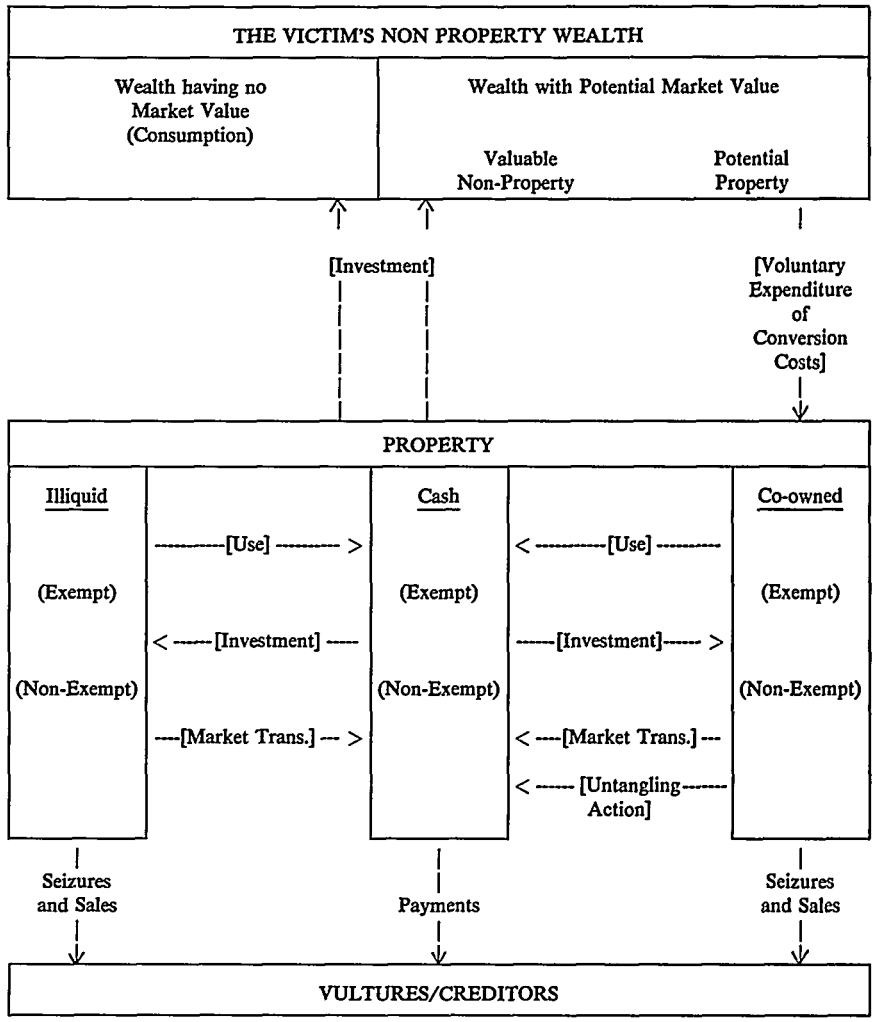
The boxes on top illustrate that property is not all the Victim values. As he shifts his wealth from box to box, the debtor may buy steak dinners or film for baby pictures. These assets — his leisure, his family, or any specialized asset that is useful to the Victim alone — I have put into the northwest box.

The northeast box contains "nonproperty" that might interest vultures. The Victim may, for example, spend time and money cultivating his in-laws to increase the likelihood that should trouble come his way, they would be willing to bail him out. Valuable expectancies like these are assets to the Victim, but not the kind vultures could easily seize (or sheriffs could easily capture should we ever invent creditors' remedies).

Victims also hold a similar kind of wealth which I have put in the same box but called "potential property." That term might have described the entire box. Two labels were used to illustrate that "potential property" assumes many different forms. I have in mind for the subcategory of "potential property" assets like education, experience,

FIGURE THREE

WEALTH IN MURPHY'S WORLD



skill, ideas, half-completed plans or manuscripts, already acquired information or, in general, specialized prospects — all things worth investing in because someday the investment might be convertible into cash. Another term which captures the flavor of these assets but which has a bankruptcy ring might be "executory opportunities," or, to use other jargon, "relational assets."[96] They share the characteris-

96. For discussion of the concept of how relationships can become assets, see, *e.g.*, I. MACNEIL, THE NEW SOCIAL CONTRACT (1980); Goetz & Scott, *Principles of Relational Contracts,*

tic that, from the vultures' standpoint, conversion from one form to another can be done only by Victim cooperation. They might also be called Victim-specific assets. Since their value is difficult to capitalize, they cannot be easily traded in markets.

A more accurate picture would show all the boxes as contiguous or overlapping, with only very fuzzy lines distinguishing them. I drew them with spaces in between for the various arrows, labeled in brackets, to show that the Victim can move his wealth from one box to another. I added some cryptic indications of ways in which the moves can be accomplished. Thus I show that the Victim can turn illiquid and co-owned property into cash in several ways. He can use them productively to earn cash. (I have in mind clipping coupons, or employment of a depreciating machine without making provisions to repair or replace it.) Those examples illustrate that the liquidate-by-use technique may take considerable time before much cash is accumulated. Portfolio adjustments which take that form use markets, but only indirectly or as part of a more complex hybrid market/nonmarket conversion process. The Victim can also engage in a variety of more direct market transactions with his property assets, like renting, mortgaging, or selling them. He can turn potential property into cash by dint of future work or investment, employment of his skills and experience, completing his plans, using his information, or crawling to his in-laws.

The existence of inedible assets in our loss minimization model is important for two reasons. First, debtors will seek to maximize the values of the inedible assets in their portfolios just as they do for their edible assets. Second, wealth can be transferred from one of those forms to the other, which means that Victims can adjust their portfolios by investing in or liquidating inedible assets.

The desire to hold some cheap-to-convert assets like cash can now be explained, even for a Victim in dire distress. *Edible* assets may be necessary to finance the adjustments which are continually required to maximize the value of his portfolio of *inedible* assets. It may take cash to retain the love of a good mate, to realize on the goodwill generated by an advertising campaign, or to obtain paybacks from investments in specialized training for employees. It follows that Victims have an interest in maximizing the values in their *edible* portfolios so long as and to the extent that edible assets are required to finance adjustments desired because of price, taste, technological, and wealth shocks to the

67 VA. L. REV. 1089 (1981); Linzer, *Uncontracts: Context, Contorts and the Relational Approach,* 1988 ANN. SURV. OF AM. L. 139 (1989).

equilibrium in their *inedible* asset portfolios. That is simply one more reason to doubt that Victims will ever be completely passive.

By the same token, if some inedible assets are convertible into gold that will satisfy vultures more cheaply than some edible assets can be similarly converted, Victims have incentives to make such conversions. The existence of high surplus values and high conversion costs for edible assets remaining in a portfolio gives vultures leverage to influence Victims to cooperate in making their inedible assets available to fund future vulture feasts as well. A threat to seize your family Bible if you do not seek a loan from your mother illustrates that leverage.

2. *The External Effects of Inedibility*

The existence of inedible assets in the Victim's portfolio at the point of extreme failure adds an additional twist to his incentives. As the probability of vulture seizures increases, the costs of protective measures rise, or the efficacy of those available declines, the values of the edible assets in Victim's portfolio become increasingly steeply discounted.[97] Since inedible assets cannot be grabbed, their values are not discounted so steeply. At some point the worth to the Victim of his least valued edible asset will thus drop below the value he places on obtaining an additional inedible asset. He will therefore convert that edible into the more highly desired inedible item. From the standpoint of Victims facing the risks of holding edible assets, the conversion is wealth maximizing. As long as it remains possible to hold inedible assets, Victims have the incentive to make conversions until their estates no longer contain any edible assets. Consequently, empty edible estates may not evidence passivity, but rather may result from wealth maximization incentives in a world in which it is possible to hold assets in an inedible form and costly to hold them in edible form.

Such conversions may be suboptimal. While there have always been conflicts of interest between Victims and vultures, as long as Victims retained assets vultures got fed; either they were likely to feed themselves in the manner least harmful to Victims, or the Victims were likely to be able to minimize the cost of adverse vulture menu selections. Thus, given the Murphian inevitability that losses would occur, we could nevertheless conclude that optimal resource allocation

97. See discussion in the text accompanying *supra* notes 77 and 78 showing that the loss of one asset also destroys the surplus in the next-to-the-least-valued asset. The loss of edible assets similarly reduces the rent values held in inedible assets if they are the next in line. In addition, since the value of an asset is simply the discounted value of its future services, the prospect of a shortened service life tends to diminish present value.

obtained. Either Victims were indifferent to the manner in which vultures raided, or vultures were indifferent to the manner in which Victims responded, leaving losses minimized.

The vultures are *not* indifferent to the Victim's decision to convert edibles into inedibles.[98] It is thus impossible to conclude that such last steps of the economically dying Victim are optimal. Such conversions tend to maximize the Victim's wealth in the face of a world full of risk, but they tend at the same time to reduce the welfare of vultures. The conversions should then be hailed or regretted depending on whether the gains to the Victims outweigh the losses to the vultures.

If the world were perfect enough, the behavior of the affected Victims and vultures would permit us to know whether the conversions were worthwhile. If the losses to vultures were larger than the gains to Victims, and the costs of transactions were zero, vultures jointly would pay victims not to make the conversions. The fact that no offers to pay are made to any Victim thus would be evidence that the benefits to Victims exceeded the losses to vultures.

In the Murphian world we have posited, the absence of such offers is less comforting evidence. The costs of making such bargains, including the costs of organizing a joint enterprise among vultures, rather than the absence of possible gains in aggregate welfare may explain why no vulture offers are forthcoming. Vultures who cannot enforce any such deals they might make (at least until creditors' remedies are invented) either with each other or with Victims, may not attempt to initiate the deals in the first place.

On the other hand, the costs to the vultures simply represent the loss of benefits they formerly gained when Victims held edible assets. The vultures never paid for those benefits in the first place. The benefits they lose, therefore, are "external." Since they do not obtain similar benefits when Victims decide to hold wealth in an inedible form, they are forced to pay if they desire to maintain the preexisting benefit levels. Indeed, one reason a Victim might convert edibles into inedibles may be to exclude vultures from obtaining those unpaid-for benefits in order to induce the vultures to pay.

Forcing vultures to pay for the benefits they receive tends to optimize aggregate welfare. If those who provide benefits to others do not

98. We have noted some other instances in which the Victim's actions to maximize his wealth may reduce the welfare of vultures. *See, e.g., supra* note 87. To the extent that Victims spend resources which reduce the likelihood of all vulture seizures by, for example, raising all seizure costs, rather than simply influencing the order in which vultures are likely to choose to seize assets, a similar conflict between Victim and vulture welfare exists as well. The arguments made below concerning the conflicts created by the existence of inedible assets apply to these other cases as well.

get paid for them, they are likely to engage in too little of the activity that provides those benefits. It may be costly for vultures to organize themselves to make such payments. Nevertheless, it cannot be concluded that conversions should be prevented in principle. The aggregate welfare lost by eliminating the power of Victims to induce payments from vultures would have to be weighed against the net losses suffered by reason of the vultures' inability to cooperate. The above conclusions are formally expounded in the appendix to this paper, for readers familiar with standard economic geometry. The uncertainty about whether welfare can easily be optimized in a Murphian world of transaction costs and inedible assets demonstrated here and in the appendix, however, need not remain with us any longer than it takes to invent nonbankruptcy creditors' remedies.

G. *Loss Minimization in a World with Creditors*

It has already been suggested that the existence of credit markets permits a debtor to overcome some of the problems associated with the indivisibility of assets, and thus to liquidate more efficiently and adjust her inventory when losses occur. Once we adopt laws giving remedies to creditors, we can drop the last of our idealistic, non-Murphian world assumptions and presume that instead of facing the risk of asset seizures by vultures, the Victim faces creditors holding collection writs instead. It should be obvious from the assumption that vultures are rational that changing the identity of potential asset grabbers from vultures into creditors does not change the analysis. Scavengers are scavengers. Seizing creditors are likely to behave just as rational vultures do, and Victims are likely to react to actual and impending creditor seizures in the same way as they would to grabs made or threatened by vultures.

Creditors differ from vultures in only three important respects, none of which undercuts the conclusion that Victims are likely to be the optimal liquidators of their own declining affairs. While Victims may have been able to bargain with vultures about which assets should be seized and when, Victims could not ensure that any negotiating vulture could be legally bound not to raid. On the other hand, when the seizure threat comes from a creditor, the creditor's entitlement to seize is limited. He can collect no more than he is owed. What is more, the seizure by any creditor can be prevented by simply paying the debt or judgment. In an environment filled with creditors rather than vultures, therefore, victims can take certain protective measures with the assurance of avoiding seizures. The better ability to plan for

dealing with creditors as opposed to vultures makes debtors more rather than less efficient as liquidators.

The second principal difference between the threat of asset loss via vulture and creditor raids comes in their timing. Just *when* creditors are likely to seize assets can be anticipated by debtors. Debts typically have known maturity dates. Of course, some debts can be incurred or accelerated based on an event of default whose time of occurrence is unpredictable. Even for those, however, the procedures which creditors must follow in order to obtain their collection writs take predictable amounts of time. Debtors who can anticipate the timing of the taking are likely to be more effective liquidators than debtors who must plan on being raided at random.

The third difference between vultures and creditors is the market in which seized assets are converted by the taker. A collection writ typically gives the debtor a pro rata release from the debt when the asset seized is cash, whether taken from a money bag or collected from a garnishee. All other assets, however, typically are required to be liquidated at auction sales held in courthouses.[99] The relative infrequency with which courthouse auctions are used by commercial sellers is powerful evidence that the auction market is not an efficient technique for turning assets into cash. Debtors likely have access to liquidation markets which are far superior to those available to seizing creditors (at least for the first "sale"). Even were sheriff's sales not the mandated means by which creditors liquidate assets, it seems reasonable to believe that as between debtors who chose to invest in and own the particular assets seized, and creditors who merely finance them, that debtors as a class likely have more information about conversion markets, and lower costs in searching for buyers than creditors as a class. Debtors would thus be better liquidators simply because of their familiarity with the assets.

In short, the differences between vultures and creditors tend to make debtors even better salvagers of their own misfortunes than they would be in a world where the risk of loss came from vultures rather than creditors. We have noted, however, one caveat concerning the wisdom of a regime which permits debtors to liquidate themselves: What of the instances in which the natural incentives for Victims to adjust portfolios, protect their assets, or convert them into inedible

99. *See* D. EPSTEIN & J. LANDERS, DEBTORS AND CREDITORS: CASES AND MATERIALS 72 (2d ed. 1982). Note that while sheriffs' sales are usually required by the terms of most nonbankruptcy collection statutes, the requirement is not inevitable. It is at least conceivable that creditors' remedies could require creditors and sheriffs to resort to a more appropriate market. *Cf.* U.C.C. § 9-504(3) (1972).

form tend to reduce the welfare of creditors? At minimum, the existence of such potential conflicts means that debtor welfare is not strictly derivative of creditor welfare. What's good for creditors is not always good for debtors. Such conflicts can be efficiently resolved only consensually between debtors and their creditors.

Is it possible that the inability of creditors to act jointly in contracting around the potential conflicts of interest between themselves collectively and the debtor nevertheless justifies adopting bankruptcy law? Probably not. Creditors can act *individually,* at the time they extend credit, and thus resolve those potential welfare conflicts with their debtors.

The status of creditor most often arises from consensual relationships.[100] The fact that such relationships exist gives good indication that the costs of transacting between the relating parties are relatively low. The problems created by potential conflicts of interest can be anticipated and provided for in the credit contracts actually formed between debtors and creditors. If the expected value to debtors of retaining the right to control the conversion of their assets is high, they can be expected to bargain for the right to retain that control, and will expect to pay their creditors for that right.

On the other hand, if there are assets which debtors think they are likely not to want to convert (or if creditors are likely to be superior liquidators of certain assets) and the value to some creditors of the power to prevent conversions is high, debtors can be expected to grant security interests to creditors in those assets. Creditors can expect to pay for the right to veto debtors' proposals to transact with specific assets by taking lower interest rates or by granting other favorable terms in the contract providing for the secured transaction.

In summary, in a world with creditors having legal remedies, debtors are likely to retain the right to liquidate when it is efficient for them to do so, and to convey that right to *individual* creditors when it is not. Given the power to liquidate and distribute a portion of their estate, they are not likely to remain passive in the face of losses but instead are likely to exercise the power they bargained for. Left in their bankruptcy estates will be the encumbered assets which they had no power to liquidate and distribute, but those assets will benefit the secured parties and not the general creditors. So long as debtors are the superior liquidators of certain assets in their own estates they will liquidate those assets themselves rather than turn the task over to a

100. Like other writers before me, *see, e.g.,* Jackson & Scott, *supra* note 18, at 177-78, I ignore the substantial difficulties involved in resolving potential conflicts of interest by contract for creditors like tort victims and tax collectors, whose claims arise nonconsensually.

process which is less efficient. Since bankruptcy law is unlikely to affect the superior liquidating abilities of debtors, except in the occasional accidental case, it is never likely to produce anything but empty bankruptcy estates.

IV. THE MORAL OF THE MURPHIAN MANDATE: BANKRUPTCY IS SUBJECT TO MURPHY'S LAW

The purpose of this study has been to demonstrate that we lack any persuasive theory for why we have or ought to have bankruptcy legislation. Legal explanations for bankruptcy policy are simply unexplanatory. The only systematic attempts to justify bankruptcy law which go beneath the conclusory legal explanations are also unconvincing. They implicitly ignore the possibility that debtors will react to losses. They predict that creditors will make recoveries in bankruptcies when we can easily observe that creditors do not.

The reason why bankruptcy estates will be empty, and why the "Creditors' Bargain" theorists were mistaken, is basically the same. Debtors, as we have demonstrated, *will* react to threats of loss so long as they have any power and opportunity to do so.[101] The theory developed here explains just how they can be expected to react. That, in turn, explains the ways in which the character of debtors' portfolios changes as losses continue, and, eventually, why debtors' estates are likely to be valueless to creditors by the time bankruptcy occurs.

The source of debtors' powers to react resides in the property rights they have in their assets. So long as we permit private property, which includes entitling property owners to transact with their property, the power exists for them to react to the threat of losses in the ways described above. The theory developed in this study demonstrates the utility of permitting such transactions: debtors will use that entitlement either to minimize the impact of losses, without harming their creditors, or to pay creditors in advance for any harm creditors may suffer by the exercise of that power. In that sense, the private property system tends to induce optimal loss minimization in a world which contains risks that losses might occur. It also follows that if we wish to change the behavior of debtors in ways which better ensure

101. We do not, for example, consider our private property to be a common pool when looked at from the standpoint of the thieves who may take it from us. We have the ability to react to threatened thievery. The possible actions available to debtors to react to threats by creditors may be more limited than the set of entitlements owners have to react to threatening thieves. By the same token, however, the legal strategies available to creditors pursuing their claims are more limited than the strategies which thieves, who are less affected by legal trifles, may consider and adopt. The point is the same, however. If there is an owner of the assets who can react, there is no common pool problem.

that creditors will always get paid in full in bankruptcies, tinkering with the bankruptcy act itself is likely to be unproductive. What would be required to achieve such an ideal is, instead, a drastic constriction of the number and scope of the rights which we grant owners under our law of property.

Even when permitting debtors to self-liquidate generates welfare conflicts between debtors and creditors, there is no theoretical point at which we can say overall welfare would be enhanced by making a change to collective control. Because those welfare conflicts potentially exist, a bargain theory which justifies bankruptcy law must posit a bargain to which the debtor is a party. Real debtors, however, are parties to real credit contracts with real creditors. If there are potential welfare conflicts between debtors and creditors, there is no reason to believe that the existing credit contracts do not resolve them. Creditors might agree to take the risk that the debtor will liquidate her own property and adjust the price of credit accordingly, or they may eliminate the debtor's ability to control her affairs by taking real rights in the debtor's assets and thus prohibit the debtor from transacting in those assets. In short, there are good theoretical reasons, grounded in conventional economic assumptions, for believing that debtors are apt to be efficient liquidators when they are facing failure. Their creditors have been paid for the risk that losses will result from the contract term that permits debtors to liquidate their unencumbered assets, and debtors, in turn, have taken the risk that their encumbered assets will be unavailable for use in making portfolio adjustments when losses occur.

Indeed, the efficiency of permitting the debtor to control the liquidation of her own affairs even explains the shape of the common creditor's remedy, which permits the debtor to foresee the time at which seizure may occur and to employ any of her assets to satisfy or refinance maturing obligations. The secured transaction, which limits the ability of the debtor to deal with the assets which collateralize the debt without first paying off or obtaining consent of the creditor, is the unusual credit term. Debtors usually want as much discretion as possible in dealing with their assets and are presumably willing to pay many of their creditors to give them that discretion. That is the import of being unsecured. So long as Victims will bargain for the right to liquidate themselves and our law of property permits them to make such bargains, it is likely that empty bankruptcy estates will always be a feature of bankruptcy. No amount of tinkering is likely to change that fact.

A. *Whither Murphian Economic Theory: An Introduction to Murphian Bankruptcy Distributions*

The proponents of pro rata bankruptcy distribution erred by mistakenly assuming that debtors will fail to maximize the value of their portfolios so that a collective system is necessary to maximize it for them and their creditors. Their analysis goes astray for another simple reason: it is focussed on optimizing the wrong variable. The "common-pool" analysis is premised on the unspoken assumption that if the market value of the debtor's estate is maximized everything will be hunky dory. Efficient bankruptcy policy would seek not to maximize the value of debtors' estates, but rather to minimize bankruptcy losses.[102]

Those two quanta differ in three essential respects. The manner of distribution itself influences the size of the loss. First, debtors must experience some gains by choosing to distribute on a non-pro rata basis. Otherwise, there would be no need for bankruptcy law to force a change in that natural behavior. The pro rata requirement eliminates those gains, increasing the value of the bankruptcy losses borne by debtors, even those who maximize the aggregate market value of their distributions. Second, if losses are to be minimized, not only must the value of what is distributed be maximized but also the distribution of the assets must be made first to those who value getting paid the most and last to those who value avoiding losses the least. Third, the costs of making the distribution must also be minimized. A pro rata formula will achieve the first two goals only in a highly unlikely world in which all creditors are clones[103] so that the value the debtor places on satisfying each, and the value each places on losses, are identical. By the same token, except in a freak world where all creditors are equally efficient collectors, a pro rata distribution scheme will negate the social benefits which result from a system that rewards most those creditors who are capable of effecting low-cost transfers of the debtor's assets to themselves. In a real Murphian world, of course, real debtors do have preferences, and real creditors differ in the values they place on losses and in their relative skills of effecting low-cost transfers.

A complete Murphian theory would show that non-pro rata distributions of debtors' assets that occur in the real Murphian world tend

102. It should be obvious by now that focussing on asset value maximization instead of loss minimization is a classic blind spot typical of those who are unfamiliar with Murphian philosophy.

103. Note that some writers in the classical tradition which existed before the introduction of Critical Murphian Studies do make this assumption. *Cf.* Schwartz, *supra* note 14, at 7 (discussing the homogeneity of creditors).

to approach the loss minimizing ideal. There are certainly impressionistic reasons for believing that permitting debtors to control the distribution of their assets would tend toward the optimal. In the vernacular of the initial parable, Victims are apt to feed their favorite vulture first. The hungriest vultures are, *ceteris paribus,* likely to expend greater efforts in staging raids on the Victim's assets, the satiated ones less so. In a like manner, vultures whose costs of raiding are lowest will get more to eat from a given Victim's assets than those who are less efficient raiders, so that the costs of transfers from Victims to vultures are also likely to be minimized. A complete proof that debtors are likely to be the most efficient *distributors* as well as the most efficient *liquidators* of their own estates is beyond the scope of this study. It is obvious, however, that pro rata distribution of the sort envisioned by classic bankruptcy law would achieve none of those distributional gains. That may further explain why actual distributions occur outside of bankruptcy leaving nothing to be distributed when the proceedings occur. If there were anything left to be distributed pro rata, the world would be worse off if it were done under the classic pro rata scheme.

Among other problems that such a showing would have to solve is what Alan Schwartz has called "The Continuing Puzzle of Secured Debt."[104] Why a debtor's distributional decisions made at the time of the initial extension of credit are likely to be efficient is something that we currently do not well understand. Work is already underway in the Murphian Community on those problems, however. The Murphian Asset Management Theory has already revealed that debtors have significant preferences for the order in which creditors can seize assets. That leads naturally to a theory of secured debt as an efficient means for debtors to influence the risk that assets will be seized in suboptimal sequences. Once Critical Murphian Theory becomes a recognized discipline, the intellectual obstacles standing in the way of a rigorous showing that the debtor is not only the most efficient liquidator but also the most efficient *distributor* of his assets will surely be overcome. When that work is complete, any remaining doubt that classic bankruptcy law (as we have initially defined it) can be justified on economic grounds should be eliminated. The possibility remains, despite suggestions to the contrary,[105] that another sort of bankruptcy regime, one in which debtors do have the power to make the liquidation and distribution decisions, could replace the classic version which

104. Schwartz, *The Continuing Puzzle of Secured Debt,* 37 VAND. L. REV. 1051 (1984).

105. *See, e.g.,* T. JACKSON, *supra* note 18, at 209-24; Baird, *The Uneasy Case for Corporate Reorganizations,* 15 J. LEGAL STUD. 127 (1985).

we have considered here. Optimists might see the current reorganization chapters of the Bankruptcy Code, which do give limited effect to the desires of debtors on the questions of what will become of their assets, and who will share in them, as the first hesitant steps along the path to develop an optimal creditors' remedy system to deal with financial disasters.

B. *Principles of Murphian Politics — An Afterword*

Murphian theory proves that collective control over the liquidation and distribution of debtors' assets is unnecessary if we are interested in optimal liquidations. The question remains: Why then do we have bankruptcy law? Why do we wish to entrust liquidation and distribution decisions to those who will make them in ways which harm rather than enhance aggregate welfare? The interests of those who get to make the decisions (the butchers and their helpers) are of course clear enough, but why would those they are supposed to serve (who generally get nothing from the services being provided) ever agree to hire them? Not surprisingly, Murphian theory has an answer to those questions as well.

The impulse to have bankruptcy law and to tinker with it after we have it comes not from notions of "equality" or "efficiency" but rather from wishful thinking. We are doomed because we harbor hope, a specific belief in alchemy: that if we are only clever enough, gold can be squeezed from turnips. Our fatal wish is for a world in which disasters don't occur. We don't really care if anybody gets paid "equally" or paid "efficiently." What we really want is a world in which they get paid. Period.

Our commitment to the proposition that everybody should get paid grows from our belief that their claims are worthy. We are offended if promises upon which we rely aren't performed, if injuries go uncompensated. At least since the abolition of debtors' prisons, however, we have also adopted a regime in which our commitment to enforce worthy claims is limited to extractions of money. Laws which enforce contract, tort, and property obligations are effective only against those who have monetizable wealth. The poor are free to commit their torts, breach their contracts, ignore their duties. Among those poor are our bankrupts.

When someone doesn't get paid, we are forced to confront just how weak the law really is. That gives rise to the illusion that if only the law were stronger, our basic values could be vindicated. The law grows from essentially political roots, and we have much faith in politics, both electoral and judicial. In particular, bankruptcy is the crea-

tion of Congresses and Parliaments. Members of Parliament and of Congress are likely to respond to the pleas of their constituents who do not get paid.[106] Those who do get paid are unlikely to take much interest in bankruptcy legislation. It is thus easy to understand why such legislation exists.[107] Even the complaining unpaid constituents, however, may be unwilling to agree to wholesale reductions in the rights they possess to transact in their own property. It follows that the legislation they demand is likely to leave their own basic property rights intact, and, consequently, is unlikely ever to gain for them what they desire.

Bankruptcy law is a symbol of our faith that wealth can be created by voting, lobbying, and litigating. We sometimes overlook the Murphian possibility that wealth can also be destroyed by the same means. What is hardest to accept, however, is that sometimes law is likely neither to create nor to destroy much wealth. The core insight of Murphy's Law is not that the world is necessarily an inevitably unhappy place. Murphy's point was actually both more potent and more subtle. Expending the effort required to make the world happier tends to make us unhappier. We can credit ourselves with the happiness that results from honest effort in trying to improve the world by tinkering with bankruptcy law and, fortunately, we can't do much damage. Until we are ready to abandon the institution of private property, however, we won't accomplish much either.

106. There is some evidence, for example, that bankruptcy legislation in this country resulted from the fears of distant creditors that most recoveries from bankrupt debtors would be made by creditors who lived nearby (and, presumably for that reason, were more efficient collectors). *See* Weisberg, *supra* note 12.

107. The Johnsen Judgment referred to in *supra* note 9 elaborates on this explanation.

APPENDIX

Graph One below illustrates the position of the vultures as bearers of the external costs of Victim's activities as Victims choose to convert their edible assets into inedible form. Because the welfare conflicts illustrated here occur whether or not the assets involved are divisible or indivisible, the functions shown are drawn in the customary form which assumes divisibility. (Stairstep shaped curves which describe the demand for lumpy assets yield similar, if less discrete, results.)

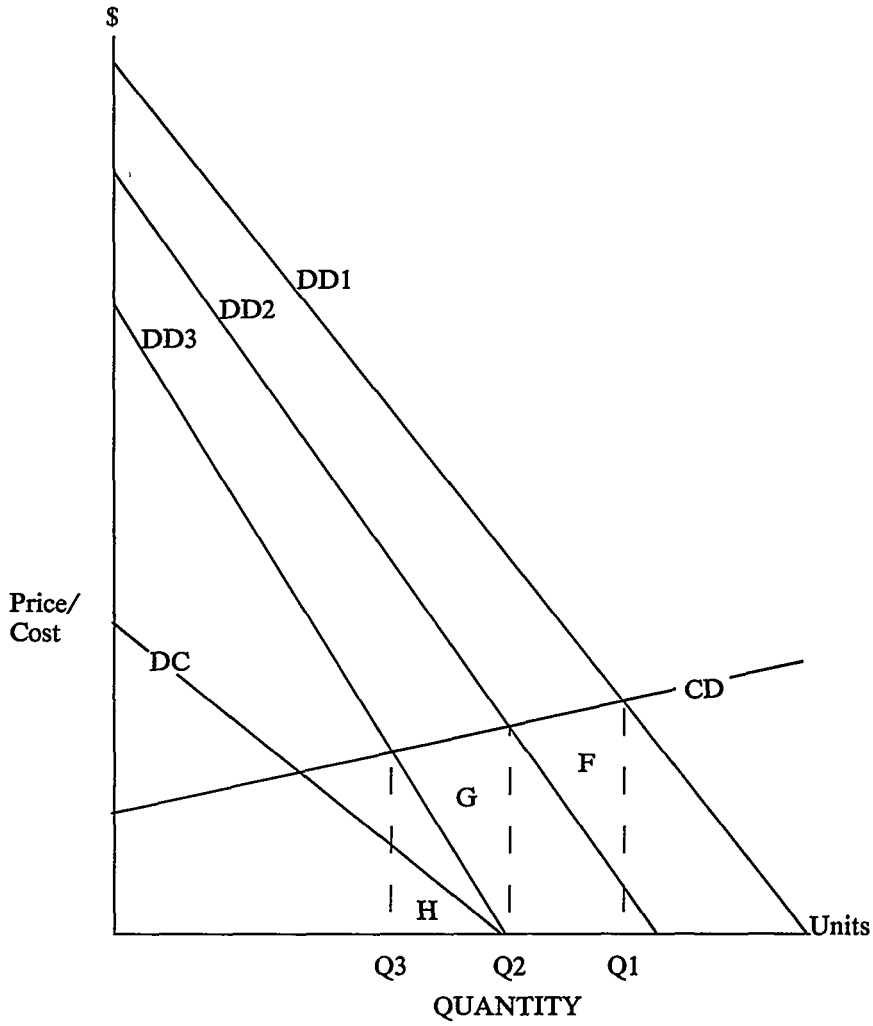
Curves *DD1, DD2,* and *DD3* represent the Victim's demands at three times for any edible good, say, Gadgets. As his assets are eaten, his ability to pay and therefore the rents in his existing inventory of Gadgets decline, a feature illustrated by the downward shifts in his demand over the course of two vulture raids. Because in a world in which assets are not perfectly divisible the remaining wealth tends to be more highly concentrated in specialized or idiosyncratically valued goods and some demand for Gadgets remains, we suppose that Gadgets are specialized or uniquely valued. The downward shifts are also accompanied by a steepening effect to illustrate that the demand for whatever remains tends to become increasingly inelastic.[108]

Curve *CD* represents the marginal opportunity cost to the Victim of holding Gadgets, which is itself a function of two determinates: how much he values the other assets in his inventory which he would have to give up in order to acquire more Gadgets, and the costs of converting those other assets into Gadgets should he ever decide to do so. If the market conversion costs remain relatively constant but, as his total wealth declines his demand for his remaining assets declines along with it, his cost of holding Gadgets also increases; thus *CD* is shown having a positive slope, depicting lower costs of holding Gadgets at lower levels of wealth.

DC shows the amount vultures would be willing to pay to ensure that Victim kept varying stocks of edible assets for them to snack on,

108. Elasticity is simply a measure of responsiveness of demand. It measures how much the amount demanded will change if the price changes. When demand is elastic, small price changes have big effects on the quantity demanded. When it is inelastic, the amount demanded changes very little as price fluctuates. The reasons for concluding that the demand of Victims in distress for the goods they already hold becomes increasingly inelastic relate to the changing character of the victim's portfolio as his wealth declines. The tendency of the assets which remain to be of the more specialized or idiosyncratically valued variety noted in the discussion above, *see supra* text following note 79, means satisfactory substitutes for them are less likely to be easily available in the market or elsewhere. Demand for goods that have easily available, satisfactory substitutes tends to be elastic. Demand for goods that don't tends to be more inelastic. In addition, the reduced portfolio is more likely to be highly concentrated with goods regarded by the Victim as "necessities." Demand for necessities tends to be more inelastic than demand for luxuries. *See, e.g.,* J. HIRSHLEIFER, *supra* note 52, at 130-31.

GRAPH ONE



measured in terms of Gadgets. At high inventory levels, Victim keeps more Gadgets and equivalents than vultures anticipate ever wanting to eat — in other words, they can get full on *Q2* Gadget-equivalents. At inventory levels below *Q2,* however, they face some prospect of going hungry and would be willing to give up something to avoid that prospect. Thus, the total welfare gains experienced by vultures from Victim's decision to hold Gadgets and other edible assets are represented by the area under *DC.*[109]

109. That vultures can be external beneficiaries of Victims' wealth is a consequence of the economic weakness of the Victims' legal entitlements to their assets. Property law gives you a right to exclude others from the benefits of your activity. It does not, however, necessarily give

Now suppose when the Victim's taste for Gadgets is represented by *DD1,* his Bezzt is taken. The drop in his total wealth reduces his desire for Gadgets to the level shown by *DD2.* The optimal number of Gadgets to hold will accordingly drop from *Q1* to *Q2.* In order to recover the welfare loss of now holding more Gadgets and fewer Bezzts than he really wants (equal to the area of triangle *F*) Victim will sell off *Q1* - *Q2* Gadgets and reinvest the proceeds in a replacement Bezzt. The portfolio adjustment benefits Victim by the value of *F.* (*F* is how much the Victim would prefer holding a replacement Bezzt instead of *Q1* - *Q2* Gadgets.) As long as he continues to hold at least *Q2* Gadgets and equivalents, however, the vultures are indifferent to his decision to liquidate Gadgets. If Gadgets and Bezzts are viewed as close substitutes by vultures, they may either be indifferent, or even applaud the decision to add another Bezzt.

When, however, at the reduced *DD2* level of wealth, the vultures make an additional Bezzt raid, Victim's desire for Gadgets will decline still further to *DD3.* Part of the decline is attributable to the additional wealth lost. Part may also result from the discounting of value of Gadgets resulting from the increasing probability that vultures may start to eat them up as well. By now, however, the possibility of raids on any other edible assets makes it unattractive to adjust by investing in them. The desire to acquire the next most valued inedible asset may now exceed the desire to acquire an additional Gadget so that loss minimization is possible by converting the now excess Gadgets into inedible assets. As a result, Victim will sell off *Q2* - *Q3* Gadgets, making himself better off by the amount of triangle *G,* which is, in effect, the rents gained from owning the new inedible asset. Unlike the aftermath of the first adjustment, however, vultures are no longer indifferent. They experience no gain from the acquisition of the replacement inedible asset, and the drop in Gadget holdings erodes their welfare by an amount equal to triangle *H.*

Whether in the aggregate the welfare gains by Victims from portfolio adjustments, which reduce their inventories of any edible asset be-

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you a cheap way to accomplish that exclusion. If you want a grand piano and you know that it will make your mother happy if you have one, the only practical way of excluding her from that happiness in order to induce her to pay you for her pleasure is to forgo getting the piano in the first place, which means that you must risk the entire rent value of the piano.

Until credit contracts become enforceable, it is difficult for Victims to obtain agreements from vultures to pay for the benefits in any case, although as we shall see later, once vultures become creditors the existence of credit markets may result in having those benefits paid for. If credit contracts actually exist in which debtors promise creditors to maintain specified levels of net worth, or loan-to-value ratios for collateral, there is empirical reason to believe that creditors actually pay for such assurances in the real world. The current Bankruptcy Code has no provisions giving priority to creditors who make such payments over those who apparently do not.

low the level of *Q2,* outweigh the losses to vultures depends on the likelihood that $H < G$. That will, in turn, depend on the relative shapes of *DD3* and *DC.* Note that as Victim's demand becomes more inelastic, the area of *G* tends to increase, and the same relationship exists between the area in *H* and the inelasticity of *DC.* To digress for a moment, if vultures were well diversified creditors and Victims were strapped debtors, there are reasons to believe that any single Victim's demand will be less elastic than the aggregate demand of many Vultures,[110] a fact which would justify permitting Victims to do with their assets what they want, and place the burden on the vultures to pay the appropriate Coasian bribes[111] in order to induce maintenance of optimal inventory levels of Gadgets.

The fact that welfare conflicts potentially exist between vultures and Victims means that Victim's interests are not wholly derivative of the vultures' welfare. If vultures were creditors, and creditors' remedies were invented, one might anticipate that some creditors would pay the bribes by taking security interests. Others, of course, might decide not to, in which case they take the risk of remaining unsecured. In other words, once the law enforces creditors' claims, there is reason to hope that any welfare conflicts which exist between debtors and creditors could be resolved in their *ex ante* credit contracts.

110. If a drop in price causes me to purchase an additional Bezzt, and the same drop induces you to purchase an additional Bezzt, it is easy to see that our aggregate response to the price change is greater than the response of either one of us looked at alone. Generally, the greater the responsiveness of demand, the more elastic we say it is. That is why aggregate or market demand curves are more responsive (elastic) than individual demand curves.

111. *See* Coase, *supra* note 71.