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ARTICLES

The Creditors' Bargain and Option-Preservation Priority in Chapter 11

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Corporate reorganization under Chapter 11 of the Bankruptcy Code is built on the foundation of the absolute priority rule, which requires that senior creditors be paid in full before any value can be distributed to junior creditors. The standard law and economics understanding is that absolute priority follows inevitably from the “creditors’ bargain” model. That model tells us that the optimal system of reorganization must respect nonbankruptcy contract rights while maximizing the expected value of assets in bankruptcy. The conventional wisdom is that absolute priority fits this bill as the singular way of protecting creditors’ nonbankruptcy contract rights.

But what if this conventional wisdom is incorrect? A closer look at the structure of corporate debt suggests that it is. Junior creditors issue debt supported by the residual value of the debtor firm. The repayment of that debt is contingent on the future value of the firm: the junior creditors receive any future value that exceeds the face value of the senior debt. It is well recognized that this right is the equivalent of a call option on the

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firm's assets. And yet Chapter 11 destroys the value of that call option by collapsing all future possibilities to present-day value.

Thus, absolute priority eliminates the nonbankruptcy contract rights of junior creditors and creates new rights in going-concern value for senior creditors. This Article examines the potential of an alternative priority mechanism that protects both the junior creditors' call-option value and the senior creditors' nonbankruptcy contract rights. This mechanism—which I call *Option-Preservation Priority*—is shown to protect the nonbankruptcy contract rights of all creditors and maximize the expected value of assets in bankruptcy.

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INTRODUCTION

The norm for today's corporate reorganization is a quick going-concern sale.¹ A senior creditor, exercising control over the debtor firm, determines that a bankruptcy filing to facilitate such a sale is the optimal strategy for the distressed firm. The debtor then files, and the sale is accomplished.² While the prevalence of these sales is plain,

¹ See Harvey R. Miller, *Chapter 11 in Transition—From Boom to Bust and Into the Future*, 81 Am Bankr L J 375, 385 (2007).

² While it may seem strange to those unfamiliar with the current practice in bankruptcy, creditor control is a pervasive fact in corporate reorganization. See Kenneth M. Ayotte and Edward R. Morrison, *Creditor Control in Chapter 11*, 1 J Legal Analysis 511, 538 (2009) (finding “pervasive” creditor control leading up to and in bankruptcy); Barry E. Adler, *Game-Theoretic Bankruptcy Valuation* *2 (NYU Center for Law, Economics and Organization Working Paper No 70-03, Dec 2006), online at <http://ssrn.com/abstract=954147> (visited Feb 19, 2011) (“[B]y the time a corporate debtor enters bankruptcy, it has come under the control of a dominant secured creditor.”). See also Greg Nini, David C. Smith, and Amir Sufi, *Creditor Control Rights, Corporate Governance, and Firm Value* *34–35 (unpublished manuscript, Nov 2009), online at <http://ssrn.com/abstract=1344302> (visited Feb 19, 2011) (presenting empirical evidence that senior creditors exert influence over management as firms deteriorate well before bankruptcy); M. Todd Henderson, *Paying CEOs in Bankruptcy: Executive Compensation When Agency Costs*

there is reason to doubt that they achieve the goals of an appropriate system of reorganization. Indeed, a recent study by Kenneth Ayotte and Edward Morrison shows that the outcomes of these sales are distorted by conflict between junior and senior creditors.³ This conflict stems from the mismatched incentives of the different classes of creditors. On the one hand, senior creditors⁴ have an incentive to sell the company in a quick sale even when reorganization has a higher expected return for the estate.⁵ Thus, when senior creditors are exercising control—which they do in most cases⁶—the result is an inefficient fire sale of the debtor's assets. On the other hand, junior creditors⁷ have an incentive to block the quick sale in favor of a drawn-out reorganization even when the sale has the higher expected return for the estate. Thus, in cases where the junior creditors can obtain some control—usually by prevailing on procedural

Are Low, 101 Nw U L Rev 1543, 1547 (2007) (finding creditor control in times of distress and bankruptcy); Miller, 81 Am Bankr L J at 385 (cited in note 1); Douglas G. Baird and Robert K. Rasmussen, *The End of Bankruptcy*, 55 Stan L Rev 751, 777–88 (2002) (discussing control rights leading up to and in bankruptcy); Stephen Lubben, *Some Realism about Reorganization: Explaining the Failure of Chapter 11 Theory*, 106 Dickinson L Rev 267, 292–94 (2001) (arguing that as bankruptcy approaches, control shifts to senior creditors). The two primary mechanisms for this control are covenants that shift control to creditors upon default, and conditions that senior lenders place upon financing that they provide to allow distressed firms to continue operation. See Michael Roberts and Amir Sufi, *Control Rights and Capital Structure: An Empirical Investigation*, 64 J Fin 1657, 1667, 1690–91 (2009) (describing the role of covenants in allocating control in a state-contingent manner). See generally Douglas G. Baird and Robert K. Rasmussen, *Private Debt and the Missing Lever of Corporate Governance*, 154 U Pa L Rev 1209 (2006) (describing the various mechanisms for creditor control in and out of bankruptcy).

³ Ayotte and Morrison, 1 J Legal Analysis at 514–15 (cited in note 2) (finding that creditor conflict is frequent and “distorts outcomes in bankruptcy”). These data confirm previous work—theoretical and empirical—of bankruptcy scholars. See, for example, Lynn M. LoPucki and Joseph W. Doherty, *Bankruptcy Fire Sales*, 106 Mich L Rev 1, 24, 44 (2007) (finding that sales yield significantly lower value than reorganization); Adler, *Game-Theoretic Bankruptcy Valuation* at *11–12 (cited in note 2) (describing conflicts between creditors and costs that prohibit resolution of those conflicts).

⁴ “Senior creditor” is used to denote the most senior investment class. Throughout this Article, it is assumed that the “senior” creditor is also a “secured” creditor. This is overwhelmingly the case in Chapter 11 reorganization. See Ayotte and Morrison, 1 J Legal Analysis at 518 (cited in note 2) (noting that 90 percent of firms in the data set entered bankruptcy with secured debt).

⁵ This is true because the senior creditor's payout in a good state of the world is limited by the face value of the senior debt. Thus, when the senior debt is \$100, the senior creditor prefers a certain sale at \$90 to a reorganization that has a 50 percent chance of paying \$200 and a 50 percent change of paying \$0. While the reorganization has a total expected return of \$100, the senior creditor's expected reorganization payout is \$50.

⁶ See note 2.

⁷ “Junior creditor” in this Article refers to any junior class or tranche of investment. This includes equity as the most junior class of investment. See Douglas G. Baird and M. Todd Henderson, *Other People's Money*, 60 Stan L Rev 1309, 1310–11 (2008) (noting that equity and credit are just different levels of investment).

objections⁸—there may be a distortion in favor of an inefficient and prolonged reorganization.

These distortions mean that the assets of a bankrupt firm are not maximized. When senior creditors exercise control, assets are sold at less than their highest value, and when junior creditors gain control, the firm expends unnecessary resources on reorganization.⁹ Because this conflict between senior and junior creditors is systemic, the various parties to any given financing agreement—at the time of the initial loan—expect that the aggregate payout in bankruptcy will be suboptimal and cannot be contracted around.¹⁰ This raises the cost of credit and reduces the level of available financing in the credit markets.

By the standard law and economics account of reorganization, this state of affairs is a failure. That account, grounded in Thomas Jackson's "creditors' bargain" model, posits that the optimal system of reorganization should be "designed to mirror the agreement one would expect the creditors to form among themselves were they to negotiate such an agreement from an *ex ante* position."¹¹ Jackson showed that, in such a hypothetical negotiation, the creditors would agree on a system that maximizes the expected value of the pool of assets in bankruptcy—thereby enlarging the pie that they are dividing among themselves¹²—and protects nonbankruptcy rights.¹³

⁸ See Ayotte and Morrison, 1 J Legal Analysis at 514, 527, 538 (cited in note 2) (finding that junior creditors lodge objections in most bankruptcies).

⁹ See id at 515 (concluding that the creditor conflict creates distortions in both directions, causing "inefficiently quick sales in some cases and inefficiently slow sales or reorganizations in others").

¹⁰ The conflict cannot be contracted around because the dispersed (in number and time of lending) creditors face insurmountable transaction costs to actually sitting down and negotiating the entire capital structure of the debtor. See Thomas H. Jackson, *Bankruptcy, Non-bankruptcy Entitlements, and the Creditors' Bargain*, 91 Yale L J 857, 866–67 (1982). For example, a small vendor may sell a good to a debtor on short-term credit. It would be costly for that vendor to negotiate with all other creditors of every customer.

¹¹ Id at 860. Of course, one key assumption behind Jackson's model is that "no *ex ante* meeting of the creditors will, realistically, take place." Id at 866. If such a meeting could take place, bankruptcy law would be unnecessary, as the parties could enter the optimal *ex ante* agreement in an actual bargain.

¹² The parties share the desire to achieve an efficient reorganization because any inefficiencies will be charged back to the debtors by increased credit costs. Thus, according to Jackson, the goals of the parties to the bargain will be reducing strategic costs, increasing the aggregate pool of assets, and achieving administrative efficiencies. Id at 861. Taken together, these goals all contribute to increasing the total value that is divided among the creditors.

¹³ Jackson's model assumes that nonbankruptcy rights—such as security interests—have aggregate efficiencies. See id at 868, 871. From there, Jackson concludes that debtors and creditors would—in an *ex ante* bargain—negotiate a system that respects those nonbankruptcy rights and maintains the efficiencies they provide. See id at 871 ("To the extent there are advantages to secured financing, respecting the non-bankruptcy priority of secured creditors is a necessary corollary of protecting those advantages."). Jackson also notes, as a second reason for

That guiding theory is inconsistent with the current world of reorganization, with its extant conflict between senior and junior creditors. The expected value of assets in bankruptcy is not maximized, and the costs of that suboptimal bankruptcy outcome are borne in some combination by the creditors (as a reduced expected return on investment) and the debtor (as an increased cost of capital).¹⁴ Of course, if a mechanism were available to eliminate these costs, the creditors'-bargain model tells us that the creditors—in the hypothetical negotiation¹⁵—would adopt that mechanism. But bankruptcy law does not mirror that expectation.

This story would be a less interesting tale of transaction costs if the creditor conflict were simply a result of some market failure. But here there is more than just a market failure to blame. Instead, the creditor conflict is the direct result of a mandatory asset-distribution mechanism imposed by bankruptcy law. That mechanism—known as the “absolute priority rule” (APR)—holds a privileged status in bankruptcy theory and is viewed by many as the foundational principle for corporate reorganization. It provides that assets in bankruptcy must be distributed in strict adherence to the contractual priority that exists for liquidation outside bankruptcy.¹⁶ Thus, senior

respecting nonbankruptcy rights, the reduction of “strategic behavior” leading to bankruptcy and “non-optimal bankruptcy decisions.” Id at 870 n 161.

¹⁴ See Jackson, 91 Yale L J at 861 (cited in note 10) (noting that inefficiencies in the bankruptcy process will be costs to creditors and debtors in the ex ante bargaining process).

¹⁵ Recall that this negotiation never takes place in reality. See note 11 and accompanying text.

¹⁶ The rule pays out assets by class of creditor and is codified in 11 USC § 1129(b)'s requirement that a reorganization be “fair and equitable, with respect to each class of claims or interests.” See, for example, *Bank of America National Trust and Savings Association v 203 North LaSalle Street Partnership*, 526 US 434, 441 (1999). It finds its origins in *Case v Los Angeles Lumber Products Co.*, 308 US 106, 116 (1939). The basic premise of the rule is well established. See, for example, Lynn M. LoPucki and William C. Whitford, *Bargaining over Equity's Share in the Bankruptcy Reorganization of Large, Publicly Held Companies*, 130 U Pa L Rev 125, 130 (1990) (“The condition that a plan be fair and equitable requires that senior classes receive absolute priority over junior classes; this condition is thus known as the ‘absolute priority rule.’”); Walter J. Blum and Stanley A. Kaplan, *The Absolute Priority Doctrine in Corporate Reorganization*, 41 U Chi L Rev 651, 654 (1974) (“[B]efore a class of investors can participate in a reorganization, all more senior classes must be compensated in full for their claims, measured on the basis of their priorities upon involuntary liquidation.”); Marcus Cole, *Limiting Liability through Bankruptcy*, 70 U Cin L Rev 1245, 1288 (2002) (describing APR as a class-based distribution rule); Ronald J. Mann, *Bankruptcy and the Entitlements of the Government: Whose Money Is It Anyway?*, 70 NYU L Rev 993, 1044–45 (1995) (same); Allan C. Eberhart and Lemma W. Senbet, *Absolute Priority Rule Violations and Risk Incentives for Financially Distressed Firms*, 22 Fin Mgmt 101, 102 (1993) (same); Douglas G. Baird and Thomas H. Jackson, *Bargaining after the Fall and the Contours of the Absolute Priority Rule*, 55 U Chi L Rev 738, 744 n 20 (1988) (same). See also Elizabeth Warren and Jay Lawrence Westbrook, *The Law of Debtors and Creditors: Text, Cases, and Problems* 396–402 (Aspen 6th ed 2009) (describing the priority framework).

secured creditors must be paid in full before junior creditors recover a penny.¹⁷

Law and economics scholars have long argued that APR is the only rule that satisfies the creditors'-bargain model.¹⁸ But the conflict described above and the common structure of corporate debt provide a different story. When a firm issues debt, the repayment of that debt is contingent on the future value of the firm. A secured creditor receives payment of all future value up to the face value of its debt.¹⁹ The junior creditor receives the future value that exceeds that face value. That means the junior creditor's interest is the equivalent of a call option with a strike price equal to the face value of the senior debt. But Chapter 11 bankruptcy in the APR world destroys the value of that option because all future possibilities are given present-day values.²⁰ That is to say, absolute priority collapses all interest in future value and thereby eliminates the contract rights of the junior creditor.

This failure to respect nonbankruptcy rights results in a bankruptcy world where the creditors are entitled to rights that were not determined by the market. This distortion is the direct cause of the creditor conflict described above.²¹ Thus, APR—though championed by the creditors'-bargain school—fails to maximize the outcome along either of the model's dimensions.

Recognizing that failure, this Article examines the potential of a priority system that protects both the junior creditor's call-option value and the senior creditor's nonbankruptcy contract rights. Starting

¹⁷ The payout need not be cash. Plans of reorganization may distribute equity in the debtor. This does not affect the distribution rule. The assets are valued and equity shares are distributed as if they were cash.

¹⁸ See, for example, Alan Schwartz, *A Normative Theory of Business Bankruptcy*, 91 Va L Rev 1199, 1202 (2005) (suggesting that under a pure absolute priority view only distributional goals justify deviations from absolute priority); Barry E. Adler and Ian Ayres, *A Dilution Mechanism for Valuing Corporations in Bankruptcy*, 111 Yale L J 83, 88–90 (2001) (defending as a “matter of first principles” that APR is necessary based on investment contract rights and proposing a mechanism to vindicate that rule); Lucian Arye Bebchuk and Jesse M. Fried, *The Uneasy Case for Priority of Secured Claims in Bankruptcy*, 105 Yale L J 857, 934 (1996) (“There is a widespread consensus among legal scholars and economists that the rule of according full priority to secured claims is desirable because it promotes economic efficiency.”); Michael Bradley and Michael Rosenzweig, *The Untenable Case for Chapter 11*, 101 Yale L J 1043, 1085 (1992) (“[O]ur proposal [to repeal Chapter 11] would ensure adherence to the rule of absolute priority.”); Jackson, 91 Yale L J at 869 (cited in note 10) (arguing that the creditors' bargain “requires respecting a secured creditor's ability to be paid first”).

¹⁹ The secured creditor's interest as a secured creditor is in the value of the assets in which it has taken a security interest. In most cases, that includes all assets of the firm. See Ayotte and Morrison, 1 J Legal Analysis at 525 (cited in note 2).

²⁰ See Douglas G. Baird and Donald S. Bernstein, *Absolute Priority, Valuation Uncertainty, and the Reorganization Bargain*, 115 Yale L J 1930, 1937 (2006) (conceding APR's destruction of future possibilities).

²¹ For a discussion of APR's distorting effect, see Part II.

from the creditors' bargain and taking its underlying goals as given,²² the Article identifies the creditor's nonbankruptcy contract rights, derives an effective asset-distribution mechanism to protect those rights, and compares that mechanism to APR.²³ Respecting nonbankruptcy contract rights creates the following priority at the time of a sale: (1) the senior creditor's nonbankruptcy liquidation value of the collateral; (2) the junior creditor's option value; and (3) the senior creditor's right to the residual value—after the junior option²⁴ has been paid out—up to the face value of the senior debt. Implementation of this priority is accomplished by requiring a senior creditor to buy out the contractually bargained-for option rights of junior creditors—even those who are out of the money—before it can take control of or sell the debtor's assets in Chapter 11. Thus, under the proposed mechanism, when the present value of the firm is less than the face value of the senior debt, the senior creditor—rather than getting the entire firm—gets the greater of (1) the nonbankruptcy liquidation value and (2) the entire firm net of the junior creditor's option value. I call this mechanism “Option-Preservation Priority.”²⁵

²² One may disagree with this starting point. See Elizabeth Warren, *Bankruptcy Policymaking in an Imperfect World*, 92 Mich L Rev 336, 336 (1993) (arguing that bankruptcy policy should go beyond a mere debate about allocative efficiency). My purpose here is not to wade into that debate but rather to assess whether the law and economics supporters of absolute priority can justify the rule on their own terms.

²³ The distinction between this Article and previous critiques of absolute priority is that it is not proposing competing goals that are better served by alternative rules. Instead, it starts from the same point as the supporters of the absolute priority rule and takes their stated goals as given. From there, it asks whether an alternative rule is required by the creditors' bargain.

²⁴ While the model set forth in Part IV assumes a two-level structure, this Article's proposed rule can theoretically apply to a capital structure with any number of investment classes. Adding levels may increase some implementation costs, but those costs should be minimal. See Lucian Arye Bebchuk, *A New Approach to Corporate Reorganization*, 101 Harv L Rev 775, 785 (1988) (creating a multi-tiered option structure). In practice, the out-of-the-money tranches are less likely to hold any option value if they are subordinate to several other out-of-the-money tranches.

²⁵ I avoid the phrase “relative priority,” which has often been used to describe an alternative priority scheme that focuses not on nonbankruptcy contract rights but rather on the relationship between management and equity. See, for example, Douglas G. Baird and Robert K. Rasmussen, *Control Rights, Priority Rights, and the Conceptual Foundations of Corporate Reorganizations*, 87 Va L Rev 921, 936 (2001). The focus of Option-Preservation Priority is the relationship between classes of creditors and the decisions that affect the maximization of assets in Chapter 11. To the extent that an issue exists with regard to retaining a firm's management, it can be addressed by ex post compensation agreements rather than by tinkering with the distribution rule and capital structure. See Barry E. Adler and George G. Triantis, *The Aftermath of North LaSalle Street*, 70 U Cin L Rev 1225, 1237 (2002) (“[T]here is no particular reason why compensation packages should be intertwined with capital structure decisions.”); Blum and Kaplan, 41 U Chi L Rev at 671 (cited in note 16) (“Logically [shareholders that add value to the corporation as managers] should be compensated as managers and not as shareholders.”). Other scholars have used the phrase “relative priority” to describe a wide variety of priority proposals that are not absolute. See, for example, James C. Bonbright and Milton M. Bergerman, *Two Rival*

This Article starts by discussing, in Part I, the privileged status of APR. It notes that the key assumptions behind APR—that APR respects nonbankruptcy contract rights and maximizes assets—have not been examined. Parts II, III, and IV fill that gap. Part II questions the conventional wisdom that APR must be the inevitable result of the creditors’ bargain. That view confuses rights under a mandatory bankruptcy system with the contract rights for which the creditors bargained outside bankruptcy. The absolute priority rule distorts the creditors’ bargained-for rights by collapsing all future possibilities to present value, extinguishing the junior creditor’s interest in future values, and recognizing the senior secured creditor’s hypothetical (but not real) right to immediate payment of the full face value of the senior debt.

Part III derives the requirements of the creditors’-bargain model and lays the foundation for Option-Preservation Priority. This Part begins by noting that, in a world without transaction costs, capital structure does not affect a firm’s value. In that world, the only goal of bankruptcy law is to maximize the value of the firm in bankruptcy. But in an imperfect world with transaction costs, bargained-for capital structure is often a market mechanism for reducing those costs. Thus, bankruptcy must also respect nonbankruptcy rights for which the creditors have bargained. Beyond those two goals, the creditors will have no preference between an asset distribution rule that favors secured creditors and one that favors unsecured creditors.²⁶

Theories of Priority Rights of Security Holders in a Corporate Reorganization, 28 Colum L Rev 127, 130 (1928) (using “relative priority” as shorthand for “priority of income position”); De Forest Billyou, *Priority Rights of Security Holders in Bankruptcy Reorganization: New Directions*, 67 Harv L Rev 553, 559, 579 (1954) (defining “relative priority” as preserving “a claim on the income of the reorganized company equal to the old claim as well as retaining in the new capital structure rights on dissolution equal to the old claim for principal” and proposing relative priority as an “investment value theory”); Walter J. Blum, *The “New Directions” for Priority Rights in Bankruptcy Reorganizations*, 67 Harv L Rev 1367, 1368–69 (1954) (rejecting the De Forest Billyou “relative priority” proposals); Walter J. Blum, *Full Priority and Full Compensation in Corporate Reorganizations: A Reappraisal*, 25 U Chi L Rev 417, 437–39 (1958) (rejecting several “relative priority” proposals, including maintaining the old capital structure, having an “expansible valuation,” and allowing the court to set a “maximum permissible capitalization”); Blum and Kaplan, 41 U Chi L Rev at 672–74 (cited in note 16) (rejecting a “relative priority” proposal that requires a “second look” at valuation after reorganization). These “relative priority” theories differ from Option-Preservation Priority because they do not seek to identify and protect the option value for which the junior creditors have bargained. Rather, they usually propose either the unfeasible notions of continuing the old capital structure or leaving the valuation open for future judicial intervention, or the unprincipled notion of giving a large maximum capital valuation that might allow the junior creditors to participate regardless of the actual valuation of the parties’ rights. These proposals were easily rejected by their critics as not respecting the rights for which the creditors bargained.

²⁶ This underlying principle of my proposal is uncontroversial. Advocates of APR agree that the Modigliani-Miller proposition suggests no justification for embracing APR at the

This Part then examines two potential agency costs that might be claimed as uniquely curable by APR.²⁷ The existence of the first cost—nonbankruptcy monitoring costs—is shown to provide further support for Option-Preservation Priority and not APR. Here supporters of APR have argued that secured lending reduces monitoring costs. The monitoring-costs argument can be reduced to a claim that bargained-for nonbankruptcy priority rights result in optimal monitoring. That implies that the bankruptcy priority rule that best preserves nonbankruptcy rights will also best achieve optimal monitoring. This reinforces the need for the exercise at the core of this Article: correctly identifying nonbankruptcy rights and examining which asset-distribution rule respects those rights while maximizing assets in bankruptcy.

The second cost—the agency cost that exists when a firm is financed by a mixture of debt and equity²⁸—is likely to be unimportant in determining the appropriate distribution rule. While APR is often defended on grounds that it reduces debt–equity agency costs, these agency costs have proven largely irrelevant for the world in which we actually live. Today's credit relationships shift control of firms from equity to creditors in the period of distress that precedes bankruptcy.²⁹ To put it another way, empirical evidence shows that parties have avoided the supposed debt–equity agency problem by contract.³⁰ On the other hand, the conflict that APR creates between senior and junior creditors in bankruptcy is real.³¹ As a result, APR reduces

expense of the junior creditor's call option. See, for example, Baird and Rasmussen, 87 Va L Rev at 940 (cited in note 25) (“In a world in which the Modigliani and Miller propositions hold, it makes no difference that, instead of absolute priority or some other ‘me-first’ rule, we have a relative priority rule.”).

²⁷ Though the law and economics scholars do not frame their defense of APR in these terms, the idea that certain nonbankruptcy agency costs must be cured by a bankruptcy rule is essentially an argument against the creditors'-bargain model and an argument that mandatory bankruptcy law should intervene to resolve nonbankruptcy market imperfections. See note 79 and accompanying text.

²⁸ The two identified costs are closely related. Monitoring is essentially one tool used to address agency problems—although those agency problems may be broader than just the debt–equity cost.

²⁹ See note 2. In addition to finding creditor control, Ayotte and Morrison also show that “equity holders and managers exercise little or no leverage during the reorganization process.” Ayotte and Morrison, 1 J Legal Analysis at 538 (cited in note 2).

³⁰ See Joshua D. Rauh and Amir Sufi, *Capital Structure and Debt Structure*, 23 Rev Fin Stud 4242, 4269–71 (2010) (noting that secured credit mitigates the agency problem through enforcement of covenant violations).

³¹ Ayotte and Morrison conclude: “[C]reditor conflict distorts economic outcomes in bankruptcy. We cannot, however, evaluate the efficiency loss associated with this conflict. Creditor conflict might yield inefficiently quick sales in some cases and inefficiently slow sales or reorganizations in others.” Ayotte and Morrison, 1 J Legal Analysis at 515 (cited in note 2). Similarly, Lynn LoPucki and Joseph Doherty have shown that secured creditors, exercising the

theoretical costs that do not exist in the real world while ignoring costs that do.

With that foundation laid, Part IV describes Option-Preservation Priority and presents a model to show how it is derived as the optimal result from the creditors' bargain. In particular, the model demonstrates that Option-Preservation Priority succeeds where APR has failed: maximizing bankruptcy value by aligning incentives to produce the efficient decision between sale and reorganization.

I. THE PRIVILEGED STATUS OF THE ABSOLUTE PRIORITY RULE

APR holds a privileged position among bankruptcy scholars.³² For three decades, the rule has been the center of two debates. The first is a fundamental debate about the purposes of bankruptcy law. Here, bankruptcy scholars are divided into two camps: those focused on ex ante efficiency and those concerned more with ex post distribution of assets.³³ To say that the first camp—the law and economics camp—is concerned with ex ante efficiency is to say that it believes in the creditors'-bargain model. That starting point requires that the coherent system of reorganization be the system that creditors would bargain for ex ante in the absence of transaction costs. Jackson demonstrated that such a bargain would produce a system that maximizes the aggregate pool of assets in bankruptcy while scrupulously respecting nonbankruptcy rights.³⁴ The law and economics scholars long ago assumed that APR does both those things and therefore concluded that APR is the inevitable result of the creditors' bargain and should be the cornerstone of any proper reorganization law.³⁵

power provided by absolute priority, have a systematic bias in favor of inefficient fire sales of the assets of the debtor. LoPucki and Doherty, 106 Mich L Rev at 24, 44 (cited in note 3).

³² See, for example, Blum, 67 Harv L Rev at 1367 (cited in note 25) (noting the "central position" of priority theory in reorganization law).

³³ See Douglas G. Baird, *Bankruptcy's Uncontested Axioms*, 108 Yale L J 573, 579–80 (1998) (describing the competing camps in the bankruptcy debate); Karen Gross, *Taking Community Interests into Account in Bankruptcy*, 72 Wash U L Q 1031, 1031 (1994) (describing and criticizing the views of the law and economics camp); Warren, 92 Mich L Rev at 336–38 (cited in note 22). See also Elizabeth Warren, *The Untenable Case for Repeal of Chapter 11*, 102 Yale L J 437, 467 (1992) (arguing that the redistributive goals of bankruptcy are sufficiently important to justify "slight inefficiencies"); Stephen J. Lubben, *The "New and Improved" Chapter 11*, 93 Ky L J 839, 850 n 47 (2005) (collecting various articles on the debate).

³⁴ Jackson, 91 Yale L J at 861, 864 (cited in note 10).

³⁵ Various justifications of the rule have been given. These predominantly boil down to a statement that APR is the rule required by the creditors' bargain. See sources cited in note 18; Adler, *Game-Theoretic Bankruptcy Valuation* at *8 (cited in note 2) ("Anticipation of breaches in absolute priority can raise a firm's ex ante cost of capital.").

The second camp rejects APR—not because it fails to achieve its goals but because those goals are suspect.³⁶ The scholars in this camp argue that ex ante efficiency does not justify the ex post costs created by APR. To them, there are important considerations that the creditors' bargain cannot address, and rejection of APR is justified by goals of higher importance than those served by the rule.³⁷ Thus, the debate between these two camps is whether the creditors' bargain is a legitimate starting point and not whether it requires APR. The first camp assumes that APR is the only rule that results from the creditors' bargain, while the second camp finds the point to be irrelevant because ex post considerations trump the creditors' bargain.

A second debate focuses on the implementation of APR. Here, within the creditors'-bargain camp, there is a debate about frictional costs imposed by APR. Some view the rule as inviolable.³⁸ Others defend partial priority, but only when real-world friction justifies deviations from theoretical purity.³⁹ The issue for them is when transaction costs require selected deviations from absolute priority. Proposals for Chapter 11 reform are therefore framed as mechanisms

³⁶ See, for example, Warren, 92 Mich L Rev at 336 (cited in note 22) (proposing various goals to compete with those of APR); Warren, 102 Yale L J at 467–77 (cited in note 33) (describing and stressing the importance of bankruptcy's redistributive goals); Gross, 72 Wash U L Q at 1031 (cited in note 33) (arguing that community interests should play a role in designing a corporate bankruptcy system). See also Mann, 70 NYU L Rev at 1044–45 (cited in note 16) (suggesting the existence of a bankruptcy surplus that could be utilized to achieve social goals in violation of the traditional APR); Steven L. Harris and Charles W. Mooney Jr., *Measuring the Social Costs and Benefits and Identifying the Victims of Subordinating Security Interests in Bankruptcy*, 82 Cornell L Rev 1349, 1356 (1997) (examining the costs and benefits of proposals to deviate from APR).

³⁷ For examples of sources setting forth alternative goals for bankruptcy policy, see note 36.

³⁸ See, for example, Adler and Ayres, 111 Yale L J at 88–90 (cited in note 18) (calling for strict adherence to APR).

³⁹ For example, Lucian Bebchuk and Jesse Fried argue that nonadjusting creditors create a cost that needs to be remedied by a deviation from priority. See Bebchuk and Fried, 105 Yale L J at 864 (cited in note 18) (explaining that security interests divert value from creditors that cannot adjust their claims in response to the security interest). Notably, they maintain that APR is desirable in the absence of nonadjusting creditors. *Id.* at 934 (concluding that APR is efficient in a “hypothetical world” without nonadjusting creditors). Thus, Bebchuk and Fried work to “fix” APR in a way that addresses only nonadjusting-creditor effects. To do this, they propose a system that starts with absolute priority and then introduces somewhat arbitrary deviations to ameliorate the cost they have identified. *Id.* at 866. See also Richard Squire, *The Case for Symmetry in Creditors' Rights*, 118 Yale L J 806, 808–09 (2009) (proposing a system of creditor symmetry to prevent the transfer of wealth away from nonadjusting creditors). While I do not address nonadjusting creditors in this Article, any difficulties raised by the existence of these creditors will be less of an issue for Option-Preservation Priority than for APR because these creditors will receive at least the option value of their claims, whereas they receive no payment under APR.

to vindicate the rule⁴⁰ or as deviations that are justified by some necessary tradeoff.⁴¹

These two debates have left a conspicuous gap in the literature. Does absolute priority inevitably result from the creditors'-bargain model? Does it maximize the aggregate pool of assets in bankruptcy while respecting nonbankruptcy rights? How can APR result from the creditors' bargain if it destroys the nonbankruptcy call option of the junior creditor? That these questions remain unexamined is surprising in light of the central role that the rule plays in any analysis of Chapter 11. The answers have important implications for bankruptcy policy and scholarship. If APR does not result from the creditors'-bargain model, then the tradeoffs being discussed might not even exist, and any tradeoff that does likely looks entirely different.⁴²

II. NONBANKRUPTCY RIGHTS

As noted, this Article fills the gap in the literature by examining an asset-distribution mechanism that results from the creditors' bargain properly understood. The resulting mechanism, Option-Preservation Priority, requires that a senior creditor buy out the option

⁴⁰ See, for example, Adler and Ayres, 111 Yale L J at 90–91 (cited in note 18); Bradley and Rosenzweig, 101 Yale L J at 1078–80 (cited in note 18).

⁴¹ See, for example, Bebchuk and Fried, 105 Yale L J at 904–11 (cited note 18) (proposing a partial priority mechanism to account for nonadjusting creditors). See also Kerry O'Rourke, *Valuation Uncertainty in Chapter 11 Reorganizations*, 2005 Colum Bus L Rev 403, 446 (justifying an approach to valuation as "limiting the deviations from absolute priority"); Thomas H. Jackson and Robert E. Scott, *On the Nature of Bankruptcy: An Essay on Bankruptcy Sharing and the Creditors' Bargain*, 75 Va L Rev 155, 188 (1989) (discussing tradeoffs inherent in deviations from the creditors' bargain). There is also a considerable literature on observed deviations from absolute priority. See Bebchuk and Fried, 105 Yale L at 911–13 (cited in note 18) (describing the "erosion" of priority under the current bankruptcy system); id at 863 n 25 (collecting sources discussing violations of APR); Randal C. Picker, *Voluntary Petitions and the Creditors' Bargain*, 61 U Cin L Rev 519, 529 (1992) (noting routine violations of APR). See also Baird and Bernstein, 115 Yale L J at 1966 (cited in note 20) (identifying APR violations and theorizing a valuation-variance cause).

⁴² This unquestioning acceptance of APR as the only rule that satisfies the creditors' bargain is even more surprising given the questionable origins of the rule. Those origins have been discussed in detail by several scholars. For example, John Ayer analyzes Justice William O. Douglas's opinion in *Case v Los Angeles Lumber Products Co*, 308 US 106 (1939). Ayer characterizes the logic of that opinion—which is the seminal moment for APR—as "attenuated" and concludes that Justice Douglas's view that the statutory phrase "fair and equitable" was a term of art requiring absolute priority is "poppycock." John D. Ayer, *Rethinking Absolute Priority after Ahlers*, 87 Mich L Rev 963, 975 (1989). See also David A. Skeel Jr, *An Evolutionary Theory of Corporate Law and Corporate Bankruptcy*, 51 Vand L Rev 1325, 1351–76 (1998); Randolph J. Haines, *The Unwarranted Attack on New Value*, 72 Am Bankr L J 387, 397–416 (1998); Douglas G. Baird and Robert K. Rasmussen, *Boyd's Legacy and Blackstone's Ghost*, 1999 S Ct Rev 393, 397–417. Of course, questionable origins are not fatal to a rule. Surely, many working systems are historical accidents. But these origins do raise the bar for accepting the status quo.

value of junior creditors before taking control of the Chapter 11 process. Before presenting the model, it is useful to discuss the analytical departure that drives the difference between Option-Preservation Priority and APR: the latter does not respect the parties' nonbankruptcy rights but rather destroys certain rights and creates new ones that did not exist outside bankruptcy.

As a starting point, this Article takes nonbankruptcy contract rights as given.⁴³ But respecting those nonbankruptcy rights is not the same as absolute priority. Absolute priority is not a nonbankruptcy contract right. It is a rule imposed by judicial and legislative mandate. Defenders of APR assume that the rule merely requires the debtor to perform its nonbankruptcy obligations under a priority system to which the parties have agreed. They argue that absolute priority is necessary to protect the contractual arrangements the parties create,⁴⁴ to prevent a shutdown of lending that would occur if contractually

⁴³ This is not uncontroversial. Defenders and critics of APR alike may argue that the solutions to agency and asset maximization problems lie not in the narrow reform of bankruptcy priority, but in restructuring the rights that lenders have outside bankruptcy. Indeed, some have suggested that the UCC's Article 9 asset-based priority scheme is anachronistic in a world where firms gravitate toward hierarchical capital structures and investors try to take interests in all of a firm's assets. See Douglas G. Baird, *The Politics of Article 9: Security Interests Reconsidered*, 80 Va L Rev 2249, 2257–58 (1994). On the other hand, the particular blend of asset-based priority found in Article 9 may be defensible. See Saul Levmore and Hideki Kanda, *Explaining Creditor Priorities*, 80 Va L Rev 2103, 2126–27 (1994) (noting that “reasonable observers” can dispute the question and exploring several explanations for the priority schemes found in Article 9); Paul M. Shupack, *On Boundaries and Definitions: A Commentary on Dean Baird*, 80 Va L Rev 2273, 2273 (1994) (questioning the feasibility of a hierarchical debtor-based priority system). Indeed, the merits of Article 9 are the center of a massive debate that is sure to continue. See, for example, Jay Lawrence Westbrook, *The Control of Wealth in Bankruptcy*, 82 Tex L Rev 795, 842–53 (2004) (examining potential problems with security under Article 9); Ronald J. Mann, *Explaining the Pattern of Secured Credit*, 110 Harv L Rev 625, 628–29 (1997); Ronald J. Mann, *The First Shall Be Last: A Contextual Argument for Abandoning Temporal Rules of Lien Priority*, 75 Tex L Rev 11, 21–23 (1996); Elizabeth Warren, *Further Reconsideration*, 80 Va L Rev 2303, 2307–08 (1994); George G. Triantis, *A Free-Cash-Flow Theory of Secured Debt and Creditor Priorities*, 80 Va L Rev 2155, 2159 (1994); Lynn M. LoPucki, *The Unsecured Creditor's Bargain*, 80 Va L Rev 1887, 1917–20 (1994); George G. Triantis, *Secured Debt under Conditions of Imperfect Information*, 21 J Legal Stud 225, 252–53 (1992). Space does not permit a full defense or critique of Article 9 in this Article. But it is worth noting that defenders of Article 9, and the problems and costs with absolute priority that are identified in this Article, suggest that a full debtor-based hierarchical priority scheme outside bankruptcy may have significant drawbacks and that Article 9's staying power may be indicative of defensible merits. Moreover, in designing a non-Article-9-priority world, we would still want to ask what rule the parties would bargain for to maximize the assets of a firm in a distressed state of the world. In that world, the creditors'-bargain model would require a rule that maximizes assets in the distressed state but also assets in other states. The precise model for that inquiry would look different from the one presented below in Part IV. But the virtue of preserving option value would remain. For a discussion of why preserving option value maximizes assets in distressed-state sales, see Parts III.C and IV.A. For a discussion of why preserving option value is unlikely to reduce the value of the firm in other states, see Part III.B.

⁴⁴ See Adler and Ayres, 111 Yale L J at 89–90 (cited in note 18).

determined debt priority “can always be violated within bankruptcy,” and to avoid “discrepanc[ies] between entitlements inside and outside bankruptcy.”⁴⁵ This view assumes the pertinent question away. Creditors bargain with the debtor and—implicitly—with each other when issuing different classes of credit. In doing so, they opt for a system of priorities. Each class of debt has specific rights, and for secured creditors those rights include reified priorities attached to specific assets and (outside bankruptcy) are determined by contract⁴⁶ and by statutory default rules.⁴⁷

The supporters of APR then leap to the conclusion that those contracts must require absolute priority over the entire firm during a bankruptcy procedure in which an entirely new capital structure is being created. But it is not self-evident that Chapter 11 must be a recognition event that eliminates all interests in future possibilities. The contracts tell us nothing about how the interests of various creditors are to be prioritized when the firm’s capital structure is being reorganized. The priorities of secured creditors outside bankruptcy, where priorities are reified and attached to particular assets and vindicated in various procedures, do not mandate absolute priority over the entire firm in a unified bankruptcy procedure where the firm, the creditors, and the court are creating an entirely new capital structure.⁴⁸

More specifically, nothing about a contract that adopts the off-the-rack priority rules of Article 9 provides evidence that the parties intended to adopt an absolute priority scheme in the bankruptcy world.⁴⁹ Just because a creditor wants security under Article 9—and

⁴⁵ Oliver Hart, *Firms, Contracts, and Financial Structure* 160 (Oxford 1995).

⁴⁶ Interesting questions may also exist about the relationships among creditors within a given class. Among secured creditors, these are questions of contract law and are often controlled by a credit facility that binds the various first-lien (or second-lien) creditors. Senior creditors may also be divided into separate classes (first- and second-lien holders) by way of an intercreditor agreement. The enforcement of these agreements is also an issue of contract. These contract issues are not the focus of priority rules, which serve to fill in the relationship between classes of creditors where contracting among those classes is not practicable.

⁴⁷ Usually Article 9 of the UCC.

⁴⁸ There are contractual mechanisms not associated with Article 9 for parties to adopt pure debtor-based priority or its equivalent where they choose to provide investors with the rights one might associate with APR. Venture capital deals and bankruptcy-remote special purpose vehicles often have these characteristics.

⁴⁹ Billyou made a similar point in an early criticism of APR. See Billyou, 67 Harv L Rev at 586 (cited in note 25). Walter Blum—an early defender of APR—countered that creditors’ “expectations” would coincide with the notions of APR because they take security interests to obtain protections of APR. Blum, 67 Harv L Rev at 1374 (cited in note 25). See also Blum, 25 U Chi L Rev at 425–26 (cited in note 25). But Blum’s point ignores the nature of the parties’ expectations in a mandatory system. Just because the parties expect the mandatory rule to be enforced does not mean that they would have bargained for that rule in its absence. See Note,

everything that goes with it outside bankruptcy—does not mean that it wants bankruptcy to be a recognition event that looks like APR rather than one that respects the option value of the junior creditors. At best we know that parties tolerate APR as a mandatory add-on to Article 9 priority. We do not know whether it is an acceptable cost or a benefit for which they would otherwise bargain. Nor do we know whether there are firms that are moving away from secured debt because APR is an unacceptable cost.

What we do know is that APR alters the nonbankruptcy rights of the creditors. The rule acts as a razor's edge that collapses all future possibilities to present value.⁵⁰ The result is the elimination of any present interests—even those provided for by contract—in future possibilities. Contingent priorities are cast in stone based on present-day values at the time of reorganization, and bargained-for option value is extinguished.

Thus, a distressed firm that has a 50 percent chance of being worth either \$200 or \$0 tomorrow⁵¹ is viewed in Chapter 11 as nothing more than \$100 in cash that needs to be divvied up.⁵² If the senior creditor made a secured loan of \$100, APR gives that creditor the entire firm, and the junior creditor gets nothing. But what were the parties entitled to outside bankruptcy?

The relevant nonbankruptcy rights are the rights of the parties in the distressed state of the world that precedes the Chapter 11 filing.⁵³

The Proposed Bankruptcy Act: Changes in the Absolute Priority Rule for Corporate Reorganizations, 87 Harv L Rev 1786, 1791 n 37 (1974) (noting the circularity of the argument that a mandatory system fulfills parties' expectations). By Blum's own reasoning, once an alternate rule was in place, that would be the best rule because sophisticated parties would expect their rights to be consistent with that rule.

⁵⁰ This razor's-edge quality of bankruptcy is another example of a principle behind Option-Preservation Priority that bankruptcy scholars have long recognized while ignoring the problems that the principle implies for APR. See Baird and Rasmussen, 87 Va L Rev at 936 (cited in note 25) (identifying the issue but advocating APR for large firms). See also note 20; Blum, 25 U Chi L Rev at 426, 429–30 n 33 (cited in note 25) (noting the possibility of not maturing future rights in bankruptcy but disregarding that possibility as inconsistent with "doctrine" of maturing default rights upon reorganization). In an early debate about priority mechanisms, Billyou questioned the premise of collapsing future interests. Billyou, 67 Harv L Rev at 582 (cited in note 25) (noting no justification for treating a bankruptcy like a liquidation). Blum countered, without further explanation, that treating rights as matured in bankruptcy is required by "the bundle of rights for which the senior investors bargained." Blum, 67 Harv L Rev at 1375 (cited in note 25).

⁵¹ One way to conceptualize this scenario is to imagine a firm with one asset: a lottery ticket that has a 50 percent chance of paying out \$200. The drawing is set for tomorrow.

⁵² For simplicity in this example, I assume that bankruptcy leads to a sale of the firm at \$100 or a disbursement of equity worth \$100. In Part IV, my examples account for the difference in value between a quick sale and reorganization.

⁵³ The rights of the parties in the nondistressed state of the world are both clear and unimportant to the analysis here. In that world, all creditors are entitled to the rights contained

For the junior creditor, this is easy to identify. The firm has a fifty-fifty chance of being worth either \$200 or \$0.⁵⁴ In the good state of the world, the junior creditor gets \$100.⁵⁵ In the bad state, it gets nothing. That is an expected outcome of \$50. Put another way, the junior creditor has the right to all upside over \$100. That is the equivalent of a call option with a strike price of \$100.⁵⁶

The senior creditor, on the other hand, is entitled to its nonbankruptcy remedies for default.⁵⁷ Those remedies are foreclosure and liquidation of the assets in which it has a security interest.⁵⁸ Such a security interest is reified—it is tied to specific assets. Commonly, the secured creditor has taken a security interest in all assets of the firm,⁵⁹ but the current system makes it difficult—outside bankruptcy—for the creditor to foreclose and sell the entire firm while preserving the going-concern value.⁶⁰ Indeed, this is the precise reason we see Chapter 11 cases filed. The secured creditor exercising control prefers that the firm enter Chapter 11 to facilitate a “free and clear” sale of the entire firm as a going concern, which is often demanded by potential purchasers.⁶¹ This free-and-clear sale of the entire firm allows the creditor to extract more value than it would outside bankruptcy.⁶² The takeaway is that the value of foreclosure and sale of assets is subject to all of the costs and hurdles of such a sale and is not the same as the value for which the company can be sold in bankruptcy.

in their respective contracts with the debtor. Issues of priority or intercreditor rights are not implicated.

⁵⁴ I assume that the junior creditor has loaned at least \$100 to the debtor. A contrary assumption would mean that equity has a potentially valuable call as well. Empirical studies suggest that is not often the case. See Part III.

⁵⁵ In the illustration I presented in note 51, this occurs when the firm wins the lottery.

⁵⁶ For a discussion of call options, see notes 70–73 and accompanying text.

⁵⁷ These rights exist by combination of contract and default rules provided by state law. All fifty states have adopted Article 9 of the UCC in full or with only minor deviations.

⁵⁸ That is to say, the senior lender can achieve a nonbankruptcy payout by seizing and disposing of the assets through a foreclosure sale.

⁵⁹ See Ayotte and Morrison, 1 *J Legal Analysis* at 513 (cited in note 2).

⁶⁰ See Miller, 81 *Am Bankr L J* at 384–85 (cited in note 1); Baird, 80 *Va L Rev* at 2258 (cited in note 43) (noting that seizing property and preserving going-concern value may be possible only in bankruptcy).

⁶¹ The sale is pursuant to 11 USC § 363. See also Miller, 81 *Am Bankr L J* at 385 (cited in note 1). In the lottery ticket example, there is a risk that a potential buyer cannot gain full ownership of the firm and its ticket—and therefore of the potential winnings—without the bankruptcy court’s free-and-clear sale order.

⁶² See Miller, 81 *Am Bankr L J* at 385–86 (cited in note 1). Consider also Mann, 70 *NYU L Rev* at 1033 (cited in note 16) (arguing that bankruptcy creates value to which no creditor is entitled). See generally Omer Tene, *Revisiting the Creditors’ Bargain: The Entitlement to the Going-Concern Surplus in Corporate Bankruptcy*, 19 *Bankr Dev J* 287 (2003) (identifying a going-concern surplus created by bankruptcy).

The fact that senior creditors use Chapter 11 to increase the value of the firm tells us that, in our example, the liquidation value of the firm outside bankruptcy is less than \$100.⁶³ Let's say that the foreclosure sale would net \$51. That means that APR—which pays \$100 to the senior creditor and nothing to the junior creditor—allows the senior creditor to destroy \$50 in option value belonging to the junior creditors and create \$49 in bankruptcy value that it appropriates for itself in the name of protecting nonbankruptcy rights.⁶⁴ The senior creditor gets \$51 outside bankruptcy and \$100 inside bankruptcy. Thus, APR violates its own central imperative and creates a discrepancy between rights inside and outside bankruptcy.

This distortion becomes clearer if we change the payouts. Imagine that, in our example, the bad state of the world carries a payoff of \$100 rather than \$0. That means the firm is worth \$150. Outside bankruptcy, the change in value runs entirely to the senior creditor. The value of the junior creditor's interest would be the same: \$50. It has a 50 percent chance of getting \$100 in the good state of the world and a 50 percent chance of getting nothing. Inside bankruptcy,⁶⁵ the junior creditor also gets \$50 (based on the present value of future possibilities). The value to the senior creditor is \$100 both inside and outside bankruptcy. But in our previous example (\$0 or \$200), the value of the junior creditor's interest was \$50 outside bankruptcy and \$0 inside bankruptcy. The senior creditor's interest was \$51 outside bankruptcy and \$100 inside bankruptcy. Thus, a decrease in the *senior creditor's nonbankruptcy value* results in a decrease in the *junior creditor's bankruptcy value*. This means that bankruptcy in an absolute-priority world causes the junior creditor to internalize the downside that is contractually the burden of the senior creditor.

Nonetheless, the support for APR persists. The logic seems to be that the senior creditor held secured debt of \$100 outside bankruptcy, so it holds secured debt of \$100 inside bankruptcy. But that secured debt of \$100 was worth only \$51 outside bankruptcy. Thus, APR artificially eliminates all interests in future possibilities, ignoring the contract rights of junior creditors. At the same time, it grants the secured creditor an entitlement to immediate and full payment up to

⁶³ This is not always the case. But where it is not the case, we do not have a bankruptcy problem. The firm will be liquidated without Chapter 11.

⁶⁴ Note that in this example the distortion does not lead to inefficient decisions. But an efficient decision would have been made even if the senior creditor got only \$51 in bankruptcy and the junior received \$49. For more on this point, see Part IV.

⁶⁵ Practically speaking, with these values bankruptcy would look different, as the senior creditor would be indifferent to any decisions. But the value distortion that results still reveals the flaw in APR.

the amount of its secured debt, even though such a right does not exist in any contract.

Indeed, the right to full payment is nowhere to be found in the non-bankruptcy-distressed state of the world. It exists when the company is not in default—and that is a world where intercreditor rights are not implicated. Once the company goes into distress, the only world in which the senior creditor has a chance of realizing \$100 is the one in which the firm receives additional financing, continues operation, and achieves the good state of the world. But there the senior creditor bears a large portion of the downside risk, and its value of that option is \$50.⁶⁶ In that world, the option value of the junior creditor remains open until the final payout. The senior creditor gets full payment only when the junior creditor's option is fully protected, and the senior creditor's full payment right is therefore subject to the junior creditor's option.

The subordinated interest in full payment translates to a right to the value of the firm up to the face value of the senior debt *after* the junior creditor's option value has been paid out. And we see then that the system that protects nonbankruptcy contract rights in this example is a system that ensures that in bankruptcy (1) the senior creditor gets no less than \$51 (foreclosure value); (2) the junior creditor gets the remainder up to the value of its option⁶⁷ (either in a payment of that value or by maintaining the call if the company is reorganized); and (3) the senior creditor gets \$100 only if the continuation of the firm can be financed, the senior creditor bears its share of the risk of a bad state of the world, and the good state of the world is achieved. None of these conditions is met under APR.

APR creates this distortion because it necessitates a calculation of the present-day value of the assets and then protects the creditors' interests in those present-day values. An alternative method, at the heart of the mechanism explored here, is to leave the future possibilities open with regard to the assets—as would be the case in nonbankruptcy—and then to value and protect the interests in those

⁶⁶ Or less: the senior creditor will have to finance the continued operation, subordinate its debt to whoever does finance it, or be part of a nonbankruptcy workout that may not be possible to negotiate.

⁶⁷ The option value of the junior creditor is limited by the foreclosure right of the senior creditor. It should not reduce the senior creditor's right to the \$51 of foreclosure value. But that limit does not mean that the option value of the junior creditor is illusory or without value. Indeed, outside bankruptcy, if the senior creditor wants an amount greater than it can achieve by foreclosure, it has to allow the firm to continue operating while the junior creditor's option value remains open. To eliminate the junior creditor's option value entirely, the senior creditor must commit to the foreclosure and eliminate any potential gain it may get from continuing operation of the firm.

future possibilities. With that method, the nonbankruptcy contract rights of creditors prior to filing are (1) foreclosure and sale rather than a hypothetical right to full payment of the face value of the senior debt (which it would not realize outside bankruptcy) for the secured creditor;⁶⁸ (2) a call option with an exercise price that is equal to the face value of the senior debt for the junior creditor; and (3) the value of the firm up to the face value of the senior debt after the junior creditor's option value has been paid for by the secured creditor. All of these rights must be protected in bankruptcy.⁶⁹

This Article is not the first to recognize the existence of junior creditors' option value.⁷⁰ But the APR supporters, while recognizing the options' presence, have failed to recognize that those options are nonbankruptcy rights that need not be destroyed to respect the creditors' bargain. Indeed, the primary reform proposal—articulated by Lucian Bebchuk—that incorporates the notion of a junior creditor's option eviscerates all of the value belonging to that option in the name of respecting absolute priority. Thus, Bebchuk's proposed system of reorganization—intended to respect APR and achieve efficient distribution based on the option rights held by junior creditors—distributes “options” that junior creditors can exercise to

⁶⁸ The analysis in this section and throughout this Article assumes that the senior creditor has contracted for the right to foreclose. That is usually the case. But it is not necessarily so. If the senior creditor contracts away that right, the arguments in favor of option preservation are even stronger. In that world, the senior creditor has no foreclosure payout right that needs to be protected. Rather, (1) the junior creditor has a call option—subordinate to no other rights—with an exercise price that is equal to the face value of the senior debt, and (2) the senior creditor has a right to the remaining value of the firm up to the face value of the senior debt after the junior creditor's option value has been paid out. Interestingly, in the very case that established APR, the senior creditor had contracted away its foreclosure right. See *Case v Los Angeles Lumber Products Co.*, 308 US 106, 113, 127 (1939); Robert K. Rasmussen, *The Story of Case v. Los Angeles Lumber Products: Old Equity Holders and the Reorganized Corporation*, in Robert K. Rasmussen, ed, *Bankruptcy Law Stories* 147, 163 (Foundation 2007) (“[T]he shareholders had bought the right to run the company free of any threats of foreclosure from the bondholders for fourteen years.”). Nonetheless, the Court applied APR, holding that it controls regardless of the contractual waiver of foreclosure. *Case*, 308 US at 127.

⁶⁹ For a discussion of why the creditors' bargain model requires protecting nonbankruptcy rights, see note 13 and accompanying text and Part III.

⁷⁰ See, for example, Baird and Rasmussen, 87 Va L Rev at 936, 939 (cited in note 25) (recognizing the existence of call options but concluding that APR is the appropriate rule in cases involving large firms and in cases in which going-concern sales occur); Schwartz, 91 Va L Rev at 1257 n 92 (cited in note 18). See also Blum, 25 U Chi L Rev at 426 (cited in note 25) (recognizing but rejecting the possibility of respecting rights based on “continuing interests in an ongoing business”). These scholars' arguments for disregarding the options often appear to be based on assumptions about agency costs that merit a closer examination. See Part III. These supporters thus limit theories of acceptable deviations from APR to narrow purposes, such as retaining firm-specific human capital of junior investors. See, for example, Baird and Rasmussen, 87 Va L Rev at 923–24 (cited in note 25).

buy out senior creditors.⁷¹ The options have an immediate (or near immediate) exercise date (otherwise they expire).⁷² But options have value only as a function of time and variance. Because Bebchuk options reduce time and variance to zero, they are options with no option value.⁷³ Thus, the paradox in Bebchuk options is that they are intended to protect nonbankruptcy entitlements, but they force the junior creditor to do to itself the exact same thing that APR does in the current system: collapse all of its future possibilities to present-day value. That destroys option value and the nonbankruptcy contract right identified in this Article.

Ultimately, it is not possible to protect the nonbankruptcy option value in any system that respects absolute priority. This is true because the distinguishing feature of absolute priority is that it collapses all future possibilities and thus extinguishes all options. The key insight of this Article is that nothing about the creditors' bargain and the resulting nonbankruptcy rights requires a rule to do that. By recognizing that APR is not protecting nonbankruptcy rights, we are freed from the traditional notion of a tradeoff between absolute priority's costs and the costs of deviating from the creditors' bargain. Because that tradeoff does not exist, we can create a rule that respects the bargain while also respecting option value and maximizing the value of the firm.

III. THE CREDITORS' BARGAIN

A. Modigliani-Miller

Franco Modigliani and Merton Miller tell us that—with well-functioning capital markets and absent taxes or bankruptcy costs—capital structure does not affect a firm's value.⁷⁴ In terms of the creditors'-bargain model, this tells us that voluntary creditors⁷⁵ negotiating over the capital structure of the firm will have no

⁷¹ Bebchuk, 101 Harv L Rev at 785–86 (cited in note 24). See also Philippe Aghion, Oliver Hart, and John Moore, *The Economics of Bankruptcy Reform*, 8 J L, Econ, & Org 523, 524 (1992) (building on Bebchuk options to propose a court-run auction where junior creditors bid their options).

⁷² See Bebchuk, 101 Harv L Rev at 785 (cited in note 24) (noting that in principle the options should be “for immediate exercise” but in practice the exercise date could be “shortly after the distribution of the rights”).

⁷³ They end up looking instead like immediate rights of first refusal.

⁷⁴ See Franco Modigliani and Merton H. Miller, *The Cost of Capital, Corporation Finance and the Theory of Investment*, 48 Am Econ Rev 261, 268–71 (1958). See also Robert Scott, *A Relational Theory of Secured Financing*, 86 Colum L Rev 901, 904–05 (1986) (“In essence, the Irrelevance Theorem holds that in perfectly functioning capital markets, absent taxes or bankruptcy costs, the particular mix of debt or equity held by a firm has no effect on the firm's value.”).

⁷⁵ I do not address involuntary and nonadjusting creditors in this Article. See note 39.

preference for secured debt over unsecured debt—rather, they will adjust the interest rates they charge such that the different classes of debt (and their associated risks) are equivalent.⁷⁶ Thus, if a bankruptcy rule shifts the bankruptcy payouts between secured and unsecured creditors, it may affect the capital structure of the firm, but that capital structure will not affect the value of the firm outside bankruptcy.⁷⁷ Of course, those shifts will affect the value of the firm *inside* bankruptcy because they will affect the incentives for the parties in that nonmarket atmosphere.⁷⁸

In a pure Modigliani-Miller world, there is therefore no *ex ante* reason to maximize senior investment rather than junior investment. In that case, the baseline suggested by the creditors' bargain is simply the rule that maximizes the pool of assets in bankruptcy. But market transactions might suggest that the pure Modigliani-Miller proposition does not hold—that there are costs that a particular nonbankruptcy capital structure can reduce. In that case, there is another dimension along which to maximize: respect for those market transactions. But to say we must maximize along those two dimensions is just to restate the creditors'-bargain model: maximize assets and respect nonbankruptcy rights.

B. Agency Costs

Deviations from the creditors'-bargain model would be justified only if it turned out that certain nonbankruptcy transaction costs might render the Modigliani-Miller proposition inapplicable *and* that those costs can be eliminated only by disregarding bargained-for rights when a firm enters bankruptcy. Close examination suggests that such costs do not exist.⁷⁹ Indeed, the common examples put forward to support APR are agency-cost problems that either fail to identify the APR as preferable to a rule that preserves option value or are irrelevant to today's Chapter 11 reorganizations.

⁷⁶ See Alan Schwartz, *The Continuing Puzzle of Secured Debt*, 37 Vand L Rev 1051, 1054 (1984); Alan Schwartz, *Security Interests and Bankruptcy Priorities: A Review of Current Theories*, 10 J Legal Stud 1, 7–9 (1981); Thomas H. Jackson and Anthony J. Kronman, *Secured Financing and Priorities among Creditors*, 88 Yale L J 1143, 1149–58 (1979).

⁷⁷ See Baird and Rasmussen, 87 Va L Rev at 940 (cited in note 25).

⁷⁸ Put another way, the Modigliani-Miller proposition does not hold within bankruptcy. As demonstrated below, the distribution rules implied by any given capital structure impact the incentives of parties in bankruptcy world because those rules allocate control and decision power.

⁷⁹ This is not surprising. Indeed, it would be strange if *nonbankruptcy* market transactions produced a capital structure that reduced value *and* that value reduction could be eliminated only by a *bankruptcy* rule that disregarded those market transactions. It would be even stranger if that remedy also required a bankruptcy rule that did *not* maximize value in bankruptcy. This is the assumption that a defense of APR seems to require.

Specifically, some scholars have argued that we are not in a Modigliani-Miller world because of two agency-cost problems. The first cost is monitoring: capital structure affects value because secured lending impacts monitoring costs.⁸⁰ But the existence of that cost supports preserving option value rather than following APR. Preserving option value does not distort secured lending. If we believe that bargained-for nonbankruptcy rights associated with secured lending achieve optimal monitoring,⁸¹ then those rights should be respected. And the bankruptcy rule that most closely recognizes those bargained-for nonbankruptcy rights will achieve optimal monitoring.⁸² As I have discussed above, preserving option value does precisely that.⁸³ A rule that destroys the junior creditor's option value and creates rights for the secured lenders that do not exist outside bankruptcy—as APR does—may lead to an imbalance in favor of too much secured lending, which will likely create a deviation from

⁸⁰ There are differing theories about which lenders are the optimal monitors. Compare Jackson and Kronman, 88 Yale L J at 1154, 1158–61 (cited in note 76) (positing that unsecured trade creditors are optimal monitors), with Saul Levmore, *Monitors and Freeriders in Commercial and Corporate Settings*, 92 Yale L J 49, 55–56 (1982) (proposing a theory in which secured creditors are the optimal monitors). See also Westbrook, 82 Tex L Rev at 838–43 (cited in note 43) (summarizing the major points in the monitoring debate); Levmore and Kanda, 80 Va L Rev at 2106 (cited in note 43) (examining a theory of secured lending as a solution to risk alteration); Randal C. Picker, *Security Interests, Misbehavior, and Common Pools*, 59 U Chi L Rev 645, 660–69 (1992) (providing a game-theoretic analysis of the monitoring question). Recent empirical work suggests that the benefit of secured lending can be attributed primarily to monitoring by secured creditors. See, for example, Rauh and Sufi, 23 Rev Fin Stud at 4255, 4273 (cited in note 30) (concluding that secured lending is consistent with monitoring to mitigate managerial agency problems); Nini, Smith, and Sufi, *Creditor Control Rights* at *4–5 (cited in note 2) (finding that creditor monitoring benefits shareholders); Henderson, 101 Nw U L Rev at 1547 (cited in note 2) (concluding that creditors “assume a powerful role in monitoring and disciplining management of firms in distress”). See also Rauh and Sufi, 23 Rev Fin Stud at 4271–73 (cited in note 30) (concluding that secured debt is a tool for monitoring lower quality borrowers—monitoring presents itself primarily through enforcement of covenants); Roberts and Sufi, 64 J Fin at 1691 (cited in note 2) (concluding that covenants provide a mechanism for monitoring by shifting control in a state-contingent manner).

⁸¹ There is evidence that they do. See, for example, Nini, Smith, and Sufi, *Creditor Control Rights* at *35 (cited in note 2). Nothing in my proposal suggests that we should ignore that value. Indeed, the main premise of respecting nonbankruptcy rights follows from the assumption that secured lending has some value and that the market equilibrium will reflect that value. But that dictates only the baseline that nonbankruptcy rights should be respected—something that Option-Preservation Priority does and APR does not.

⁸² As long as the priority rule does not distort nonbankruptcy rights, it will have no effect on the nonbankruptcy monitoring.

⁸³ See Part II. See also note 79.

optimal monitoring.⁸⁴ The optimal bankruptcy rule will be the one that distorts the least.⁸⁵

Additionally, any argument for APR as a means of achieving optimal monitoring that is not based on the efficient nonbankruptcy bargain has to assume that APR, although it does not respect nonbankruptcy rights, and although it does not maximize assets in bankruptcy, nonetheless results in the optimal level of monitoring outside bankruptcy. Such a fortuitous equilibrium is unlikely and unproven.⁸⁶ But only in that world would the shift from the status quo be certain to result in a value loss outside bankruptcy.⁸⁷ And even if that were the case, it is unlikely that the best mechanism for optimizing out-of-bankruptcy monitoring is one that shifts the capital structure by means of an inefficient bankruptcy distribution of assets.⁸⁸ A better mechanism would be first to achieve the capital structure that maximizes the asset pool in bankruptcy and then consider legal rules *outside* bankruptcy that create the correct incentives for monitoring. But, more importantly, there is no evidence that suggests that APR *actually achieves the optimal mix of secured and unsecured credit* outside bankruptcy—rather, the arguments are simply that secured lending brings value. Nothing about preserving option value is inconsistent with that view.

⁸⁴ The prevalence of secured lending today suggests that such deviations—costs imposed by APR—do not outweigh the monitoring benefits associated with secured lending. See notes 13 and 80–81. But that does not excuse maintaining APR when an alternative could reduce the costs while preserving the benefits.

⁸⁵ The monitoring-costs theory also does not affect the operation of Option-Preservation Priority model set forth below in Part IV. If the presence of secured lending adds value, that will be compensated through a higher interest rate. That rate will result in an increase in secured lending relative to unsecured lending. Such relative changes will not affect the asset-maximization mechanism that is at the heart of Option-Preservation Priority, because the mechanism aligns incentives to maximize assets in bankruptcy regardless of the mix of debt.

⁸⁶ The monitoring-cost theories tell us only that some secured lending is favorable. They do not identify the precise level. See, for example, Barry E. Adler, *An Equity-Agency Solution to the Bankruptcy-Priority Puzzle*, 22 J Legal Stud 73, 82 (1993) (“A bankruptcy system or any insolvency regime is efficient, then, if it facilitates secured-credit contracts.”). This point is made even more plain by examining empirical evidence about monitoring. That evidence suggests that the mechanism for monitoring is the enforcement of covenants outside bankruptcy. See Roberts and Sufi, 64 J Fin at 1691 (cited in note 2); Rauh and Sufi, 23 Rev Fin Stud at 4258 (cited in note 30). Nothing about the priority rule in bankruptcy would affect that enforcement.

⁸⁷ Other theories on the benefits of secured-lender priority in and out of bankruptcy have been presented as well. Robert Scott develops a more complex explanation for secured lending that posits that “security functions as a unique contractual mechanism for controlling the conflicts of interest that otherwise hinder the development of business prospects.” Scott, 86 Colum L Rev at 970 (cited in note 74). See also *id* at 904–05. Saul Levmore and Hideki Kanda suggest that risk alteration may be a prime factor. See Levmore and Kanda, 80 Va L Rev at 2113 (cited in note 43). The same reasoning that applies to the monitoring cost theories applies to these theories.

⁸⁸ See notes 79–82 and accompanying text.

A related argument claims that APR reduces agency costs that exist when a firm's capital structure includes debt and equity.⁸⁹ The familiar starting point is that, in theory, equity's payout in a good state of the world is unlimited, while the lenders' upside is contractually limited. The result is that the downside of an extremely risky venture is borne by all investors, while the upside runs disproportionately to equity. This leads to a world in which equity has an incentive to take inefficient risks.⁹⁰ This is a problem if equity controls management.⁹¹ Thus, the argument in favor of absolute priority is that strict adherence to absolute priority reduces this agency problem because it places a greater level of the downside risk on equity. Put another way, deviations from absolute priority increase the payouts for equity in the bad state of the world, thus increasing its incentives for risky projects and exacerbating the agency (moral hazard) problem.⁹²

While APR is often defended on those grounds, the agency costs avoided by APR appear minimal. Today's distressed firms are being run by the senior creditors in bankruptcy and in the months preceding bankruptcy.⁹³ Indeed, equity and management "exercise little or no leverage during the reorganization process."⁹⁴ This shift to creditor control is often achieved by way of default covenants.⁹⁵ Those covenants—contained in the credit agreement with the senior creditor—are triggered when the debtor fails to meet a certain contractual provision. Those provisions are drafted to anticipate distress.⁹⁶ Once triggered, the provisions can shift control

⁸⁹ The arguments are related because the monitoring discussed above is, in part, directed at curing the agency costs discussed here.

⁹⁰ See Lucian Arye Bebchuk, *Ex Ante Costs of Violating Absolute Priority in Bankruptcy*, 57 J Fin 445, 450–55 (2002) (modeling debt–equity agency problems that may result from violations of APR); Schwartz, 91 Va L Rev at 1207–20 (cited in note 18) (discussing and modeling debt–equity agency problems and their implications for choice of priority rule).

⁹¹ The assumption that management answers to equity is conventional but not unquestioned. See Margaret M. Blair and Lynn A. Stout, *A Team Production Theory of Corporate Law*, 85 Va L Rev 247, 254–55 (1999). If management is not answering to the sole interests of equity, then the agency costs discussed here is even more limited.

⁹² See Bebchuk, 57 J Fin at 455 (cited in note 90); Schwartz, 91 Va L Rev at 1219 (cited in note 18); Adler and Ayres, 111 Yale L J at 88–89 (cited in note 18).

⁹³ See sources cited in note 2.

⁹⁴ Ayotte and Morrison, 1 J Legal Analysis at 538 (cited in note 2).

⁹⁵ See Roberts and Sufi, 64 J Fin at 1666–67 (cited in note 2) (concluding that creditor control via covenant enforcement mitigates the moral hazard problem). Control in bankruptcy is also pervasive. Control is achieved both by the leverage created in the prebankruptcy period and through debtor-in-possession (DIP) financing. See sources cited in note 2.

⁹⁶ Covenants are contractual conditions imposed upon the debtor in the credit agreement. They may require the debtor to perform some action such as providing information to the lenders (affirmative covenants); they may require the debtor to refrain from some action such as selling assets (negative covenants); or they may require the debtor to maintain certain levels of

directly or indirectly.⁹⁷

These control-shifting covenants provide two remedies to the agency problem: (1) equity no longer controls the firm at the time it is most likely to be taking risky action;⁹⁸ and (2) equity has less incentive to undertake risky projects because it is being monitored and will have control snatched away even before the firm becomes insolvent if it engages in risky projects. The takeaway from this pervasive phenomenon is that the market has developed a partial remedy to the debt–equity agency problem, drawing into question any solution that relies on APR: Why invoke bankruptcy law—a nonmarket solution—to correct for a problem that appears to be easily reduced by market covenants?⁹⁹

Moreover, a system that preserves option value does not necessarily introduce the agency problem that might accompany other deviations from APR. The option value of the firm will likely be reduced or destroyed by the failure of a risky project. This has a dynamic effect on the decisions of equity. On one side of the equation, the promise of any bankruptcy payout reduces the downside of risky projects. On the other side, where the payout is the option value of the firm, the magnitude of that payout is determined by the future prospects of the firm. And those prospects may be reduced if the failed project were particularly risky. This provides an incentive for equity to support projects that will be option-value preserving (that is, less risky). Thus, while equity's incentive to preserve option value may

financial strength such as maximum leverage ratio or minimum earnings targets (financial covenants). See Nini, Smith, and Sufi, *Creditor Control Rights* at *8 (cited in note 2).

⁹⁷ An example of a direct shift is a default provision that transfers voting rights to the creditors (often as part of a security interest that is taken in the equity of a debtor's subsidiary operating company). An indirect shift occurs as a result of the leverage created by the creditor's right to accelerate the debt. Triggered by default, the right to accelerate provides a backdrop for renegotiation where the firm can continue to operate only by making control-shifting concessions to the creditor. See Nini, Smith, and Sufi, *Creditor Control Rights* at *11–12 (cited in note 2).

⁹⁸ When a firm is prospering and there is a substantial equity cushion, the risky project carries significant risk for equity. Of course, that is not a perfect solution. Even in prosperous times, the promise of bankruptcy payouts to equity could still distort some negative–expected return projects into positive–expected return projects in the eyes of equity. But the danger of that is much greater when the firm is in distress.

⁹⁹ Douglas Baird and Todd Henderson make this point in a different context. See Baird and Henderson, 60 *Stan L Rev* at 1314–15 (cited in note 7) (“Our understanding of capital structures is simply too primitive for us to do much more than enforce the contracts that are written as best we can.”). But see Baird and Rasmussen, 87 *Va L Rev* at 939–41 (cited in note 25) (supporting APR for large firms). Additionally, even if it exists, the debt–equity agency problem does not inevitably require APR—a priority rule that inefficiently dictates the division of assets among creditors and creates new agency problems—as a solution. See Part III.B.

not completely eliminate the distortions created by a bankruptcy cushion in all cases, it is likely to have a significant offsetting effect.¹⁰⁰

These considerations draw into question attempts at a solution based on APR. And once again, even if it remains substantial,¹⁰¹ the debt–equity agency problem does not require a priority rule that inefficiently dictates the division of bankruptcy assets among creditors and creates new agency problems. A more obvious solution may be to attack the agency problem head-on by facilitating monitoring¹⁰² or imposing ex post liability. At most, the problem might suggest a bifurcated rule that applies APR to debt–equity claims but preserves option value for creditor claims.¹⁰³

C. Absolute Priority’s Distortions

This brings us back to a world where the nonbankruptcy capital structure is determined by the market, and the Modigliani-Miller proposition suggests that the ex ante creditors’ bargain would be

¹⁰⁰ Put another way, because a bankruptcy payout of option value might be smaller after a failed risky project, the magnitude of the agency problem solved by a pure APR (as compared to an option-preserving rule) is likely to be small. In some cases, preserving the option value may actually reduce the agency problem more than APR. For example, consider a distressed firm with equity owners, \$100 in senior secured debt, and no junior debt. The firm (run by equity’s management team) is choosing between two projects. Project A—say, buying a lottery ticket—will produce \$200 half the time and \$0 the other half. Project B—building a factory—will produce \$180 or \$90. But now assume that the \$90 is made up of an additional project option (for example, converting the factory to an alternate use if the primary project fails). Thus, in the bad state of Project B, the firm gets to undertake an additional project decision where it will achieve \$180 half the time and \$0 the other half. Under APR, equity gets \$0 in the bad state after both Projects A and B. Equity will prefer Project A even though it has a lower expected return for the firm as a whole (\$100 compared to \$135 for Project B). In a world that preserves option value, equity expects to get \$40 in the bad state of Project B (the option value for a 50 percent chance of a payment of \$80) and nothing in the bad state of Project A. Thus, Project B’s expected return is \$60 (\$80 half of the time and \$40 half of the time). Equity will choose the less risky Project B (with a total expected return of \$60 compared to \$50 for Project A).

¹⁰¹ The magnitude of the problem and the magnitude of the reduction by covenant are unknown. Empirical research on this question—if possible—may be fruitful.

¹⁰² This is the same point that was made above with regard to monitoring by secured lenders. See notes 80–85 and accompanying text. An optimal monitoring solution is likely best facilitated by respecting nonbankruptcy rights.

¹⁰³ The agency problem exists only for equity and not for unsecured creditors. But the empirical studies suggest that, in most cases, the junior investor holding option value is the unsecured creditor and not equity. See, for example, Ayotte and Morrison, 1 *J Legal Analysis* at 539 (cited in note 2). That means that an option-preserving rule for equity would pay very little to equity in bankruptcy. Thus, the option-preserving rule would not increase debt–equity agency costs in most cases. On the other hand, it also suggests that a rule that destroyed the option value of equity would have little impact on the creditors’ bargain and the conflict distorting the sale-or-reorganization decision (because there was nothing to be destroyed). Thus, it is difficult to make a comparative assessment of a pure option-preserving rule and a bifurcated rule—preserving the option for unsecured creditors and destroying it for equity—because the difference may be negligible in most cases.

concerned only with achieving the bankruptcy capital structure¹⁰⁴ that maximizes the assets in bankruptcy without disrupting the nonbankruptcy structure.¹⁰⁵

APR fails this metric. Ayotte and Morrison have demonstrated that the current state of Chapter 11 is one that distorts the central decision in the reorganization process: whether to sell or reorganize. Secured creditors are forcing fire sales of firms that have greater going-concern value after reorganization,¹⁰⁶ and junior creditors are forcing firms that should be sold to languish in a wasteful reorganization process.¹⁰⁷

The current APR system produces these distortions through two competing factors. On the one hand, the APR places too much power

¹⁰⁴ The bankruptcy distribution rule is the equivalent of (or a subset of) the firm's overall capital structure. It is just legally mandated. Looking at this from the view of the creditors' bargain, we are imagining the capital structure that creditors would choose for bankruptcy and then implementing it by way of an asset-distribution rule. There is no inconsistency in saying that the creditors would bargain for a capital structure that shifts upon entry into bankruptcy. The mere existence of bankruptcy assumes that to be the case. A company enters bankruptcy, and its capital structure is recreated. The question is simply what change maximizes bankruptcy's asset pool while fully respecting and not altering the capital structure that exists in the nonbankruptcy state of the world.

¹⁰⁵ See Schwartz, 37 Vand L Rev at 1054 (cited in note 76) (noting that if the Modigliani-Miller assumptions hold outside bankruptcy, then "bankruptcy costs would be the key to capital structure").

¹⁰⁶ See sources cited in note 31. LoPucki and Doherty show that the distortion caused by fire sales is of a significant magnitude. See LoPucki and Doherty, 106 Mich L Rev at 44 (cited in note 3) (finding that, on average, fire sales yield only 35 percent of book value whereas reorganizations yield 80 percent). See also Ayotte and Morrison, 1 J Legal Analysis at 515 (cited in note 2). One might expect this distortion to be solved by market forces—for example, by an outside bidder buying and reselling the firms that are systematically discounted. But the empirical studies suggest that the market does not produce that result. See sources cited in note 2. One potential explanation is that information barriers manifest themselves in "lemons market" and "winner's curse" problems.

¹⁰⁷ This is true because the junior creditor bears only a small amount of the downside in a drawn-out reorganization. When the senior debt is \$100, the junior creditor prefers reorganization with a 50 percent chance of \$110 or \$0 to a quick sale of \$100. Even though the reorganization has a total expected return of \$55, the junior creditor's expected return (\$5) is greater than its return from the sale (\$0). See, for example, Blum, 25 U Chi L Rev at 419 n 6 (cited in note 25). The concept of a drawn-out reorganization captures many possibilities. The key factor is that a junior creditor benefits from a "wait and see" approach. Thus, for purposes of the analysis here, the full-blown reorganization includes the concept of a drawn-out sale. If a company valued at less than the senior debt is sold today, the junior creditor gets nothing. If the junior creditor can take advantage of bankruptcy to delay things—by way of a valuation dispute, pushing for a longer sale process with extensive marketing, or using other procedural objections—it can keep the chance of a recovery alive. See Ayotte and Morrison, 1 J Legal Analysis at 514 (cited in note 2) ("Unsecured creditors . . . prefer a reorganization if it lengthens the case."); Blum and Kaplan, 41 U Chi L Rev at 681 (cited in note 16) (noting that under the absolute priority rule, "junior classes frequently resort . . . to a strategy of delay"); Blum, 25 U Chi L Rev at 419 n 6 (cited in note 25) (noting "enormous pressures to delay a reorganization until the financial outlook improves and thus make room for greater participation by junior interests").

in the hands of senior creditors. The source of this problem can be expressed in Coasean terms. In the absence of transaction costs, the outcome of Chapter 11 would not be affected by the allocation of control over the debtor and the debtor's assets. But in Chapter 11 there are four major transaction costs that cumulatively make it prohibitively expensive for the junior creditors to efficiently purchase control from the senior creditors: (1) liquidity constraints, (2) information constraints, (3) lack of coordination among junior creditors, and (4) impediments to negotiation with the senior creditors.

The first of these costs arises when the true value of the firm is higher than the minimum price at which the senior creditor is willing to sell. The junior creditors (made up of bondholders, trade vendors, tort victims, and others) may know this but do not have the liquidity to make a competing bid. In perfect markets, this would not be a problem: a higher bidder could be found, or the junior creditors could obtain financing to bid for the firm. But perfect markets do not always exist.¹⁰⁸ And as Vincent Buccola and Ashley Keller have pointed out, times of imperfect capital markets are likely to be correlated with increases in the number of firms being sold in bankruptcy proceedings.¹⁰⁹ Moreover, the speed with which the going-concern sales are occurring exaggerates the imperfections within capital markets. Where a speedy sale is being pursued, it becomes more difficult for the junior creditors to credibly convey their creditworthiness and the value of the assets of the firm to an outside lender.¹¹⁰

The liquidity problem is largely derivative of, or at least magnified by, the second cost: information constraints. The management and creditors possess the best information about the value of the debtor firm.¹¹¹ But there are limits on the ability to credibly convey that information to third parties.¹¹² The senior creditors (and the management working with them), who arguably have the best information, have little incentive to exert effort to reveal information or to market the company to achieve a price beyond the

¹⁰⁸ See Vincent S.J. Buccola and Ashley C. Keller, *Credit Bidding and the Design of Bankruptcy Auctions*, 18 *Geo Mason L Rev* 99, 124 (2010) (“[T]here are periods where capital is scarce even to the most credit-worthy borrowers.”). Indeed, recent financial events have made this clear.

¹⁰⁹ See *id.*

¹¹⁰ See *id.* at 123–24 (noting that even a single senior creditor may be prevented from securing financing of a quick going-concern sale in the truncated timeframe).

¹¹¹ See Baird and Rasmussen, 154 *U Pa L Rev* at 1249 (cited in note 2) (discussing the informational advantage of creditors).

¹¹² See Buccola and Keller, 18 *Geo Mason L Rev* at 120 (cited in note 108) (observing that, owing to its history of monitoring the debtor, a creditor “may be privy to information about the true value of the collateral the debtor is selling that is not apparent to other would-be bidders”).

value of the senior debt. Moreover, for third parties to rely on the information about value, they will have to assure themselves of its veracity—this requires expensive due diligence.¹¹³

It is in some ways puzzling that this information constraint is not resolved by the market. One might expect investors to swoop in and purchase bankrupt firms to take advantage of the systemic discount.¹¹⁴ One possible explanation for the persistent discount is that the information constraint creates a “lemons” problem.¹¹⁵ Even if the firms are selling at a significant discount, hedge funds cannot swoop in and take advantage of this because it would attract new, less valuable firms into the market. In a pure lemons market, the problem might unravel until no market exists.¹¹⁶ In the market for bankrupt firms, this unraveling appears to be solved by way of the stalking-horse bid. A “stalking horse” is a potential purchaser who is given access to the inside information of the firm and performs the expensive due diligence to give itself comfort with regard to the firm’s value. Because the stalking horse must expend resources to gain this information, and because its bid creates an externality (potentially reducing the lemons problem for other bidders), it is highly compensated for its position. This compensation often comes in the form of a hefty breakup fee and a requirement that competing bids must exceed the stalking-horse bid by a set amount.¹¹⁷

The stalking-horse process reduces the lemons problem that the lack of informed bidders created. But it may create a new information problem: the “winner’s curse.” Now the first bidder has an informational advantage over all other bidders. Those bidders know that if they outbid the stalking horse they have likely paid too much—in an ongoing bid, the stalking horse will competitively bid up to its assessment of the value of the firm, which will be a superior assessment to that of the competing bidder.¹¹⁸ As a result, other potential purchasers have little incentive to enter the bidding process. In turn, the stalking-horse bidder (knowing this) can make a lower

¹¹³ See LoPucki and Doherty, 106 Mich L Rev at 41 (cited in note 3) (noting the “substantial investment” required for a bidder to evaluate a firm and make a bid).

¹¹⁴ As long as the investors were diversified, the lack of information would not affect their ability to profit from such a systemic discount.

¹¹⁵ See George A. Akerlof, *The Market for “Lemons”: Quality Uncertainty and the Market Mechanism*, 84 Q J Econ 488, 489–90 (1970).

¹¹⁶ See *id.*

¹¹⁷ For a recent case discussing the role of stalking-horse bidders, see *In re Reliant Energy Channelview LP*, 594 F3d 200, 206–07 (3d Cir 2010). See also LoPucki and Doherty, 106 Mich L Rev at 41–42 (cited in note 3) (describing stalking-horse bids and the compensation to stalking-horse bidders).

¹¹⁸ And to win with incremental bidding rules, the competing bidders may have outbid the stalking horse by a significant amount.

initial bid.¹¹⁹ This problem has been identified in economic literature as the winner's curse, and the effect is particularly strong where (as here) one party has asymmetric information.¹²⁰ Given the information asymmetry¹²¹ and the winner's curse, theory suggests that the stalking horse will prevail in the bidding process, and it will do so at a price below market value. This prediction appears to match the real-world outcome.¹²²

The third cost is the problem inherent in a diverse group of stakeholders that have equal footing. That is, even if the junior creditors could obtain outside financing to make a bid, it is difficult for all the junior creditors to coordinate and act in unison. This difficulty arises because of various problems, including a collective action and freeriding problem,¹²³ as well as the administrative and contracting costs of getting all creditors to agree to and be bound by uniform action.

The fourth cost is the costly negotiations that are required—in part because of the backdrop of current Chapter 11 law and the manner in which APR aligns incentives—for parties to reach the efficient outcome. These costs may prevent the senior creditor and the

¹¹⁹ In the § 363 sale context, discussed in Part IV, the stalking-horse bidder's incentive is to bid the lowest amount that the senior creditor will require to agree to the sale. Recall that, in an APR world, the senior creditor has no incentive to persuade purchasers to make or to hold out for a bid that equals the true value of the firm.

¹²⁰ The label "winner's curse" may be a little misleading. It describes the phenomenon in which a winning bidder knows that it has overpaid. But the equilibrium is often that the bidder anticipates this and therefore makes no bid. The result is that the asset is sold for a lower value. That is the equilibrium that is predicted where there is information asymmetry. See Paul Klemperer, *What Really Matters in Auction Design*, 16 *J Econ Persp* 169, 173 (describing how asymmetric information can depress auction bids as bidders attempt to avoid the "winner's curse"). "The [informationally] advantaged bidder wins most of the time. . . . [I]t also generally pays a low price when it does win." *Id.*

¹²¹ It is worth noting that the information asymmetry is often even more extreme, such as when the stalking-horse bid is a "credit bid" from the senior creditor. In those cases, the lemons problem (a kind of information problem) has been solved more cheaply by the senior creditor bidding to buy the company. But in those situations, other potential bidders will assume a greater level of informational advantage—after all, the bidder is now the same entity that is and has been controlling the firm—and will be even less likely to enter the bidding process. This is a cost of credit bidding—or any bidding by the secured creditor in an APR world—that has been overlooked by those defending the bidding rights of secured creditors. See, for example, Buccola and Keller, 18 *Geo Mason L Rev* at 120 (cited in note 108) (noting the information advantage of the senior creditor but not addressing the potential distortion that the advantage might create for the auction process).

¹²² See LoPucki and Doherty, 106 *Mich L Rev* at 41–42 (cited in note 3) (showing the rarity of a successful bid to displace the stalking horse and sales at a significant discount).

¹²³ The benefit of one creditor marketing the company or obtaining financing runs to all creditors in that class. So the single creditor cannot capture the full benefit of his efforts.

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junior creditor from negotiating agreements to jointly seek the optimal outcome.¹²⁴

On the other side of the equation, there are times when the junior creditors have too much power. As noted, there are well documented deviations from absolute priority.¹²⁵ These deviations reflect a shift in power from the senior creditor to the junior creditor. The common view is that these deviations result because procedures embedded in Chapter 11 provide junior creditors the opportunity to capture value through holdup.¹²⁶ Others have argued that many deviations result from the unpredictability of valuation.¹²⁷ Regardless of the source, this shift of power exists.¹²⁸

IV. OPTION-PRESERVATION PRIORITY MECHANISM

The creditors'-bargain model requires a distributional rule that—while respecting nonbankruptcy contract rights—maximizes the aggregate pool of assets in bankruptcy. This means protecting the secured creditor's right to nonbankruptcy foreclosure value and the unsecured creditor's call option, while allocating bankruptcy rights in a way that creates the optimal incentives for the creditors. The proposed Option-Preservation Priority does precisely that.

This Part starts with the prototypical Chapter 11 reorganization and asks what mechanism would maximize the bankruptcy assets while respecting nonbankruptcy rights.¹²⁹ In that prototypical case, senior secured creditors¹³⁰ have begun exercising control over a

¹²⁴ See Adler, *Game-Theoretic Bankruptcy Valuation* at *11–14 (cited in note 2) (describing the negotiation costs inherent in the current system).

¹²⁵ See sources cited in note 41.

¹²⁶ See, for example, Alan Schwartz, *A Contract Theory Approach to Business Bankruptcy*, 107 *Yale L J* 1807, 1836–37 n 69 (1998) (noting the widely held belief that bankruptcy procedures are used to capture value that belongs to senior creditors).

¹²⁷ See, for example, Baird and Bernstein, 115 *Yale L J* at 1970 (cited in note 20).

¹²⁸ While one could imagine a world in which the two distortions offset each other, that is not likely the world in which we live. In any given case, one party will gain control of the process, and the respective distortion will result. Thus, the distortions are cumulative. This is true because the holdup distortion in favor of the junior creditors is not measured in any way to counterbalance the transaction-cost distortion in favor of the senior creditors. We have unmeasured and unmeasurable distortions going both ways. And even if the power shifts were equal, it is not clear that a stalemate is the optimal outcome. To state the idea more basically: two wrongs do not make a right. For a more technical and rigorous mathematical proof of this childhood maxim, see Anthony Niblett, *Case-by-Case Adjudication and the Path of the Law* *25, 33–34 (unpublished manuscript, Oct 2010), online at <http://ssrn.com/abstract=1665184> (visited Feb 26, 2011) (showing that opposing extreme judicial rulings neither counterbalance one another, nor produce moderate outcomes).

¹²⁹ This model takes nonbankruptcy law as given. See note 43 and accompanying text.

¹³⁰ The overwhelming majority of firms that enter bankruptcy have senior secured debt. See note 4.

distressed firm before the decision to enter bankruptcy has been made.¹³¹ Thus the secured creditor, exercising control over a distressed firm, decides when the debtor will file for Chapter 11.¹³² Inside bankruptcy, the value to the secured creditor lies in the quick going-concern sale of the entire firm (referred to as a “§ 363 sale”). The less favorable bankruptcy path is for a drawn-out sale process or a full-blown reorganization.¹³³ The alternatives to bankruptcy for the secured creditor are (1) to foreclose¹³⁴ and sell the assets that are subject to its liens,¹³⁵ or (2) to finance the continued operation of the firm.¹³⁶ The first option can be a UCC sale or a combination of more complex procedures, depending on the assets of the debtor.

In assessing these options, the secured creditor is likely to have evaluated the potential buyers outside and inside bankruptcy. The norm for the § 363 sale is that the firm goes in with at least one bidder in hand (the stalking-horse bid).¹³⁷ After that, the bankruptcy court oversees an auction and the assets are sold to the highest bidder.¹³⁸ It should be clear from this scenario that the secured lender will not choose Chapter 11 if the payout from a foreclosure sale is higher than the payout from the § 363 sale.¹³⁹ The difference in value between Chapter 11 and the foreclosure sale can be explained by various nonbankruptcy

¹³¹ See sources cited in note 2. I assume that the senior creditor has not contracted away this right. See note 68.

¹³² See sources cited in note 2. This model assumes creditor control for two reasons. First, data suggest that senior creditors are controlling the vast majority of distressed firms prior to and during bankruptcy. See note 2. Second, it is in these cases that the fire-sale risk occurs. However, the mechanism still solves the creditor conflict where there is no senior creditor control—where the junior creditors (or equity) have made the decision to file for bankruptcy in hopes of holding off the senior creditors and avoiding foreclosure or have subsequently gained procedural control of the bankruptcy process. In those cases, the distortion is created by junior creditors’ incentives to block the quick sale in favor of a drawn-out reorganization even when the sale has the higher expected return for the estate. See note 158.

¹³³ To simplify my example, I treat a drawn-out sale or a bankruptcy-plan sale as the same as a full-blown reorganization. What I refer to as a quick going-concern sale might also include a sale to the secured creditor—likely by way of a credit bid. In that instance, the secured creditor would take over the firm. For the purposes of this model, a purchase by the secured creditor is no different from a going-concern sale.

¹³⁴ See UCC § 9-610.

¹³⁵ The senior lender will usually have a blanket lien on all assets. See Ayotte and Morrison, 1 J Legal Analysis at 523 (cited in note 2) (noting that 97 percent of pre-petition credit facilities are secured by all or nearly all of a firm’s assets). But they may choose or be forced to foreclose on just a subset of the assets in which they have a security interest.

¹³⁶ For a discussion, see Part II.

¹³⁷ See note 117. See also Part III.C.

¹³⁸ See Douglas E. Deutsch and Michael G. Distefano, *The Mechanics of a § 363 Sale*, 30 Am Bankr Inst J 48, 49 (2011) (summarizing the typical § 363 sale procedures and noting that the stalking horse may receive a breakup fee to incentivize its initial bid).

¹³⁹ This calculus will factor in the risks and costs that the § 363 sale carries for the secured creditor—namely, the risk that junior creditors will convince a court to hold up the process.

impediments to the foreclosure sale compared with the free-and-clear going-concern sale of the entire firm in Chapter 11.¹⁴⁰ Thus, where the senior creditor prefers a § 363 sale, that sale will be superior to a foreclosure sale.¹⁴¹

The proposed mechanism is that the senior creditor must buy out the junior creditor's option value before it can sell the company. The process for that buyout is a take-it-or-leave-it offer from the senior creditor to the junior creditor for the value of the option.¹⁴²

If the junior creditor takes the buyout offer, then the senior creditor pays the junior creditor the amount of the offer and sells the company.¹⁴³ If the junior creditor rejects the buyout offer, then the company continues to a reorganization where the junior creditor maintains its option or receives a judicially determined payout.

The equilibrium (as shown below) is that where a sale is efficient, the senior creditor will offer the junior creditor exactly the value of the call option, the junior creditor will accept the offer, and the sale will occur. Where a sale is inefficient, the senior creditor will not make a buyout offer or will offer somewhere between zero and its surplus from the sale (which is less than the junior creditor's surplus from no sale). The junior creditor will reject, and the sale will not occur.

¹⁴⁰ See Miller, 81 Am Bankr L at 385 (cited in note 1):

Today, Chapter 11 more often than not is a means to validate and sterilize the sale of a debtor's assets. This is accomplished by the use of § 363(b) of the Bankruptcy Code to effect a speedy sale of all or substantially all of the debtor's assets and expedite distributions, essentially, to secured creditors. The process gives buyers the benefit of asset sales that are blessed by a court and, often, are free and clear of liens and encumbrances under § 363(f) of the Bankruptcy Code.

Included in this is the ability to sell all assets together, which is sometimes not possible through foreclosure. See note 135.

¹⁴¹ The difference between the payout from a § 363 sale and a foreclosure sale may have significant implications for the dynamic decision to enter bankruptcy. If a proposed rule allowed a junior creditor to reduce a senior creditor's § 363 payout to a level below what it could receive in foreclosure, then that rule would create an incentive for senior creditors to avoid efficient bankruptcies and junior creditors to prefer inefficient ones. The model is designed to prevent that outcome. These dynamics are discussed below in Part IV.B. See also note 181.

¹⁴² As Barry Adler pointed out, the mechanism of a take-it-or-leave-it offer can reduce negotiation costs. See Adler, *Game-Theoretic Bankruptcy Valuation* at *24 (cited in note 2). The model functions most smoothly as a take-it-or-leave-it offer coming from the senior creditor. The offer from the senior creditor is preferable to an offer from the junior creditor. If the junior creditor makes the offer, then it will be able to appropriate the entire bankruptcy surplus. Where the senior creditor makes the offer—as the model demonstrates—the offer will equal the option value of the junior creditor. While there are questions about the effectiveness of such a mechanism in practice, here it allows us to isolate the efficient exchange that should be the lodestar of the reorganization process. Should this mechanism be implemented, judicial involvement may be required to smooth some frictions. This will be true of any bankruptcy system. It is true of the current APR world. The question to ask is whether the real-world frictions that a system imposes outweigh the benefits that system carries with it.

¹⁴³ This assumes that one level of junior investment has option value. See note 54.

The intuition here is that the offer from the senior creditor is forcing the junior creditor to internalize the cost of objecting to the sale. And the requirement to buy out the junior creditor is forcing the senior creditor to internalize the option value of the junior creditor when marketing the firm. The result is that both parties now have the correct incentives to maximize the sale-or-reorganization decision.¹⁴⁴ The added benefit of this measure is that the liquidity of the junior creditor is not an impediment to efficient equilibrium. Moreover, the coordination among multiple junior creditors is much less important (a committee or voting scheme can be created for accepting or rejecting a buyout offer).¹⁴⁵ The same is not true for APR, where the junior creditors are collectively required to make a buyout offer on the entire firm.

To illustrate the mechanism, this Part starts with a model of the buyout process—which protects the junior creditor’s option value—and describes its impact on the sale-or-reorganization decision. It then addresses how the mechanism adequately protects the senior creditor’s nonbankruptcy foreclosure value. Finally, it demonstrates how the mechanism works in situations where reorganization results.

A. The Buyout Process

Assume a firm has filed for Chapter 11. The secured creditor, holding a blanket lien, is in the driver’s seat and has lined up a stalking-horse bid. The decision facing the relevant parties is between a § 363 sale or a full-blown reorganization. For the sake of simplicity, I assume that the expected proceeds of the § 363 sale are equal to the stalking-horse bid (ω).¹⁴⁶ The reorganization will result in either a good

¹⁴⁴ Thus, the mechanism solves the problems of APR that are associated with both the distortion created by the senior creditor’s incentives and the distortion created by the junior creditor’s incentives. See note 106–07 and accompanying text.

¹⁴⁵ The sale of the option would likely have to be an all-or-nothing decision on behalf of all junior creditors. No junior creditor could accept a buyout if others refuse it. This decision could be achieved by a majority vote of junior creditors. Because the offer is a take-it-or-leave-it offer from the senior creditor to the group of junior creditors, strategic behavior should not be difficult to minimize. For example, courts could refuse to enforce side agreements between junior creditors, thus reducing the benefit to strategic holdouts. This outcome most faithfully respects the nonbankruptcy option value of the junior creditors. While there may be dispersed junior creditors, at no time before bankruptcy do they have an option to purchase pro rata portions of the firm separately. The creation of a committee and voting rules to accept or reject the bid could be easily accomplished. Currently, the Bankruptcy Code calls for the routine creation of a committee of unsecured creditors in most cases. See 11 USC § 1102(a)(1). The all-or-nothing nature of the option may be more complicated in the case of a full-blown reorganization. See notes 175–78.

¹⁴⁶ The fact that the bidding process may be expected to produce a higher bid does not change the outcome. The model holds as long as the value of ω is set equal to the expected proceeds from the auction.

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state of the world (probability = p) or a bad state of the world (probability = $1 - p$). We can express the relevant values as follows:

p = probability of good state of the world

$1 - p$ = probability of bad state of the world

L = face value of the secured debt

$$V = \begin{cases} \bar{V} \\ \underline{V} \end{cases}$$

\bar{V} = value of post-reorganization assets in good state of the world¹⁴⁷

\underline{V} = value of post-reorganization assets in bad state of the world¹⁴⁸

ω = stalking-horse bid

With these values, we can calculate the value of the aggregate pool of bankruptcy assets as either the stalking-horse bid or the cumulative expected value of reorganization for the entire estate:

$$1) \quad ts = \begin{cases} \omega \\ p\bar{V} + (1 - p)\underline{V} \end{cases}$$

The goal is to maximize that value. This means that we want a § 363 sale whenever the stalking-horse bid is greater than the expected value of reorganization:

$$2) \quad \omega \geq p\bar{V} + (1 - p)\underline{V}$$

We want a reorganization when the expected value of reorganization is greater than the stalking-horse bid:

$$3) \quad \omega \leq p\bar{V} + (1 - p)\underline{V}$$

Option-Preservation Priority provides that the senior creditor will make an offer to buy out the option value of the junior creditor. The junior creditor will then accept or reject that buyout offer. Thus,

B = offer senior creditor will make to buyout junior creditor's option

Taking the offer (B) into account, the senior creditor's payout from a sale will be the stalking-horse bid less the payout to the junior creditor ($\omega - B$). On the other hand, in reorganization the senior

¹⁴⁷ I assume that the parties have complete information on values but that a court has no information and cannot verify the parties' assertions.

¹⁴⁸ $\underline{V} < \omega$. Otherwise there would be no reason to sell.

creditor's upside is capped by the value of the senior debt L , and its downside is (\underline{V}) .¹⁴⁹ Thus, the senior creditor's expected payouts are:

$$4) \text{ Payout} = \begin{cases} pL + (1-p)\underline{V} \\ \omega - B \end{cases}$$

The senior creditor will maximize between these payouts. This means that the senior creditor is willing to offer up to the amount of the surplus of the stalking-horse bid over the senior creditor's expected payout from reorganization:

$$5) B \leq \omega - [pL + (1-p)\underline{V}]$$

In deciding whether to accept that offer, the junior creditor maximizes his payout. In a sale, the junior creditor gets the offered payment (B). In a reorganization, the junior creditor gets the surplus of a good state of the world over the face value of the senior debt ($\bar{V} - L$) or nothing in the bad state of the world. So the junior creditor's expected payouts are:

$$6) \text{ Payout} = \begin{cases} B \\ p(\bar{V} - L) + (1-p)0 \end{cases}$$

This means that the junior creditor is willing to accept the buyout offer where it is greater than the junior creditor's expected payout from reorganization:

$$7) B \geq p(\bar{V} - L)$$

In a take-it-or-leave-it world, the senior creditor—knowing the junior creditor's maximization function—will offer (and the junior creditor will accept) exactly the junior creditor's expected payout from reorganization:

$$8) B = p(\bar{V} - L)^{150}$$

From Equation 5, we know that the senior creditor will make that buyout offer as long as it is less than the surplus of the stalking-horse bid over the senior creditor's expected payout from reorganization:

$$9) p(\bar{V}) \leq \omega - [(1-p)\underline{V}]$$

This satisfies the condition for an efficient sale from Equation 2:

$$\omega \geq p\bar{V} + (1-p)\underline{V}$$

¹⁴⁹ Attributing \underline{V} to the secured creditor means that the secured creditor will finance the reorganization. I discuss and change this assumption below. See Part IV.B.

¹⁵⁰ Note that if $\bar{V} < L$, the bid will be zero. That represents cases where the option value is zero.

Note that the buyout offer here is exactly equal to the option value to which the junior creditor is contractually entitled.¹⁵¹ Sometimes, however, the surplus of the stalking-horse bid over the senior creditor's expected payout from reorganization is less than the junior creditor's expected payout from reorganization:

$$10) \quad p(\bar{V} - L) > \omega - [pL + (1 - p)\underline{V}]$$

When this occurs, the senior creditor will make no buyout offer and no sale will occur.¹⁵² That outcome satisfies the condition for an inefficient sale from Equation 3:

$$\omega < p\bar{V} + (1 - p)\underline{V}$$

Using concrete numbers, consider a world where the senior creditor has a lien for \$100 and a stalking-horse bid of \$60. Assume that the assets after reorganization have a 50 percent chance of being worth \$210 and a 50 percent chance of being worth \$0.

A sale nets \$60. Reorganization has a total expected value of \$105. The senior creditor's expected payout from reorganization is \$50. So the senior creditor wants a sale. The junior creditor's expected payout from reorganization is \$55.

Option-Preservation Priority results in the senior creditor being willing to pay up to \$10 (the difference between the stalking-horse bid and its expected payout from reorganization) to buy out the junior creditor. The junior creditor will reject any offer less than \$55 (its expected payout from reorganization). So, reorganization results.

Now assume instead that the stalking-horse bid is \$80 and the payout from reorganization is a 50 percent chance of \$150 and a 50 percent chance of \$0. The total expected payout from reorganization is \$75. The senior creditor's expected payout from reorganization is \$50. The junior creditor's expected payout is \$25. Here, the senior creditor is willing to pay up to \$30 to get the sale. The junior creditor will accept a

¹⁵¹ The values for the junior creditor's expected payout and the option value are simplified. In the real world, a valuation will be a function of time, potential values, and variance. But the values will still be equal.

¹⁵² This is because the senior creditor knows that any buyout offer it is willing to make will be rejected. The only offer that it is willing to make is less than the difference of the stalking-horse bid and the senior creditor's expected payout from reorganization:

$$B \leq \omega - [pL + (1 - p)\underline{V}]$$

And the only buyout offer that the junior creditor is willing to accept is greater than the junior creditor's expected payout from reorganization:

$$B \geq p(\bar{V} - L)$$

With the parameter in Equation 10, the buyout offer can never meet both of these requirements.

buyout offer as low as \$25 (the exact value of its option). The senior creditor will make a buyout offer at \$25, the junior creditor will accept, and the sale will go through.¹⁵³

B. Adequate Protection of the Senior Creditor's Nonbankruptcy Foreclosure Value

The mechanism described respects the nonbankruptcy rights of the junior creditor. But it does not fully protect the nonbankruptcy rights of the senior creditor. This creates a distorting effect under certain circumstances. Specifically, the results are not sustainable where V is below zero (or significantly below ω). In cases where we do not want a sale, the problem does not exist. But where we do want a sale, the result is that the senior creditor will be paying the junior creditor a sum that could approach or exceed the entire value of the bankruptcy estate. The junior creditor is getting compensated simply for the fact that bankruptcy is a costly process. This is holdup value, and it could substantially skew ex ante lending decisions.¹⁵⁴ It also raises liquidity problems for the senior creditor, such as when the senior creditor is a syndicate in for a loan of \$500 million and now has to buy junior creditors out for \$600 million.

To see this problem, assume that bankruptcy is costly and that there is a fifty-fifty chance of either \$400 or $-\$400$ after reorganization.¹⁵⁵ The lien is \$100. The stalking-horse bid is \$60. The expected value of reorganization is \$0. A sale is optimal. The junior creditor's expected payout from the reorganization is \$150. The senior creditor's expected

¹⁵³ This equilibrium also provides more certainty about the value that bankruptcy holds for the parties. It eliminates many of the procedural obstacles juniors use to gain uncertain holdup value and to keep their options alive as long as possible. This may facilitate nonbankruptcy deals that are difficult to strike in the current system. For example, a secured creditor may push for Chapter 11 reorganization to get a sale free and clear of junior claims. Under Option-Preservation Priority, they may be able to negotiate a nonbankruptcy release that accomplishes the same thing based on the parties' expectations of the outcome of the bargain that will occur in bankruptcy. Under APR, the parties may be unable to reach that outcome, because the junior creditors view bankruptcy as a lottery ticket. See Baird and Bernstein, 115 Yale L.J. at 1937 (cited in note 20). Certainly, in some APR cases, the senior creditors may pay the junior creditors to walk away. See *id.* at 1938. But the uncertainty associated with values of procedural holdup makes that equilibrium more difficult to achieve. See Jackson, 91 Yale L.J. at 861-67 (cited in note 10); Adler, *Game-Theoretic Bankruptcy Valuation* at *32 (cited in note 2).

¹⁵⁴ That would be an example of a violation of nonbankruptcy rights that distorts incentives and increases the cost of ex ante credit.

¹⁵⁵ The idea of a negative value may seem counterintuitive at first blush. The concept is that, in an extreme world, a rule could require the senior creditor to finance a costly reorganization. The senior creditor might be required to make further investment in, or to bear the administrative cost of, a risky reorganization in which that investment cannot be recouped in the bad state. No such rule exists or is being advocated. The extreme negative values are used simply to illustrate the point.

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payout is $-\$150$. The senior creditor will offer $\$150$ to the junior creditor to make it go away. In this world, the senior creditor gets its sale at $\$60$ but realizes a net loss of $\$90$ because it does not want to be stuck financing the junior creditor's big-stakes gamble.

In reality, this problem has a lower bound, because the senior creditor—prior to the bankruptcy—has the opportunity to foreclose and sell the assets, where:

$$f = \text{the value of the foreclosure sale}$$

If the senior creditor has an idea of the costs of reorganization prior to the filing, it will opt for the nonbankruptcy remedy where the difference between the stalking-horse bid and the buyout of the junior creditor is less than the foreclosure value:

$$11) \quad \omega - B \leq f$$

That puts a lower bound on the problem, but it also creates inefficiency. We would prefer that the senior creditor resort to nonbankruptcy remedies only where the stalking-horse bid is less than the value of a foreclosure sale:

$$12) \quad \omega \leq f$$

But this need not trouble us. All we need is a mechanism to put a lower bound on \underline{V} that does not change the incentives of the parties. That is to say, we need to protect the senior creditor by placing a limit on the amount of risk or cost of a bad state of the world that will be borne by the senior creditor in running the bankruptcy. We can call this lower bound “adequate protection” and set it equal to A . This means that if there is a reorganization, the senior creditor will receive no less than A in the bad state of the world. And where \underline{V} is less than A , the junior creditor will bear the risk and compensate the senior creditor for the difference $(A - \underline{V})$.

To see how this can solve the problem, reconsider the bankruptcy payouts for the parties under the proposed system and add a lower bound of A for \underline{V} .

The senior creditor's payout in a bad state is now A , so Equation 4 becomes:

$$13) \quad \text{Payout} = \begin{cases} pL + (1 - p)(A) \\ \omega - B \end{cases}$$

The senior creditor is now maximizing those payouts and will be willing to offer:

$$14) \quad B \leq \omega - [pL + (1 - p)(A)]$$

In the bad state of reorganization, the junior creditor is now on the hook for any bad state of the world that is below the adequate

protection lower bound ($A - \underline{V}$). Its expected payout from reorganization then becomes:

$$15) p(\bar{V} - L) + (1 - p)(\underline{V} - A)$$

So the junior creditor is maximizing:

$$16) Payout = \begin{cases} B \\ p(\bar{V} - L) + (1 - p)(\underline{V} - A) \end{cases}$$

The junior creditor is now willing to accept:

$$17) B \geq p(\bar{V} - L) + (1 - p)(\underline{V} - A)$$

Equations 2 and 3 still hold true. And where we want a sale, the equilibrium from Equation 8 becomes:

$$18) B = p(\bar{V} - L) + (1 - p)(\underline{V} - A)^{156}$$

This buyout offer will always be accepted where the sale is efficient (where Equation 2 holds). This gets us the same answer to the sell-or-reorganize question. The only difference is that instead of receiving nothing in a bad state, the junior creditor must finance the reorganization to the tune of $A - \underline{V}$.

Where do we set the adequate protection lower bound (A)? The creditors' bargain tells us that we must respect (that is, adequately protect) the nonbankruptcy contract rights of the creditors. Above, I identified the nonbankruptcy contract right of the secured creditor as the right to foreclose and sell the assets. This principle provides a value for A : $A = f$.¹⁵⁷

Setting A at the asset value outside bankruptcy respects the nonbankruptcy rights of the parties to the fullest. This solution also eliminates inefficient resort to nonbankruptcy remedies, as the senior creditor will be guaranteed to receive at least its nonbankruptcy remedy in a full reorganization. Thus, the senior creditor will never make a buyout offer that is greater than the difference between the stalking-horse bid and the value of a foreclosure sale, so that:

$$19) \omega - B \geq f$$

¹⁵⁶ This is just the junior creditor's new expected payout from reorganization.

¹⁵⁷ A similar mechanism already exists (but is not optimally used) under current bankruptcy law: "adequate protection." See 11 USC §§ 361, 362(d)(1), 363(e), 364(d) (providing the rules for adequate protection of secured creditors' interests). See also *United Savings Association of Texas v Timbers of Inwood Forest Associates, Ltd.*, 484 US 365, 377-79 (1988) (discussing adequate protection and holding that secured creditors are entitled to protection up to the value of the collateral but not interest in that value during the bankruptcy). I say "not optimally used" because currently adequate protection is calculated with no correlation to f . Rather, it is set at a value that is likely to be ω . See *id.*

This means that the senior creditor will never resort to nonbankruptcy remedies when $\omega \geq f$.

As f increases, the financing costs of the junior creditors in a reorganization go up. This reintroduces some of the liquidity concerns that we are trying to solve. But that constraint has no real impact. The liquidity problem could be described this way: if Equation 20 holds true, then the junior creditor will accept a deal inefficiently.

$$20) (1 - p)(\underline{V} - A) \leq \text{Liquidity Limit}$$

If we assume the junior creditor has no money to finance the bankruptcy, then it will be forced to accept a buyout offer (even if inefficient) where:

$$21) (1 - p)(\underline{V} - A) \leq 0$$

Where $A = f$, it will accept an inefficient buyout offer where:

$$22) (1 - p)(\underline{V} - f) \leq 0 = (\underline{V}) \leq (f)$$

But that is just to say that the junior creditor will be forced to acquiesce in a sale where the possible downside is lower than the senior creditor's nonbankruptcy remedies. This will not have any effect on behavior, because in the absence of this adequate protection, the senior creditor would have opted for nonbankruptcy remedies in those situations. So setting adequate protection at f reduces the inefficient nonbankruptcy remedy¹⁵⁸ and does not cause any additional reduction in efficient sales (because they are occurring outside bankruptcy).¹⁵⁹

Finally, it is unlikely that the liquidity limit is zero. Possibly, junior creditors could provide or obtain some level of financing through postpetition lending provisions.¹⁶⁰ And as f and ω diverge, there will be more and more room for financing the efficient project.¹⁶¹

¹⁵⁸ Moreover, it eliminates attempts by junior creditors to use bankruptcy to avoid foreclosure or to appropriate holdup value. As long as the senior creditor is guaranteed f , the junior creditor has no incentive to push a firm into bankruptcy if a value in excess of f is unachievable.

¹⁵⁹ Thus, the only liquidity issue that exists is one that exists regardless of bankruptcy law. This is a nonbankruptcy issue for another article. See note 43 and accompanying text.

¹⁶⁰ Postpetition financing or DIP financing can be offered or obtained with approval of the court and can be granted "superpriority" over all other claims. 11 USC § 364(c). See also Baird and Rasmussen, 154 U Pa L Rev at 1239-40 (cited in note 2).

¹⁶¹ The rule proposed here assumes that courts can implement adequate protection mechanisms with some competence. There is some evidence to suggest they can. See, for example, Edward R. Morrison, *Bankruptcy Decision Making: An Empirical Study of Continuation Bias in Small-Business Bankruptcies*, 50 J L & Econ 381, 411 (2007) (finding that bankruptcy judges are competent in making decisions about when to terminate reorganization and liquidate firms). If that assumption is not correct and courts cannot do this, then significant costs would be associated with the Option-Preservation Priority rule. But the same is true of the

C. Reorganization

Throughout this Part, I have assumed that there is a nonsale equilibrium—what I call a full-blown reorganization—that preserves the option value of the junior creditor. It is worth examining the details of that equilibrium, as they require additional deviations from the current rules of bankruptcy.

This reorganization is an unlikely outcome. The senior creditor and the debtor (who has the best information) now have the incentive to jointly market the firm and get the highest sale price. Assuming that they can overcome the informational barriers discussed above, this means that in most cases the sale will occur. This is a reasonable assumption—today a senior creditor is competent at marketing to a stalking horse who bids at a level to satisfy its reservation price. Under Option-Preservation Priority, the senior creditor will set its reservation price at a level that internalizes the option value of the junior creditor. The parties have a joint incentive to market and provide information to a stalking-horse bidder to achieve that price. Moreover, if that cannot be accomplished, the senior creditor will likely buy out the junior creditor and run the company itself.¹⁶² This is the analogue to a credit bid under APR. Under APR, the senior creditor can credit bid, but it will not have to pay true value because of its information advantage over outside parties.¹⁶³ In fact, in the APR world, the senior creditor has every incentive to make the company look less valuable than it really is so that it can win the auction with a credit bid that is below the face value of the senior debt. Under Option-Preservation Priority, senior-creditor takeover no longer carries that cost, because the senior creditor makes the buyout payment to the junior creditor rather than a credit bid—the information disadvantage of third-party bidders becomes irrelevant. Thus, the reorganization occurs only in the unlikely scenario in which the senior creditor and the junior creditor with aligned incentives cannot credibly convey the market value of the company *and* the senior creditor does not buy out the junior creditor for its own benefit.

That story cleanly wraps up the model. But it plays out that way only if reorganization actually does preserve the option value.

current APR. Both systems require the enforcement of an adequate-protection mechanism. Thus, any failure of such a mechanism suggests that Option-Preservation Priority may be imperfect but is still superior to APR for all of the reasons discussed above. If further research demonstrated that courts are not competent in this arena, then an area for future work would be the design of alternative methods of adequate protection. Such work would be fruitful under either APR or Option-Preservation Priority.

¹⁶² Senior creditors are likely able to self-finance and often do.

¹⁶³ See Part III.C.

Reorganization as it currently stands does not. The firm continues to operate for a period of time, and the junior creditor realizes a subset of its future possibilities, but ultimately APR requires the collapsing of interests in future value.¹⁶⁴ If that is the alternative to the sale process in Option-Preservation Priority, then the senior creditor will have no incentive to make an offer in the initial buyout period—it will be better for it to wait for reorganization to destroy the junior creditor's option. Knowing this, the junior creditor will be willing to accept a buyout offer far below its option value. Equilibrium unravels, and APR prevails.

Therefore, the reorganization for Option-Preservation Priority must continue to respect the nonbankruptcy rights—including option value—of the parties. Failing to do so would skew their incentives at the buyout stage. Reorganization must provide that the parties receive rights in the new entity or some other payment of value that is equivalent to their nonbankruptcy rights. There is no perfect means to accomplish this.¹⁶⁵ Thus, proper implementation of Option-Preservation Priority will require an assessment and comparison of costs associated with the potential mechanisms.

The two main candidates are (1) a judicial valuation of the option value followed by a cash or equity payment of that value to the junior creditor¹⁶⁶ and (2) awarding the junior creditor options in the reorganized firm.

The first method—valuation—is imperfect because it requires judicial valuation. This imperfection makes it second best to a world where valuation can be obtained costlessly. But Option-Preservation Priority with valuation is still superior to APR. This is true because APR requires an even more costly judicial valuation. Where junior creditors credibly object to a sale, or where a reorganization is pursued in an APR world, the courts are required to value the entire debtor's estate. That valuation is more complex and more costly than the judicial valuation of the junior creditor's option.¹⁶⁷ Moreover, the

¹⁶⁴ This allows the junior creditor to take a wait-and-see approach, but only in the short run.

¹⁶⁵ This does not render the project a failure. The relevant comparison is whether the system brings more friction than it eliminates.

¹⁶⁶ Cash is the better option. Distributing the value as equity in the new firm would require two judicial valuations: the first to determine the value of the call option, and the second to convert that value into equity.

¹⁶⁷ The valuation of a firm as a whole requires a valuation of future options. In practice, experts often construct models of cash flow projections over several years. Those projections will weight estimates for the likelihood of various contingencies. Additionally, the models will then use a terminal value estimate (the likely value of the firm at the end of the period of estimated cash flows). Thus, one cannot say that a firm is worth \$100 today without determining the likelihood that it will be worth \$200 tomorrow (which is the same as determining the option value). An example of the difficulties in valuing an entire firm can be found in the bankruptcy proceedings of Calpine

variance in dollar terms will be much greater for the APR valuation of the entire firm.¹⁶⁸ This means that there will be less incentive for the parties to litigate in hopes of reaping the benefit of an anomalous variance.¹⁶⁹

Most importantly, in APR the out-of-the-money junior creditors always stand to gain from playing the variance lottery.¹⁷⁰ Imagine a firm that is worth \$90 with a senior lien of \$100. Now add a 20 percent valuation variance in either direction. The court will overvalue the firm at \$108 half of the time and undervalue it at \$72 half of the time. The junior creditor gets \$8 from an overvaluation and \$0 from an undervaluation. If the junior creditor forgoes the valuation, it gets \$0. The obvious incentive is for the junior creditor to litigate the valuation (with an expected outcome of \$4).

This is not the case with variance in Option-Preservation Priority. Here the junior creditor bears the downside and the upside of the variance. If the option in the same firm is worth \$10 and there is the same variance, then the junior will either get \$12 or \$8. The expected value of valuation is \$10. The expected cost to the senior creditor is \$10. Both the senior creditor and the junior creditor are just as well off (better if we throw in litigation costs) if the senior creditor offers \$10 in the first instance and the valuation is avoided. This way the

Corporation. In a hotly disputed valuation, three groups—equity, management, and creditors—proposed separate value estimates that ranged from \$11.9 billion to \$25.5 billion. The credibility of these estimates turned largely on the credibility of multiyear assumptions about such things as geothermal-power production rates and politics. After tens of millions of dollars and months spent on expert analysis and trial preparation, the parties settled on the day of trial for a valuation of \$18.95 billion. Incidentally, as part of the December 2007 settlement, equity received options (with an expiration date of August 26, 2008) to purchase 10 percent of the reorganized firm's equity at a strike price that would equate the firm's value to \$22.3 billion. See Rebecca Smith, *Calpine Bankruptcy Plan Is Cleared*, Wall St J A10 (Dec 20, 2007); Report of Court-Appointed Expert Bridge Associates LLC Concerning Valuation of Calpine Corporation and Affiliated Debtors: Executive Summary, *In re Calpine Corp.*, No 05-60200, *2-3 (Bankr SDNY filed Dec 18, 2007) (available on Westlaw at 2008 WL 7826292) ("Calpine Report"). Calpine's stock actually traded near the strike price of those options during the spring and summer of 2008. And in May of that year, its directors rejected a merger offer that valued the firm at 96 percent of the value implied by the strike price because the offer was "inadequate and materially undervalue[d] the Company's unique asset portfolio and future prospects." See Calpine Corporation, *Calpine Determines That NRG Proposal Is Inadequate and Materially Undervalues Company; Authorizes Advisors to Ascertain Whether Basis Exists for Discussions* (May 30, 2008), online at <http://phx.corporate-ir.net/phoenix.zhtml?c=103361&p=irol-newsArticle&ID=1152082> (visited Feb 26, 2011); Rebecca Smith, *NRG, after Rejection, Ends Calpine Effort*, Wall St J A4 (May 31, 2008).

¹⁶⁸ For example, consider a 10 percent variance in valuing a \$10 billion firm compared to a 10 percent variance in valuing a \$100 million option in that same firm. Again, the settlement in the Calpine bankruptcy—awarding options to equity to settle an \$8 billion valuation differential—demonstrates the point. See Smith, *Calpine Bankruptcy Plan*, Wall St J at A10 (cited in note 167).

¹⁶⁹ Litigation costs will not decrease by the same order that the variance does.

¹⁷⁰ See Baird and Bernstein, 115 Yale L J at 1939 (cited in note 20).

equilibrium from the buyout model is restored, and the reorganization is an unlikely outcome.

The second mechanism is to preserve the junior creditor's option (with its strike price constant at the face value of the original senior debt) and award the remainder of the firm to the senior creditor.¹⁷¹ The award of such options is not unprecedented or particularly difficult.¹⁷²

The mechanics would be for the firm to emerge from bankruptcy as soon as the new capital structure was devised¹⁷³ and for the firm to proceed with completing its future project. In the model presented above, the option would be exercisable in the final period when the value of the firm was revealed. As noted, the exercise of the option would likely be an all-or-nothing decision on behalf of all junior creditors.¹⁷⁴ This respects the nonbankruptcy option value of the junior creditors.¹⁷⁵ This does not reintroduce liquidity problems associated with the current system of § 363 sales. In the current system, junior creditors are required to coordinate to make an all-or-nothing bid for a firm at the time of reorganization based on their valuation of future possibilities. That is a credit risk. With the post-reorganization option,

¹⁷¹ In pure valuation terms, this is similar to awarding the equity to the junior creditors subject to a lien on all assets held by the senior creditors. But that would be inappropriate, as the senior debt carried with it significant control rights.

¹⁷² See, for example, *In re Young Broadcasting Inc.*, 430 BR 99, 109 (Bankr SDNY 2010) (approving a plan that "provides equity warrants in NewCo to the Noteholders if they voted to accept the Debtors Plan"); *Calpine Report* at *8 (cited in note 167) (concluding that a settlement agreement that would provide warrants to shareholders was fair and reasonable); Debtor's Second Amended Joint Plan of Reorganization, *In re LaRoche Industries, Inc.*, No 00-1859, *10-11 (Bankr D Del filed Mar 29, 2001) (proposing a reorganization plan distributing securities that could later be converted into common stock); Joseph Checkler, *Judge Approves Truvo's Plan to Emerge from Bankruptcy*, Daily Bankr Rev (Oct 26, 2010), online at <https://www.fis.dowjones.com/article.aspx?aid=DJFDBR0020101026e6aq000b5> (visited Apr 22, 2011) (describing a plan that includes warrants for junior bondholders); Rebecca Smith, *Calpine Bankruptcy Plan*, Wall St J at A10 (cited in note 167) (describing a plan that gave to equityholders a call option that would be in the money only if the market capitalization of the reorganized firm exceeded \$22.3 billion).

¹⁷³ Again, the Modigliani-Miller proposition tells us that the existence of these options will not affect the value of the firm. See Part III.A.

¹⁷⁴ This may require the court to appoint an administrative agent or creditors' committee. Courts routinely provide such a function under current bankruptcy law. See note 145.

¹⁷⁵ An alternative that falls slightly short of this metric would be to allow the non-expiring options to be exercised on a pro rata basis. Imagine one hundred junior creditors and one hundred senior creditors—all equally situated within their class. If only fifty junior creditors exercised their shares of options at one time, that would purchase half of the equity taken pro rata from each secured creditor (or subsequent equity holders who purchased from the secured creditors). In this world, the options would of course look like Bebchuk options with the key distinction that they would never expire. For Bebchuk, the expiration of the options was key to replicate APR. See Bebchuk, 101 Harv L Rev at 785 (cited in note 24). For Option-Preservation Priority, the opposite is required to replicate nonbankruptcy contract rights. In the end, the differences between partial- and complete-exercise requirements may be semantic. As Bebchuk explains, in a system that allows partial exercise, such exercise is both unlikely and logistically unproblematic. See id at 787-88. See also note 71.

the junior creditors wait until the good state of the world materializes, and then they can cash in. For example, they might be exercising an option to buy a company for \$100 at a time when that company is now worth \$200. There is no credit risk in that transaction. Indeed, the exercise will likely result in a simple collection of \$100 or 50 percent of equity from the senior creditors.

In more complex models, there may be several periods prior to realization of the final project value. This does not change the outcome. In a multiperiod or continuous model, the option will remain open until exercised or bought out.¹⁷⁶ To see that this outcome protects nonbankruptcy contract rights, consider again the rights of the junior creditors prior to Chapter 11. They have an option to buy the firm at a strike price that is equal to the face value of the senior debt. That option is open as long as they have not been paid in full. At any time, they could waive default, forbear on any given payment, and extend the payment terms indefinitely.¹⁷⁷ By doing that, the only right that can extinguish their non-expiring option is the foreclosure right of the senior creditor, which the model above addresses. This mechanism also satisfies the creditors'-bargain model: the right of indefinite waiver to keep the option open has no effect on the value of the firm prior to bankruptcy.¹⁷⁸ By distributing a nonexpiring option to the

¹⁷⁶ Post-reorganization, a market can arise for trading in the option. Essentially, after the company emerges, the senior creditor—or anyone else—can buy out the option if the junior creditor is willing to sell. The key to the take-it-or-leave-it option explained above is simply that such a market cannot arise until after the sale-or-reorganization decision is made and the company emerges from Chapter 11. The existence of this market might be hampered by the all-or-nothing nature of the proposed options. The lack of such a market might be problematic. The senior creditor would now be in control of a company for which the upside over the strike price runs entirely to the junior creditors (or to former equity holders). In a fluid market, the senior creditors could purchase those options at market value to capture the benefits of their labor. But where a market does not exist, the senior creditor may just shirk or threaten to shirk to drive the price of those options down. Laws of fiduciary duty might be called on to alleviate this problem. But if we are skeptical of the efficacy of such laws, the alternative pro rata exercise mechanism discussed in note 175 might be the optimal alternative to reduce the power of the shirking threat.

¹⁷⁷ Because any creditor can forbear from demanding payment, it is not accurate to think of the option as expiring on the maturity date of the debt. Rather, the option of the junior creditor—like that of equity—is one with no expiration date.

¹⁷⁸ If these nonexpiring options created a new debt-overhang problem, that would affect the value of the firm. They do not. The options are not debt. They are simply a component of equity that has been separated from the remainder—which is held now by the senior creditors. Like any equity, the options are subordinated to new debt that the firm takes on. This outcome results automatically. For example, consider where the firm is worth \$80 and the options have an exercise price of \$100. If the reorganized firm borrows \$80 in new debt, its value does not change. It has \$80 of cash offset by \$80 of debt, and it still has \$80 of value in its original assets. If the \$80 in cash is spent on a project that is a wash and produces \$80 in revenue, then the new creditor is paid in full. The option holder gets nothing because nothing accrued to the value of the company. If the option holder exercised the option while the debt was out, it would have bought the

junior creditor, the mechanism provides the junior creditor with the contract right it possessed in the distressed firm prior to Chapter 11: payment was in default, but the option right continued to be open indefinitely.

This proposed mechanism is imperfect because it does not eliminate agency costs entirely. The old senior creditors possess the control rights but do not enjoy the entire upside. In theory, they may forego value-maximizing projects because they bear the downside risk without enjoying all of the benefits. Assume that the call option has a strike price of \$100, and the old senior creditors must choose between two projects, one that pays \$80 with certainty and the other that pays \$180 or \$0 with equal probability. They will favor the former even though it is not wealth maximizing. There are, however, a number of reasons to think that this problem might be small in practice. Market transactions separating control from residual ownership are common,¹⁷⁹ as are fiduciary duty laws guiding sophisticated management in serving the interests of various classes of investors.¹⁸⁰

But these factors are unlikely to eliminate the agency cost entirely, and that will affect the equilibrium in the buyout stage. The senior creditor might make a reduced offer knowing that the junior creditor fears a reorganization that carries these agency costs with it. If the agency costs turn out to be significant, that will certainly counsel against surviving options and in favor of the judicial valuation approach described above.

The mechanism I have just described, by achieving the optimal outcome to the sale-or-reorganization question, maximizes bankruptcy assets.¹⁸¹ And, in contrast to APR, it does so without assuming away the

company (for \$100) along with all of the assets and liabilities (\$80 in assets, \$80 in debt, and a project that will ultimately produce \$80 in cash). The new creditor would still be paid in full.

¹⁷⁹ Investors regularly construct capital structures in which junior investors cede control rights to senior investors notwithstanding this cost. For example, secured creditors have contracted to exercise control of firms in periods of distress despite residual ownership by the junior creditors and equity. See note 2. For examples of reorganization plans where parties approved securities that separated control from residual ownership, see sources cited in note 172. Similarly, the rising trend in second-lien credit has included a common provision for a "silent" second lien. See Baird and Rasmussen, 154 U Pa L Rev at 1247–48 (cited in note 2). This means that even though the first-lien holder does not enjoy the entire upside, the contracts provide that the first-lien holder will exercise complete control. In these situations, contracts may often address the agency problem. See Baird and Henderson, 60 Stan L Rev at 1330 (cited in note 7).

¹⁸⁰ Additionally, to the extent there are projects that are underpursued, senior creditors will have the incentive to buyout the options of the junior creditor and undertake the projects. As long as there is a fluid post-reorganization market for these options, that equilibrium should result. For a discussion of developing the options market, see notes 175–76.

¹⁸¹ The model focuses on firms that have going-concern value for which bankruptcy brings some added value. There is good reason for this. Those are the cases with which Chapter 11 is primarily concerned. See Blum, 25 U Chi L Rev at 418 (cited in note 25) ("[T]he very reason for reorganization lies in the existence of substantial going concern value which would be destroyed

liquidity and coordination constraints on the junior creditors. The mechanism also prioritizes the distribution of assets in accordance with the nonbankruptcy contract rights of the parties.¹⁸² The existence of such an alternative deepens the puzzle I started with (why APR?) and suggests that there may be no direct answer. Indeed, the more sensible approach to reorganization may be a priority mechanism that protects the nonbankruptcy rights of both senior and junior creditors.

CONCLUSION

This Article has shown that the absolute priority rule is not supported by the foundational theory upon which it is built. Rather, that theory—the creditors’ bargain—produces an alternative distribution rule that looks quite different from absolute priority. To arrive at that new rule, I apply the creditors’-bargain model and identify the nonbankruptcy rights that the bargain will seek to protect (1) the senior creditor’s nonbankruptcy liquidation value of the collateral; (2) the junior creditor’s option value; and (3) the senior creditor’s right to the residual value—after the junior option has been paid out—up to the face value of the senior debt. The model presented shows that a mechanism—Option-Preservation Priority—that protects those rights achieves the optimal answer to the sale-or-reorganization question and therefore maximizes the expected value of the firm’s assets in bankruptcy. Thus, Option-Preservation Priority promotes an ex ante efficient bargaining result.

by quick liquidation of the enterprise.”); Lynn M. LoPucki, *The Nature of the Bankrupt Firm: A Response to Baird and Rasmussen’s The End of Bankruptcy*, 56 *Stan L Rev* 645, 651 (2003) (“Reorganization preserves the bankrupt firm’s going-concern value.”). If bankruptcy brings no value or the firm is more valuable if sold off in pieces, then Chapter 7 or foreclosure is the appropriate tool for resolution. Still, the model achieves the optimal outcome even where Chapter 11 is initiated for the wrong firms. It does this by adequately protecting the nonbankruptcy foreclosure value of the secured creditors, while eliminating the opportunity for junior creditors to capture holdup value. This eliminates the incentive—which exists today—for strategic but inappropriate resort to Chapter 11. See note 158. For example, a debtor may file in hopes of evading foreclosure. But the senior can then sell the company (or credit bid for it) at foreclosure value with an offer of \$1 to the junior creditor. If the junior refuses, the reorganization will proceed only if the junior shows that the company is worth more than the foreclosure value and that reorganization does not threaten the value. If the junior cannot do this, the senior can invoke the adequate protection provision and sell the company. See note 157.

¹⁸² One corollary of the proposal would be to reduce opportunities for junior creditors to obtain procedural holdup value. Those opportunities are pervasive under the current system. Many argue that they have little justification. See, for example, Schwartz, 107 *Yale L J* at 1850 (cited in note 126); Lucian Ayre Bebchuk and Howard F. Chang, *Bargaining and the Division of Value in Corporate Reorganization*, 8 *J L, Econ. & Org* 253, 255–56 (1992). Reduction in junior creditors’ holdup opportunities would certainly be possible and desirable in an Option-Preservation Priority world.

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Broadly, this project can be viewed as developing a new foundational rule upon which to build reorganization law. More narrowly, it raises major doubts about the absolute priority rule. At the very least, that an alternative rule, based on the same foundational model, can achieve the goals of APR in a more effective way raises doubts about APR's central role in reorganization law. Because the supporters of the rule cannot point to the creditors' bargain as foundational support for the rule, they need a compelling reason to assume that all viable proposals must start with APR. But that compelling reason appears to be lacking. The costs that APR is claimed to reduce are not costs that impact the real world. Meanwhile, the costs that do affect the real world are not addressed by APR. Thus, for APR to prevail, its supporters need to show that there is some assumption that, when relaxed, creates a problem that is uniquely solvable by APR. But that same endeavor could be undertaken for any potential distribution rule and should not be a realm occupied solely by APR.

The radical nature of this proposal—a *de novo* analysis of the efficient foundational rule for reorganization—necessitates some incompleteness. The point of this Article is not to propose a precise mechanism but rather to show that the optimal distribution rule required by the creditors'-bargain model is one that protects the nonbankruptcy rights of the senior *and* junior creditors. Indeed, further analysis would be required to see what costs arise when certain assumptions are relaxed to fit the model to the real world. But that analysis is no different from what has been ongoing for the absolute priority rule.