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ACCELERATED RESOLUTION OF FINANCIAL DISTRESS

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In principle, debt can bond a firm's management to diligence and wise investment of corporate assets. In practice, however, management can escape the ties of this bond through new capital infusion prior to financial collapse. When management pursues this tactic, insolvent corporations may enter bankruptcy too late, after an unnecessary economic decline. To address this problem, a beneficial modification of bankruptcy's voidable preference rules would permit a trustee to invalidate loan terms favorable to a creditor on any loan made while a debtor is insolvent if that loan is used to repay an earlier claim. This modification would deprive an insolvent firm of resources its managers can now use to stave off bankruptcy supervision. As a result of this modification, corporate bankruptcy would occur earlier in the financial distress of a firm, before managers could unduly dissipate the firm's value. The reasoning that supports this proposed modification, moreover, corrects sixty years of judicial error in the analysis of "earmarked loan" transactions.

INTRODUCTION

The seemingly inexorable rise of recent stock prices distracts attention from the fact that individual corporations can perform poorly. General Motors, for example, lost seven billion dollars from its North American automotive operations in 1991 alone.¹ As astonishing as it may seem, this loss was merely a manifestation of deeper problems. Between 1980 and 1990

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1. See MARK J. ROE, *STRONG MANAGERS, WEAK OWNERS: THE POLITICAL ROOTS OF AMERICAN CORPORATE FINANCE* 9 (1994).

the company invested nearly seventy billion dollars in capital expenditures to create a company worth about one hundred billion dollars less than alternative investments would have yielded.² These losses are simply explained. General Motors produced unpopular cars that cost too much to manufacture. Tens of thousands of workers lost their jobs in the process.³ Unfortunately, General Motors is not an isolated example. Other failures in the product market that led to substantial losses over the same period include IBM and Eastman Kodak, just to choose household names.⁴ These companies may have merely suffered bad luck. But it is also possible that their managers succumbed to indolence, incompetence, or megalomania. To the extent the losses were avoidable, checks on managerial misbehavior, from independent directors or from the fear of takeover, proved ineffective. According to finance economist Michael Jensen, managers "seldom respond in the absence of a crisis."⁵ For General Motors, IBM, Kodak, and others, crisis came too late or not at all.⁶

If losses stem from a lack of financial distress, then there may be benefit from the encouragement of such distress. In theory, debt finance can rapidly translate product failure into financial crisis and thus induce managerial action or the replacement of management. If General Motors, for example, had carried more debt and less equity capital, poor sales might have led the company to default on its obligations well before the early 1990s and well before the company suffered so substantial a setback.⁷ The prospect of such

2. See Michael C. Jensen, *The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems*, 48 J. FIN. 831, 858 (1993).

3. See ROE, *supra* note 1, at 9.

4. See Jensen, *supra* note 2, at 853. See generally Amar Bhide, *Efficient Markets, Deficient Governance*, HARV. BUS. REV., Nov.-Dec. 1994, at 128.

5. Jensen, *supra* note 2, at 852.

6. The losses described largely reflect too much investment in research and development expenditures. This observation is inconsistent with the popular perception that short-sighted American managers neglect appropriate research and development expenditures in favor of more immediate profits. For a description of such perception, see ROE, *supra* note 1, at 12-13. As the evidence discussed above suggests, the perception may be more popular than true. In any case, suffice it to say here that managers of some firms inefficiently overinvest in research and development. These firms might have benefited from more debt for reasons described below.

7. This speculation is not certain, of course. To the extent General Motors' wasted capital expenditures were funded with retained earnings from earlier periods, the losses described would not have precipitated a crisis despite additional debt. In the face of accumulated earnings, an aggressive combination of new debt and dividends or stock repurchases as earnings accrued would have kept the company on the edge of default—a potentially desirable state as explained in the text. A strategy of dividend payment, or stock repurchase, therefore, may be an essential counterpart to debt as a disciplinary device. See Frank H. Easterbrook, *Two Agency-Cost Explanations of Dividends*, 74 AM. ECON. REV. 650 (1984). Debt alone, however, imposes some discipline despite the possibility of excess retained earnings. A further discussion of dividends, or of stock repurchases, would complicate the analysis for little purpose.

default might have impelled a quicker reaction to market forces. This is so because managers fear that financial failure will cost them their jobs⁸ and because the value of a successful, leveraged firm can be more concentrated in equity investors, including the managers, who remain after debt substitutes for some equity.⁹ If management of a more highly leveraged General Motors had been unable to prevent an early default, despite the incentive to do so, the creditors could have transferred control of the company to managers who might have done better. If that had been impossible, the creditors or a new management team could have sold off the assets to other, more productive, companies. As it was, the directors of General Motors did not replace its chief executive officer until 1992, after the losses had become great.¹⁰ Contrast General Motors with Yamaichi Securities Company, once the oldest and one of the largest brokerage firms in Japan. After it became apparent that Yamaichi could not meet its debt obligations, the firm announced that it would have to liquidate its assets rather than continue to lose money.¹¹ Thus, debt can provide discipline that equity finance cannot. In simple terms, discipline is at the core of debt's economic value.¹²

This standard story of debt is correct within the confines of its simple heuristic. But the story is incomplete. For debt to serve the described

8. Managers often have interests in their jobs that they cannot readily replace with alternative employment. See generally Susan Rose-Ackerman, *Risk Taking and Ruin: Bankruptcy and Investment Choice*, 20 J. LEGAL STUD. 277 (1991) (discussing managers' stake in their firms, such as stock compensation schemes and reputational concerns). Failure frequently leads to dismissal of top management. See Stuart C. Gilson, *Bankruptcy, Boards, Banks, and Blockholders: Evidence on Changes in Corporate Ownership and Control When Firms Default*, 27 J. FIN. ECON. 355, 369 (1990); Lynn M. LoPucki & William C. Whitford, *Corporate Governance in the Bankruptcy Reorganization of Large, Publicly Held Companies*, 141 U. PA. L. REV. 669, 723-37 (1993).

9. For a seminal article on the theory of managerial incentives, see Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305 (1976).

10. See Jensen, *supra* note 2, at 853.

11. As the popular press described this event, "The collapse of the Yamaichi Securities Company was not a particular shock in Japan, where predictions had been building for months that the nation's oldest brokerage firm, saddled by debts and mismanagement, would go out of business." Stephanie Strom, *Tokyo Squirms over Questions About Hidden Losses at Yamaichi*, N.Y. TIMES, Nov. 25, 1997, at D1. As the title suggests, the same article explains that Yamaichi is not an unqualified success story for the role of debt in capital structure. This point is explained below.

12. See, e.g., OLIVER E. WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM* 304-07 (1985); Sanford J. Grossman & Oliver D. Hart, *Corporate Financial Structure and Managerial Incentives*, in *THE ECONOMICS OF INFORMATION AND UNCERTAINTY* 107 (John J. McCall ed., 1982); Michael C. Jensen, *Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers*, 76 AM. ECON. REV. 323, 324 (1986). Debt is valuable also because it can address information asymmetries. See Stewart C. Myers, *The Capital Structure Puzzle*, 39 J. FIN. 575 (1984). A discussion of such economic value is beyond the scope of this Article. Beyond its economic value, debt can provide investors with tax advantages that equity cannot. Analysis of these advantages, which create perverse incentives for debt, would neither add to nor detract from the contributions of this Article.

disciplinary function, a firm's economic failure must result in default and transfer of assets to the firm's creditors. That is, the debt obligation must have bite. If a firm consisted of a single project, or a series of projects, financed at once with the entire repayment due at the project's completion, debt would discipline management in the way described by the basic model. Equity would earn a return only if a project succeeded and managers would engineer success or lose control of the firm. The basic model, however, is simplistic. It inadequately represents firms with multiple projects that arise over time and are financed with obligations of various maturities.¹³ In such a firm, a project may fail or partially fail without immediate consequence to equity or management. If some, but not all, debt is due after a failed project renders the firm cash starved, the managers might have the firm borrow anew to satisfy the matured obligation. With the new loan, the managers could, at least temporarily, preserve their own jobs. Moreover, the new loan could preserve equity's stake in the firm, which would be valuable if future projects succeeded despite the initial failure. Success would not be certain, however. So the terms of the new loan would reflect the known extent of current failure and the risk of further deterioration. If continuation of the firm's remaining projects did not in fact accomplish a reversal of fortune, the price of the new loan would be borne by the holders of general unmatured claims.¹⁴ Absent protection for these unmatured obligations, then, management and equity can use new capital to avoid debt's discipline and continue their interests in a firm—a gamble paid for by extant early creditors. Early creditors can, and do, attempt to protect themselves with covenants that seek to condition or restrict the firm's subsequent debt. But it is not always possible to observe the circumstances of, or transgressions by, a distressed firm, whose managers might have the firm borrow despite an obligation to refrain. Indeed, before Yamaichi finally closed its doors, that firm's losses mounted while it borrowed new funds to satisfy current commitments.¹⁵

13. A general description of why a firm might finance its projects with debts of varying maturities is beyond the scope of this Article. For an account of how debtors generally choose the maturity structures of their debt obligations, see, for example, Douglas W. Diamond, *Debt Maturity Structure and Liquidity Risk*, 106 Q.J. ECON. 709 (1991). The discussion below addresses the specific case of early maturity as a substitute for collateral.

14. One might wonder why early creditors would be general creditors. That is, one might assume that such creditors would take security for their loans. See generally Alan Schwartz, *A Theory of Loan Priorities*, 18 J. LEGAL STUD. 209 (1989). Advantages of general-creditor screening and monitoring, as well as the transaction costs of refinance, provide potential explanations for unsecured debt. See Barry E. Adler, *Secured Credit Contracts*, in 3 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 405 (Peter Newman ed., 1998) (surveying literature on secured credit contracts); see also Barry E. Adler, *An Equity-Agency Solution to the Bankruptcy-Priority Puzzle*, 22 J. LEGAL STUD. 73 (1993) (describing benefits to publicly traded firms from unsecured debt).

15. See Stephanie Strom, *Fourth-Biggest Brokerage House in Japan Is Considering Closing*,

Only later, after *further* borrowing became impossible and liquidation inevitable, did Yamaichi reveal hidden losses and liabilities, including some from apparently illegal activities.¹⁶ Thus, partial refinance of a distressed firm can lead to costly continuation.

The specter of inefficient continuation, referred to as “overinvestment,” may be a favorable one for employees and communities of a firm that would otherwise liquidate. But the good fortune of some can be a cost for potential employees and communities of businesses that could have made better use of the firm’s assets.¹⁷ These costs, combined with the direct costs of inefficient continuation, may be unacceptable. Yet, in the United States, the danger of overinvestment is overlooked, or ignored, by most legal regulation of corporate debtors. For example, the Uniform Commercial Code permits priority for later lenders who take a security interest in the assets they provide a debtor, even an insolvent debtor,¹⁸ prior to bankruptcy.¹⁹ And the Bankruptcy Code enables a debtor in bankruptcy to obtain new loans on terms that were unavailable prebankruptcy.²⁰ To be sure, these provisions keep financially distressed firms alive, as new loans kept Yamaichi alive for a time. The alternative might be the dissolution, not only of economic failures, such as Yamaichi, but of valuable enterprises. Like overinvestment, failure to finance efficient projects, referred to as “underinvestment,” is a cost to be accounted for in the design of insolvency rules. But the law’s uniform tendency to encourage investment, and thus to mitigate underinvestment, arbitrarily exacerbates overinvestment.²¹ A balance would be preferable.

A balance between over- and underinvestment could be struck with a regime that discouraged partial refinance of an insolvent firm, that is, one with fewer assets than liabilities.²² Such a regime would yield early default

N.Y. TIMES, Nov. 22, 1997, at D1.

16. See Stephanie Strom, *Big Japanese Securities Firm Falls, Putting the System on Trial*, N.Y. TIMES, Nov. 24, 1997, at A6; Strom, *supra* note 11, at D1.

17. Compare Elizabeth Warren, *Bankruptcy Policy*, 54 U. CHI. L. REV. 775 (1987), with Douglas G. Baird, *Loss Distribution, Forum Shopping, and Bankruptcy: A Reply to Warren*, 54 U. CHI. L. REV. 815 (1987).

18. Insolvency is defined, in relevant part, by the Bankruptcy Code as the “financial condition such that the sum of [an] entity’s debts is greater than all of such entity’s property, at a fair valuation.” 11 U.S.C. § 101(32) (1994).

19. See U.C.C. § 9-312 (1977). For a complete explanation of this so-called “purchase money priority,” see Schwartz, *supra* note 14.

20. See 11 U.S.C. § 364.

21. For a description of the tradeoffs between over- and underinvestment, see Elazar Berkovitch & E. Han Kim, *Financial Contracting and Leverage Induced Over- and Under-Investment Incentives*, 45 J. FIN. 765 (1990).

22. See *supra* note 18. Other measures of distress, short of or beyond insolvency, could be used to trigger such discouragement, but insolvency is a traditional demarcation of distress and adequately serves the discussion here. See, e.g., 11 U.S.C. §§ 547, 548.

and an acceleration of crisis that would leave little room for overinvestment. Thus, debt would do its disciplinary work. Once a firm defaulted, court supervision in bankruptcy, or the consensual reorganization of the firm's capital structure, could induce the firm to choose the more efficient of new investment or liquidation. That is, rules designed indiscriminately to discourage investment by an insolvent firm could quickly subject the firm to a process that remedied insolvency and encouraged neither over- nor underinvestment.

Government regulation need not be the source of this process. Indeed, my own scholarship has been devoted largely to the explanation of how business firms could, but for legal impediments, adopt malleable capital structures that would obviate the need for corporate bankruptcy law or any alternative regulation of corporate insolvency.²³ Other commentators also have considered nonregulatory alternatives to bankruptcy law.²⁴ Any insolvency regime, whatever its source, needs to address the problem of inefficient continuation from new capital invested prior to a default. Neither bankruptcy law nor any proposed alternative currently addresses this problem adequately. Because applicable law is more familiar, and more likely to be modified than replaced, the discussion in this Article will accept as given the essential structure of corporate reorganization under Chapter 11 of the United States Bankruptcy Code.²⁵ The proposed adjustments to current bankruptcy law, described below, easily could be incorporated in a substitute for bankruptcy law should any such substitute become feasible.

A more detailed analysis of partial debt refinance begins in Part I with a discussion of the "earmarking doctrine." The doctrine is a common-law exception to the Bankruptcy Code's voidable preference rules. Generally,

23. See Barry E. Adler, *A Theory of Corporate Insolvency*, 72 N.Y.U. L. REV. 343 (1997) [hereinafter Adler, *Corporate Insolvency*]; Barry E. Adler, *A World Without Debt*, 72 WASH. U. L.Q. 811 (1994); Barry E. Adler, *Bankruptcy and Risk Allocation*, 77 CORNELL L. REV. 439 (1992); Barry E. Adler, *Finance's Theoretical Divide and the Proper Role of Insolvency Rules*, 67 S. CAL. L. REV. 1107 (1994) [hereinafter Adler, *Finance's Theoretical Divide*]; Barry E. Adler, *Financial and Political Theories of American Corporate Bankruptcy*, 45 STAN. L. REV. 311 (1993) [hereinafter Adler, *Financial and Political Theories*].

24. See Michael Bradley & Michael Rosenzweig, *The Untenable Case for Chapter 11*, 101 YALE L.J. 1043 (1992); Alan Schwartz, *Bankruptcy Workouts and Debt Contracts*, 36 J.L. & ECON. 595 (1993); Alan Schwartz, *Contracting About Bankruptcy*, 13 J.L. ECON. & ORG. 127 (1997) [hereinafter Schwartz, *Contracting About Bankruptcy*].

25. See 11 U.S.C. §§ 1101-1174 (1994). Other countries have similar regimes—the United Kingdom, for example. See Insolvency Rules, S.I. 1986, No. 1925; Insolvency (Amendment) Rules, S.I. 1987, No. 1919; Insolvency (Amendment) Rules, S.I. 1989, No. 397; see also Nick Segal, *An Overview of Recent Developments and Future Prospects in the United Kingdom*, in CURRENT DEVELOPMENTS IN INTERNATIONAL AND COMPARATIVE CORPORATE INSOLVENCY LAW 5, 5 (Jacob S. Ziegel ed., 1994) (describing Chapter 11 as "guiding light" for a number of countries).

when an insolvent debtor fully repays an unsecured creditor within ninety days of the debtor's bankruptcy filing, the bankruptcy trustee may avoid the payment.²⁶ That is, the bankruptcy trustee can collect the amount of the payment from the creditor. If, however, the proceeds of a new unsecured loan are paid directly to satisfy the prior loan, or are "earmarked" to retire such loan, the doctrine holds that the trustee may not avoid the debtor's deemed payment or payment to the original creditor.²⁷ The judicial analysis behind the exception is that when one unsecured creditor replaces another, a debtor's remaining creditors are unaffected, left with the same relative priority as before the earmarked loan.

A critique, *not* of the earmarking doctrine itself, but of the judicial analysis, generally illuminates transactions for partial debt refinance. Part II provides this critique. Courts misunderstand the nature of earmarked loans because they have before them loans only from those cases in which the debtor fails to avoid bankruptcy during the preference period. As a result of this selection bias, the courts take a static view of earmarked loans and do not recognize that the loans are made as part of a dynamic investment process through which some debtors will fail while others succeed. Were the courts to have a broader perspective, they would see that, in an arm's-length transaction, a new lender to an insolvent debtor would not pay a prior lender in full merely to await partial repayment of the same sum from the debtor's imminent bankruptcy. If the new lender is not granted priority, the lender will demand a high interest rate on, or an early maturity of, its loan to be paid if the debtor initially survives its financial difficulties. Prior unsecured creditors who are unprotected or insufficiently protected by loan covenants may remain to bear the risk of a subsequent crisis and a more deeply insolvent debtor. That is, an earmarked loan is a subset of loans obtained by insolvent debtors to avoid debt's discipline and to continue operation of a debtor's business without court supervision or reorganization. As such, a debtor can use earmarked and other loans for selective repayment to finance overinvestment, which can serve the debtor's managers and equity investors at the expense of the firm's creditors as a group and society as a whole. It seems plausible to conclude, therefore, that both early creditors and net social welfare suffer as a consequence of new loans used to repay old debts.

Part III offers a potential solution to the problem of earmarked and

26. See 11 U.S.C. § 547 (1994).

27. See *infra* Part I. The result would be the same if the new loan repaid a prior nonconsensual claim. Because analysis in this Article is couched in terms of debt's *designed* disciplinary function, there is an assumption throughout that all debt obligations are consensual unless otherwise specified. This assumption simply aids exposition. No conclusion turns on the assumption.

general loans that partially refinance a debtor's obligations. The solution is not to reject the earmarking doctrine. Ironically, the recapture of funds paid on account of an antecedent debt would likely exacerbate the problem of new capital as a vehicle for debtor deterioration. Instead, a new set of voidable preference rules could be directed to the source of the problem—the *new* loans. To the extent that a new loan replaces an old loan at a higher interest rate than the old, or at a shorter maturity than the longest maturity of a loan then outstanding, repayment of the new loan should be voidable. This rule should apply both to loans earmarked for repayment and to loans not earmarked but so used. A broad rule is appropriate because earmarking does not exhaust the problem of debt refinance by an insolvent corporation. Rather, earmarking gives rise to cases that provide a lens through which to make a general, though controversial, point: When a firm becomes insolvent and unable to pay its obligations as they become due, bankruptcy law should restrict, not facilitate, the debtor's acquisition of new capital. Alternatives are considered. A still broader rule would invalidate all new loans made to an insolvent debtor, however the debtor applied the loan proceeds. Whether or not such a draconian rule is advisable, a strong case can be made for a rule that would prevent a debtor from the indefinite avoidance of its judgment day. The result would be earlier bankruptcy but need not be premature termination of the debtor's business where such business could efficiently continue.

I. THE EARMARKING DOCTRINE

Although finance economists have long understood that partial debt refinance can, under certain circumstances, inefficiently delay the onset of an insolvent firm's bankruptcy,²⁸ the concept has not found its way to judicial opinions. One might have thought that the bankruptcy courts, which preside over failed firms, would be in an ideal position to appreciate and perhaps extend the economists' observations. This prediction might seem bolstered by the fact that the courts have for many years considered the effects of earmarked loans, that is, loans directed by a new lender to repay an antecedent obligation. Despite any such expectation, courts have shed little light on the topic. To understand why, and to arrive at the proper analysis of

28. For example, Jeremy I. Bulow and John B. Shoven describe how a coalition between equity and bank lenders can inefficiently continue an insolvent firm at the expense of other lenders. See Jeremy I. Bulow & John B. Shoven, *The Bankruptcy Decision*, 9 BELL J. ECON. 437 (1978); see also Robert Gertner & David Scharfstein, *A Theory of Workouts and the Effects of Reorganization Law*, 46 J. FIN. 1189, 1195 (1991) (describing how conflicting incentives on outstanding debt can lead to inefficient continuation decisions).

partial debt refinance, it is helpful first to consider the development of the earmarking doctrine, which has led the courts astray.

A. Guarantor Roots

The precursor to the earmarking doctrine called off bankruptcy's voidable preference rules for eve-of-bankruptcy payments by a guarantor of a debtor's obligation.²⁹ In *National Bank v. National Herkimer County Bank*,³⁰ for example, the Newport Knitting Company, a debtor at the turn of the twentieth century, purchased machinery and supplies on credit. The supplier, the Titus Sheard Company, endorsed the debtor's note to a bank.³¹ Later, the supplier paid the bank directly and took back the note.³² After this payment, but within the then-applicable preference period of four months,³³ the debtor entered bankruptcy.³⁴ Then, as now, the bankruptcy law provided in essence that a transfer of the debtor's property within the proscribed period was voidable if the transfer was to, or for the benefit of, a creditor who was made better off than other creditors of the same priority.³⁵ Pursuant to this

29. The doctrine makes no distinction among legal forms of guaranty—simple contract, surety, endorsement, etc. Therefore, I will make no such distinction.

30. 225 U.S. 178 (1912).

31. *See id.* at 181.

32. *See id.* at 182.

33. *See* Bankruptcy Act of July 1, 1898, ch. 541, § 60a, 30 Stat. 544, 562 (codified as amended at 11 U.S.C. §§ 101-1330 (1994)).

34. *See National Herkimer County Bank*, 225 U.S. at 180.

35. More precisely, the law that the Court applied in *National Herkimer County Bank* was provided by the Bankruptcy Act of 1898:

Sec. 60. PREFERRED CREDITORS.—a. A person shall be deemed to have given a preference if, being insolvent, he has procured or suffered a judgment to be entered against himself in favor of any person, or made a transfer of any of his property, and the effect of the enforcement of such judgment or transfer will be to enable any one of his creditors to obtain a greater percentage of his debt than any other of such creditors of the same class. . . .

b. If a bankrupt shall have given a preference within four months before the filing of a petition, or after the filing of the petition and before the adjudication . . . it shall be voidable by the trustee

Bankruptcy Act of July 1, 1898, ch. 541, § 60, 30 Stat. 544, 562.

Today, 11 U.S.C. § 547(b) provides:

Except as provided in subsection (c) of this section, the trustee may avoid any transfer of an interest of the debtor in property—

(1) to or for the benefit of a creditor;

(2) for or on account of an antecedent debt owed by the debtor before such transfer was made;

(3) made while the debtor was insolvent;

(4) made—

(A) on or within 90 days before the date of the filing of the petition; or

(B) between ninety days and one year before the date of the filing of the petition, if such creditor at the time of such transfer was an insider; and

(5) that enables such creditor to receive more than such creditor would receive if—

provision, the bankruptcy trustee sought to recover from the bank the amount of the supplier's payment.³⁶ The trustee's argument was that the payment constructively came from proceeds of an implicit new loan by Titus Sheard.³⁷ As such, the trustee reasoned, the payment came indirectly from the debtor and made the bank, as a general creditor, better off than it would have been had it been left to collect ratably with other creditors from the insolvent debtor's assets.³⁸

In an opinion by Justice Hughes, the Supreme Court rejected the trustee's argument.³⁹ The Court recognized that a creditor could, theoretically, benefit in a prohibited manner from an indirect transfer. The Court reasoned:

To constitute a preference, it is not necessary that the transfer be made directly to the creditor. It may be made to another for his benefit. If the bankrupt has made a transfer of his property, the effect of which is to enable one of his creditors to obtain a greater percentage of his debt than another creditor of the same class, circuitry of arrangement will not avail to save it.⁴⁰

The Court, however, disagreed that a trustee may avoid and recover a transfer merely because it relieves a debtor of an obligation and benefits the creditor who is the recipient of the transfer.⁴¹ In the words of the Court:

It is not the mere form or method of the transaction that the act condemns, but the appropriation by the insolvent debtor of a portion of his property to the payment of a creditor's claim, so that thereby the estate is depleted and the creditor obtains an advantage over other creditors. . . .

. . . [U]nless the creditor takes by virtue of a disposition by the insolvent debtor of his property for the creditor's benefit, so that the estate of the debtor is thereby diminished, the creditor cannot be

(A) the case were a case under chapter 7 of this title;

(B) the transfer had not been made; and

(C) such creditor received payment of such debt to the extent provided by the provisions of this title.

11 U.S.C. § 547(b) (1994).

36. See *National Herkimer County Bank*, 225 U.S. at 183. Provisions for recovery appeared in section 60b of the Bankruptcy Act of 1898 and appear in section 550 of the Bankruptcy Code.

37. See *id.*

38. See *id.*

39. See *id.* at 184-85.

40. *Id.* at 184.

41. See *id.* at 184-85.

charged with receiving a preference by transfer.⁴²

Applying the law to the case at hand, the Court concluded:

[T]he payment to the bank did not proceed from the bankrupt, the Newport Knitting Company. The Titus Sheard Company had a standing quite apart from its relation to the Newport Knitting Company as a debtor in the account. In the transaction with the bank, the Titus Sheard Company acted on its own behalf. . . . Neither directly nor indirectly was this payment to the bank made by the Newport Knitting Company, and the property of that company was not thereby depleted.

The fact then is not, as it is contended, that “the bankrupt parted with property to the amount of the note and the bank received it,” but rather that the bankrupt parted with nothing, and the bank received the money of the endorser and redelivered to the endorser the paper and collateral.⁴³

The Court held that there was no voidable preference.

Thus, in this cogently reasoned opinion, the Supreme Court rejected the notion that the trustee can avoid any preference-period satisfaction of a claim against an insolvent debtor. Avoidance depends on a transfer of the debtor’s property. When a guarantor pays a loan it is obligated to pay, the guarantor becomes subrogated to the rights of the creditor. From the debtor’s perspective, *nothing* has happened other than a change in the identity of the person to whom a debt is owed. As the Court noted, there is no transfer of the debtor’s property and, consequently, no depletion of the debtor’s estate.

B. Metamorphosis

The Supreme Court might have decided *National Herkimer County Bank* without any reference to diminution of the debtor’s bankruptcy estate. The statute provided that a trustee could, under specified circumstances, avoid a transfer of the debtor’s property.⁴⁴ No provision required the trustee to show that the estate of the debtor was thereby diminished. Because the Court decided that there is no transfer of a debtor’s property when a guarantor satisfies its obligation, it quite naturally concluded that an estate is not diminished by such satisfaction. The Court was not presented with a

42. *Id.* at 184.

43. *Id.* at 185.

44. See Bankruptcy Act of July 1, 1898, ch. 541, § 60b, 30 Stat. 544, 562; *National Herkimer County Bank*, 225 U.S. at 183-84.

challenge to a transfer of the debtor's property that arguably does not diminish the estate. Its comment on diminution was merely dictum.

Subsequent to *National Herkimer County Bank*, lower courts took the Supreme Court's dictum to heart. Courts were asked to decide the case of a guarantor's payment that, at least formally, did come from the debtor's property. In a typical case, on the eve of an insolvent debtor's bankruptcy, a guarantor submits funds to the debtor with instructions that the debtor repay the loan on which the guarantor is liable. The debtor obeys the instructions and the trustee later attempts to avoid the transfer on the ground that the funds channeled through the debtor are property of the debtor. Presented with these facts, courts have rejected the trustee's position. The courts might have relied entirely on the notion that the transferred funds are, in essence, held in trust for the creditor, or never under the control of the debtor, and thus are not at any time property of the debtor. The debtor gives the guarantor nothing new in exchange for these funds and thus lacks any power to negotiate over their disposition. With respect to the transfer, the debtor is merely the guarantor's agent. Some courts adopted, and some still adopt, such a notion as part of their holdings.⁴⁵ Courts, however, have not relied *entirely* on the argument that funds do not belong to a debtor merely because they move through the debtor. Instead, courts have rested on the dictum from *National Herkimer County Bank*. As noted in the well-known case of *McCuskey v. National Bank (In re Bohlen Enterprises, Ltd.)*,⁴⁶ "almost every opinion emphasizes that the result involves 'no diminution' in the debtor's estate."⁴⁷ This dual consideration, of property and of diminution, while redundant in the guarantor case, has proven significant in another setting, that of the earmarked loan from a nonguarantor.

The facts of an earmarked loan case are simple. A new lender repays or directs the repayment of a debtor's outstanding loan. The new lender may, as a mere convenience for the debtor, pay the loan directly.⁴⁸ Or, if the loan to be repaid is secured, in whole or in part, and the new loan is to be secured, in whole or in part, by collateral of the outstanding loan, the new lender may insist that it repay the old loan directly or may instead require application of the new loan proceeds to the old loan. This assures the new lender that the

45. See, e.g., *Howdeshell of Ft. Myers v. Dunham-Bush, Inc. (In re Howdeshell of Ft. Myers)*, 55 B.R. 470, 474 (Bankr. M.D. Fla. 1985); *Hargadon v. Cove State Bank (In re Jaggars)*, 48 B.R. 33, 36 (Bankr. W.D. Tex. 1985).

46. 859 F.2d 561 (8th Cir. 1988).

47. *Id.* at 566.

48. See, e.g., *Steinberg v. NCNB Nat'l Bank (In re Grabill Corp.)*, 135 B.R. 101, 104 (Bankr. N.D. Ill. 1991).

prior security interest will be released.⁴⁹ In any case, the key feature of an earmarked loan transaction, in contrast to a guarantor transaction, is the presence of a *new loan*. Because the debtor can bargain for desired terms, it is sensible to characterize the proceeds of the loan as property of the debtor, disposed of at the discretion of the debtor. If a bankruptcy trustee seeks to avoid an earmarked loan payment, the formal path of the funds, whether directly between creditors or through the debtor, should not matter. To again quote the Supreme Court in *National Herkimer County Bank*, if the debtor “has made a transfer of his property, the effect of which is to enable one of his creditors to obtain a greater percentage of his debt than another creditor of the same class, circuity of arrangement will not avail to save it.”⁵⁰ Courts might have followed this reasoning and concluded that any earmarked loan payment, unlike a guarantor payment, constitutes a transfer of the debtor’s property, and might have held voidable any such preference-period transfer made to an unsecured or undersecured creditor of an insolvent debtor. Courts have not taken this approach, however. Indeed, courts have not paused over the distinction between guarantor and earmarked loan cases. As the Eighth Circuit explained in *In re Bohlen*, “the courts, without much detailed analysis of the differences, have routinely made the extension to non-guarantors.”⁵¹ This “extension” focuses on whether the challenged transaction depletes the estate available to other creditors, a consideration that has never been required by statutory law.

To elaborate, the Sixth Circuit described the derivation of the earmarking doctrine in *Mandross v. Peoples Banking Co. (In re Hartley)*:⁵²

When a third person loans money to a debtor specifically to enable him to satisfy the claim of a designated creditor, the general rule is that the proceeds are not the property of the debtor, and therefore the transfer of the proceeds to the creditor is not preferential. This rule arose from *Grubb v. General Contract Purchase Corp.* In that case, . . . in a decision written by Judge Learned Hand, [the court] held that [an earmarked] payment was not preferential because . . . [t]he transaction merely substituted one creditor for another without loss to

49. See, e.g., *Tolz v. Barnett Bank (In re Safe-T-Brake, Inc.)*, 162 B.R. 359, 361 (Bankr. S.D. Fla. 1993). Note that the collateral alone will not insulate repayment of the old loan from preference challenge if the value of the collateral is less than the amount repaid and the loan is thus partially unsecured. In this case, a full repayment is more than the creditor would have received but for the earmarked transaction.

50. *National Bank v. National Herkimer County Bank*, 225 U.S. 178, 184 (1912).

51. *In re Bohlen*, 859 F.2d at 566.

52. 825 F.2d 1067, 1070 (6th Cir. 1987).

the estate.⁵³

Thus, as the bankruptcy statute requires, courts formally consider whether a challenged earmarked transfer is from property of the debtor. Logic notwithstanding, however, the answer to that question has become “no” if, in the courts’ view, the transfer does not ultimately diminish the bankruptcy estate.

The courts’ motivation in the conflation of the “debtor’s property” and the “estate depletion” questions is easy to understand. If loan proceeds move from one creditor to another, without more, it seems *as if* the transfer is not from property of the debtor, even if the debtor’s *ex ante* discretion over the terms of the new loan might suggest a different characterization. After all, reason courts, from the perspective of a debtor’s general creditors as a group, there is no difference between money in from the new lender followed by money out to the old on the one hand, and no money in or out on the other. Courts recognize that creditors are not indifferent to an earmarked transaction when the new lender takes a security interest in the debtor’s property and advances funds to repay an unsecured or less fully secured claim. In that case, as one bankruptcy court put it, “unsecured debt [is] turned into secured debt. Such a transaction clearly diminishes the [d]ebtor’s estate since, as a result, there are [fewer] assets available for the payment of the [d]ebtor’s unsecured creditors.”⁵⁴ But where, in a bankruptcy soon after an earmarked loan transaction, the new loan has no priority advantage over the old in the competition for assets, courts have concluded that the transaction does not harm the remaining creditors, who are the beneficiaries of the bankruptcy estate. Thus, courts do not characterize such an earmarked repayment as a voidable transfer of the debtor’s property.

Indeed, a court might have used a similar rationale to protect from challenge any repayment of an old loan with a new loan of no greater priority, regardless of whether the proceeds of the new loan are earmarked or left to the discretion of the debtor. No court has gone that far, perhaps because such a position would require a court to overlook the debtor’s posttransaction discretion over the loan proceeds. This position would represent a *glaring* disregard of the statutory preference rules, which explicitly disallow transfers of the debtor’s property, however benign to the estate. The debtor’s seeming lack of control over earmarked funds, in

53. *Id.* (citations omitted); see also *Grubb v. General Contract Purchase Corp.*, 94 F.2d 70 (2d Cir. 1938).

54. *Van Huffel Tube Corp. v. A & G Industries (In re Van Huffel Tube Corp.)*, 74 B.R. 579, 586 (Bankr. N.D. Ohio 1987).

contrast to unrestricted loan proceeds, provides courts with cover to reach a result that comports with reality as the courts see it: Earmarked loans are harmless and should be beyond challenge.

II. THE ECONOMICS OF EARMARKED AND KINDRED LOANS

A natural question in an examination of the earmarking doctrine is whether courts have correctly analyzed the consequences of earmarked loan transactions. Whatever quibble one might have with the courts' route to the doctrine, the end result would be economically acceptable if the courts are correct in their conclusion that the challenged loans are innocuous. Moreover, if courts have correctly analyzed earmarked loans, the analysis could be extended to other loans used by an insolvent debtor selectively to repay prior obligations. In fact, the courts' economic analysis is erroneous, though it will later be shown that the earmarking doctrine itself is fortuitously acceptable even if not ideal. An earmarked loan, like other loans made to financially distressed firms, has the potential to be quite potent. The loan may extend the life of a troubled firm and thus has the potential to do great harm or great good. Courts are blind to this point because the instances in which they are asked to apply the earmarking doctrine represent a skewed subset of cases. An earmarked loan is challenged under the Bankruptcy Code's preference rules only when the debtor's business has failed during the preference period. When a loan extends the life of a financially distressed firm beyond the preference period, the loan itself is beyond the court's view. Thus, the Bankruptcy Code forces courts to suffer a sort of myopia. Better vision might have led the courts to recognize the potential losses and potential gains from earmarked and other loans used by financially distressed firms for selective repayment of matured debts. Proper analysis reveals that the potential losses likely outweigh the potential gains.

A. A Static View

The following illustration will help to explain the problem with judicial analysis of earmarked loans. Imagine Debtor on the eve of bankruptcy at time t_0 with \$100 in assets and an aggregate \$120 in general debt obligations, \$10 of which is due by demand of a creditor.⁵⁵ Assume that Debtor obtains

55. If the payment were due according to schedule it might be in the "ordinary course of business" and thus exempt from challenge wholly apart from the earmarking doctrine. See 11 U.S.C. § 547(c)(2) (1994). Depending on the circumstances, a payment on demand arguably could also be in the ordinary course of business, but this is less likely.

from a new lender a \$10 unsecured loan earmarked to repay the debt obligation then due. Assume finally that immediately after this transaction, at time t_1 , Debtor enters bankruptcy. The extant claims that predate the new loan and the new loan will ratably divide Debtor's assets, which continue to be worth \$100. As a result, the total return on Debtor's unpaid original obligations, which compose 91.67%⁵⁶ of Debtor's total obligations, will be \$91.67,⁵⁷ or 83.33% of the \$110 owed.⁵⁸ Now assume that Debtor borrows no new money at t_0 and that the \$10 due is not repaid. Every original claim, including the one due at t_0 , will share ratably in Debtor's \$100 in assets, producing a total return of 83.33%⁵⁹ to each creditor. Thus, under these assumptions, the courts are correct that an earmarked loan on the eve of bankruptcy is of no consequence to a debtor's general creditors.

Static View of an Unsecured Earmarked Loan

Eve of Bankruptcy (at t_0):

Debtor's Assets	\$100
Original Debt	\$120
Debt Due	\$10

Bankruptcy (at t_1):

Return on Unmatured Debt		
With New Loan	\$91.67	83.33%
Without New Loan	\$91.67	83.33%

A modification to this illustration shows how a secured earmarked loan, in contrast, can deplete the bankruptcy estate available to the original creditors. Assume as before that on the eve of bankruptcy, at t_0 , Debtor has \$100 in assets and an aggregate \$120 in general debt obligations, \$10 of which is due. Assume again that Debtor obtains from a new lender a \$10 loan earmarked to repay the then current obligation. But now assume that the new obligation is secured with \$10 of Debtor's assets. The security interest gives the new lender a \$10 priority claim in Debtor's bankruptcy, which again is assumed to occur at t_1 , immediately after the earmarked loan transaction. The extant claims that predate the new loan will ratably divide

56. \$110/\$120.

57. .9167(\$100).

58. \$91.67/\$110.

59. \$100/\$120.

the \$90 of Debtor's assets that remain after the new lender recovers \$10 in satisfaction of its secured loan. As a result, the total return on Debtor's unpaid original obligations will be \$90, which is 81.82%⁶⁰ of those obligations. This return is less than the 83.33% return that the original unpaid claims would yield in the absence of the secured earmarked loan, which is thus shown to diminish the estate available to general creditors.

Static View of a Secured Earmarked Loan

Eve of Bankruptcy (at t₀):

Debtor's Assets	\$100
Original Debt	\$120
Debt Due	\$10

Bankruptcy (at t₁):

Return on Unmatured Debt		
With New Loan	\$90	81.82%
Without New Loan	\$91.67	83.33%

These illustrations demonstrate that the courts' earmarking analysis is correct, as far as it goes. The analysis does not go far enough, however. In the illustrations, the original creditors are not harmed by an unsecured earmarked loan transaction. The creditor whose loan is repaid benefits, as her unsecured claim is paid in full, while the insolvent debtor, as obligor on the loan, cannot pay all its debts in full. With some creditors unaffected and another helped, the principle of value conservation demands that someone lose. The only person left to lose here is the new unsecured lender, who contributes \$10 and collects \$9.17, its ratable share of the insolvent debtor's assets. *Why* does the new lender enter this ill-fated transaction?

A few courts have noted the seemingly unfortunate plight of the new unsecured lender. The court in *In re Bohlen*, for example, observed that "the new creditor is harmed. He is a general creditor whose recovery must come from a debtor's estate which is diminished to the extent that the payment made to the old creditor cannot be recovered as a preference."⁶¹ Another court was more succinct with its observation that the new creditor is paid in

60. \$90/\$110.

61. *McCuskey v. National Bank (In re Bohlen Enterprises, Ltd)*, 859 F.2d 561, 566 (8th Cir. 1988).

“tiny bankruptcy dollars.”⁶² But courts do not attempt to explain why new creditors exchange large dollars for tiny ones. Perhaps courts assume these creditors are naive. But it is unlikely that the new creditors are duped. The static nature of the bankruptcy process keeps courts from a better story.

B. Overinvestment

When a debtor enters bankruptcy, all of its obligations are accelerated. Any claim on account of unmatured interest is disallowed.⁶³ The process is designed to compress time so that all claims can be settled at once, as if the debtor were to exist only in the moment of the bankruptcy. Given this process, it is not surprising that bankruptcy courts miss the most obvious explanation of why a new lender to an insolvent debtor will fully repay a prior creditor in exchange for an unsecured obligation. In an earmarked loan transaction, the new unsecured loan will carry terms favorable to the creditor. The favorable terms could include a high interest rate or an early maturity. Either term would permit the creditor to gain from the debtor's future operation if the debtor *avoided* immediate bankruptcy. When a debtor succumbs to bankruptcy quickly, within the preference period, interest rate and maturity become irrelevant. Thus, a bankruptcy court would have no reason to notice, or if it did notice, to trouble over, temporal differences between new and old loans.

To be sure, a court might recognize that something were amiss if the new loan carried a spectacularly high interest rate. Such an interest charge could give the new lender a significant advantage over original creditors in just the short time between the earmarked loan and the bankruptcy filing that followed within the statutory preference period. A new lender, however, need not rely on such an interest rate or on *any* preference-period accrual. Because the debtor's bankruptcy within the preference period is not certain at the time of the earmarked loan, the new lender may expect full repayment from the prospect that the debtor will remain outside bankruptcy well beyond the preference period. That is, the new lender may expect full repayment from the possibility of a case in which no trustee can challenge the satisfaction of either the new or old loan in an earmarked transaction. In such a case, for which the earmarked loan payment is beyond the sight of the courts, the earmarked loan, even if unsecured, can work to the detriment of a debtor's general creditors.

62. *Glinker v. Bank of Vermont (In re Kelton Motors, Inc.)*, 153 B.R. 417, 426 (Bankr. D. Vt. 1993) (citation omitted).

63. *See* 11 U.S.C. § 502(b)(2) (1994).

To illustrate, again consider Debtor at time t_0 with \$100 in assets and an aggregate \$120 in general debt obligations, \$10 of which is due. Assume that the holders of these debt obligations are numerous and dispersed such that coordinated effort among them is prohibitively expensive.⁶⁴ Assume that if Debtor defaults on the loan that is due it will enter bankruptcy at time t_1 .⁶⁵ Assume, however, that Debtor might stave off bankruptcy, at least temporarily, if it can raise \$10 to repay the current obligation.⁶⁶ To enrich this part of the illustration, assume that Debtor's unmatured debt is subject to a clause that permits acceleration if Debtor becomes demonstrably insolvent, or issues new debt while demonstrably insolvent. But assume also that the holders of such unmatured debt are not certain to discover and prove Debtor's insolvency.⁶⁷ Assume, therefore, that if Debtor can pay the \$10 due at t_0 , there is a 90% chance Debtor's managers will be able to conceal its

64. Absent this assumption, bankruptcy itself would be unnecessary. *See generally* THOMAS H. JACKSON, *THE LOGIC AND LIMITS OF BANKRUPTCY LAW* (1986) (describing bankruptcy as solution to common pool problem). But for coordination difficulties, overinvestment would be impossible, at least if all parties shared symmetric information, because the victims of overinvestment would pay the beneficiaries to forgo any inefficient project.

65. Creditors can force a debtor into bankruptcy if the debtor is not generally paying its debts as they become due. *See* 11 U.S.C. § 303(h) (1994). It is not clear that failure to pay a single debt would satisfy this condition, but a more realistic illustration could include cross-default acceleration clauses or current debt owed to multiple creditors. No conclusion from the simpler illustration would change.

66. Debtor could, of course, also avoid bankruptcy if it renegotiated the debt due. This possibility is discussed below.

67. Although creditors sometimes obtain covenants that permit acceleration whenever they feel insecure, these covenants are seldom enforced unless the debtor has failed to satisfy an evident condition, such as a minimum asset-liability ratio in an audited financial statement. *See* George G. Triantis & Ronald J. Daniels, *The Role of Debt in Interactive Corporate Governance*, 83 CAL. L. REV. 1073, 1093 (1995). Absent the ability to show a specific breach, creditors fear liability for what the debtor might later allege is creditor strategic behavior designed to take advantage of a debtor's illiquidity. *See id.* at 1092. Without the prospect of lender liability, debtor and creditor might not contract to permit acceleration on mere assertion of insecurity because such a provision could inefficiently permit the very strategic behavior that lender liability polices. *See generally* F.H. Buckley, *The Termination Decision*, 61 UMKC L. REV. 243 (1992) (describing lender strategic behavior). For similar reasons, clauses that permit acceleration whenever the debtor issues new debt, regardless of the debtor's financial condition, will not always be optimal (though covenants that prohibit new senior lending are relatively common). *See generally* Marcel Kahan & Bruce Tuckman, *Private Versus Public Lending: Evidence from Covenants*, in *THE YEARBOOK OF FIXED INCOME INVESTING* 1995 (John D. Finnerty & Martin S. Fridson eds., 1996); Clifford W. Smith, Jr. & Jerold B. Warner, *On Financial Contracting: An Analysis of Bond Covenants*, 7 J. FIN. ECON. 117, 137 (1979); *see also* Alan Schwartz, *Priority Contracts and Priority in Bankruptcy*, 82 CORNELL L. REV. 1396 (1997) (explaining presence of restrictive covenants in equilibrium). Thus, acceleration may rationally depend on payment default or *contractible* insolvency. Yet a firm may be insolvent, even observably so, but under circumstances that are not contractually demonstrable. In any case, neither unsophisticated nor nonconsensual creditors can rely on covenants, whatever the wisdom of liberal enforcement when covenants exist. Such creditors remain at risk of a debtor's inefficient continuation as described below in the text, even under the assumption that consensual creditors can protect themselves fully.

financial distress and keep Debtor out of bankruptcy until there is a payment default. Assume further that if Debtor enters bankruptcy at t_1 , it will liquidate, while if it does not enter bankruptcy at t_1 , it will have an opportunity to invest its \$100 of assets in a project with a payoff at time t_2 , such that there is a 10% chance of a \$150 success-state return and a 90% chance of a \$90 failure-state return. Assume, in addition, that if Debtor does not enter bankruptcy at t_1 , it will, at t_2 , either wind up its successful business or liquidate in bankruptcy. Assume also that t_1 immediately follows t_0 , while t_2 is more than the ninety-day preference period later than t_0 and is the maturity date of any obligation not due at t_0 , including any new obligation issued at t_0 . Assume finally, for simplicity, that obligations issued at t_0 have a zero percent interest rate, and that there is a zero percent interest rate applicable as compensation for the time-value of money or for variance of an expected return, so that the interest charge on a new obligation, though earned with the passage of time, reflects only an exacerbated expectation of nonrepayment compared with the expectation at the time of the original loans.⁶⁸

It is now possible to see how a new \$10 unsecured earmarked loan can impose a loss, not on the new lender, but on the unpaid original creditors. Under these assumptions, if Debtor is to issue an unsecured obligation to a new lender in exchange for the \$10 Debtor desires at t_0 , a loan with \$10 in principal must bear \$3.47 in interest if left outstanding until maturity. To see why the new lender would accept this amount but no less, one can enumerate all possible contingencies for the lender who provides a \$10 loan to repay Debtor's obligation due. There is a 10% chance of immediate bankruptcy despite the earmarked loan. If this occurs, the new lender will have a claim for its \$10 in principal, which it will share ratably with \$110 of Debtor's other unpaid claims against Debtor's \$100 of assets. The payoff on the new loan would be \$8.33.⁶⁹ If Debtor avoids immediate bankruptcy, it will have an opportunity at t_1 to invest its assets in the risky project. If the new loan bears a total interest charge of \$3.47, Debtor, or Debtor's equity investors or managers on its behalf, will pursue this opportunity given the chance. This is so even though the project has a negative net value and thus represents overinvestment—the expected return is a negative \$4, as the project costs \$100 but has a 90% chance of a \$90 return and only a 10% chance of a \$150

68. These assumptions permit an isolated focus on the special risks posed by a debtor's insolvency. Compensation for the time value of money or for covariance with the economy as a whole would needlessly complicate this illustration.

69. $(\$10/\$120)\$100$.

return.⁷⁰ Debtor will pursue this project if it can because the project is Debtor's only chance to earn a profit in excess of its debt obligations. As a result, if Debtor remains out of bankruptcy at t_1 , a 90% probability, the project will go forward with a 10% chance of success and a return at t_2 of \$150, enough to pay all creditors. If this occurs, the payoff of principal and interest on the new loan will be \$13.47. If pursued, there is also a 90% chance the project will fail with a return at t_2 of \$90, an amount insufficient to pay all creditors in full. If the project fails, the new lender will have a claim for \$13.47 in principal and interest, which it will share ratably with Debtor's other unpaid creditors' claims of \$110 against Debtor's \$100 of assets. The payoff on the new loan would be \$9.82.⁷¹ When these possible payoffs are weighted and combined, the expected return on an unsecured obligation of \$10 principal plus \$3.47 interest is \$10, the amount of the new loan.⁷²

From here, it is a simple matter to demonstrate that a debtor's original creditors can suffer from an unsecured earmarked loan transaction. After acquisition of the new loan and repayment of the debt due at t_0 , the expected payoff to Debtor's unpaid original creditors is the weighted return of each outcome for the creditors as a group less the payment on the new loan. Thus, the expected payoff to the unpaid original creditors is \$84.01, the weighted sum of \$91.67 if Debtor enters bankruptcy at t_1 despite the earmarked loan, a 10% probability, \$110 if Debtor invests at t_1 and succeeds, a 9% probability, and \$80.18 if Debtor invests at t_1 and fails, an 81% probability.⁷³ This amount, \$84.01, is 76.37% of the total owed to the unpaid original creditors and is less than the \$91.67 that these creditors would have received were there no earmarked loan and Debtor entered bankruptcy at t_1 without further investment.

70. $.1(\$150) + .9(\$90) - \$100$.

71. $(\$13.47/\$123.47)\$90$.

72. $.1(\$8.33) + .09(\$13.47) + .81(\$9.82)$.

73. $.1(\$91.67) + .09(\$110) + .81(\$80.18)$.

Dynamic View of an Unsecured Earmarked Loan

Initial Period (t_0):

Debtor's Assets	\$100
Original Debt	\$120
Debt Due	\$10

Subsequent Period (t_1):

Return on Unmatured Debt with New Loan		
With Bankruptcy (P=.1)	\$91.67	83.33%
With Investment (P=.9)	Deferred	
Return on Unmatured Debt Without New Loan		
With Bankruptcy (P=1)	\$91.67	83.33%

Final Period (t_2):

Return on Unmatured Debt with Investment		
With Success (P=.1)	\$110	100%
With Failure (P=.9)	\$80.18	72.89%

Summary Expected Returns on Unmatured Debt

With New Loan	\$84.01	76.37%
Without New Loan	\$91.67	83.33%

This illustration reflects that a new loan to an insolvent debtor will bear a higher interest rate than earlier loans made while the debtor was solvent, unless the debtor's projects have become less risky in the interim. This higher rate is a simple consequence of the fact that solvent debtors are generally more likely to repay their debts than insolvent debtors and that a lender charges interest for the risk applicable at the time she extends credit. The interest rate on an old loan would be low to reflect solvency. The interest rate on the new loan would be high to reflect insolvency. Comparison of new and old interest rates, then, may yield a signal that the debtor's conditions have deteriorated and that, consequently, there is an exacerbated risk of overinvestment. Yet the high interest rate, here \$3.67, cannot be challenged under the preference laws.

An enhanced interest rate is not the only protected method by which an insolvent debtor can attract new capital to repay a current obligation. Early maturity is another. Consider the last illustration with two modifications. Assume now that the risky project Debtor may pursue if it avoids bankruptcy at t_1 will produce a return more than ninety days before t_2 , the date of

maturity on Debtor's obligations not due at t_0 . Also assume now that the new lender's obligation matures on the date the project yields a return, outside the preference period for the bankruptcy that will ensue at t_2 if the project fails. Under these assumptions, early maturity for the new loan serves as a sort of security if Debtor avoids immediate bankruptcy. As a result, if Debtor is to issue an unsecured obligation to a new lender in exchange for the \$10 Debtor desires at t_0 , a loan with \$10 in principal need yield only \$.19 in interest if left outstanding until maturity. Again, this can be seen through an enumeration of possible contingencies. There is a 10% chance Debtor will enter bankruptcy at t_1 despite the earmarked loan. The payoff on the new claim would be \$8.33.⁷⁴ There is a 9% chance that Debtor will avoid bankruptcy at t_1 and succeed. There is an 81% chance Debtor will avoid bankruptcy at t_1 and fail. In *either* case, the payoff on principal and interest of the new claim would be the full \$10.19, as collection would take place before Debtor's other creditors could collect and early enough to prevent later recovery as a preference. When these possible payoffs are weighted and combined, the expected return on an unsecured obligation of \$10 principal plus \$.19 interest is \$10, the amount of the loan.⁷⁵

As in the case of an earmarked loan with high interest, an earmarked loan with early maturity can impose an ex post loss on a debtor's unpaid original creditors. Again, after the loan and repayment of the debt due at t_0 , the expected payoff to Debtor's unpaid original creditors is the weighted return of each outcome for the creditors as a group less the payment on the new loan. Thus, the expected payoff to the unpaid original creditors is \$83.71, the weighted sum of \$91.67 if Debtor enters bankruptcy at t_1 despite the earmarked loan, a 10% probability, \$110 if Debtor invests at t_1 and succeeds, a 9% probability, and \$79.81 if Debtor invests at t_1 and fails, an 81% probability.⁷⁶ This figure, \$83.71, is 76.10% of the total owed and is an amount less than the \$91.67, or 83.33% of the amount owed, that these original creditors would have received were there no earmarked loan and Debtor entered bankruptcy at t_1 without further investment.

74. $(\$10/\$120)\$100$.

75. $.1(\$8.33) + .09(\$10.19) + .81(\$10.19)$.

76. $.1(\$91.67) + .09(\$110) + .81(\$79.81)$.

Dynamic View of an Early Maturity Earmarked Loan

Initial Period (t_0):

Debtor's Assets	\$100
Original Debt	\$120
Debt Due	\$10

Subsequent Period (t_1):

Return on Unmatured Debt with New Loan		
With Bankruptcy (P=.1)	\$91.67	83.33%
With Investment (P=.9)	Deferred	
Return on Unmatured Debt Without New Loan		
With Bankruptcy (P=1)	\$91.67	83.33%

Final Period (t_2):

Return on Unmatured Debt with Investment		
With Success (P=.1)	\$110	100%
With Failure (P=.9)	\$79.81	72.55%

Summary Expected Returns on Unmatured Debt

With New Loan	\$83.71	76.10%
Without New Loan	\$91.67	83.33%

It bears notice that the expected return to unpaid original creditors in these illustrations is \$.30 less when a new loan is granted early maturity than when the new loan shares maturity with the original loans but bears a higher interest rate.⁷⁷ This difference may be surprising as in each case the new claim earns an expected return exactly equal to the amount contributed, \$10 in the illustrations. On closer analysis, however, the result is to be expected. For any set value of an obligation used to finance a risky project, the greater the return in failure, the less the return in success. If an insolvent debtor finds it profitable to finance a risky project with a new obligation, repayment of that obligation will come from assets otherwise reserved for prior debt if the project fails. Repayment will come from assets otherwise available to the debtor or its equity owners if the project succeeds. Early maturity, like asset-based security or other forms of priority, increases the failure-state return on the new obligation and thus reduces the necessary success-state return.

77. \$84.01 - \$83.71.

Therefore, the debtor or its residual claimants gain from an early maturity loan the amount that unpaid original creditors lose.⁷⁸

This observation raises the question of why debtors do not always pledge assets to create a secured loan rather than finance risky projects with new unsecured loans, even unsecured loans with early maturity. From a debtor's perspective, it would seem a secured loan is superior even to an early maturity unsecured loan because the secured loan is paid in full whether or not the debtor avoids immediate bankruptcy. In contrast, in the event of an immediate postloan bankruptcy, a high-interest loan will have accrued no interest,⁷⁹ and an early maturity loan will lose its advantage over longer maturity loans because bankruptcy automatically accelerates all maturities. Thus, asset-based security promises a lender a better failure-state return (counting immediate bankruptcy as a failure), which permits the debtor to obtain needed funds with a smaller sacrifice of success-state returns.⁸⁰ Why, then, do we observe unsecured earmarked loans? One answer may be that a debtor will not issue a new security interest to one creditor for fear that other creditors will declare a default and accelerate their obligations. Many loan covenants contain prohibitions on the subsequent issuance of security.⁸¹ And a breach of such a covenant might easily be discovered because, in general, a security interest must be recorded publicly to be valid.⁸² Another reason may be a consequence of the earmarking doctrine itself. As noted above, that doctrine does not protect the issuance of a secured loan to replace an unsecured loan. Thus, though the situation may be unusual, a holder of multiple claims with the right to demand payment of all such claims may insist on a preference-proof repayment of one or some claims in exchange for the decision not to demand payment on the remainder.⁸³ The source of any

78. To verify this result, which is required by value conservation, note that Debtor's expected payoff is $.09(\$150 - \$123.47) = \$2.38$ when the new loan shares maturity with earlier loans and is $.09(\$150 - \$120.19) = \$2.68$ when the new loan has an earlier maturity. The difference between these rounded results is \$.30, the same amount as the difference between expected returns for the unpaid original creditors.

79. The Bankruptcy Code does not allow claims for unmatured interest, including unmatured interest on original issue discount obligations. See 11 U.S.C. § 502(b)(2) (1994).

80. In theory, a debtor could further enhance its advantage through the issue of an obligation with a face amount that is augmented by failure. In practice, this augmentation would almost certainly be disallowed in bankruptcy. The Bankruptcy Code expressly disallows interests that spring to existence on financial weakness or bankruptcy. See 11 U.S.C. §§ 365(e), 541(c), 545 (1994). An obligation augmented by failure does not squarely fit into any of these prohibitions, but given the prohibitions and despite any *expressio unius* argument, there is little doubt that a bankruptcy court would disallow the augmentation even if it were enforceable under applicable nonbankruptcy law. This relative certainty is, perhaps, why there is, to my knowledge, no case on point.

81. See Kahan & Tuckman, *supra* note 67, at 258-60.

82. See U.C.C. § 9-302 (1977) (specifying filing requirements for security interests).

83. Perhaps the creditor can demonstrate that the debtor is insolvent and thus in breach of a loan

such a repayment must be unsecured.

While a debtor may, for these reasons, disfavor secured loans to obtain a lower interest rate, one would expect insolvent debtors to finance new projects with loans that have early maturities. The earmarking doctrine cases do not indicate whether debtors in fact follow this strategy, as courts in these cases are led by their erroneous assumptions of loan harmlessness to ignore questions of interest rate and maturity.

C. Underinvestment

Judge Hand was incorrect, then, or correct in only a trivial sense,⁸⁴ when he concluded that an unsecured earmarked loan transaction is “no more than the substitution of one creditor for another without loss to the estate, as when a surety gives money to his principal to discharge the debt.”⁸⁵ The terms of an earmarked loan may permit an investment that works to the disadvantage of the original creditors who become the beneficiaries of a smaller bankruptcy estate in the future than might exist in the present but for the earmarked loan. When “a surety gives money to his principal,” in contrast, the guarantor, as subrogee, possesses the repaid creditor’s every incentive to hasten the debtor’s bankruptcy. In the former case, though not in the latter, the plight of the original creditors *has* changed.

The above illustrations do not tell the entire story, however. In each illustration, the project that the debtor sought to finance had a negative net value. The project cost \$100 and promised a \$150 return with 10% probability and \$90 with 90% probability, for an expected value of negative \$4. It takes little imagination to see that a slightly different project, one with a somewhat higher success-state return, would have a positive net value.

covenant, or perhaps the creditor has a right of repayment on demand and is willing to exercise this right despite the risks described *supra* note 67. Repayment on demand is unlikely to qualify for a voidable preference exemption under section 547(c) and thus would be avoidable but for a common-law exception.

84. When the debtor fails *immediately* after an earmarked loan, as can occur in the simplified model above, other creditors are indeed unharmed by the transaction. As the above analysis reveals, the entire expected loss to other creditors can be the result of the uncertain possibility that the firm will continue. One might conclude, therefore, that Judge Hand and subsequent judges have understood the dynamics of earmarked loan transactions while concluding that payment in these transactions, literally avoidable under the Bankruptcy Code, are harmless. The language used by the courts, including language quoted in the text immediately below, however, seems inconsistent with this interpretation. Moreover, because firms rarely fail the moment an earmarked loan transaction is complete, a court that understood the dynamic case might have noted that other creditors do suffer a loss, though perhaps a small one, even when bankruptcy occurs within the preference period. Such loss exists to the extent that the new loan accrues a higher interest rate than the old loan up to months prior to the bankruptcy. The courts make no such observation. It seems likely that they simply misunderstand.

85. *Grubb v. General Contract Purchase Corp.*, 94 F.2d 70, 72 (2d Cir. 1938).

Assume, for example, that a project has a 10% chance of a \$191 return. If the failure state is as before, the project's net expected value is positive \$.10.⁸⁶ Still, the debtor might need to repay a matured obligation to avoid immediate bankruptcy that would, in the illustration, result in liquidation. Perhaps, therefore, earmarked loans should be encouraged, or at least not discouraged, in the name of efficiency, even if original unpaid creditors as a group suffer a loss ex post from the imposition of continued risk.⁸⁷ After all, early creditors can anticipate such a loss ex ante at the time they extend credit and adjust initial loan terms to account for what is in essence an ex post transfer to the debtor. Put simply, the above illustrations were contrived to present a risk of overinvestment. One could as easily choose to illustrate the risk of underinvestment.⁸⁸ Perhaps underinvestment is as serious a concern, one that partial refinance mitigates.⁸⁹

D. A Comparison of Over- and Underinvestment

While ostensibly plausible, it is likely a false notion that the protection of loans used to repay other loans selectively can, on net, promote efficiency. It seems probable that the risk of inefficient investment pursued with the aid of such loans is greater than the risk of efficient investment that would be forgone with the eradication of such loans. This conclusion is supported by a number of factors.

First, as I have argued elsewhere, there is reason to believe that an insolvent firm is insolvent for good economic reason.⁹⁰ That is, it is reasonable to assume that a financially distressed debtor is one that has lost value and become unable to pay its debts because it has weak projects or incompetent management. Any risky project that such a debtor would pursue given the opportunity is likely a negative-net-value project.

Second, apart from any inference one might draw from a debtor's

86. $.1(\$191) + .9(\$90) - \$100$.

87. A full mathematical example is not necessary to demonstrate that loss to the original unpaid creditors as a group is possible despite a positive-net-value project. The negative net expected payoff to such creditors is the *same* in the latest illustration as in the earlier illustrations where the project has a negative net value. This is because, from the perspective of creditors in these illustrations, no success-state return above the \$150 figure in the early illustrations is any better than any other success-state return above \$150.

88. For a description of underinvestment, see Stewart C. Myers, *Determinants of Corporate Borrowing*, 5 J. FIN. ECON. 147 (1977).

89. Priority to later lenders, in the form of secured debt, as a solution to underinvestment has been suggested by others. See René M. Stulz & Herb Johnson, *An Analysis of Secured Debt*, 14 J. FIN. ECON. 501, 515 (1985).

90. See Barry E. Adler, *A Re-Examination of Near-Bankruptcy Investment Incentives*, 62 U. CHI. L. REV. 575 (1995); Adler, *Corporate Insolvency*, *supra* note 23.

insolvency, it generally may be the case that a debtor more easily can locate a poor project with a high upside potential than a good project of any sort. The challenge in business is to find value. Opportunities to lose may be plentiful.⁹¹

Third, efficient projects may be more robust in the face of limits on partial refinance. If the law discouraged new loans to an insolvent debtor who *partially* refinanced its projects with selective repayment of obligations, a debtor might be unable to pursue a risky project unless it negotiated with holders of its matured *and unmatured* claims as a group. Advantageously, such negotiation would not permit the pursuit of a negative-net-value project but could allow the firm to finance a positive-net-value project. For the latter project, but not the former, the investors as a group would expect a gain and a negotiated settlement would thus be possible, at least if the investors shared symmetric information.⁹²

Fourth, despite the simplifying assumption of the above illustrations, liquidation would not certainly follow if the absence of an earmarked loan or other new loan led a debtor immediately to bankruptcy. If an opportunity for a positive-net-value project presented itself on the eve of bankruptcy, even if prebankruptcy negotiation among creditors failed, the bankruptcy process itself, though flawed,⁹³ could permit the debtor to pursue the project through forced collectivization of creditor action. Indeed, a central goal of bankruptcy law is to encourage an insolvent debtor's pursuit of valuable projects.⁹⁴

Thus, it seems likely that the best course for bankruptcy law is to discourage transactions, such as earmarked loan transactions, that permit debtors to pursue unduly risky projects with partial debt refinance at the expense of creditors left to suffer the consequences of continuation.⁹⁵ The next step is to provide such a course.

91. See Barry E. Adler & Marcel Kahan, Determinants of Risk Impediments in Debt Contracts (1997) (unpublished manuscript, on file with author).

92. See Schwartz, *supra* note 67, at 1407; see also Berkovitch & Kim, *supra* note 21.

93. See Adler, *Corporate Insolvency*, *supra* note 23.

94. See Julian R. Franks & Walter N. Torous, *An Empirical Investigation of U.S. Firms in Reorganization*, 44 J. FIN. 747, 765 (1989) (describing how bankruptcy can ameliorate underinvestment problem); JACKSON, *supra* note 64, at 12-19 (describing bankruptcy as solution to common pool problem).

95. The analysis here assumes that there are no positive externalities from what I describe here as an "unduly risky project." This assumption may be questioned where such a project is the continuation of a manufacturing plant essential to a community, for example. Consideration of such externalities is beyond the scope of this Article.

III. PROPOSED SOLUTION

Ironically, the conclusion that partial debt refinance, such as an earmarked loan, is likely inefficient does not imply that the earmarking doctrine is itself a mistake. In fact, abolition of the doctrine would exacerbate the problem of earmarked loans. A proper solution to the problem of new loans lies in the reform of statutory preference rules and extends beyond earmarked loan transactions themselves.

A. The Earmarking Doctrine's Final Twist

The analysis above makes it reasonable to conclude that earmarked loan transactions do result in an expected loss to an insolvent firm's creditors, contrary to judicial opinion. It is reasonable to conclude further, therefore, that such loans should be discouraged. A final twist to the earmarking doctrine analysis is that, despite these conclusions, mere elimination of the doctrine would be counterproductive. A creditor in a position to demand payment cannot force a debtor to sustain bankruptcy if the demand is met, regardless of the risk that a bankruptcy trustee might later recover the payment.⁹⁶ So the debtor's inability to pay with preference-proof funds would not typically speed the onset of bankruptcy or otherwise forestall over-investment.⁹⁷ Consequently, whatever one might say in favor of equitable treatment among original creditors, removal of the earmarking doctrine would likely yield little efficiency gain. To the contrary, it is ironic that the death of the earmarking doctrine under current law would likely exacerbate inefficiency.

To understand how removal of the earmarking doctrine could be inefficient, consider the terms of a new unsecured loan, the proceeds of which are to repay an earlier obligation then due. With the earmarking doctrine, the new loan would simply replace the old if bankruptcy immediately followed the transaction. As illustrated above, this would represent a loss to the new lender for which the new lender will charge interest to be paid if the debtor avoids immediate bankruptcy. If the debtor ultimately succeeds, that interest will come out of the debtor's residual. Without the earmarking doctrine, the new loan would not merely replace the old loan if bankruptcy immediately followed the transaction. Instead, the trustee would avoid the earmarked payment and reinstate the loan repaid. In the above illustration, for example, without the earmarking doctrine, if

96. See 11 U.S.C. § 303(h) (1994).

97. There could be unusual circumstances, however. See *supra* note 83 and accompanying text.

bankruptcy immediately followed a \$10 unsecured earmarked loan, Debtor's assets after recovery of the preference would be \$110 to be divided among \$130 in creditors' claims. This would yield a payoff to all creditors, including the new creditor, of 84.62% of the total obligations.⁹⁸ This payoff is more than the 83.33% of the obligations that would be paid in a bankruptcy with no recovery of the preferential payment.⁹⁹ Because elimination of the earmarking doctrine would thus increase the payoff on a new loan when bankruptcy immediately followed the loan, a lender would accept less in interest to be repaid in part or in full if bankruptcy did *not* immediately follow the transaction. In this illustration, therefore, the new loan would bear interest less than \$3.47 in the case of an unsecured loan with mutual maturity,¹⁰⁰ and less than \$.19 in the case of an unsecured loan with early maturity.¹⁰¹

A lower interest rate can yield overinvestment. Assume, for example, that the success-state return on the project in the above illustrations is a scintilla below \$120.19, which is Debtor's total debt obligation in equilibrium if Debtor can issue an early maturity unsecured obligation under the earmarking doctrine, assuming the project's success-state return is at least \$120.19.¹⁰² With the earmarking doctrine in place, Debtor has no incentive to pursue the inefficient project, as even a success will yield nothing to Debtor or its residual claimants. Without the earmarking doctrine, the new loan's lower interest rate would reinstate Debtor's incentive to pursue the unduly risky project.

To be sure, in the present model, the higher new-loan interest rate produced by the earmarking doctrine might induce a debtor to seek an even riskier inefficient project if an initial project leaves no possible residual value above debt obligation. In a richer model, however, managerial reputation or a possible side payment by creditors to management or equity could induce a debtor simply to forgo an inefficient project and enter bankruptcy.¹⁰³ If the earmarking doctrine were eliminated, and a lower new-loan interest rate made inefficient investment more attractive, managerial reputation or an otherwise adequate side payment might prove an insufficient inducement to make an efficient investment decision. From the appropriate *ex ante*

98. \$110/\$130.

99. See *supra* note 69 and accompanying text.

100. Compare *supra* note 72 and accompanying text.

101. Compare *supra* note 75 and accompanying text.

102. *Id.*

103. See Adler, *Finance's Theoretical Divide*, *supra* note 23, at 1121-25; Robert Gertner & Randal C. Picker, *Bankruptcy and the Allocation of Control* (1992) (unpublished manuscript, on file with author); Schwartz, *Contracting About Bankruptcy*, *supra* note 24.

perspective, the greater the bribe creditors must pay to induce efficient debtor behavior, the more expensive is debt and fewer are the efficient projects debt can finance.¹⁰⁴

Thus, in the earmarking doctrine, courts may have reached the right result for the wrong reason. If the law changes in no other way, the earmarking doctrine should survive. The law, however, should undergo a substantial change in another way.

B. A General Solution

A proper analysis of earmarked loan transactions reveals that the current state of affairs is unsatisfactory. The problem is not limited to earmarked loans. It extends to any partial refinance of an insolvent debtor's obligations. A creditor who demands payment may well make such a demand because the creditor knows that the debtor's business cannot continue efficiently.¹⁰⁵ This creditor, if not repaid, might instigate bankruptcy. The law should not make it easy for a cash-starved debtor to silence such a creditor, whether the debtor seeks to gain such silence with funds that are earmarked for this purpose or with funds that are merely so used. That is, the law's objective should be to impede investment that can occur only if a debtor incurs a new obligation to satisfy some but not all preexisting claims. The current rules on voidable preferences are inadequate in this regard and would remain so if the earmarking doctrine were abolished. The Bankruptcy Code should be amended so that the law addresses the problem at its source, the new loans.

1. A Proposal

In principle, the rule could be simple: If an insolvent debtor issues a new loan that replaces less than all of the debtor's outstanding obligations,¹⁰⁶ the debtor's obligations on the new loan are voidable except that the new loan shall be deemed to carry the priority and (market-adjusted) interest rate of the obligation replaced and the longest maturity of any outstanding obligation.¹⁰⁷

104. A detailed analysis of this point is beyond the scope of this Article. For a full discussion, see Schwartz, *Contracting About Bankruptcy*, *supra* note 24.

105. See Triantis & Daniels, *supra* note 67, at 1094-95 (arguing that preference law accelerates time at which creditors scrutinize and make demands on debtor).

106. For ease of exposition, this Article often uses "obligation" and "loan" interchangeably. The proposed rule would apply, however, if a prior obligation were a nonconsensual claim. See *supra* note 27.

107. This rule is superior to an outright disallowance of loans that are used to repay an insolvent debtor's prior loans. So draconian a rule could unnecessarily deprive a debtor of capital where a creditor believed the debtor solvent but feared that a court would erroneously declare the debtor

A bankruptcy trustee would recover any payment inconsistent with these terms.

In practice, details of the rule would address a variety of concerns. First, as alluded to above, adjustment for changes in market conditions would be necessary so any difference between relevant interest rates would reflect a change in the firm rather than in the economy. Such an adjustment would not always be easy, as loans may include exotic terms that obscure the effective interest rates. But such adjustment is possible. A similar process of adjustment and comparison is used in other settings, such as tax law.¹⁰⁸ Moreover, the process need not be perfectly accurate to be useful, as a risk averse or risk neutral prospective new lender would shy away from partial refinance if it merely expected an ultimate loss, despite some possibility that it could gain. Second, the rule could address ambiguity in whether proceeds of a new loan repay a prior loan or are instead invested by the debtor. A determination could be made by reference to the debtor's credit-related cash flows in a period that bracketed a challenged loan. That is, a new loan could be subject to the prescribed avoidance except to the extent that the debtor's proceeds from new loans exceeded payments on existing obligations from, say, ninety days before to ninety days after the new loan. Any reasonable accounting convention could then match new loans to retired obligations. Third, to be effective, the rule would treat a renegotiation of an outstanding obligation as a new loan so that a debtor could not evade the strictures of the rule by bribing an early creditor. Fourth, to significantly mitigate the problem of inefficient continuation, the preference period applicable to avoidable loans would have to exceed ninety days. The preference period for replacement loans could be unlimited, even if a limited period were used to determine whether a new loan in fact replaced an old loan. Fifth, there could be a presumption of insolvency that extended beyond ninety days, to a year, for example.¹⁰⁹ Other refinements could be made as needed.

insolvent. Moreover, such a rule could counterproductively deprive an insolvent debtor of capital from a new lender who is willing to accept seemingly unfavorable terms because the lender believes it can oversee an improvement in the economic condition of the debtor. When a new creditor is willing to advance funds under conditions that are rational only if the debtor either has not deteriorated since the time of an unobjectionable loan or will reverse any such deterioration, disallowance would seem inappropriate. The rule might limit a new loan's interest rate to a solvency-state rate rather than to the rate of the loan repaid, but such a rule would be more cumbersome, and an initial loan taken by even an insolvent debtor might be unobjectionable. See *infra* text accompanying note 118.

108. See generally Edward D. Kleinbard, *Equity Derivative Products: Financial Innovation's Newest Challenge to the Tax System*, 69 TEX. L. REV. 1319 (1991); Reed Shuldiner, *A General Approach to the Taxation of Financial Instruments*, 71 TEX. L. REV. 243 (1992).

109. Under current law, insolvency is presumed for ninety days immediately preceding the date of the bankruptcy filing. See 11 U.S.C. § 547(f) (1994).

With such a rule in place, an insolvent debtor could not convince a knowledgeable creditor to refinance an inefficient project because the debtor, stripped of the power unilaterally to transfer value from holders of unmatured loans, could not adequately compensate the creditor for the risk it would bear. Put another way, as a result of the rule, only those creditors who approved the terms of a new loan would bear the consequences of those terms.

The proposed rule would be more effective to protect early general creditors than any simple loan covenant under current law. An early creditor cannot always discover a covenant breach in time to prevent a loss. Moreover, an agreement between the debtor and early creditors cannot reduce or alter a later claim to assets that remain after such loss, even if the terms of that claim violate a debtor's obligation to the early creditor.¹¹⁰ These are important concerns. As the Yamaichi case discussed above illustrates,¹¹¹ managers of debtors on the verge of failure are prone to indiscretion.

In principle, an early loan agreement could extend beyond simple covenants and attempt to replicate the proposed rule with a security interest that sprung into existence only in the event an insolvent debtor refinanced a loan on creditor-favorable terms. If the law permitted, such an interest would protect the early creditor from risk and permit a firm to issue debt that remained a general obligation while the firm complied with its covenants.¹¹² Because this security interest would be contingent on insolvency, however, it would almost certainly be unenforceable under current law.¹¹³ Contingent security interests, moreover, could in any case provide full protection against partial refinance only if *every* general creditor contracted for such a provision. Some general creditors are nonconsensual. Others may be unsophisticated and unable affordably to contemplate or fashion the necessary protection. The voidable-preference-rule modification proposed here, then, may be thought of as a rule that, in essence, provides every general creditor with a contingent security interest in support of an implicit covenant against partial refinance by an insolvent debtor.

2. Comparison with Alternatives

110. Alan Schwartz argues that loan covenants could more effectively mitigate overinvestment were they enforceable against third parties. See Schwartz, *supra* note 67. He does not, however, anticipate loan covenants in the nature of the rule proposed here. For discussion of a related point, see Adler, *Financial and Political Theories*, *supra* note 23.

111. See *supra* notes 11-16 and accompanying text.

112. There are potential economic advantages of unsecured over secured debt. See *supra* note 14.

113. See 11 U.S.C. § 541(c)(1) (1994); see also *supra* note 80.

The proposed modification of preference law extends beyond the potential use of explicit covenants and offers a response to the problem of new loans, but not the only plausible response. To address the repayment of old loans, a change to the Bankruptcy Code could permit a creditor or a specified number of creditors to file a bankruptcy petition for a debtor prior to the debtor's default on any obligation. Under current law, creditors may not sustain an involuntary petition while a debtor is current on its obligations, even if the debtor is insolvent.¹¹⁴ If this rule were changed, creditors at risk of an insolvent debtor's deterioration might put the debtor into bankruptcy and thus terminate any unsupervised, potentially wasteful debtor activity. To encourage involuntary petitions, the law might not merely avoid, but impose a penalty on, a creditor's prebankruptcy debt collection from an insolvent debtor. Absent such penalty, each creditor might rely on others to determine the debtor's financial condition and begin the bankruptcy process if necessary. A penalty could remove from collecting creditors any incentive to free ride. In the face of a penalty, no creditor could safely collect on an obligation unless it verified the debtor's solvency. If a creditor investigated and found the debtor insolvent, it would attempt to impose bankruptcy so that its debt might be satisfied, at least in part.

Although reliance on involuntary petitions induced by collection penalties would be a plausible response to the overinvestment problem, such reliance would have disadvantages. First, an involuntary petition based on a debtor's insolvency would create opportunities for litigation. A creditor might attempt or threaten to abuse its power and force bankruptcy on a solvent debtor.¹¹⁵ The creditor might seek a side payment for forbearance. The debtor would have a solvency defense. But insolvency may be falsely demonstrated. Litigation of this point, or the prospect of litigation, could be expensive or could induce a solvent debtor to make unwarranted concessions.¹¹⁶ Litigation over solvency, moreover, might accompany every involuntary bankruptcy petition, even legitimate ones. Like insolvency, solvency may be falsely demonstrated. An insolvent debtor with the ability to pay current obligations would have continuation to gain and little to lose by opposing an early bankruptcy. Indeed, avoidance of such litigation underlies current law's current-payment, rather than solvency, defense to an involuntary petition.¹¹⁷

114. See 11 U.S.C. § 303(h).

115. See *supra* note 67.

116. See Lucian Ayre Bebchuk & Howard F. Chang, *Bargaining and the Division of Value in Corporate Reorganization*, 8 J.L. ECON. & ORG. 253 (1992) (describing conditions that determine costs of and concessions in Chapter 11 negotiation).

117. See 11 U.S.C. § 303(h); see also *supra* note 65 and accompanying text.

Dispute over the disallowance of new loans, as proposed above, would also require a determination of a debtor's solvency, but only if a loan were made to a financially troubled debtor despite the disallowance rule. This dispute should not frequently occur, as the rule is designed to discourage, not to punish, voidable transactions. The proposed disallowance rule could dry up an insolvent debtor's source of funds and induce payment defaults that would lead to bankruptcy. The solvency question need never be addressed to a court. A second relative disadvantage of reliance on involuntary petitions is that such reliance would depend on a creditor's postinsolvency investigation of the debtor. If a collection penalty were imposed, each loan would entail the cost of at least two investigations: one at the time of the loan and one at the time of repayment. A creditor would undertake the second investigation in *all* cases of collection, even from debtors that would be revealed solvent. Under the disallowance rule proposed above, each lender would need to conduct only a customary preloan investigation.

A rule that permitted creditors to file an involuntary petition against any insolvent debtor would be broader in one respect than the proposed disallowance of new loans. The former rule might induce bankruptcy even where a debtor has no current obligations or can meet any such obligation with internal funds rather than a new loan. The proposed disallowance of new loans could not have this effect, of course. One might argue that the more aggressive rule is the better rule. An insolvent debtor has an incentive to invest in inefficiently risky projects regardless of whether debts are due or new loans required. The debtor's objective is to restore solvency, whatever the potential costs to creditors. Thus, the proposed disallowance rule might be too weak. It could be strengthened to some degree. The rule could invalidate *any* loan made while a debtor is insolvent, regardless of terms and regardless of how the debtor uses the loan proceeds.

The proposed rule is nevertheless limited as described above because it would perhaps go too far to push every insolvent firm toward bankruptcy as hard as possible. In this regard, it would perhaps be inappropriate to disallow all loans taken by an insolvent debtor, or even all such loans that are favorable to the creditor.¹¹⁸ A debtor might bargain with initial lenders for breathing room so that it may borrow new funds in an attempt to reverse insolvency *before* debts are due. After all, as explained above, not only overinvestment, but underinvestment, presents a potential cost. And despite arguments that renegotiation both before and during bankruptcy may solve

118. For an explanation of why the law might beneficially permit loans not favorable to the new lender, see *supra* note 107.

underinvestment, renegotiation is neither certain nor costless. It is possible, therefore, that an effective prohibition on new loans to an insolvent debtor would overly deter investment by an insolvent firm.

It is a balanced, somewhat conservative proposition, then, that once debts become due, and the debtor lacks internal funds to make the payments, it is time for the debtor to face its day of reckoning. The proposed rule may be the minimum required to ensure that a day of reckoning will arrive at all while there are assets left to protect. In other words, in a bankruptcy system triggered by payment default, such default must be a real prospect while the system may still do its work. Thus, the rule proposed here might well serve investors generally and, perhaps, society as a whole. If the Bankruptcy Code included the rule as a default that a firm could reject through a provision in its charter, this proposition could be put to the test.

IV. CONCLUSION

Voidable preference law exists as part of the Bankruptcy Code to prevent misbehavior by the debtor and creditors prior to bankruptcy. Properly understood, the very continuation of a corporate debtor may be an important instance of such misbehavior. The preference rules could be modified so that they inhibit a debtor's acquisition of new funds used to repay some but not all outstanding debt obligations. Such modification would force a debtor into bankruptcy early, where the reorganization process can, in principle, police the continuation decision and thus induce efficient investment. This prospect, moreover, might enhance the value of debt and induce investors to impose greater leverage on financially and economically sound firms. As a result, it might be that fewer managers would have the opportunity to preside over the sort of deterioration that General Motors, IBM, Kodak, and other firms have suffered in the recent past.