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Essays on Corporate Bankruptcy Law

By

Alex Zhicheng Huang

A dissertation submitted in partial satisfaction of the

requirements for the degree of

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in

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in the

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of the

University of California, Berkeley

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Professor Kenneth Ayotte, Chair

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Abstract

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During reorganization, a firm must make two distinct types of decisions: operational and distributional. Operational decisions focus on asset deployment, such as selling assets and securing financing. Distributional decisions address creditor seniority and payoffs under the plan of reorganization. The timing, goals, and decision-making authority for these decisions differ markedly. Operational decisions occur early in the case with the goal of maximizing asset value, governed by the debtor's management business judgment. Conversely, distributional decisions aim to respect priority rules later in the case, governed by procedural protections and multilateral creditor negotiations.

However, many recent corporate reorganization cases have shown a complex interplay between operational and distributional decisions. This dissertation will use doctrinal analysis, computational methods, and formal modeling to explore these new developments in bankruptcy law practice.

Chapter I offers a new analytical framework to examine the interplay between operational and distributional decisions. Bankruptcy transactions are categorized into crossover and non-crossover transactions. Crossover transactions uniquely affect both operational aspects and distributional aspects, leading to circumvention of procedural safeguards tailored for distributional decisions. Crossover transactions are further divided into inherent and strategic crossovers.

Using J.C. Penney as a case study, Chapter I argues that judges should adopt two strategies: standardization and unbundling. Specifically, judges should standardize the distributional effects of inherent crossovers to protect the interests of other creditors and unbundle the distributional effects that are strategically bundled into purely operational transactions.

Drawing on empirical evidence, Chapter II examines bundling further, whereas Chapter III, employing formal models, explains standardization. Chapter I introduces the theory of bundling. Additionally, some case studies demonstrate how distributional effects are bundled into a transaction. However, anecdotal evidence cannot answer whether this bundling is merely incidental or a broader trend, nor does it pinpoint when the shift occurred. Therefore, this chapter employs network analysis to systematically examine this significant paradigm shift from unbundling to bundling.

Judges, when deciding cases, only cite statutes together that are doctrinally connected, similarly to how they co-cite related precedents. A shift from a section being rarely co-cited to frequently co-cited with another, can thus signal a doctrinal evolution. Based on 6,439 opinions, this article constructs the first co-citation network of U.S. bankruptcy law. Through co-citation analysis and community detection, it reveals that prior to 2005, only sections of similar nature were frequently co-cited and thus located within the same community. Conversely, post-2005, operational sections such as Sections 363 and 364 began to be frequently co-cited with the distributional section like Section 1129. This resulted in their merging into the distributional section community. The transition of diverse sections from separate to unified communities verified the shift from unbundling to bundling. This chapter provides the first empirical examination of a significant shift in bankruptcy jurisprudence. Furthermore, this chapter introduces community detection to legal studies for the first time, with potential applications to other statutory fields.

Chapter III models how judges select standard and non-standard Debtor-in-Possession (DIP) loans for payments to analyze standardization. DIP loans provide the necessary liquidity for the reorganization process of a cash constrained firm. In many recent reorganization cases, the DIP loan is not a traditional, standard debt claim paid through cash. Instead, the DIP loan is compensated with non-standard, equity-linked securities, tied to the uncertain future of the reorganized firm.

Chapter III models this recent DIP financing development to show the trade-offs of different payments. Although standard DIP loans are more conducive to ensuring fair treatment among creditors, they require the firm to spend more cash ex post. Cash compensation may lead to the erosion of firm-specific assets, thereby lowering the firm value. On the other hand, non-standard DIP loans are more favorable for preserving firm-specific assets but might result in an excess payment for the DIP lender. The excess payment enjoyed exclusively by the DIP lender violates the priority rule of bankruptcy law, as it results in unfair treatment among creditors.

The model shows how a bankruptcy judge balances maximizing firm value and defending priority rules when approving DIP loans. The judge will approve a non-standard DIP loan under two circumstances. First, when the DIP lender possesses private information about a high future firm value. A judge, lacking such private information, may approve the non-standard DIP loan, as he does not perceive that the DIP lender receives excess payment. Second, even if the judge is aware that the DIP lender obtains an excess payment in violation of the priority rule, he might still approve the non-standard DIP loan for the sake of firm value. This shows that excess payment is based on the private information or the legal monopoly over the provision of DIP loans, permitted by bankruptcy law.

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I would like to begin by expressing my profound gratitude to my advisor, Professor Kenneth Ayotte. The Chapter I of this dissertation is also a product of our collaboration. I still recall that our co-authorship began when I shared my thoughts on his work. To my surprise, Ken offered to collaborate. The numerous discussions we've had, both academic and personal, have been immensely enriching. Without a doubt, he has been a dedicated mentor, a wise co-author, and a good friend.

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I would like to thank the bankruptcy law professors who have assisted me, although I cannot name them all. Bankruptcy law researchers form a small group, but I have found many professors within this community willing to offer support. Using the network analysis terminology from Chapter II's, bankruptcy law scholars as a community exhibit high modularity.

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CHAPTER I

STANDARDIZING AND UNBUNDLING THE SUB ROSA DIP LOAN

INTRODUCTION

Imagine the following alternative to chapter 11. The debtor arrives in court at the first day hearing and announces which of the existing creditors they recommend to receive the “golden ticket.” The golden ticket gives the recipient full ownership of the company’s assets, free from the claims and interests of any other creditors. The judge verifies that the ticket holder is a creditor, but otherwise defers to the debtor’s judgment as to how the winner is chosen; the amounts and priorities of the prepetition claims need not play any role in determining the winner.

Today’s chapter 11 is not “golden ticket bankruptcy” yet, but it is quickly approaching it. Through DIP loans tied to reorganization plan outcomes, early stage hearings about DIP loans bear increasing resemblance to golden ticket hearings, allowing the debtor and its chosen DIP lender coalition to determine both the fate of the bankrupt firm and the lenders’ own payoffs in the reorganization plan. Sometimes, this is done directly through terms in the loan agreement itself. Another common device is tying the DIP loan to a restructuring support agreement (“RSA”).¹ The RSA conveys control rights to a subset of the creditors during the case and outlines payoffs to creditors in the eventual plan. Plan payment rights tied to DIP loans often include exclusive rights to purchase equity at a substantial discount to the plan values (rights offerings) and fees for making this commitment (backstop fees).² Deviation from the RSA is an event of default under the DIP loan, so that pursuit of any other path risks immediate liquidation.

It is easy to understand why chapter 11 is moving in the direction of the golden ticket. Golden ticket bankruptcy would be ideal for achieving bankruptcy’s asset-side goal: maximizing the value of the bankruptcy estate. Being an undivided owner of the company, the golden ticket holder would keep the firm alive whenever it is more valuable that way. Intercreditor disputes would vanish, along with the uncertainty and cost they create. Debtors and DIP lenders make exactly these arguments in seeking approval of the modern DIP loan. The RSA guarantees consensus among its signatories, they argue, reassuring key stakeholders that the company has a clearer and faster path to emergence. This eliminates cost and uncertainty that might put the company’s very survival at risk.

Of course, the main cost of this approach is the respect for priorities, bankruptcy’s main liability-side goal. Though the absolute priority rule is considered the *sine qua non* of bankruptcy, the benefits of defending priority are much harder to see. They are mostly realized before the bankruptcy occurs, and through less apparent channels, such as greater access to credit and lower costs of capital for healthy firms.³ By the time the company approaches the bankruptcy judge for

¹ A restructuring support agreement (RSA) is a contract between the debtor and a subset of its creditors, committing its signatories to support a particular reorganization plan.

² A backstop is a guarantee that the party will agree to purchase securities in the rights offering if it is undersubscribed; the backstop party receives a fee for providing this guarantee.

³ See *infra* Section IV.

approval of the DIP loan, priority challenges appear to be no more than a tug-of-war between sophisticated investor groups. If proponents pit the company's survival against these indirect benefits, it is easy to see why approved DIP loans look more and more like reorganization plans.

If defending priorities is to remain a serious goal of chapter 11, however, courts must develop strategies to confront the sub rosa DIP loan problem. Luckily, the underlying problem is not a new one. It is merely a polar case of the common problems that pertain to the pre-plan transactions we call *crossover transactions*. Crossover transactions are ones that simultaneously implicate an asset-side decision (the use or exchange of an estate asset) and a liability-side decision (determining a creditor's priority and/or payoff). DIP loans are inherently crossover transactions under this definition: They provide a new asset for the estate (cash), but they also require giving the DIP lender a new obligation whose value and priority will affect the creditor body as a whole.

Crossover transactions are challenging because procedures tailored to asset-side and liability-side goals are inherently in tension.⁴ Preserving asset value during a bankruptcy case requires time-sensitive decisions and deference to management. Bankruptcy asset value can dissipate quickly if a key asset is lost. Chapter 11's debtor-in-possession model is founded on the belief that the debtor's management is best placed to make these crucial, time-sensitive business decisions.⁵ Hence, the law defers substantially to management's judgment.

Liability-side procedures intended to defend priorities, on the other hand, require multilateral negotiation and time. Because plans may distribute complex securities based on uncertain and disputed asset values, plan valuation disputes can require more time to resolve. And because management has no special expertise or incentive to defend priorities, management's prerogative yields to the creditors, who have explicit voting rights regarding liability-side decisions.⁶

There are no silver bullet solutions to the crossover transaction problem. But we suggest that courts revive two strategies that would help restore balance between asset value preservation and respect for priorities. Both of these strategies are already part of bankruptcy law's norms. And they can be applied with varying degrees of strength depending on the facts at hand, making them more implementable than an all-or-nothing approach.

The first strategy is *standardization*. Some transactions are inherently crossover transactions. If the debtor wants to finance new postpetition assets, for example, it must create a new obligation on the liability side to compensate the asset provider. In these cases, the Bankruptcy Code (the "Code") typically provides a standardized way to govern them. The general approach is to defer to management's judgment regarding the asset side of the transaction, but to standardize the

⁴ The Supreme Court recognized this tension in the *Jevic* case. It reinforced the need to defend priorities by rejecting a priority-skipping structured dismissal. But the Court limited its holding to end-of-case distributions, leaving flexibility for debtors in the pre-plan transactions we analyze here. *See Czyzewski v. Jevic Holding Corp.*, 580 U.S. 541 (2017).

⁵ *See infra* Section III on how asset-side decisions are faster and more deferential to management under business judgement rule.

⁶ *E.g.*, 11 U.S.C. § 1125 (requiring adequate information disclosure); 11 U.S.C. § 1126 (describing voting rules); 11 U.S.C. § 1129 (outlining plan-confirmation standards).

priority and amount of the liability to defend the nonparticipating creditors.⁷ The Code’s treatment of administrative expenses, executory contracts, and DIP loans reflects this standardization approach.

Regarding DIP loans in particular, section 364’s standardization mechanism regulates the way DIP lenders can receive compensation for their loan.⁸ It requires that the DIP lender be paid in the form of debt, and it sets up a structure to determine the priority of that debt claim against the other creditors.⁹ To protect the other creditors, section 364 requires that the DIP lender’s priority is capped at the lowest priority necessary to access the funds.¹⁰

A more rigorous defense of section 364’s standardization scheme would have important benefits. Standardization makes it possible to put transparent bounds on the cost and risk of the loan to the non-DIP creditors in the time-sensitive fashion that DIP loan approval requires. When only standard, plain-vanilla debt claims are allowed, then the maximum cost of the loan to the other creditors would be the principal and the interest. The transparency of payment through debt, then, makes the cost to the other creditors less subject to opportunistic value diversion. Standardization also promotes competition by allowing for a clearer comparison of the loan to alternative proposals and precedent transactions.¹¹

⁷ See *infra* Section III on the distinction between asset-side decisions and liability-side decisions.

⁸ See George G. Triantis, *A Theory of the Regulation of Debtor-in-Possession Financing*, 46 VAND. L. REV. 901, 903 (1993) (“[S]ection [364] is primarily a *constraint* on the financing decisions of the debtor in possession, designed to replace the prebankruptcy controls provided by debt covenants.” (emphasis in original)).

⁹ See 11 U.S.C. § 364(b), (c). The text of these sections is reproduced below.

(b) The court, after notice and a hearing, may authorize the trustee to obtain unsecured credit or to incur unsecured debt other than under subsection (a) of this section, allowable under section 503(b)(1) of this title as an administrative expense.

(c) If the trustee is unable to obtain unsecured credit allowable under section 503(b)(1) of this title as an administrative expense, the court, after notice and a hearing, may authorize the obtaining of credit or the incurring of debt—

- (1) with priority over any or all administrative expenses of the kind specified in section 503(b) or 507(b) of this title;
- (2) secured by a lien on property of the estate that is not otherwise subject to a lien; or
- (3) secured by a junior lien on property of the estate that is subject to a lien.

Id.

¹⁰ Frederick Tung, *Financing Failure: Bankruptcy Lending, Credit Market Conditions, and the Financial Crisis*, 37 YALE J. ON REGUL. 651, 668 (2020) (“Section 364 suggests a general constraint on the use of inducements: the debtor may extend only as much inducement as is necessary to obtain the desired DIP financing. The debtor must show that no lesser inducements would suffice—at least in theory. This approach recognizes that inducements are not costless; they can take value away from junior claimants.”).

¹¹ The justification we offer for standardizing bankruptcy law transactions is similar to the rationale for standardization in other legal domains. Although non-standardization may allow for greater information richness, such as more customized pre-plan transactions, it inevitably leads to higher information costs. In the domain of property law, for instance, the *numerus clausus* limits property rights to a few standardized forms. This eliminates the need for third parties to expend time and resources to determine the attributes of these rights, either to avoid violating them or to acquire them from current holders. Consequently, the *numerus clausus* system avoids the high cost of processing information about all property rights. Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 YALE L.J. 1, 30 n.117, 32–33, 43–

Paying a DIP loan with equity-linked securities, by contrast, can dilute the claims of nonparticipating creditors to an extent that a court has no realistic way to determine at the outset of a case. Lenders will have superior information about the value of the bespoke compensation they propose for themselves; hence, they will propose non-standard terms exactly when it is likely to benefit them most.¹² Moreover, the de facto priority of the DIP lender, through the fixed discount to uncertain plan value and the dilution of the value of nonparticipating debt, cannot be meaningfully compared to the priority rankings that section 364 permits. As such, rights offerings as DIP loan compensation fit nowhere within section 364's priority-capping hierarchy. Courts should not permit these nonstandard forms of repayment.

Our second strategy, *unbundling*, is bankruptcy law's response to strategic crossover.¹³ Transactions are unbundled by refusing to approve pre-petition liability-side consequences that could be postponed to the plan. Parties have strategic incentives to bundle in liability-side add-on effects into transactions involving the asset side. Time-sensitivity is an advantage to the transaction proponent because it can be used to suppress competition and judicial scrutiny of terms. This is particularly true at the DIP loan stage, where a secured creditor's/DIP lender's leverage is at its peak. The debtor can argue that the firm needs an immediate cash infusion to survive, and there will be few rival lenders to offer better terms.¹⁴

Courts have applied unbundling strategies in 9019 settlements, 363 sales, and DIP loans.¹⁵ The most well-known example of an unbundling decision is *In re Braniff Airways*, which introduced the concept.¹⁶ In that case, the Fifth Circuit refused to permit a 363 sale that also bundled in payouts to particular creditors and locked up future votes on the plan. Unbundling is valuable because it prevents a time-sensitive asset decision from stripping creditor voting rights and disabling alternative liability-side proposals. In the DIP loan context, courts have resisted

51 (2000); Henry E. Smith, *Modularity in Contracts: Boilerplate and Information Flow*, 104 MICH. L. REV. 1175, 1175-79(2006); Henry E. Smith, *Standardization in Property Law*, in RESEARCH HANDBOOK ON THE ECONOMICS OF PROPERTY LAW 148 (Kenneth Ayotte & Henry E. Smith eds., 2011).

¹² Readers may recognize that this is the familiar adverse selection or "lemons" problem, but in reverse: We suggest that the financier will have superior information about the value of information-sensitive securities it proposes to the borrower. See Stewart C. Myers & Nicholas S. Majluf, *Corporate Financing and Investment Decisions When Firms Have Information that Investors Do Not Have*, 13 J. FIN. ECON. 187, 196 (1984). See generally George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488 (1970).

¹³ In a recent article, Melissa Jacoby also uses the term unbundling to describe the problem of the *à la carte* choice of bankruptcy features and the shortcutting of process that results. Here, we describe the strategic behavior as one of bundling asset and liabilities side effects into a single transaction. We argue that unbundling these effects can be beneficial. See Melissa B. Jacoby, *Unbundling Business Bankruptcy Law*, 101 N.C. L. REV. (forthcoming 2023), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4228060.

¹⁴ This is often true because priming an existing secured creditor without consent is rarely approved by courts, and because an outsider secured creditor would be unlikely to lend at a junior position to existing secured creditors; this is known as the debt overhang problem. See generally Stewart C. Myers, *Determinants of Corporate Borrowing*, 5 J. FIN. ECON. 147 (1977). One of us in joint work shows that this problem can lead to inefficient transfers of case control to the secured lender/DIP provider. See Kenneth Ayotte & Jared A. Elias, *Bankruptcy Process for Sale*, 39 YALE J. ON REGUL. 1 (2022).

¹⁵ See FED. R. BANKR. P. 9019; 11 U.S.C §§ 363, 364.

¹⁶ See Pension Benefit Guaranty Corp. v. Braniff Airways, Inc. (*In re Braniff Airways, Inc.*), 700 F.2d 935, 940 (5th Cir. 1983) (establishing that sub rosa plans will not be upheld).

approving cross-collateralization¹⁷ and roll-ups,¹⁸ which attempt to bundle prepetition claim treatment into the DIP loan package. Recently, some courts have also taken steps to unbundle RSAs from DIP loans; one court declared a DIP loan to be a sub rosa plan.¹⁹ We suggest that courts continue this trend by refusing to allow tying of DIP loan covenants to RSA adherence. Courts should also reinforce the Eleventh Circuit’s approach in *In re Saybrook Manufacturing* by refusing to permit roll-ups or cross-collateralization of undersecured debt.²⁰ These unbundling strategies would enable competition for rival plans and restore creditor voting rights over prepetition claim decisions.

We use a case study of the 2020 J.C. Penney bankruptcy to demonstrate the priority-distorting effects of a non-standard DIP loan bundled with an RSA. In that case, a majority group of first lien creditors made a DIP loan that primed the minority creditors and rolled up undersecured first lien debt into the priming loan. The DIP loan was tied to an RSA that gave the majority group control over the case process. This case control led to a going-concern sale via credit bid that limited potential competing bids, thus providing an above-par recovery on the majority group’s super-senior claim.

We conduct a simple calculation of a counterfactual plain vanilla DIP loan—one without the roll-up, fees, or the supranormal return on principal achieved through case control—to get a transparent measure of the value the majority diverted from the minority. With these alternative forms of compensation removed, we find that the majority group would have required an annualized interest rate of at least 545% on their first-priority DIP loan funds to achieve the same payoff. The example illustrates how an opaque bundle of rights proposed through a time-sensitive process can be used to distort priorities. It suggests the need for greater standardization and unbundling of DIP loans. This will bring the true terms of a loan to light, allowing for greater competition and judicial scrutiny of terms.

I. RELATED LITERATURE

Our Essay contributes to the literature on DIP loans and the controversies surrounding terms bundled on to them, like roll-ups and cross-collateralization. This literature has not emphasized the benefits of standardization of DIP loan terms to promote transparency and competition, however. The increasing use of equity-linked payment for DIP loans brings this issue to the forefront. There is also a growing literature analyzing the more recent developments regarding RSAs.²¹ In joint work with Jared Ellias, one of us documents the rise of DIP loans tied to RSAs and tests a theory based in the debt overhang problem to explain the strategic value of case

¹⁷ *Shapiro v. Saybrook Mfg. Co. (In re Saybrook Mfg. Co.)*, 963 F.2d 1490, 1494–95 (11th Cir. 1992).

¹⁸ Scholars have noted the functional similarity between cross-collateralization and roll-ups and courts’ skepticism of roll-ups. See Daniel J. Bussel & Kenneth N. Klee, *Recalibrating Consent in Bankruptcy*, 83 AM. BANKR. L.J. 663, 707–09 (2009).

¹⁹ *In re LATAM Airlines Grp.*, 620 B.R. 722 (Bankr. S.D.N.Y. 2020) (declining LATAM Airlines’ proposed DIP facility because of improper sub rosa plan treatment of the tranche C DIP lenders and debtors’ equity holders).

²⁰ See *Saybrook Mfg.*, 963 F.2d at 1494–95.

²¹ See, e.g., Douglas G. Baird, *Bankruptcy’s Quiet Revolution*, 91 AM. BANKR. L.J. 593 (2017); Edward J. Janger & Adam J. Levitin, *Badges of Opportunism: Principles for Policing Restructuring Support Agreements*, 13 BROOK. J. CORP. FIN. & COM. L. 169 (2018); David A. Skeel, Jr., *Distorted Choice in Corporate Bankruptcy*, 130 YALE L.J. 366 (2020).

control.²² In this Essay, we highlight not just the control aspect of RSAs but also the use of RSAs to determine plan payouts.

More generally, our work contributes to the theoretical law and economics literature on corporate bankruptcy. Two closely related papers in the same spirit as ours are Mark Roe and Frederick Tung's work on priority jumping activity²³ and Melissa Jacoby and Edward Janger's work on "hurry up" 363 sales.²⁴ Our framework is similar to Roe and Tung's in describing the rent-seeking activity from contractual and legal innovations such as roll-ups, critical vendor orders, and 363 sales. Jacoby and Janger's work discusses the trade-offs between the need for speed on the asset side and the cost of procedural shortcuts on the liability side. In the modern era, the pre-plan transactions we describe in cases like *J.C. Penney* are the hurry up sale problem on steroids. On the asset side, the melting ice cube threat is replaced by the more severe threat that the firm will collapse completely due to lack of financing. On the liability side, the use of the DIP-RSA pairing to restructure liabilities can have more direct and consequential effects on priority than an asset-for-asset 363 sale.

Relative to this work, a novel contribution of our approach is the framing of bankruptcy's goals based on the assets and liabilities sides of the debtor's balance sheet,²⁵ which ultimately allows us to identify the pre-plan crossover transaction as a common strategic source of priority jumping. Our approach illuminates the common strategies of standardization and unbundling²⁶ that the Bankruptcy Code and courts use to manage crossover transactions in various forms.

II. THE J.C. PENNEY BANKRUPTCY

J.C. Penney filed for chapter 11 in May 2020, one of many underperforming and highly-leveraged retailers that fell victim to COVID-related lockdowns. The company had, at time of filing, a storied 118-year history, beginning with the dry goods store in Kemmerer, Wyoming that its founder, James Cash Penney, opened in 1912. At its peak in the 1970s, the retailer operated over 2,000 stores.²⁷ In the 2010s, strategic missteps and several rebranding attempts failed, leading to four different CEOs over a seven-year period from 2011 to 2018. At the time of its filing, the company continued to operate over 800 stores and employed over 85,000 people. It faced an uncertain future

²² Ayotte & Ellias, *supra* note 14.

²³ See generally Mark J. Roe & Frederick Tung, *Breaking Bankruptcy Priority: How Rent-Seeking Upends the Creditors' Bargain*, 99 VA. L. REV. 1235 (2013).

²⁴ See generally Melissa B. Jacoby & Edward J. Janger, *Ice Cube Bonds: Allocating the Price of Process in Chapter 11 Bankruptcy*, 123 YALE L.J. 862 (2014).

²⁵ Conceptually, our balance sheet perspective is most similar to Vincent Buccola's work contrasting the discretion and entitlement paradigms, which are analogous to our asset-side and liabilities-side goals. See generally Vincent S.J. Buccola, *The Janus Faces of Reorganization Law*, 44 J. CORP. L. 1 (2018); Vincent S.J. Buccola, *Unwritten Law and the Odd Ones Out*, 131 YALE L.J. 1385 (2022).

²⁶ Ralph Brubaker and Charles Tabb have been the most consistent opponent of what we call unbundling strategies. See Ralph Brubaker & Charles J. Tabb, *Bankruptcy Reorganizations and the Troubling Legacy of Chrysler and GM*, 2010 U. ILL. L. REV. 1375; Charles J. Tabb, *What's Wrong with Chapter 11?*, 71 SYRACUSE L. REV. 557 (2021).

²⁷ *J.C. Penney Company, Inc. History*, FUNDING UNIVERSE, <http://www.fundinguniverse.com/company-histories/j-c-penney-company-inc-history/> (last visited Mar. 7, 2023).

and little ability to generate cash due to the pandemic: April year-over-year revenues were down 88%, and over 90% of its employees had been furloughed.²⁸

The company's capital structure consisted of approximately \$4.9 billion in funded debt. The most important for our purposes were a \$1.2 billion secured asset-based loan ("ABL"), a \$1.5 billion first lien term loan, and \$500 million in first lien notes that had equal rank to the first lien term debt. Below those claims in the priority waterfall were \$400 million in second lien notes, and \$1.3 billion in unsecured debt.²⁹ Given the enormous decline in the company's asset value, it was clear from the outset that asset value was insufficient to pay even the first lien debt in full: This debt traded below forty cents on the dollar at the time of the filing.³⁰

The first lien debt was held by numerous institutional investors. A group of these lenders led by the hedge fund H/2 Capital Partners, holding approximately 70% of the first lien debt, formed a majority coalition.³¹ Through a DIP loan connected to an RSA, the majority was able to divert a significant amount of value from the minority coalition. We describe the features of the two transactions in turn.

A. THE DIP-RSA BUNDLE

The loan was a complex bundle of terms. The most controversial of these was the combination of a priming lien and a dollar-for-dollar roll-up of the first lien prepetition debt, offered to only the majority lender group. The priming lien component elevated the priority of the majority's new money DIP loan of \$450 million above the minority's first lien debt. And the roll-up component of the DIP loan elevated another \$450 million in the majority lender group's prepetition debt.³² The effect resembled that of similarly controversial "up-tiering" transactions in Serta Simmons and others that had taken place outside of bankruptcy, in which a majority in a lender group exchanged its debt for new debt that ranked ahead of the minority's debt.³³

²⁸ Declaration of Bill Wafford, Executive Vice President, Chief Financial Officer of J.C. Penney Co., Inc., in Support of the Debtors' Chapter 11 Petitions and First Day Motions, at 4, 24–25, *In re J.C. Penney Co.*, No. 20-20182 (Bankr. S.D. Tex. May 15, 2020), ECF No. 25. [hereinafter Declaration of Executive Vice President].

²⁹ *Id.* at 36.

³⁰ See Objection of the Ad Hoc Crossholder Group to the Debtors' Emergency Motion for Entry of (I) an Interim and Final Order (A) Authorizing Debtors to Use Cash Collateral, (B) Granting Adequate Protection to the Prepetition Secured Parties, and (C) Scheduling a Final Hearing; and (II) a Final Order (A) Authorizing the Debtors to Obtain Postpetition Financing Pursuant to Section 364 of the Bankruptcy Code, (B) Granting Liens and Superpriority Claims, (C) Modifying the Automatic Stay; and (III) Granting Related Relief, *In re J.C. Penney Co.*, at 1–2, No. 20-20182 (Bankr. S.D. Tex. June 2, 2020), ECF No. 469 [hereinafter Crossholder Group Objection].

³¹ Transcript of Emergency Motion for Entry of (I) Interim and Final Order (A) Authorizing Debtors to Use Cash Collateral, (B) Granting Adequate Protection to the Prepetition Secured Parties, and (C) Scheduling a Final Hearing; and (II) Final Order (A) Authorizing the Debtors to Obtain Postpetition Financing Pursuant to Section 364 of the Bankruptcy Code, (B) Granting Liens and Super Priority Claims, (C) Modifying the Automatic Stay; and (III) Granting Related Relief, at 13, *In re J.C. Penney Co.*, No. 20-20182 (Bankr. S.D. Tex. June 5, 2020), ECF No. 563 [hereinafter DIP Hearing Transcript].

³² Declaration of Executive Vice President, *supra* note 28, at 12.

³³ Vincent S.J. Buccola & Greg Nini, The Loan Market Response to Dropdown and Uptier Transactions 34–35 (June 22, 2022) (unpublished manuscript), *available at*

The proposed DIP loan was also tied to an RSA that contemplated a two-track reorganization procedure.³⁴ If the debtor presented a business plan that satisfied the majority lender group by mid-July, they could reorganize. If not, the DIP loan would be in default, and the case would proceed to an immediate 363 sale of the assets that might liquidate the company. In effect, the RSA gave the majority lenders the sole discretion to decide whether J.C. Penney would reorganize or liquidate.

A group of crossover lenders, holding a minority of the first lien debt and second lien debt, objected to the DIP loan proposal.³⁵ The group argued that the loan constituted a sub rosa plan, because it committed the company to a case process that served only the majority lenders' interests, and that the DIP loan violated terms in the Term Loan and intercreditor agreements requiring equal treatment among the lenders. They also objected to the excessively high interest rate, compounded by five separate classes of fees. The largest of these was a \$45 million up-front fee, equal to 10% of the potential \$450 million in new money.³⁶ These fees would further depress the value of the minority first lien debt, cutting into their recovery.

To further buttress their objections, the crossover group offered a competing DIP loan proposal.³⁷ Because the majority group's DIP loan proposal was complex, the crossover group structured its alternative to be superior along each of eight dimensions, including the amount of credit availability, the five classes of fees, and the interest rate. They also argued that the lack of a tie to the RSA gave the debtor added flexibility to determine its own course of the reorganization.

But there was one feature that the crossover group could not possibly match: majority consent to the priming DIP loan. The debtor and majority lenders argued that this difference was paramount—and their argument made strategic use of time-sensitivity.³⁸ Without majority consent to the priming lien, the crossover group would need to win a priming fight under section 364(d).³⁹ This

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4143928; see also Samir D. Parikh, *Financial Disequilibrium*, 171 U. PA. L. REV. (forthcoming 2023) (manuscript at 29–32) (detailing up-tiering transactions employed by Trimark and Envision Healthcare), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4323945.

³⁴ Declaration of Executive Vice President, *supra* note 28, at 22.

³⁵ See Crossholder Group Objection, *supra* note 30.

³⁶ Other fees included an exit premium, an exit loan commitment premium, and an exit loan upfront premium. The crossover minority group estimated the total dollar cost of these fees at \$117 million. See *id.* at 20.

³⁷ *Id.* at 4–6.

³⁸ Omnibus Reply of Ad Hoc Group of First Lienholders to Objection of (A) Ad Hoc Crossholder Group, (B) Official Committee of Unsecured Creditors, and (C) Certain Landlords to the Debtors' Motion for Entry of Final Order (1) Authorizing the Debtors to Obtain Postpetition Financing Pursuant to Section 364 of the Bankruptcy Code, (2) Granting Liens and Super Priority Claims, at 8–9, *In re J.C. Penney Co.*, No. 20-20182 (Bankr. S.D. Tex. June 4, 2020), ECF No. 512. [hereinafter Reply of Ad Hoc Group of First Lienholders]; see DIP Hearing Transcript, *supra* note 31, at 15, 31.

³⁹ 11 U.S.C. § 364(d) provides that:

(1) The court, after notice and a hearing, may authorize the obtaining of credit or the incurring of debt secured by a senior or equal lien on property of the estate that is subject to a lien only if—

(A) the trustee is unable to obtain such credit otherwise; and

(B) there is adequate protection of the interest of the holder of the lien on the property of the estate on which such senior or equal lien is proposed to be granted.

priming fight, they argued, would involve a time consuming and risky valuation contest, because the debtor would need to show that the majority group's primed liens were receiving adequate protection. And if they failed, the debtor's business would be placed at risk, because the company's vendors⁴⁰ and ABL lenders⁴¹ could withdraw their support. As the majority lenders argued: "It is therefore entirely understandable that the Debtors concluded that they were simply not willing to bet the company (and 85,000 employees) on their ability to win an adequate protection fight against the holders of 70+% of their First Lien Debt."⁴²

Ultimately, on the day of the DIP loan hearing, the minority lenders reached a settlement that provided for a partial roll-up of the minority lenders' first lien loan.⁴³ The court approved the DIP loan and overruled all remaining objections, reasoning that in a retail case, time was of the essence,⁴⁴ and the company's survival was not worth sacrificing to unnecessary disputes.⁴⁵

B. THE SALE/CREDIT BID

The DIP loan and RSA set the stage for the sale process that occurred later in the case. The RSA contemplated an OpCo/PropCo structure, whereby a third party would take ownership of the J.C. Penney operating companies. The PropCo would own J.C. Penney's real estate and lease it to the OpCo. After canvassing the market for buyers in the summer of 2020, J.C. Penney reached an

(2) In any hearing under this subsection, the trustee has the burden of proof on the issue of adequate protection.

Section 364(d)(1)(B) states that a court "may authorize the obtaining of credit or the incurring of debt . . . only if . . . there is adequate protection" of the senior lender. To offer priming liens to the DIP lender, the debtor must provide evidence of adequate protection for pre-bankruptcy lenders whose liens are subordinated to the priming DIP lender's new liens.

⁴⁰ See DIP Hearing Transcript, *supra* note 31, at 52 ("Q: Has the debtors' lack of DIP financing during this interim period caused any issues with the company's vendors? A: Yes, it has . . . our vendors have been concerned about the lack of having a DIP . . . And that is causing us issues. We haven't received as much shipments as we had predicted during this time frame." (testimony of James Mesterharm, Managing Director, AlixPartners)).

⁴¹ One reason for this, according to the debtors' financial advisors, is that the company's ABL lenders, who were not directly involved in the priming fight, would refuse to consent to use of their cash collateral if the priming fight occurred. See DIP Hearing Transcript, *supra* note 31, at 15 ("First, it requires authority to use cash collateral over Wells' objection. And as noted in this email from Mr. Fiorillo on behalf of Wells Fargo, there was no world in which Wells Fargo would agree if we toggled ourselves to the crossholder proposal th[at] they would support the fight that would ensue in order to achieve approval of that financing. And that's because the financing with the crossholder group, which is supported by only 16 percent of our first liens, would necessitate a nonconsensual priming and valuation fight. That would include fresh, brand new appraisals on all of our unencumbered property, valuation testimony, expert testimony, depositions, and a lot of time. And as noted in Mr. Fiorillo's email, he notes that the cost to this estate and the time to this estate is not something that Wells Fargo is prepared to support." (statement of Joshua A. Sussberg, debtor's counsel)).

⁴² Reply of Ad Hoc Group of First Lienholders, *supra* note 38, at 3.

⁴³ See Notice of Filing of Settlement Agreement with the Minority First Lien Lenders, *In re J.C. Penney Co.*, No. 20-20182 (Bankr. S.D. Tex. Nov. 6, 2020), ECF No. 1774.

⁴⁴ See DIP Hearing Transcript, *supra* note 31, at 160 ("And as we sit here today, we still don't know where the ultimate destination of J.C. Penney's is. What I am confident of is that if there isn't a [DIP loan] package going forward, I know what the ultimate answer is. I've been involved in enough retail cases in my career as a lawyer to understand what time does to a retail case." (statement of the court)).

⁴⁵ See *id.* at 161 ("I will not let this case languish. I will not let it become bogged down in fights that fail to recognize the big picture and what's at stake." (statement of the court)).

agreement with its two largest landlords, the real estate companies Simon and Brookfield, that would allow the company to exit bankruptcy as a going concern.⁴⁶

Time sensitivity also played an important role in the sale transaction.⁴⁷ The debtor argued that it was crucial that Simon and Brookfield take control of the company before the holiday season started. This would reassure vendors and allow for the company to replenish its depleted inventory ahead of the holiday season. As with the DIP loan, the debtor sought to implement this transaction using another opaque transaction on a rapid timeline.

There were a few key elements to the sale transaction that further diverted value to the majority group at the expense of the minority group. First, the parties would set up a bidding entity that would purchase nearly all of J.C. Penney's assets for a credit bid of \$1 billion. Because of the dollar-for-dollar roll-up of the first lien debt, the majority group was able to make a \$900 million credit bid using the DIP loan. Only \$100 million of the \$1 billion bid would be credited to the first lien debt, held in part by the minority group. The majority group was able to decide on this value split unilaterally, because they controlled a majority of both the DIP loan and the first lien debt. This meant that the value of J.C. Penney assets acquired through the credit bid would be divided according to a 90/10 split, with 90% of the value going to the DIP lender group and only 10% going to the first lien debt.⁴⁸

Second, the sale bundled OpCo and PropCo together, and did so without the formal bid procedure and auction process typical in 363 sales.⁴⁹ This had the effect of limiting competition from the minority lenders. The minority group could not raise financing for a cash bid that would beat the majority group's credit bid for the entire company on the short timeline the debtor argued was necessary. Hence, their defensive strategy focused on creating a higher bid for only PropCo that would increase the first lien's recovery. They argued that unbundling the PropCo sale would permit Simon and Brookfield to take control of the OpCo quickly, while maximizing the value of the assets through a value maximizing PropCo auction process through the chapter 11 plan. The debtor and majority lenders argued that this was impossible; the OpCo/PropCo sale was necessarily integrated, and needed to proceed due to time sensitivity and the risk of losing Simon and Brookfield's participation. They argued that the canvassing of the market for buyers in the prior five months of the case provided a sufficient market test of the deal.

⁴⁶ Debtors' Emergency Motion for Entry of an Order (I) Scheduling Hearings and Deadlines with Respect to the Restructuring Transactions and (II) Granting Related Relief, *In re J.C. Penney Co.*, No. 20-20182 (Bankr. S.D. Tex. Sept. 30, 2020), ECF No. 1503 [hereinafter Debtors' Emergency Motion for Entry of an Order].

⁴⁷ See [Transcript of] Status Conference and Disclosure Statement Hearing, at 41, *In re J.C. Penney Co.*, No. 20-20182 (Bankr. S.D. Tex. Oct. 29, 2020), ECF No. 1687 ("The reality of the situation is, Your Honor, that the operating company needs to close because this buyer has determined that it needs to own it during the holiday season." [hereinafter Transcript of Status Conference and Disclosure Statement Hearing] (statement of Andrew Leblanc, counsel for the Ad Hoc Group of First Lien Lenders)).

⁴⁸ Objection of the First Lien Minority Group to Approval of Debtors' Emergency Motion for Entry of an Order (I) Scheduling Hearings and Deadlines with Respect to the Restructuring Transactions and (II) Granting Related Relief, at 3, *In re J.C. Penney Co.*, No. 20-20182 (Bankr. S.D. Tex. Oct. 5, 2020), ECF No. 1532 [hereinafter First Lien Minority Group Objection].

⁴⁹ See *id.* at 19 ("The one thing that is clear from the Scheduling Motion is that the Debtors intend to sell all or substantially all of their assets and distribute the proceeds thereof in approximately six weeks with no bidding procedures or formal sale or auction process.").

The minority lenders were incensed by this strategy, arguing that the DIP lender group's bid was "reeking of not only greed, but abhorrent bad faith."⁵⁰ They complained of the "intentionally convoluted structure"⁵¹ and the artificially rushed sale process.⁵² By their estimates, the DIP lenders would receive a recovery of over 160%, while the first lien lenders would receive only a 10% recovery.

Again, they characterized the transaction as a sub rosa plan intended to evade plan confirmation requirements. In particular, the strategy of finalizing the sale through section 363—instead of through standard plan confirmation mechanisms—freed the debtor having to comply with from having to provide a valuation demonstrating that the minority lenders received their liquidation value entitlement as required under section 1129(a)(7)'s best interest of creditors test.⁵³ But ultimately, the minority lenders settled their objections for a \$40 million cash payment, and the sale went forward as planned. J.C. Penney survived, and the majority's case control strategies reaped a handsome reward.

C. MEASURING VALUE DIVERSION: AN INTEREST RATE APPROACH

Because the DIP loan and the sale process were quite opaque, it is difficult to understand exactly how much value the majority group was able to redistribute from the minority through the reorganization strategies employed in the *J.C. Penney* case. The majority's payoff came through a combination of fees, a roll-up of undersecured debt, and a credit bidding strategy, enabled by the RSA, that provided a greater than 100% return on the loan principal.⁵⁴ One way to make the true terms more transparent is to imagine a simpler, plain vanilla DIP loan that generates an equivalent payoff. Suppose that all of the reorganization value received by the majority, and not the minority, is effectively a repayment on the new money that the majority group advanced through its DIP loan. If we do this, and assume that any payment in excess of principal is interest on the loan, we can work backwards to calculate an effective annualized interest rate.

⁵⁰ See Statement of the First Lien Minority Group Regarding the Debtors' Sale Motion and Limited Objection to Approval of the Disclosure Statement, at 2, *In re J.C. Penney Co.*, No. 20-20182 (Bankr. S.D. Tex. Oct. 23, 2020), ECF No. 1621.

⁵¹ See *id.* at 12.

⁵² See Transcript of Status Conference and Disclosure Statement Hearing, *supra* note 47, at 21 ("To delay for five months and then tell everybody, we have to hurry up and close and this is our only option because it's almost Christmas, it's a problem of their own making." (statement of Matthew Okin, counsel for the Ad Hoc Committee of Equity Interest Holders)).

⁵³ Section 1129(a)(7) requires that all creditors receive at least liquidation value. See Ad Hoc Equity Committee's Objection to Confirmation of Amended Joint Chapter 11 Plan of Reorganization of J.C. Penney Company, Inc. and Its Debtor Affiliates, at 6–7, *In re J.C. Penney Co.*, No. 20-20182 (Bankr. S.D. Tex. Nov. 21, 2020), ECF No. 1980 [hereinafter Ad Hoc Equity Committee's Objection] ("The Debtors have opted not to provide a liquidation analysis or any substantive evidence on this point Instead, the Debtors assume that § 1129(a)(7) is met because the Plan is essentially a liquidating plan.").

⁵⁴ Debtors' Emergency Motion for Entry of an Order, *supra* note 46; see First Lien Minority Group Objection, *supra* note 48.

A back-of-the-envelope calculation is as follows.⁵⁵ The DIP lenders made a new loan of \$450 million to the debtor, less an upfront 10% fee of \$45 million paid before the filing. Thus, the DIP lenders advanced, at most, a total of \$405 million in new money.

The most important piece of our estimate is the valuation of the DIP loan. The more conservative of these is the trading price of the DIP debt, which traded at 130 cents on the dollar after the sale was announced.⁵⁶ This means the DIP loan was worth \$1.17 billion (\$900 million multiplied by 1.30). The DIP lenders did not receive all of this amount, because they agreed to roll up \$53 million of the minority group's debt.⁵⁷ The DIP lenders' share of the loan, then, amounts to 94.1%.⁵⁸ Therefore, on the DIP loan, the majority group received consideration worth 94.1% of \$1.17 billion, or \$1.10 billion. We need to apply a small deduction to this payoff, because the majority group did not receive any payout through the first lien recovery on the rolled up portion of their DIP loan. This amount would have been \$29 million had the roll-up not occurred.⁵⁹ The debtor also made a \$40 million payment to the minority lenders to settle their sale objection; we assume this amount came from the majority group's recovery.⁶⁰ Deducting these amounts, the majority group received a payoff of \$1.03 billion on the DIP loan.

This implies that the interest on the DIP loan in dollars was the difference between \$1.03 billion and \$405 million: \$625 million. This translates into an interest rate of 154% over six months. If we annualize this six-month rate by compounding it, we get an annualized interest rate of 545% on its first priority loan.⁶¹ No court, to our knowledge, has ever approved a loan with such an exorbitant interest rate.

In *J.C. Penney*, as in many similar cases, the majority coalition possessed substantial market power at the DIP loan stage.⁶² A major reason for this is the way section 364(d) operates procedurally.

⁵⁵ The calculation is likely quite conservative. It leaves out several assumptions that would increase the interest rate estimate: a) it does not include any interest paid on the DIP loan during the case; b) it does not assume payment on any fees other than the upfront 10% fee; c) it assumes the entire \$405 million in new money was advanced to the debtor (the minority group alleged that the second tranche was held in escrow and never advanced); and d) it assumes that all new money was advanced up front—the second tranche of funds was to be made available only in July, which would reduce the effective duration of the loaned funds.

⁵⁶ See Ad Hoc Equity Committee's Objection, *supra* note 53, at 8.

⁵⁷ See DIP Hearing Transcript, *supra* note 31, at 153.

⁵⁸ The percentage is derived by taking $(900 - 53) / 900$.

⁵⁹ Given the 90/10 split from the credit bid, the first lien received value that is 1/9 of what the DIP lenders received, or \$130 million. The roll-up converted \$450 million of \$2.021 billion of first lien debt into DIP loan debt that would have otherwise remained in place as first lien debt, so the majority's share of the first lien consideration should be deducted from the DIP loan payment.

⁶⁰ See Order (I) Authorizing (A) Entry into and Performance Under the Asset Purchase Agreement and (B) the Sale of the OpCo Acquired Assets and the PropCo Acquired Assets Free and Clear of Liens, Claims, Encumbrances, and Interests, and (C) Assumption and Assignment of Executory Contracts and Unexpired Leases and (II) Granting Related Relief, at 79, *In re J.C. Penney Co.*, No. 20-20182 (Bankr. S.D. Tex. Nov. 9, 2020), ECF No. 1814.

⁶¹ Annualizing a six-month rate "r" is done by compounding that rate using the formula $(1 + r)^2 - 1$.

⁶² During the early years of the Bankruptcy Code, it was typical for large corporate debtors to enter Chapter 11 with significant unencumbered assets. However, since the early 2000s, the practice of bankruptcy has shifted, with many firms entering bankruptcy with all of their assets encumbered by liens. As we noted earlier in footnote 12, the debt overhang problem exacerbates the difficulty faced by debtors in obtaining additional secured financing during

Because the majority group controlled the first lien class, they could consent to priming without a valuation fight over adequate protection. At the same time, the minority's priming lien proposal—despite its lower cost—was swiftly rejected by the debtor because, it argued, the time-consuming valuation fight risked destroying the company. These conditions made the majority group a de facto monopolist over the DIP loan.

Without a change to the Code, DIP lender monopoly power is unlikely to go away any time soon. But our calculation illustrates the benefits of standardization in making the true cost of a bundled DIP loan package transparent. If lenders want approval of a first-priority loan with a 545% interest rate, they should be forced to present this transparently to a court. We think judges would be much more likely to push back against extreme terms like these when the true cost is brought to light.

III. ASSET-LIABILITY SEPARATION AND CROSSOVER TRANSACTIONS

To a large extent, the law tries to keep asset-side and liability-side determinations separate from each other during a bankruptcy case. This modular separation of assets and liabilities serves a useful function. For a financially distressed firm operating outside of bankruptcy, liability-side issues, such as a looming maturity, can interfere with asset-side decisions in ways that are value-destroying. For example, a firm might choose to sell a valuable asset to avoid defaulting on a debt. Or it might be prevented from borrowing money that would increase overall firm value because it might trip a covenant and cause acceleration of debt. The automatic stay stops all collection activity, and payoffs to creditors are typically postponed to the plan of reorganization.⁶³ This simplifies management's problem substantially, allowing managers to focus exclusively on preserving asset value while the case proceeds with less interference from the liability side.

In addition to separating asset-side decisions from liability-side influences, the Code also provides different procedures and involves different sets of players for each side. Procedures governing pre-plan asset-side decisions are faster and more deferential to management. Chapter 11's debtor-in-possession model is founded on the belief that management continuity is necessary to preserve the value of a going concern.⁶⁴ The Code's procedural rules regarding assets also reflect the inherent time-sensitivity of asset-side decisions. In section 363, which governs the use, sale, or lease of assets, ordinary course asset decisions do not require notice to creditors or court approval;⁶⁵ non-ordinary course asset decisions do require notice and a hearing, but do not require creditor consent. Courts require a "good business reason" for approving a non-ordinary course asset sale,⁶⁶ but this standard is deferential to management's judgment in practice.

When it comes to liability-side decisions—determining the value and payoff on claims—the Code provides significantly stronger control rights to creditors and less deference to management.⁶⁷ This

bankruptcy, particularly without the prior consent of the pre-petition secured lender. These lenders, therefore, hold a significant bargaining power in the process, as proof of adequate protection is often expensive and time-consuming to produce.

⁶³ 11 U.S.C. § 362(a).

⁶⁴ See, e.g., H.R. REP. NO. 95-595, at 234 (1977), as reprinted in 1978 U.S.C.C.A.N. 5963, 6193–94.

⁶⁵ 11 U.S.C. § 363(c)(1).

⁶⁶ See Comm. of Equity Sec. Holders v. Lionel Corp. (*In re Lionel Corp.*), 722 F.2d 1063, 1069–72 (2d Cir. 1983).

⁶⁷ 11 U.S.C. § 1125 (requiring adequate information disclosure); 11 U.S.C. § 1126 (describing voting rules); 11

is sensible because management has little incentive or special expertise to defend priorities as between the classes of creditors. The plan settles the claims globally: A proper determination of priority as between any two parties must be able to compare the two parties' final treatment at a common point in time. Thus, the plan must involve the creditor body as a whole. As a result, complying with the Code's procedures on the liability side is necessarily more multilateral.

As a result, plan procedures intended to defend priorities can be time-consuming. Plan proponents must submit disclosure statements for approval by the court that provide information about the company and the plan of reorganization.⁶⁸ The plan requires a creditor vote backed by the Code's priority rules. A class voting against the plan is entitled to a judicial determination that the plan respects priority both vertically (as against senior and junior classes) and horizontally (as against classes of the same priority).⁶⁹ If a consensual plan is not available, then the debtor may require a contested valuation hearing to cram down the plan over a dissenting class.⁷⁰ Cramdown valuation hearings can be quite lengthy and costly, particularly when the capital structure is complex or the securities it distributes are harder to value.⁷¹

The costs and delays of this process are vices, not virtues, to be sure. All else equal, it is better to minimize them. But the chapter 11 process—by staying creditor collection, providing for new financing, and allowing for operations to continue running—is set up to provide a non-emergency setting where liability-side determinations can be made. The sub rosa DIP loan strategically undermines this setup by moving these determinations into the DIP loan process, a crossover transaction that is set up to accommodate time-sensitivity and management deference.

The next section discusses the way bankruptcy law deals with these crossover transactions, uncovering standardization and unbundling as common regulatory approaches.

A. CROSSOVER TRANSACTIONS

Given the benefits of separating asset-side and liability-side decisions, we can see the challenge in regulating crossover transactions. How can the law simultaneously accommodate the time-sensitivity required on the asset side and the creditor protection required on the liability side?

The first place to start is to examine transactions that are inherently crossover transactions. If the debtor wants to acquire a new postpetition asset during the case using financing, it must provide some form of liability-side compensation to the asset provider. On these transactions, the law's general approach is to defer to the DIP's asset-side decisions, but limit the DIP's discretion regarding liability-side determinations. These limits serve the dual purpose of protecting asset

U.S.C. § 1129 (outlining plan-confirmation standards).

⁶⁸ 11 U.S.C. § 1125.

⁶⁹ In addition to these class-based rights, there are priority-relevant protections for individual creditors. An individual creditor is entitled to receive at least as much as they would in a chapter 7 liquidation, and creditors within a class must receive equal treatment to other members of their class. *See* 11 U.S.C. § 1129(a)(7).

⁷⁰ 11 U.S.C. § 1129(b).

⁷¹ The Iridium fraudulent transfer valuation dispute, for instance, required 50 days of trial. *See Iridium Operating, LLC v. Motorola Inc. (In re Iridium Operating, LLC)* 373 B.R. 283, 290 (Bankr. S.D.N.Y. 2007).

value, while protecting the other creditors from debtor favoritism of the transaction parties due to distorted incentives, coercion, or indifference.

One limiting technique, mostly found in the structure of the Code, is standardizing the liability by restricting its form to a debt claim, and placing limits on its amount and priority ranking against the others. Standardization is a common technique for enabling comparison among items that may differ along many dimensions. By reducing the cost of gathering information, standardization can facilitate comparisons and promote competition.⁷² Accounting principles serve this purpose, providing standardized metrics like net income that allow investors to compare one company's profitability to another.⁷³ In the bankruptcy context, standardization of DIP loans protects creditors by enabling competition and judicial scrutiny of the liability side in a way that is compatible with time-sensitivity.

A second technique, mostly created by courts, is unbundling; courts prevent the DIP from bundling unnecessary liability-side determinations into an asset-side decision.⁷⁴ Like standardization, unbundling is also a regulatory strategy used in other commercial contexts.⁷⁵

Antitrust law prevents a party holding a monopoly in one good from bundling or tying a related product to expand its market power to the second product.⁷⁶ In the bankruptcy context, DIP lenders possess significant market power over the DIP loan terms due to time sensitivity and the difficulty of priming secured creditors. They may leverage the power they possess at the DIP loan stage by bundling reorganization plan terms into the loan. Unbundling channels liability-side decisions into the plan of reorganization, where creditors have a stronger voice. It also permits greater competition for competing plans that might be proposed after the transaction. We discuss examples of standardization and unbundling strategies in turn.

1. STANDARDIZATION STRATEGIES

a. EXECUTORY CONTRACTS

One example of the standardization strategy is section 365, which governs leases and executory contracts.⁷⁷ These contracts have, at time of bankruptcy, the features of assets and liabilities. To defend asset value, the Code gives the debtor time to decide whether the contract is a net asset or

⁷² See generally Yoram Barzel, *Standards and the Form of Agreement*, 41 ECON. INQUIRY 1 (2004).

⁷³ See Joseph H. Zhang, *Accounting Comparability, Audit Effort, and Audit Outcomes*, 35 CONTEMP. ACCT. RSCH. 245 (2018).

⁷⁴ See *infra* Section III(A)(2).

⁷⁵ The bundling strategy has been employed not just contractually and legally, but also in many instance technically. IBM, for example, has attempted to integrate its memory design with the system processor in order to block the access of non-IBM peripheral devices. For the use of bundling and unbundling strategy of IBM, see CARLISS Y. BALDWIN & KIM B. CLARK, *DESIGN RULES: THE POWER OF MODULARITY* (4th ed. 2000).

⁷⁶ See, e.g., Joseph Farrell & Philip J. Weiser, *Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age*, 17 HARV. J.L. & TECH. 85 (2003).

⁷⁷ See generally 11 U.S.C. § 365.

net liability to the estate. If it is a net asset, the debtor can assume it, and the assumption/rejection decision is left to the debtor's business judgment.⁷⁸ The liability-side effects, however, are standardized by the Code: Upon assumption, the future liability is given priority over the general unsecured creditors.⁷⁹ If the debtor rejects the contract, damages are treated as prepetition breaches, thus denying them administrative expense priority.⁸⁰ Most courts further limit the DIP's flexibility on the liability side through a threshold definition of executoriness known as the Countryman Test: If a contract is almost a pure liability (no material performance remains on the non-debtor's side of the contract), a court applying the Countryman Test would deem the contract non-executory.⁸¹ This limits the DIP's freedom to assume a contract solely to elevate that liability's priority over the general creditors.

b. ADMINISTRATIVE EXPENSES

The Code provides for claims associated with certain administrative expenses to receive priority over the general claims against the debtor.⁸² This priority level has an asset-side motive: It encourages third parties to do business with the debtor despite its bankruptcy, which should ultimately benefit the estate. Nevertheless, because the liability side is involved, the Code requires greater judicial scrutiny and less deference to management than it does for a pure asset- for-asset transaction.⁸³

One class of claims receiving this status are those connected to “the actual, necessary costs and expenses of preserving the estate.”⁸⁴ This includes, for example, employee wage claims for services performed during the case. To defend the interests of the general creditors, most courts require that the claim have arisen from a transaction with the bankruptcy estate and that the claim must have directly and substantially benefited the estate before affording it administrative expense status.⁸⁵ Thus, courts do not defer to the DIP's business judgment on the liability side in affording administrative expense priority. In the context of breakup fees for stalking horse bidders, for example, the Third Circuit explicitly rejected the management-deferential business judgment rule as a basis for determining whether administrative expense priority is warranted.⁸⁶ The court

⁷⁸ 3 COLLIER ON BANKRUPTCY ¶ 365.03 (16th ed. 2023) (“Although the business judgment [test] is the proper standard for determining whether to permit assumption or rejection of an executory contract or unexpired lease, the court should focus on the business judgment of the trustee or debtor in possession, not on its own business judgment.”).

⁷⁹ Assumption makes any subsequent rejection a postpetition breach, entitling it to administrative expense priority status. See 11 U.S.C. § 365(g)(2).

⁸⁰ A rejection becomes a prepetition breach, which denies it administrative expense status. See 11 U.S.C. § 365(g)(1).

⁸¹ See Vern Countryman, *Executory Contracts in Bankruptcy: Part I*, 57 MINN. L. REV. 439, 451–52 (1973) (“[The trustee's] assumption, on the other hand, would in no way benefit the estate and would only have the effect of converting the claim into a first priority expense of administration and thus of preferring it over all claims not assumed—a prerogative which the Bankruptcy Act has never been supposed to have vested in either the trustee or the court.”).

⁸² 11 U.S.C. § 503.

⁸³ See *supra* Section III(A).

⁸⁴ 11 U.S.C. § 503(b)(1)(A).

⁸⁵ 4 COLLIER ON BANKRUPTCY ¶ 503.04 (16th ed. 2023).

⁸⁶ *Calpine Corp. v. O'Brien Env't Energy, Inc. (In re O'Brien Env't Energy, Inc.)*, 181 F.3d 527, 535 (3d Cir. 1999) (“In other words, the allowability of break-up fees, like that of other administrative expenses, depends

reinforced that the burden rests on the applicant to demonstrate that the fees were necessary to preserve the value of the estate. Similarly, in cases involving backstop fees, courts apply additional scrutiny beyond the business judgment test. In *In re LATAM Airlines*, for example, the court relied on expert witness testimony regarding comparable precedent transactions to conclude that the debtors satisfied the “actual” and “necessary” requirements in section 503(b).⁸⁷

c. DIP LOANS

The most important example of standardization for our purposes is the provision for new financing under section 364. This involves both an asset and a liability decision, as the DIP loan provides new cash (the asset) but also creates a new liability (the DIP loan claim). Similar to its treatment of executory contracts, the Code leaves the asset-side decision (the amount of cash to raise) to the debtor’s judgment, but it creates a set of standardized options for the priority ranking of the new liability through section 364’s priority rules. In simplified terms, section 364 applies a balancing of asset-side and liability-side goals. As the DIP lender’s priority demands increase, the Code provides greater creditor participation rights and a higher standard for approval.

Under section 364(a), a debtor can offer administrative expense priority—this makes the new liability senior to the general unsecured claims. To grant higher priority through a new lien or priority over other administrative expenses, the debtor must convince the court that the money could not have been raised through less aggressive protection of the DIP loan.⁸⁸ Courts play an important role in policing the interest rate and other loan terms by comparing the terms against precedent transactions and in ensuring that the debtor has appropriately market-tested the terms by canvassing the market for rival offers.

Despite section 364’s priority scheme to standardize DIP loan compensation, judges have not yet applied this standardization mechanism to rule out rights offerings and other equity-linked securities as DIP loan compensation. Unbundling strategies have been much more common. We return to this issue in Section V.

2. UNBUNDLING STRATEGIES

a. 363 SALES WITH CROSSOVER IMPLICATIONS

upon the requesting party’s ability to show that the fees were actually necessary to preserve the value of the estate. Therefore, we conclude that the business judgment rule should not be applied as such in the bankruptcy context.”).

⁸⁷ *In re LATAM Airlines Grp.*, No. 20-11254, 2022 WL 790414, at *29 (Bankr. S.D.N.Y. Mar. 15, 2022) (“However, at issue here is whether the Backstop Payment in the Commitment Creditors Backstop Agreement should be approved as ‘actual, necessary costs and expenses of preserving the estates’ under section 503(b)(1)(A) of the Bankruptcy Code. In doing so, the Court will consider whether the cost of the Backstop Agreements is reasonable.”); *In re Pac. Drilling S.A.*, No. 17-13193, 2018 WL 11435661, at *2 (Bankr. S.D.N.Y. Oct. 1, 2018) (“The Code allows for reasonable financing terms but they must be reasonable, and they cannot just be a disguised means of giving bigger creditors a preferential recovery. I therefore made clear that to the extent that these terms were being presented to me as reasonable financing terms, the parties would need to convince me that the terms were reasonable as a financing matter and were better than other options.”).

⁸⁸ See Tung, *supra* note 10, at 668.

As noted above, the DIP's business judgment is generally respected when crossover is not implicated. But courts push back significantly when the sale also determines payoffs to creditors and otherwise locks in liability-side effects.⁸⁹ In *In re Braniff Airways*, the court denied approval of a proposed sale of Braniff's assets to another airline. In addition to the sale, the debtor asked the court to bundle in features that would be otherwise left for the plan of reorganization. These included a requirement that part of the consideration in the form of travel scrip would be paid to certain parties, including the airline's former employees and shareholders. The transaction also locked up votes by requiring that secured creditor deficiency claims be voted in favor of any plan the unsecured creditors committee supported. The court saw this sale as an attempt to work around plan requirements and refused to authorize the sale under section 363(b).⁹⁰

b. 9019 SETTLEMENTS

Pre-plan settlements are governed by Bankruptcy Rule 9019. The rule provides little explicit guidelines to courts on an approval standard, however, stating only that courts may approve settlements "on motion by the trustee and after notice and a hearing."⁹¹ Settlements allow the debtor to avoid costly litigation and the requirement of court approval adds transparency to the process, giving non-parties a chance to object to unfavorable deals.

In several cases, courts have wrestled with settlement proposals that have the potential to reduce costly litigation and improve the path toward reorganization, but also make distributions that may violate priorities. In these cases, courts have recognized the inherent tension between the asset-side and liability-side goals. The circuits that have considered the question have applied unbundling strategies of varying degrees of strength. In the *In re AWECO* case, the Fifth Circuit applied a per se rule to 9019 settlements, holding that courts may not approve any settlement that does not comply strictly with the absolute priority rule.⁹² This is a stronger form of unbundling. It requires that the debtor postpone any potentially objectionable liability-side effects to the plan, irrespective of their asset-side benefits.

The Second Circuit applied a less stringent test in *In re Iridium Operating*, but also unbundled the transaction. It permitted a court to approve settlements that may deviate from priority by applying a multi-factor test, but held that a settlement's adherence to priority should be the most important factor in the analysis.⁹³

In that case, the unsecured creditors committee of Iridium and its main lender, J.P. Morgan Chase, sought approval of a settlement of J.P. Morgan's disputed lien. The proceeds of the settlement would fund a trust to pursue other causes of action against Motorola, which held a priority

⁸⁹ See, e.g., *Pension Benefit Guaranty Corp. v. Braniff Airways, Inc. (In re Braniff Airways, Inc.)*, 700 F.2d 935, 940 (5th Cir. 1983).

⁹⁰ *Id.* at 940 ("The debtor and the Bankruptcy Court should not be able to short circuit the requirements of Chapter 11 for confirmation of a reorganization plan by establishing the terms of the plan sub rosa in connection with a sale of assets.").

⁹¹ FED R. BANKR. P. 9019.

⁹² *Internal Revenue Serv. v. AWECO, Inc. (In re AWECO, Inc.)*, 725 F.2d 293, 300 (5th Cir. 1984).

⁹³ *Motorola, Inc. v. Off. Comm. of Unsecured Creditors (In re Iridium Operating, LLC)*, 478 F.3d 452, 465–67 (2d Cir. 2007).

unsecured claim. The court recognized the potential asset-side benefits of the settlement; by settling the litigation, the estate would save valuable cash and pursue a valuable asset in its Motorola cause of action.⁹⁴ But the court also earmarked a particular element of the settlement for unbundling. After the conclusion of the Motorola litigation, the trust sought to return excess funds to only the unsecured creditors. The court remanded to the bankruptcy court for justification of this priority-deviating element of the settlement that seemed to play no role in advancing the asset-side goals of the case.

c. DIP LOANS

Courts have also applied unbundling strategies in the DIP loan context. One circuit court has held that cross-collateralization, whereby a DIP loan is used to also secure prepetition debt, is per se impermissible.⁹⁵ Roll-ups, whereby the proceeds of a secured DIP loan are used to pay off prepetition unsecured debt, are also disfavored, though not absolutely.⁹⁶ Courts typically consider roll-ups to be extraordinary provisions that require special disclosure and special justification.⁹⁷

As noted above, the DIP-RSA pairing has become a norm in the large chapter 11 case. In a few cases, however, courts have applied unbundling strategies to DIP loans that attempt to lock in reorganization plan consequences for the DIP lenders through an RSA or through the loan itself. These cases illustrate that unbundling is a matter of degree, and can take many forms. In some cases, courts have insisted on terms that weaken the tie between the DIP loan and the plan outcome without denying the transaction altogether;⁹⁸ in others, courts have denied the proposed transaction because of its plan-determining effects.⁹⁹

Consistent with its treatment of other crossover transactions, courts do not defer to the debtor's business judgment regarding liability-side determinations. In particular, courts have applied unbundling strategies to DIP loan terms that attempt to leverage the bankruptcy process for the

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It is clear from the record why the Settlement distributes money from the Estate to the ILLLC. The alternative to settling with the Lenders—pursuing the challenge to the Lenders' liens—presented too much risk for the Estate, including the administrative creditors. If the Estate lost against the Lenders (after years of litigation and paying legal fees), the Estate would be devastated, all its cash and remaining assets liquidated, and the Lenders would still possess a lien over the Motorola Estate Action.

Id. at 465–66.

⁹⁵ See *Shapiro v. Saybrook Mfg. Co. (In re Saybrook Mfg. Co.)*, 963 F.2d 1490, 1494–96 (11th Cir. 1992).

⁹⁶ See Final Order (I) Authorizing Debtors (A) to Obtain Post-Petition Financing Pursuant to 11 U.S.C. §§ 105, 361, 362, 364(c)(1), 364(c)(2), 364(c)(3), 364(d)(1) and 364(e), (B) to Utilize Cash Collateral Pursuant to 11 U.S.C. § 363 and (c) to Purchase Certain Assets Pursuant to 11 U.S.C. § 363, and (II) Granting Adequate Protection to Pre-Petition Secured Parties Pursuant to 11 U.S.C. §§ 361, 362, 363 and 364, at 20, *In re Lyondell Chem. Co.*, No. 09-10023 (Bankr. S.D.N.Y. Mar. 1, 2009).

⁹⁷ When prepetition secured debt is rolled into a DIP loan, it is typically secured and has administrative expense priority, so it cannot be subject to a cramdown.

⁹⁸ *In re Ames Dep't Stores, Inc.*, 115 B.R. 34, 40–41 (Bankr. S.D.N.Y. 1990); *In re Belk Props., LLC*, 421 B.R. 221, 223–26 (Bankr. N.D. Miss. 2009); Transcript of Hearing before the Honorable Craig T. Goldblatt, United States Bankruptcy Judge, at 143, *In re TPC Grp.*, No. 22-10493 (Bankr. D. Del. Aug. 2, 2022), ECF No. 565 [hereinafter TPC Hearing Transcript].

⁹⁹ *In re LATAM Airlines Grp.*, 620 B.R. 722, 786 (Bankr. S.D.N.Y. 2020); *In re Chrysler*, 405 B.R. 84, 113 (Bankr. S.D.N.Y. 2009).

benefit of the DIP lender. In *In re Ames Department Stores*, the court approved a final DIP loan only after proposed terms that would give undue control to the lender had been removed.¹⁰⁰ Similarly, in *In re Belk Properties*, the bankruptcy court denied approval of a loan that sought to transfer control over the case to the secured lender and lock in a term sheet tied to the loan that would provide between 51% and 90% of the reorganized firm's equity to the secured lender.¹⁰¹ In denying the motion, the court emphasized that approval of the DIP would make the reorganization plan a "fait accompli."¹⁰²

More recently, the court in the *In re LATAM Airlines* case found a DIP loan to be a sub rosa plan. The controversial aspect of the DIP involved the most junior "Tranche C" facility, a \$900 million loan tranche to be provided by a group of large shareholders, Qatar Airways Investments and Costa Verde Aeronautica S.A., who controlled 32% of the company's equity. The loan included a "Modified Equity Subscription" election, whereby the debtor could elect to convert the Tranche C loan into equity in the reorganized firm at a 20% discount to plan value. The case did not include an RSA, but the loan included RSA-like terms: covenants that made any other plan proposal an event of default under the DIP.¹⁰³

The *LATAM Airlines* loan dispute shared many common elements with the *J.C. Penney* loan. The debtor also received a rival loan proposal from a group led by Knighthead, a holder of LATAM unsecured bonds, that claimed to offer better terms. As in *J.C. Penney*, the debtor focused on elements the Knighthead group could not offer as justification for approving the insider loan proposal.¹⁰⁴ One of these was the equity subscription plan itself, which they claimed gave the debtor important flexibility.

The court denied approval of the loan on the basis that the loan was a sub rosa plan. The equity subscription election, the court reasoned, would lock in future plan terms and short-circuit the plan review process.¹⁰⁵ Because the court had no way of knowing whether the 20% discount was appropriate at the DIP loan stage, it would not remove creditor or court control over future plan terms.

Other courts have taken more incremental actions to unbundle DIP loans from plan consequences. In the *In re TPC Group* case, a majority proposed a DIP loan that was tied to an RSA.¹⁰⁶ The RSA

¹⁰⁰ *In re Ames Dep't Stores, Inc.*, 115 B.R. 34, 40–41 (Bankr. S.D.N.Y. 1990) ("As originally structured, the proposed agreement with Chemical gave rise to concerns for whether the Chapter 11 process was being leveraged. It provided for default on the appointment of a trustee or examiner with enlarged powers under section 1104 of the Code. It contained no carve out for professional fees from the super-priority to be awarded to Chemical. It provided for default if the Court were to grant relief from the automatic stay at the request of any creditor owed in excess of \$20 million At the final hearing, these clauses were modified.").

¹⁰¹ *In re Belk Props., LLC*, 421 B.R. 221, 223–26 (Bankr. N.D. Miss. 2009).

¹⁰² *Id.* at 226.

¹⁰³ *In re LATAM Airlines Grp.*, 620 B.R. 722, 814–15 (Bankr. S.D.N.Y. 2020).

¹⁰⁴ *Id.* at 811 n.17.

¹⁰⁵ *Id.* at 819–20.

¹⁰⁶ Debtors' Motion for Entry of Interim and Final Orders (I) Authorizing the Debtors to (A) Obtain Senior Secured Priming Superpriority Postpetition Financing and (B) Use Cash Collateral, (II) Granting Liens and Providing Claims with Superpriority Administrative Expense Status, (III) Granting Adequate Protection to the Prepetition Secured Parties, (IV) Modifying the Automatic Stay, and (V) Granting Related Relief, at 13–36, *In re TPC Grp.*, No. 22-10493 (Bankr. D. Del. Jun. 1, 2022), ECF No. 36.

contemplated a plan whereby the company would raise \$300 million in new equity to recapitalize the company. The RSA included several benefits available only to the majority group. One was a “direct allocation” of \$135 million of the \$300 million equity rights offering at a 35% discount to plan value. The RSA also provided a \$36 million fee in the form of a “put option premium” to the majority group for backstopping the full \$300 million amount. As with most DIP-RSA ties, failure to propose a plan consistent with the RSA would be a default under the loan. At the final DIP hearing, the court approved the loan. But, concerned that loan approval would make alternative plans impossible, the court insisted on a clarification that a default on the DIP loan would not permit an exercise of remedies, such as seizing assets, without further approval.¹⁰⁷

In the *In re SAS* case, Apollo, the DIP lender, sought approval of a DIP loan that included a call option, giving them the right to purchase equity in the plan at a predetermined plan value. The DIP loan also included “tag rights” that would allow Apollo to purchase up to 30% of the new money equity to be issued in the plan at the same terms available to a third party. These options could be terminated at the option of the debtor by paying Apollo a fee. The court ultimately approved the DIP because no party objected to it. Nevertheless, the court was troubled by the delegation of the termination option to the debtor only, with no input from the creditors. At its insistence, the parties agreed to modify the termination right so that the creditors would retain control rights over the termination decision during the plan process.¹⁰⁸

IV. THE MISSING STANDARDIZATION SOLUTION

Though the courts in the *LATAM Airlines*, *TPC Group*, and *SAS* cases pushed back on plan-determining DIP loans using unbundling strategies, they have not yet relied upon the standardized nature of section 364 to reject the use of equity-linked securities as compensation for DIP loans. This issue has lurked in the background of these high-profile cases, and undoubtedly will be an important question in future ones. If DIP lenders can treat plan equity as a de facto interest payment on the DIP loan, it will create an easy end-run around plan provisions like section 1123(a)(4), which provides that creditors within a class receive equal treatment. If a majority group that provides a DIP loan can label any future plan payout as DIP loan compensation, the equal treatment provision would be circumvented.

Below, we discuss several cases that touch upon but do not resolve this important issue. In several of them, courts note the difficulty in valuing future plan payoffs, thus making it harder to defend

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THE COURT: Right, but it is also the case that if your plan, essentially, or something substantially like it isn't confirmed after the DIP is approved then we're in a situation where we're in a default under the DIP, right. So it makes it awfully hard to confirm another plan if you exercise default remedies, right?

MR. HANSEN [counsel for the Ad Hoc Noteholder Group]: If you allow us to exercise default remedies at that point. If the debtor is unable to find alternative financing that you would approve over our objection to the extent we object, of course.

THE COURT: Okay. So do you agree that even after I approve the DIP you don't get to enforce default remedies without further approval?

TPC Hearing Transcript, *supra* note 98, at 142–43.

¹⁰⁸ *In re SAS AB*, 644 B.R. 267, 270–71 (Bankr. S.D.N.Y. Sept. 21, 2022).

the interests of the other creditors. This is exactly the problem that a standardization strategy is well placed to address.

A. IN RE LATAM AIRLINES

The *LATAM Airlines* case was the first to directly confront the issue. To defend against the objecting creditors' sub rosa plan argument, the debtor suggested that their plan equity was DIP loan compensation. To address this argument, the court distinguished the circumstances of *LATAM Airlines* from those of *In re Chrysler*, where the government's investment in New Chrysler was repaid in part through equity interests in the New Chrysler entity.¹⁰⁹ The court noted that the Chrysler equity had no bearing on the Old Chrysler estate's creditors: "[A] determination now that the Debtors are free to allocate the reorganized equity to their shareholders (and at a 20% discount to some of them) is relevant to the estate's economic interests generally, and specifically to the rights of all estate creditors under the plan process."¹¹⁰

Though the distinction with *Chrysler* maybe valid, it also proves too much. Every DIP loan obligation, even a plain vanilla debt claim, is a crossover transaction. As such, it necessarily affects the rights of the estate's other creditors in the eventual plan. DIP loans are almost always secured and have administrative expense priority. As such, the DIP loan must be paid before the estate's other creditors, which necessarily affects their economic interests.

The court makes a more important distinction elsewhere in the opinion, noting that it would be infeasible to value the discounted equity to determine the value of the loan payoff on the other creditors due to time constraints.¹¹¹ This is exactly why the standardization mechanism in section 364 is essential: It allows for court evaluation of the terms in a way that is compatible with the time-sensitivity required for DIP loan approval.

B. IN RE TPC GROUP

In *TPC Group*, the court also expressed concern about the future implications of the RSA deal on the plan, suggesting that the DIP-RSA structure implements a plan structure that treats similarly situated creditors unequally. In passing, however, the court noted that the ad hoc group's compensation might have been characterized as compensation on the DIP loan:

During the cross-examination of Mr. Jamal, there was evidence that the members of the ad hoc group would under the plan receive substantial value that is not described as a payment on account of their prepetition secured claim or payment under the DIP, but is instead essentially described as fees for backstopping the rights offering and the exit facility. And on hearing that testimony, it really jumped out and underscored that this question of whether that value is on account of the

¹⁰⁹ *In re LATAM Airlines Grp.*, 620 B.R. 722, 817 (Bankr. S.D.N.Y. 2020); *In re Chrysler*, 405 B.R. 84, 92 (Bankr. S.D.N.Y. 2009).

¹¹⁰ *In re LATAM Airlines Grp.*, 620 B.R. 722, 817 (Bankr. S.D.N.Y. 2020).

¹¹¹ *Id.* at 820 n.120 ("Here, there is no evidence regarding the Debtors' enterprise value, and such a valuation analysis is simply not possible at this stage of the bankruptcy. Thus, there is no record upon which the Court can determine what value or assets, if any, is left for distribution to other creditors of the LATAM estates.").

prepetition debt or on account of those plan transactions will be important to whether the plan comports with the requirement of the Bankruptcy Code that similarly-situated creditors be treated alike And I’ve got some concerns that these transactions here aren’t market tested, which, if right, would counsel in favor of the view that it’s actually consideration being given on account of the claims, which would give rise to claims of discriminatory treatment.¹¹²

The passage highlights the interconnectedness of DIP loan compensation and the plan protections for creditors nominally uninvolved in the DIP loan. If parties can argue that equity is allowable payment on the DIP loan, then market testing and other checks on unfair treatment would have little bite.

C. *IN RE SAS*

In the *SAS* case, the court approved Apollo’s DIP loan because no party objected to it. But it issued a strongly-worded rebuke of the loan’s terms with the clear intent of discouraging future equity-linked DIP loans. The court noted the difficulty of valuing Apollo’s option compensation at the beginning of the case:

But in this particular case, call option valuations would have to be based on a calculation of the current total enterprise value of the Debtors (which is itself not so easy to calculate given that the Debtors are in the midst of an ambitious cost-reduction plan) and based on the expected “volatility” as to what the total enterprise values might turn out to be in the future. In fact, we have no idea what the future enterprise value will be; we do not know what cost savings are going to be achieved, we do not know what else is going to happen in the markets between today and the date on which the enterprise value will be calculated, and we do not know, other than by pure guesswork, exactly how to figure what the volatility is.¹¹³

The debtor’s advisors presented estimates of the cost of these rights, but the court believed the advisors’ intent was to underestimate their cost in order to secure approval.¹¹⁴ Most importantly, the court inferred that these rights were likely to be more valuable than the debtor suggested, given how hard Apollo bargained to get them.¹¹⁵

We believe the court was right to make this inference. In classic corporate finance theory, firms have superior information to their investors about the values of securities they issue. In that environment, the decision to issue information-sensitive securities, like equity, in lieu of debt,

¹¹² TPC Hearing Transcript, *supra* note 98, at 188–89 (emphasis added).

¹¹³ *In re SAS AB*, 644 B.R. 267, 274 (Bankr. S.D.N.Y. 2022).

¹¹⁴ *See id.* at 275 (“I do not mean to be overly critical of the advisors, but these calculations give me the impression that they were selected more for the purpose of trying to downplay the likely costs of the tag right termination fees, rather than for the purpose of showing what the likely costs will be.”).

¹¹⁵ *See id.* at 274–75 (“I also do not have a clear sense at all of how to value the tag rights. The tag rights do not involve options to buy at any particular price; instead, they are rights to buy at the prices that are available to third parties. Apollo bargained very hard to get them, and it bargained hard for the inclusion of relatively high termination fees, so the bargaining history clearly tells me that these are very valuable rights.”).

serves as a signal that those securities are “lemons” (i.e., overvalued). The modern DIP loan environment is the lemons problem in reverse. DIP lenders are most likely to propose more informationally-sensitive equity securities for court approval exactly when those securities are likely to be gems (i.e., undervalued). Standardization of DIP loan compensation is an important check on this problem.

V. THE CASE FOR DEFENDING PRIORITY: A REASSESSMENT

Bankruptcies like J.C. Penney’s demonstrate how the “secure” has been taken out of secured debt. Asset-side goals trump liability-side goals. But why is defending priority as between creditors all that important? In simple terms, priority shifts in cases like *J.C. Penney* undermine capital structure commitment. Law and economics scholars typically assume that firms make their capital structure choices with intention: capital structure decisions can solve incentive and information problems that can increase the value of healthy companies.¹¹⁶ In the new world of “bankruptcy hardball,”¹¹⁷ it is impossible to assure any secured creditor—particularly a less active one—that their seniority will be respected. There are several potential costs of these strategic priority shifts that raise efficiency concerns about the bankruptcy system.

The first set of costs are ex ante costs. One of the important benefits of secured credit is its information insensitivity. An uninformed creditor will know less about the company than its managers. In such an environment, adverse selection or “lemons” problems can cause credit rationing, whereby valuable projects are denied funding.¹¹⁸ The academic literature notes that collateral can be an important way around the credit rationing problem, allowing lenders to screen out better quality firms by requiring collateral. If firms can’t make this commitment credibly, it may result in credit rationing and lower ex-ante investment by healthy firms.

A crucial development in modern finance is the rise of securitized term loan debt. Over 70% of new leveraged loan issuances are bought by CLOs.¹¹⁹ Anecdotally, CLOs are often the victims of priority-shifting tactics. Patrick Bolton and Xavier Freixas have explained why it is valuable to have this kind of senior, securitized debt in the capital structure.¹²⁰ In their model, bank loans are easier to renegotiate in distress than bonds; hence, there is a value to having bank debt in the capital structure. But bank capital is also more expensive due to the cost of intermediation. Bond debt could be used to avoid this intermediation cost, but because it is junior in priority to banks, the presence of bond debt gives banks excess incentive to liquidate good firms in financial distress. Replacing some bond debt with securitized senior debt can avoid this liquidation problem while avoiding some intermediation costs of bank finance. Bolton and Freixas’s model shows why the

¹¹⁶ See Alan Schwartz, *The Absolute Priority Rule and the Firm’s Investment Policy*, 72 WASH. U. L.Q. 1213 (1994); Douglas G. Baird, *Three Faces of Creditor-on-Creditor Aggression* (Feb. 10, 2023) (unpublished manuscript) (on file with authors).

¹¹⁷ The term is from Jared A. Ellias & Robert J. Stark, *Bankruptcy Hardball*, 108 CAL. L. REV. 745 (2020).

¹¹⁸ See Joseph E. Stiglitz & Andrew Weiss, *Credit Rationing in Markets with Imperfect Information*, 71 AM. ECON. REV. 393, 393 (1981).

¹¹⁹ A collateralized loan obligation (CLO) is a single security backed by a pool of diversified debt.

¹²⁰ Patrick Bolton & Xavier Freixas, *Equity, Bonds, and Bank Debt: Capital Structure and Financial Market Equilibrium Under Asymmetric Information*, 108 J. POL. ECON. 324, 325 (2000).

inability to guarantee a senior position for securitized debt will increase companies' cost of capital by undermining the incentive schemes built into capital structures.

Ex post, there are several costs associated with priority shifting, even within the creditor body. The first is the possibility of socially wasteful rent-seeking.¹²¹ Sophisticated creditors increasingly rely on sophisticated professionals to devise offensive strategies for redistributing value, and defensive strategies for preventing them. In the modern case, we should expect these professional costs to grow, and ultimately to be passed on to borrowers through higher costs of capital.

The second ex post cost is distorted incentives. One of these is the forum shopping decision. Should bankruptcy favor a subset of creditors over others, it increases the incentive of the potential winners to seek out bankruptcy even if the filing is unnecessary. For example, J.C. Penney entered bankruptcy with over \$500 million in cash, and several parties questioned whether a bankruptcy filing was necessary given the company's ample liquidity.¹²² Given that bankruptcy provides more powerful tools for effecting priority shifts, a weakening of priorities can enable strategic, unnecessary bankruptcy filings.

There are costs of distorted incentives within a case as well. When transactions are driven by priority-shifting motives, they frequently involve workarounds of constraints in law and contract. Capital structure changes that result from these workarounds can be suboptimal, and generate unintended efficiency consequences as a result.¹²³ In *J.C. Penney*, for example, priority extraction was achieved by placing the majority ahead of the minority and taking control over the case. Thus, the capital structure morphed from a pro-rata first lien structure to a senior/junior structure with senior creditors having full control of the case through the RSA. Bankruptcy theory and evidence suggest that senior lenders have greater incentives to end the case quickly to protect the value of their senior claim.¹²⁴ Some creditors openly speculated that the multi-tranche DIP loan, and the RSA giving the lender's business plan approval rights, was a ruse intended to allow the lenders to liquidate the company's valuable real estate.¹²⁵ J.C. Penney ultimately survived, but similar distortions might cause the liquidation of a viable company.

CONCLUSION

¹²¹ See Roe & Tung, *supra* note 23, at 1236–37.

¹²² Cathy Hershcopf, counsel for the Unsecured Creditors' Committee, at the DIP hearing:

Your Honor, J.C. Penney entered this case with \$450 million in cash, and up to a billion dollars of unencumbered real estate. Given those fact that separate this retailer from almost every other retailer with whom I've worked in the past decade, some ask why J.C. Penney actually needed to file Chapter 11 now. But those are questions for another day.

DIP Hearing Transcript, *supra* note 31, at 24.

¹²³ Kenneth Ayotte & Christina Scully, *J. Crew, Nine West, and the Complexities of Financial Distress*, 131 YALE L.J.F. 363, 363–66 (2021).

¹²⁴ Kenneth M. Ayotte & Edward R. Morrison, *Creditor Control and Conflict in Chapter 11*, 1 J. LEGAL ANALYSIS 511, 511–13 (2009).

¹²⁵ See Crossholder Group Objection, *supra* note 30, at 3 (“At best, the RSA is an agreement to agree, but, like the second tranche of the proposed DIP financing, is illusory and overridden by the quick trigger that its signatories can pull to force the Debtors into a full-scale liquidation.”).

Chapter 11 is reaching a crossroads. Should the law become a “golden ticket” mechanism, allowing the debtor’s chosen DIP lender coalition to determine plan payoffs? Or should it make a serious attempt to defend the priority structure inherent in reorganization plan rules? The right answer to this question is not as easy as it seems. Modern DIP loans tied to RSAs do indeed serve important asset-side goals: They eliminate costly conflict and provide a certain and quick path to exit. Proponents will argue that DIP loan approval maybe the difference between survival and liquidation. Many such threats are purely strategic, but some maybe real. The investors who win the golden ticket in one case will lose the next time around; random wins and losses among investors will simply wash out ex ante in the interest rates creditors require. Golden ticket bankruptcy seems like the easier path to pursue.

We argue, instead, that the more difficult path is the right one. Priority protection remains a crucial feature of chapter 11. It allows companies to commit to capital structures that increase value for healthy firms. And it prevents dangerous distortions, like forum shopping, that would result in parties using or avoiding chapter 11 strategically. Judges must make difficult judgment calls to prevent DIP loans from becoming an easy workaround of reorganization plan provisions.

The sub rosa DIP loan problem is characteristic of all pre-plan crossover transactions that involve the asset- and liability-sides of the balance sheet. The law uses two strategies to govern these crossover transactions: standardization and unbundling. Courts have begun to use unbundling strategies to prevent DIP loans from locking down plan payoffs. But they have not yet used the standardization mechanism in section 364 from preventing equity-linked repayment of DIP loans. This is an important next step.

CHAPTER II
FROM UNBUNDLING TO BUNDLING:
A NETWORK ANALYSIS OF BANKRUPTCY LAW EVOLUTION

INTRODUCTION

This is a typical timeline of a Chapter 11 reorganization. First, the debtor files its bankruptcy petition. The automatic stay then enjoins all attempts to collect from the debtor. This means that the debtor can retain assets without fear of creditor removal. Pre-petition management often continues as the management of the firm in bankruptcy. The debtor continues its operations, by selling or retaining assets, or obtaining financing to preserve the firm value. Finally, at the conclusion of the bankruptcy process, a plan is proposed and confirmed by the court. This plan of reorganization will allocate the firm's assets, determine a creditor's eventual priority, and payoff.

This timeline illustrates that there are two types of decisions in a reorganization case. The first type pertains to firm operations and asset deployment, categorized as operational decisions. The second type, the distributional decision, focuses on the distribution of the firm's value to creditors. These two distinct categories of decisions occur at different stages: operational decisions are made during the early stages of the case, while distributional decisions take place in the later stages.

Consider the sale of assets, a common operational decision. The Bankruptcy Code permits day-to-day asset sales. It also allows the debtor to sell assets outside the ordinary course of business with bankruptcy court's approval. A debtor may sell its asset at the early stage of a case. It could be a straightforward asset-for-cash transaction. The asset departs from the estate, while cash from the asset buyer comes back in. The cash from the sale then becomes potentially available to all creditors.

Later, in relation to distributional tasks, creditors negotiate and bargain over their priority positions. Finally, based on the creditors' votes and the bankruptcy judge's approval, a reorganization plan is confirmed to settle the distribution, including the cash obtained from the previous asset sale. Here, the operational and distributional decisions are unbundled: asset sales occur in the early stages, while distributions take place later. The asset sale does not interfere with the distributional decision. This operational decision merely alters the form of the assets from asset to cash.

Consider another asset sale that bundles operational and distributional decisions. Similar to the previous example, the debtor sells its asset, but this time, also seeks judicial approval to use the proceeds from the sale to fully pay certain creditors, leaving others with nothing. This sale then has a direct distributional impact. If this bundle is permitted, a distributional decision will be made concurrently with operational tasks at the beginning of the case, rather than in the later stages as would typically be expected.

The bundling of distributional and operational decisions has been increasingly detected in recent Chapter 11 decisions. For instance, in the case of *J.C. Penney*, debtor-in-possession (DIP) loans determine the distributional decision at the outset of the case. DIP loans are linked to plan terms

that include rights offerings, which grant the DIP lender exclusive rights to purchase discounted equity in the reorganized company, and backstop fees, compensating the rights holder for committing to the purchase. DIP loans are used to circumvent the traditional reorganization plan process. Unlike in the conventional timeline where distributional decisions are made during the later stage through the reorganization plan, distributional decisions are effectively locked in during the early phase via DIP loan approval.

Bundling allows distributional decisions to be made early in cases where the protection of priority rules and procedural safeguards is weak, rather than later when it is stronger. Permitting the bundling practices and the distortion of priority rules, implies that corporations might face higher capital costs and increased wasteful rent-seeking.

However, despite anecdotal evidence and theoretical discussions, there remains a lack of empirical and systematic understanding of bundling. Is bundling only incidental or a broader trend? Is bundling a recent development, or is it consistent with previous practices? If it is a new development, when did it actually emerge?

This article employs a section co-citation network analysis for a systematic examination of bundling. Bankruptcy law is a statutory field. Despite some controversial non-Code practices, judicial decisions rely on direct authorization provided by the U.S. Bankruptcy Code. This statutory nature signifies that judges must not only cite cases in their rulings but also refer to specific Bankruptcy Code sections.

The decisions of citations are not random. When a judge cites a statute in a case, it implies relevance between the cited statute and the case at hand. Furthermore, if a judge cites two statutes, B and C simultaneously in case A, this not only demonstrates their individual relevance to case A but also suggests a relationship between the co-cited B and C. This approach derives from bibliometrics and is known as co-citation analysis. Co-citation of articles within another work indicates a relationship between the co-cited articles.

If two sections are frequently co-cited, this suggests they possess doctrinal relevance. If a section transitions from being infrequently co-cited to frequently co-cited with another, this reflects a development in the doctrine related to the section.

Therefore, if there is a systematic paradigm shift from unbundling to bundling, we should expect that the sections governing operational decisions—termed operational sections—and those governing distributional decisions, referred to as distributional sections, would experience a corresponding shift from being infrequently co-cited to frequently co-cited.

To operationalize this a co-citation analysis of bankruptcy law section, this study constructs the first bankruptcy law judicial network based on 6,439 U.S. Circuit Court opinions on corporate reorganization from 1982 to 2017. In this network, each section serves as a node, and co-citations form the edges between sections. The co-citation analysis reveals that prior to 2005, key operational sections such as sections 363 and 364 maintained a relatively low co-citation index with distributional sections such as section 1129. However, after 2005, there was a significant

increase in the co-citation index between operational sections 363 and 364 with distributional section 1129.

While co-citation analysis can study the relationship between two specific sections individual, it does not provide a global understanding of the sections. To address this, the study further employs community detection, which allows for the identification of the macro structure of the network. The findings from community detection align with those from the co-citation analysis. Before 2005, sections of the same type were typically assigned to the same community. For instance, key distributional sections under Chapter 11, the Plan sections (§§ 1121 – 1129), were grouped into the same community, highlighting their close connections. However, post-2005, Sections 363 and 364 from the operational section community merged with the distributional section community.

In conclusion, through co-citation analysis and community detection of the operational and distributional sections, this paper shows that the bundling of operational and distributional decisions indeed constitutes a systematic trend in corporate reorganization practice. Since 2005, the correlation between the operational and distributional sections has significantly strengthened. This is due to an increasing number of bundled transactions being proposed in modern bankruptcy. Regardless of whether a judge's disposition is to approve or reject such a bundling, he or she must more cite both types of sections in their opinions in a more frequent way. Consequently, the linkage between the distributional and operational sections has increased. This validates the significant paradigm shift in bankruptcy practice from unbundling to bundling post-2005.

This paper first contributes to the bankruptcy law literature. The practice of “priority-jumping activity,” a rearrangement of estate assets distribution, has become a focal point in the bankruptcy literature.¹²⁶ A prior research co-authored with Ken Ayotte analyzed bundling as the mechanism of various priority-jumping transactions through case studies.¹²⁷ This current paper advances this inquiry, empirically validating a significant doctrinal paradigm shift in bankruptcy law—from unbundling to bundling—with systematic evidence.

More broadly, this article enriches the historical account of corporate bankruptcy. Modern Chapter 11 cases look very different than the typical Chapter 11 cases of the past. Since the enactment of the Bankruptcy Code in 1978, bankruptcy law can be delineated into two periods: traditional and modern, with the year 2000 serving as a rough boundary. Compared to the traditional era, modern bankruptcy cases conclude more swiftly, and control power over the reorganization process has shifted from incumbent managers to creditors. This article identifies another dimension of the shift

¹²⁶ See Mark J. Roe & Frederick Tung, *Breaking Bankruptcy Priority: How Rent-Seeking Upends the Creditors' Bargain*, 99 VA. L. REV. 1235 (2013). Edward J. Janger & Adam J. Levitin, *The Proceduralist Intervention-A Response to Skeel*, 130 YALE L.J. 335, 338 (2020). Douglas G. Baird, *Bankruptcy's Quiet Revolution*, 91 AM. BANKR. L.J. 593 (2017), Ralph Brubaker & Charles Jordan Tabb, *Bankruptcy Reorganizations and the Troubling Legacy of Chrysler and GM*, 2010 U. ILL. L. REV. 1375.

¹²⁷ See Kenneth Ayotte & Alex Zhicheng Huang, *Standardizing and Unbundling the Sub Rosa DIP Loan*, 39 EMORY BANKR. DEV. J. 523, 525-26 (2023). Vincent Buccola's work on “discretion paradigm” and “entitlement paradigm” are analogous a balance sheet perspective that divides between the asset-side and liabilities-side. See Vincent S.J. Buccola, *The Janus Faces of Reorganization Law*, 44 J. CORP. L. 1 (2018). Some studies suggest that a frequently overlooked prerequisite is the “bankruptcy partition”. See Douglas G. Baird, Anthony J. Casey & Randal C. Picker, *The Bankruptcy Partition*, 166 U. Pa. L. Rev. 1675 (2018).

from traditional to modern bankruptcy: the doctrinal change in bankruptcy law from unbundling to bundling post-2005.

The paper introduces community detection to legal studies for the first time. Existing legal networks can be categorized into two types: those related to a statutory legal field are constructed based on cross-references of sections within a code; for non-statutory fields, they are based on judicial citations from cases.

However, in statutory system such as bankruptcy law, citations to sections made by judges also contain rich information. **Bommarito and Katz** established the only section network based on judicial citation, rather than code-based. This paper takes a further step by incorporating community detection into the analysis of legal networks. The co-citation analysis of sections and community detection presented in this paper have the potential to be applied to other highly statutory areas, such as tax law.

More importantly, this paper adds to the growing literature on computational legal analysis, invigorated by advances in natural language processing, network analysis, and machine learning. However, a critical question that computational legal analysis must address is how its data can be interpreted from a legal standpoint, rather than merely treating law as the material for analysis. This paper joins the effort to demonstrate the field's potential to pose and answer questions that engage not just data scientists but legal scholars as well.

I. THE BUNDLING THEORY OF BANKRUPTCY LAW

A. OPERATIONAL DECISION AND DISTRIBUTIONAL DECISION

Corporate reorganization presents us with dual tasks: operational decisions, which dictate which assets should be retained or relinquished, and whether new financing should be sought and, if so, the extent of such financing. Conversely, the distributional decision aims to adhere to priority rules in determining the payoff and priority of each creditor.

When contrasting Chapter 11, the reorganization chapter, with Chapter 7, the liquidation chapter, it becomes apparent that Chapter 7 involves almost no operational decisions. This is because in Chapter 7, the debtor's assets undergo straightforward liquidation, followed by a distribution of the proceeds. In contrast, Chapter 11 includes both operational and distributional decisions.

Operational and distributional decisions differ in their timing, inherent nature and decision-making authority. Operational decisions occur in the early stages of a reorganization case, centering on how to effectively manage the firm to advance a successful reorganization. Conversely, distributional decisions take place in the later stages of a case, marked by the confirmation of a reorganization plan.

Regarding the nature of decisions, operational decisions are fundamentally business decisions. the debtor's management with operational business information is thus granted the authority, under judicial supervision, to use the bankruptcy estate's asset to maximize its value. Accordingly,

operational decisions possess a high degree of discretion to accommodate the flexibility required for business decision-making.

However, at the case's conclusion, the focus shifts to distributional tasks. Distributional tasks do not possess the nature of business judgment. The debtor's management has little incentive or specialized expertise to manage the priority among classes of creditors. There is thus a shift in decision-making authority, transitioning from debtors to creditors. The debtor's business decisions give way to procedure-based multilateral negotiations among creditors. Carefully designed information disclosure and voting rules are designed to ensure that fair distributional decisions are made through the reorganization plan. Unlike business decisions, distributional decisions lack a discretionary nature. The priority rules clearly establish a hierarchy of claims, dictating the order in which these claims must be satisfied.

However, when operational and distributional decisions are bundled, the differences in timing, inherent nature, and decision-making authority no longer exist. Distributional decisions will be made early in the case, primarily based on the debtor's management business discretion. Procedural protections that are rightfully due to creditors for distributional decisions will be absent. The following section will briefly examine the common contexts of bundling.

1. 363 SALE

A typical example of bundling is asset sales with a distributional effect. A pure asset sale is an operational decision. It does not have a distributional effect but merely transforms the asset from one form to another. The decision-making authority for asset sales is granted to the debtor—Section 363 grants considerable discretion to the debtor to decide on the use, sale, or lease of assets.

The business rationale for a 363 sale is the prospect of a rapid decline in the firm's asset prices. It is often argued that, if the judge does not promptly approve a swift asset sale, the firm's assets will evaporate like a "melting ice cube". It is often disputed whether a firm's assets indeed resemble a "melting ice cube", as not all asset values dissipate quickly.

However, a 363 sale can also bundle distributional decisions. For example, the debtor may request, during a judge's approval of a 363 sale, that the payouts from the sale be allocated to particular creditors or that future votes on a specific plan are locked up. Payouts from the sale, along with the locking of votes, thereby enhance the distributional effect of the 363 sale. The distribution of proceeds from the sale, as a distributional decision, should be postponed to be decided under the reorganization plan. Alternatively, procedural protections could be advanced to ensure that the distributional decision adheres to the priority rule.¹²⁸

In summary, a bundling 363 sale attempts to lock in distributional decisions. However, the nature of operational decisions and distributional decisions is ultimately different. As an operational decision, an asset sale needs to meet business standards, such as a commercial analysis to demonstrate the prospect of a decrease in value, and a bid process that ensures all potential buyers are reached. However, even if these business criteria are met, justifying the asset sale itself, they

¹²⁸ Mark J. Roe & David Skeel, *Assessing the Chrysler Bankruptcy*, 108 Mich. L. REV (2010).

do not justify the bundled distributional decisions. A distributional decision should be made with the procedural protections provided to creditors.

2. DEBTOR-IN-POSSESSION FINANCING

In modern bankruptcy, debtors often face severe liquidity constraints when entering bankruptcy proceedings. While reorganization is indeed designed to resolve financial distress, the process of reorganization itself requires working capital. Thus, obtaining finance for the reorganization process early in a case becomes a crucial operational decision. Section 364 of the Bankruptcy Code allows bankruptcy judges to approve DIP financing, where a new loan can have priority position equal to or even superior to pre-petition secured claims.

Unlike a pure Section 363 sale, which theoretically has no distributional effect, DIP financing inherently has a distributional effect. New, post-petition money necessarily create new obligations and hence distributional effects.

The controversy of some DIP financing, however, lies in their amplification of distributional effects. For example, in the case of DIP Finance Roll-Ups. A DIP lender might also have been the debtor's existing creditor before the bankruptcy filing. In such cases, the lender may seek a roll-up order, directing that the DIP loan proceeds first be used to pay off their prepetition debt. At this point, the distributional effect of a DIP financing order extends from a limited post-petition DIP loan claim to pre-petition claims. Consequently, distributional decisions of pre-petition debt are not made within the reorganization plan later but are instead advanced to the DIP financing stage: the priority of certain pre-petition claims is elevated, and their compensation ratio is increased.

The amplified distributional effect of DIP financing stems from the necessity of operational decisions. Debtors claim that the cash provided by DIP financing is so urgently and critically needed that even if the distributional decision expands the effect to pre-petition claims, such a decision should still be permitted.

3. CRITICAL VENDOR ORDERS

Debtors often file motions early in bankruptcy reorganization proceedings, sometimes as soon as the first day, to obtain court approval to pay selected pre-petition suppliers. These suppliers, termed critical vendors, are deemed essential to the debtor's operations.

The controversy surrounding critical vendor orders—similar to DIP financing rollups—lies in the amplified distributional effect of pre-petition debts. These debts, incurred before the debtor filed for bankruptcy, relate to inventory and raw materials already shipped by suppliers but not yet paid for by the debtor. They thus constitute pre-petition, old debt. Typically, such debt should be part of the general unsecured debt, meaning suppliers would receive pro rata payment along with other unsecured creditors at the end of the case.

However, critical vendor motions enable certain critical suppliers to receive earlier and potentially larger proportions of their pre-petition claims, than other not-so-critical suppliers. Again, critical vendor motion bundles operational and distributional decisions. Debtors justify these motions by

arguing that certain creditors are crucial for their operations, and that without full payment of pre-petition debts, these vendors may refuse to provide further goods or services. Consequently, based on operational considerations for obtaining further goods or services, the distributional effect extends from post-petition assets to pre-petition debts.

Similar to DIP roll-ups, the justification for critical vendor orders stems from operational decisions. Debtors argue that operations require essential assets, whether in the form of cash (as in DIP financing) or service or goods supply (as in the case of critical vendors). However, the necessity of service continuity for maximizing asset value, is a challenging business consideration to validate. It is often unclear whether favored suppliers are indeed irreplaceable, or if they could be substituted with alternative suppliers. And, even if service continuity is a valid commercial concern, it doesn't necessarily warrant a distributional decision involving pre-petition to significantly impact the reorganization plan.

The three cases discussed above illustrate how distributional decisions are bundled with operational decisions. The 363 sale, DIP financing, and critical vendor order exhibit similar structures. A distributional effect is added (in the case of the 363 sale) or amplified (in DIP financing and critical vendor orders) in the early stages of a case. The necessity or urgency of an operational decision is used to justify the added or amplified distributional effect. The decision-making mechanism for distributional decisions is also altered in the process of bundling. Distributions are often not guided by priority rules and protective procedures. Instead, they are approved based on business considerations.

On the other hand, it is apparent that there are varying degrees in the bundling of distributional decisions. Some bundles have a more global distributional effect compared to others. Bundling arrangements based on DIP financing and 363 sales can substantively shape the terms of the reorganization plan. In contrast, other bundling practice such as critical vendor orders narrowly tailor adjustments to part of unsecured claims. The distributional effect of bundling is relatively limited.

When the distributional effect of a transaction is huge or global, it is often considered a de facto Chapter 11 plan of reorganization, or a sub rosa plan. A sub rosa plan circumvents the procedural requirements for plan confirmation and the priority rules but essentially determines the distribution of the firm value. Although the structure of different bundling transactions is similar, not all bundling can be recognized as a sub rosa plan. Common sub rosa plan type bundlings are limited to Section 363 sales and DIP financing agreements, including pairings of DIP financing agreements with plan support agreements and rights offerings.

B. OPERATIONAL SECTION AND DISTRIBUTIONAL SECTION

Operational and distributional aspects are governed by what could be referred to as operational and distributional sections respectively. In bankruptcy law, the operational sections that primarily govern decision-making are concentrated in Chapter 3, with sections 363 and 364 being particularly pivotal.

Section 363 delineates the regulations for the use, sale, or lease of assets, showing the high level of discretion enjoyed by the debtor. It is notable that ordinary course asset sale bypasses the need for creditor notification or court approval. In contrast, non-ordinary asset sale, like the sale of substantial all assets by a firm, necessitate both notification and a hearing. However, non-ordinary asset sale does not demand the creditor consent essential for a distributional decision. The courts typically require just a “good business reason” for approving a non-ordinary course asset sale, which, in practice, often translates to a deference to the management’s business judgment.

Also, section 363 allows a very broad scope of asset use, sale, and lease. Under a liberal interpretation, even actions such as paying off claims could fall under the ambit of asset use. This is why certain courts considering section 363 as providing textual support for critical vendor payments.

Section 364 authorizes debtors to secure new capital, namely debtor-in-possession loans, leaving the necessity and the amount of cash required to the debtor’s discretion. The code only limits the manner in which DIP lenders are compensated to avoid undue disruption to distributional decisions. To protect other creditors, section 364 ensures that the priority given to DIP lenders is limited to the minimum necessary to access the funds.

The most critical distributional sections are located in Subchapter II of Chapter 11 of the code, titled “The Plan” (§§ 1121–1129). These include, for example, section 1125, which mandates the provision of adequate information; section 1126, which establishes voting rules; and section 1129, which sets forth the criteria for plan confirmation. These sections are crucial for distributional issues as they articulate the specific rules for determining the values and priorities of claims.

Standard distributional decisions under the plan of reorganization are subjected to more stringent procedural constraints and are more time-consuming compared to operational decisions. Proponents of the plan are required to submit detailed disclosure statements for court approval, offering information about the firm and its reorganization plan. The plan mandates a creditor vote, underpinned by the Code’s priority rules. In cases where a consensual plan is unattainable, the debtor may need to engage in a contested valuation hearing to push the plan against a dissenting class. Such confirmation of nonconsensual plans of reorganization are known as cramdowns.

C. DETECTING BUNDLING THROUGH CO-CITATION

Now, we have introduced both operational and distributional decisions, along with their corresponding sections. Distributional decisions may be advanced to the early stages of a case, made alongside operational decisions under weak procedural protections.

However, how can bundling be systematically recognized? Through careful reading of a few opinions, one can determine that bundling has occurred in some cases, including identifying the specific contexts in which bundling occurred or the detailed analysis of bundling given by judges. Yet, the scope of close reading is inherently limited. Close reading cannot show whether bundling is a widespread, or whether bankruptcy practice has undergone a shift from unbundling to bundling. Conversely, by utilizing larger-scale data, a more holistic and systematic understanding will be

established. Specifically, we will empirically test bundling using the underutilized information of judicial section co-citation.

A common law judge, when making a decision, must consider which precedents are most relevant to the case at hand. Often, more than one precedent is cited. These precedents, when cited together, usually have strong doctrinal connections.¹²⁹ In other words, the relationship between two cases can be reflected in their co-citation relationship, and further, the strength of the relationship between two cases can be based on how many times later cases cited both of them together.

Co-citation patterns among groups of cases can be used to understand the structure of a specific legal area, like the detection of a legal doctrine. Shifts in co-citation patterns among a group of legal cases could, over a period of years, help scholars detect the emergence or development of legal doctrines.¹³⁰

For a statutory legal area, however, merely conducting a co-citation analysis of cases is insufficient. In many US legal fields, such as in most federal law, a statutory code is crucial. Setting aside the exception of federal common law, unlike state courts, most federal courts are not common-law courts and do not possess the general power to develop and apply their own rules of decision. Therefore, for federal courts, when judges must often decide what law governs issues in their cases, they find that it is not common law but a federal code that plays a significant role. Bankruptcy law is a federal law. It is found in Title 11 of the United States Code. The Bankruptcy Code was enacted by Congress to establish uniform laws on bankruptcy throughout the country.

A bankruptcy judge, therefore, relies on authorization by sections of the Code. Similar to how common law judges' co-citation of cases can reflect the relationships between cases, a bankruptcy judge's co-citation of sections can also reveal the relationships between sections. Clearly, only doctrinally related sections are cited together by judges. Furthermore, identifying strong co-citation relationships among bankruptcy law sections can help scholars understand the doctrinal structure of bankruptcy law. Changes in the co-citation patterns of bankruptcy law suggest that the structure of bankruptcy law practice has changed.

We discussed how operational decisions differ from distributional decisions in nature before; they occur at different stages of a case, are made by different players, and are based on different rationales. This implies that if a judge is dealing with a transaction that is distributional, distributional sections will be more likely to be cited together. For example, in an opinion on whether to approve a plan of reorganization, it is more likely that Section 1129—a distributional section—will be cited alongside another distributional section, such as Section 1123, rather than an operational section.

This judicial co-citation relationship among sections of the same type is sometimes directly based on the legislator's design within the Bankruptcy Code, such as the cross-references within the code.

¹²⁹ Joseph Scott Miller, *Which Supreme Court Cases Influenced Recent Supreme Court IP Decisions? A Case Study*, 21 UCLA J.L. & TECH., no. 2, 2017.

¹³⁰ Patti Ogden, "Mastering the Lawless Science of Our Law": A Story of Legal Citation Indexes, 85 LAW LIB. J. 1 (1993).

For example, consider Section 1127(b) regarding the modification of a plan, which highlights the cross-references between Section 1127 and Sections 1122, 1123, and 1129.

“The proponent of a plan or the reorganized debtor may modify such plan at any time after confirmation of such plan and before substantial consummation of such plan, but may not modify such plan so that such plan as modified fails to meet the requirements of sections 1122 and 1123 of this title. Such plan as modified under this subsection becomes the plan only if circumstances warrant such modification and the court, after notice and a hearing, confirms such plan as modified, under section 1129 of this title.”¹³¹

Here, a direct cross-reference informs the judge that modifications to a plan must also satisfy general requirements of the plan, such as those outlined in section 1122 regarding the classification of claims or interests. Consequently, when bankruptcy judges decide a case on the modification of a plan, they are guided by code cross-references, leading to the co-citation of sections 1122 and 1127.

Co-citation can also be based on the definitional connection within the Code. For instance, section 1129(b) details the requirements for a cramdown, while section 1123(b)(1) of the Bankruptcy Code states that a Chapter 11 plan may “impair or leave unimpaired any class of claims, secured or unsecured, or of interests”. Although not a direct cross reference, the interpretation of the Code guides the judge to look at the definition of “impairment” stated in section 1124.

In summary, sections that share the same nature are more likely to be co-cited, as they address the same type of decisions and may have a definitional or cross-reference relationship. However, if bankruptcy practice operates under a bundling practice, the story changes. When a distributional decision is bundled with an operational decision, the judge must manage both types of decisions within the same case. This means that regardless of the judge’s stance on the bundling transaction, they tend to co-cite both operational and distributional sections. Thus, a bundling transaction necessitates the co-citation of sections of different nature.

Consider the asset sale case again. Governed by section 363, these sales are typically framed as pure asset-for-asset operational decisions, with minimum attention to distributional sections. As a result, no distributional section is expected to be co-cited with section 363. If there is a dispute over the distribution of sale proceeds, it is more likely to be resolved later, under the plan of reorganization by distributional sections.

Yet, as previously discussed, certain section 363 sales are linked to significant distributional outcomes, as demonstrated in the notable case of *In re Braniff*. In this case, the debtor aimed to sell Braniff’s assets to another airline. The transaction transcended a simple asset sale, incorporating aspects with distributional consequences. Specifically, a portion of the proceeds was allocated to be paid to some creditors, and the transaction even specified how secured creditor deficiency claims should be voted in favor of any plan endorsed by the unsecured creditors

¹³¹ 11 U.S.C. § 1127(b).

committee. These elements clearly extend beyond a straightforward operational decision, encompassing significant distributional implications.

Judges then find themselves in a position to invoke both operational and distributional sections in a single ruling to address the dynamics of an asset sale imbued with distributional effect. The *In re Braniff Airways* court co-cited sections 363, 1125, 1126, and 1129.¹³²

“The district court was not authorized by § 363(b) to approve the PSA transaction and that its order is reversed. In any future attempts to specify the terms whereby a reorganization plan is to be adopted, the parties and the district court must scale the hurdles erected in Chapter 11. See e.g. 11 U.S.C. § 1125 (disclosure requirements); id. § 1126 (voting); id. § 1129(a)(7) (best interest of creditors test); id. § 1129(b)(2)(B) (absolute priority rule).”

We observe a co-citation of operational sections, such as section 363, with distributional sections like sections 1125, 1126, and 1129. The Fifth Circuit notably established the seminal sub rosa plan doctrine in *In re Braniff Airways*. This doctrine asserts that the debtor should not circumvent Chapter 11’s requirements for confirming a reorganization plan by setting the plan’s terms sub rosa in an asset sale.

Thus, the co-citation relationship between operational and distributional sections can indicate the relationship between their respective decisions. Using this relationship as a proxy, we derive an effective method to gauge the evolution of bankruptcy doctrine on a large scale.

While the bundling of operational and distributional decisions in traditional bankruptcy contexts is not unheard of, this practice has increasingly become standard in modern bankruptcy, particularly in large Chapter 11 cases. Therefore, we suggest that this bundling phenomenon is likely confined to the modern bankruptcy context.

This leads to a hypothesis: if bankruptcy law doctrine has indeed undergone a paradigm shift from unbundled to bundled, then the co-citation relationship between operational and distributional sections will intensify.

D. THE BUNDLING PATTERN OF OPERATIONAL AND DISTRIBUTIONAL SECTIONS

In this section, I offer a detailed analysis of how operational and distributional sections are co-cited in certain cases. Two key facts emerge about the co-citation pattern.

First, using section co-citation as a proxy for the bundling of operational and distributional decisions tends to underestimate the occurrence of bundling transactions. If a case shows bundling of both types of sections, it is very likely a case on transactions involving both types of decisions. However, some cases related to bundling transactions may not directly co-cite operational and

¹³² See *Pension Benefit Guaranty Corp. v. Braniff Airways, Inc. (In re Braniff Airways, Inc.)*, 700 F.2d 935, 940 (5th Cir. 1983).

distributional sections. Judges might, for example, instead rely on precedents as the authority. This leads to an underestimation of bundling transactions.

Second, the co-citation of operational and distributional sections has its limits for our analysis. We cannot definitively determine a case's outcome, the legality of the bundling transaction, from the fact of section being bundling alone. It only indicates the bundling transaction's importance in the case, suggesting that bundling forms the core framework or agenda for legal analysis.

In *In re Braniff Airways*, the debtor asked the court to bundle distributional terms that would be otherwise left for the plan of reorganization with a proposed sale of Braniff's assets to another airline.¹³³ These included a requirement that part of the consideration in the form of travel scrip would be paid to certain parties, including the airline's former employees and shareholders. The transaction also locked up votes by requiring that secured creditor deficiency claims be voted in favor of any plan the unsecured creditors committee supported. Once again, I refer to the text that co-cites operational sections like section 363 and distributional sections like sections 1125, 1126, and 1129.

“For these reasons, we hold that the district court was not authorized by § 363(b) to approve the PSA transaction and that its order is reversed. In any future attempts to specify the terms whereby a reorganization plan is to be adopted, the parties and the district court must scale the hurdles erected in Chapter 11. See e.g. 11 U.S.C. § 1125 (disclosure requirements); id. § 1126 (voting); id. § 1129(a)(7) (best interest of creditors test); id. § 1129(b)(2)(B) (absolute priority rule). Were this transaction approved, and considering the properties proposed to be transferred, little would remain save fixed based equipment and little prospect or occasion for further reorganization. These considerations reinforce our view that this is in fact a reorganization.”

In this case, the court denied approval of the sale as the court saw this sale as an attempt to work around plan requirements and refused to authorize the sale under section 363(b). However, it should be noted that a judge's co-citation of both types of sections does not necessarily imply an judge's active initiation of the analysis of the bundling, nor does it necessarily signify a rejection of the legality of bundling.

As they often do, judges might simply be responding to the parties' arguments. An example of this is found in *In re General Motors Corp.* The court responded to the objector's assertion that section 363 is not permissible for the sale of all of a debtor's assets, implying that such a transaction must instead be conducted via a reorganization plan. In response, the judge examined the interrelation between section 1123, which allows a plan to include the sale of all or a substantial part of the estate's property, and section 363, and highlighted the following points:

“But neither section 363 nor section 1123(b)(4) provides that resort to 1123(b)(4) is the only way by which all or substantially all of the assets can be sold in a chapter

¹³³ See Pension Benefit Guaranty Corp. v. Braniff Airways, Inc. (*In re Braniff Airways, Inc.*), 700 F.2d 935, 940 (5th Cir. 1983).

11 case. Most significantly, neither section 1123(b)(4) nor any other section of the Code trumps or limits section 363, which by its plain meaning permits what GM here proposes to do.”

In *In re General Motors Corp.*, the court emphasized that an asset sale can occur under section 363 as a pure pre-plan transaction, without necessarily being executed through as part of the plan. Subsequently, while addressing whether section 1129 constitutes a relevant section that must be considered, the court co-cited sections 363 and 1129. The court’s analysis proceeded as follows,

“The Court is not here considering confirmation of a plan; it is considering a section 363 transaction, and because there is a good business reason for selling the assets now, and there is not here a sub rosa plan, requirements of section 1129, including section 1129(a)(13), do not apply.”

The court pointed out that the requirements for plan confirmation under section 1129 are not necessarily applicable to sales under section 363 as well. This is founded on the court’s previous response to the contention that a 363 sale constituted a sub rosa plan. Here, the judge cited the TWA bankruptcy case,¹³⁴ where sections 363 and 1129 were once again co-cited closely within the same paragraph.

“As Judge Walsh observed in TWA:

[N]othing in §363 suggests that disparate treatment of creditors, such as is likely to occur here, disqualifies a transaction from court approval. The purpose of a §363(b) sale is to transform assets ... into cash in an effort to maximize value. Distribution of the value generated in accordance with §1129 and other priority provisions occurs and is intended to occur subsequent to the sale.”

In conclusion, while there is a bundling of the operational and distributional section, this could be merely the judge response to objections. In other words, we cannot discern a judge’s inclination based solely on the co-citation of sections—whether the bundling transaction itself is approved. In the *Braniff* case, the 363 transaction was ultimately identified as unlawful, whereas in GM, the 363 Transaction was approved. Nevertheless, the bundling of sections still informs us whether the bundling constitutes the core of the case. Or, put differently, we can at least determine the fundamental legal framework or agenda surrounding the case based on co-citation analysis.

In *In re LATAM*, the LATAM Airlines DIP involved the “Tranche C” facility, a \$900 million loan tranche provided by a group of large shareholders. The loan featured a “Modified Equity Subscription” election, allowing the debtor to convert the Tranche C loan into equity in the reorganized firm at a 20% discount to plan value. This case involved co-citation of sections 1129 and 364.¹³⁵

¹³⁴ See *In re Trans World Airlines, Inc.*, 2001 WL 1820326, at *6 (Bankr. D. Del. Apr. 2, 2001).

¹³⁵ *In re LATAM Airlines Grp.*, No. 20-11254, 2022 WL 790414, at *29 (Bankr. S.D.N.Y. Mar. 15, 2022).

Regarding whether the Tranche C DIP Facility violates the absolute priority rule and whether it is a sub rosa plan, the objections emphasized the relevance of the absolute priority and sub rosa plan arguments. The debtors naturally reject these objections as irrelevant to the approval of the DIP Facility. The court, in discussing whether the Tranche C DIP Facility violates the absolute priority rule, described how both sides presented opposing arguments around bundling. The objectors contend that this Court should apply section 1129(b)(2)(B) to the Tranche C DIP Facility, arguing it violates the absolute priority rule as the existing shareholders received preferential treatment. The debtors, on the other hand, deny the relevance of section 1129:

“The Debtors say that the absolute priority rule is irrelevant because section 1129 only applies in a plan confirmation process, which is ‘still months away’, and that the Tranche C DIP Facility is not an exit-financing under a plan, but rather a pre-confirmation loan ... The Debtors accuse the Objectors of trying to ‘shoehorn’ the Tranche C DIP Facility ‘into the type of exit financing governed by §1129’.”

Despite differing opinions on the legality of bundling among parties, it is evident that co-citation analysis can easily aid in determining the framework or agenda of a case.

In conclusion, we must be cautious in interpreting co-citation analysis. First, the existence of the co-citation does not directly show whether a bundling transaction is actually approved by the judge; it merely tells that the case framework is centered around bundling. If we observe an intensified co-citation relationship between operational and distributional sections, it is highly likely, though not necessarily, that more bundling transactions have been approved in modern bankruptcy. At the very least, this indicates that more bundling transaction proposals are being made and that the legal frameworks of more cases have shifted towards bundling.

There is also a particular co-citation. Earlier, the co-cited sections is directly related the transaction in question that the cited section could potentially serve as statutory authority. For example, cases co-citing section 364 and distributional sections frequently pertained to a bundling DIP finance arrangement.

However, in the case of *In re Iridium Operating*, even though sections 363 and 1129 were co-cited, section 363 is not directly involved did not function as a potential statutory authority. Here, the unsecured creditors committee of Iridium and its main lender, J.P. Morgan Chase, sought approval of a settlement of J.P. Morgan’s disputed lien. By settling the litigation, the estate would conserve valuable cash and pursue a significant asset in its Motorola cause of action. However, in analyzing whether the Settlement Agreement is an impermissible sub rosa plan of reorganization, the judge still co-cited sections 363 and 1129. However, the settlement also requires a distribution effect. Excess funds after the conclusion of the Motorola litigation, were asked to be returned only to the unsecured creditors. This effectively elevates the position of unsecured creditors.¹³⁶

It appears that Section 363, the section governing asset sale is not directly related in this settlement case. Nevertheless, we still see a co-citation of Sections 363 and 1129. This is because it referenced

¹³⁶ *Motorola, Inc. v. Off. Comm. of Unsecured Creditors (In re Iridium Operating, LLC)*, 478 F.3d 452, 465–67 (2d Cir. 2007).

the sub rosa plan doctrine established by *In re Braniff Airways*. The court used its analysis of whether a Section 363 sale constitutes a sub rosa plan to analyze whether the settlement agreement with distributional effects in the current case was a sub rosa plan. At this time, the co-citation of Sections 363 and 1129 merely serves as signaling. It does not indicate that the case is about a Section 363 sale with distributional effects but rather about another bundling transaction.

This indirect, signaling co-citation does not affect our analysis. Co-citation can still effectively identify whether bundling constitutes the basic framework of a case. The existence of signaling co-citation precisely validates the previous analysis, as bundling transactions share a similar structure.

Having laid this theoretical groundwork and analyzed the co-citation of operational and distributional sections in high-profile cases we now move to the core of this article—the empirical section. In this portion, we extend our earlier exploration of cross-references between two types of sections within a single section and co-citations within a single opinion, to an expansive landscape encompassing the entire Bankruptcy Code and thousands of opinions. In doing so, we construct both a comprehensive law-in-book network and law-in-action network.

II. DATA AND METHODOLOGY

A. DATA

I employed data extracted from reorganization decisions available through the Harvard Law Library’s Caselaw Access Project (CAP), which has impressively digitized nearly all officially published U.S. case law, spanning from 1658 to June 2018.¹³⁷ To harness this resource, I executed Python-based calls to CAP’s API, which features tools allowing for a comprehensive textual search within the selected cases.

1. CO-CITATION NETWORK

I aggregated a pool of cases: all circuit court cases containing “11 U.S.C.” and “Chapter 11/Chapter XI”. This yielded a collection focused on reorganization cases. With respect to temporal boundaries, given that the CAP dataset is current as of June 2018, I set the end year for data collection at 2017. Moreover, since the Bankruptcy Code came into effect on October 1, 1979, it is worth noting that the years 1979 and 1980 had fewer qualifying cases, perhaps indicating the transitional effects of the law’s initial establishment.

To investigate temporal trends, it was necessary to further partition the data. Balancing the considerations of the scarcity of initial-year data and the desire for uniform temporal segments—in terms of both years and case numbers—I demarcated the dataset into three periods: 1982-1993, 1994-2005, and 2006-2017. Each of these windows spans 11 years and yielded 1,930, 1,941, and 2,472 cases respectively, aggregating to a total of 6,439 cases. Across these spans from 1982 to

¹³⁷ For more information about CAP, available at <https://case.law/>.

2017, the number of cases per year largely fell within a range of 150 to 200, without exhibiting significant fluctuations.

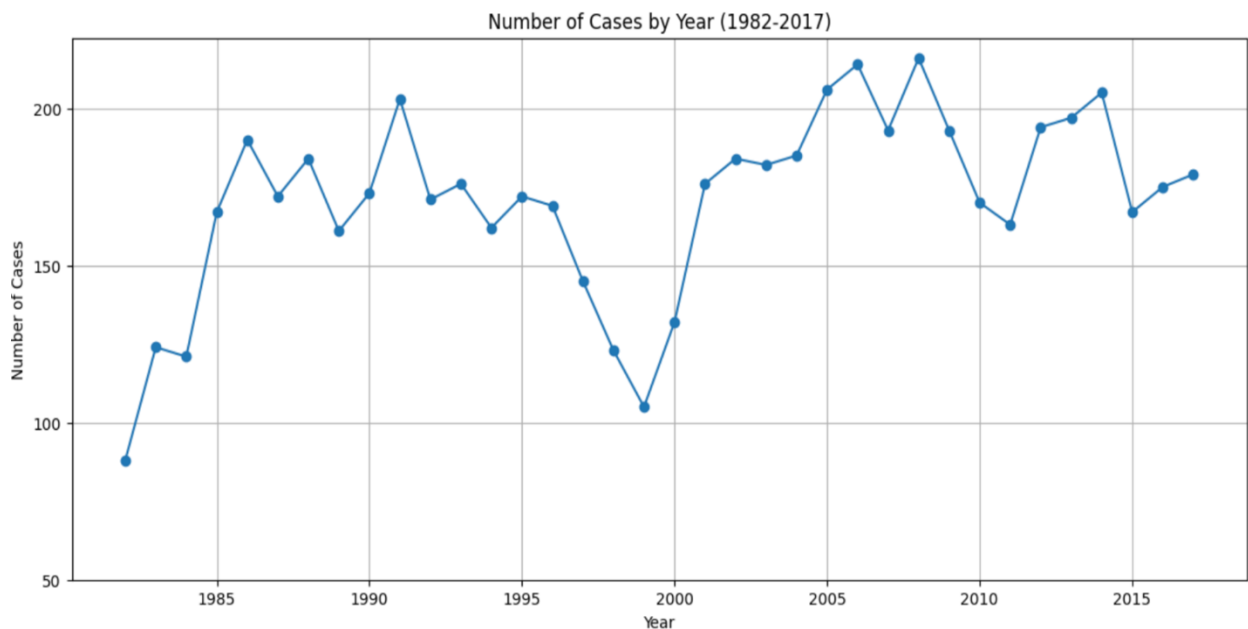


Figure 1: Number of Cases

This paper relies upon such corpus of 6,439 cases to construct the co-citation network. Our subsequent task is to extract these bankruptcy sections from the text of the case law. The complexity of this endeavor arises from the need to carefully filter out sections that, while significant to a bankruptcy in general, are not part of the Bankruptcy Code itself. Examples include provisions from the Uniform Commercial Code and titles other than Title 11 within the United States Code.

To navigate this intricate maze, I employed Regular Expressions (RegEx) for text pattern matching, aimed at extracting and filtering sections specifically from Title 11. I defined a set of “Invalid Prefixes”, such as “UCC”, “Reg.”, “Regulation”, “contract”, “STAT.”, “Statutes”, “Stat”, and “Procedure”. I mandated that the extracted patterns must align exclusively with the U.S.C. pattern and not match any of these prefixed exclusions. Concurrently, the algorithm filters out instances that match but contain the group “11”, to sidestep the inadvertent capture of sections from other titles of the U.S.C. Moreover, I programmed the RegEx to capture section numbers that follow keywords like “section”, “sections”, or “§”, ensuring even the complex patterns—such as those where multiple numbers are conjoined by “and” or “or”—are comprehensively captured.

Lastly, the algorithm filters out the extracted numbers based on predefined allowed ranges, specifically (101, 112), (301, 308), (321, 333), (341, 351), (361, 366), (501, 511), (521, 528), (541, 562), (1101, 1116), (1121, 1129), and (1141, 1146). These ranges correspond to Chapters 1, 3, 5, and 11 of the Code, as our focus is exclusively on reorganization cases. The design of these allowed ranges also serves purpose of further insulating our dataset from non-Bankruptcy material.

Upon the completion of the aforementioned work, I secured data spanning from 1982 to 2017 for 6,439 legal cases. This corpus details citations made to sections in Chapters 1, 3, 5, and 11 of the Bankruptcy Code. This foundational work paves the way for our subsequent analysis, which employs a co-citation network model.

B. METHODOLOGY

1. NETWORK ANALYSIS

I employ network analysis as the research method. A network possesses a systemic nature, wherein its edges—interactions among the components, or nodes—illuminate the structure of the system. For instance, one might consider an individual as a node and relationships between people, such as friendships or Twitter follows, as edges to construct a social network. By offering insights into everything from the neural pathways of the human brain to the complexities of entire ecosystems, network science is a powerful lens through which we can examine complex systems and their intricate interconnections.

It is no wonder, then, that law—an intricate system—can also be understood through the lens of network science. In the realm of legal theory, the imprint of network connections is indelible as the reductionist approach of examining law on a case-by-case or clause-by-clause basis is often insufficient. Numerous examples underscore the intricate complexity inherent to legal systems. For instance, the interpretation of one legal provision often hinges on the definitions laid out in another. Comprehending a case in common law jurisprudence, for instance, is seldom possible without considering its cited precedents. Transactional lawyers, while drafting sub-contracts for M&A deal, must weave their clauses with threads from the primary contract. Furthermore, the concept of “consent” in tort law may demand an excursion into contract law, signifying that legal connections frequently cross the boundaries of legal fields. In essence, the complex interplay among concepts, statutes, contracts, and case law constitutes a complex legal network.

2. FROM CODE-BASED SECTION NETWORK TO JUDICIAL SECTION NETWORK

If we aim to establish a network with cases as nodes, then citations or co-citations between cases can form the edges of the network. In contrast, to create a network with provisions or sections as nodes, the most natural approach would be to use the relationships within the code as edges, particularly based on section cross-references. However, relying solely on code cross-references for a section network fails to capture the citing practices of judges within a statutory field. Clearly, a judicial section network would reveal information different from a code-based section network. The former would show how judges' perceptions of section relationships differ from those of legislators. Additionally, a judicial network would evolve more rapidly than a code-based network. Unlike the case network, where there are citations from case to case, sections do not cite other sections. So, what would constitute the edge in a judicial section network? The answer lies in the co-citation of sections within opinions.

Technically speaking, in constructing the judicial section network, I employ Python's NetworkX library. To establish the co-citation relationships, a nested loop mechanism is set in place. The outer loop iterates through each case within the dataset, while the inner loop ensures that within a

given case, all legal sections are traversed. Subsequently, these sections are paired to ascertain whether they are co-cited within the same case. To elucidate, let's assume that a case has three distinct legal sections cited, namely A, B, and C. The outer loop initially selects this case and then proceeds to the inner loop. During the first iteration of the inner loop, A is chosen and paired with both B and C, thus establishing the co-citation relationships between A and B, and A and C. On the second iteration, B is selected and paired with C to determine the co-citation relationship between B and C.

Special attention is paid to check for “self-loops”, instances where a section like A appears twice within a single text. If encountered, these are omitted to ensure that the graph remains devoid of self-loops, as they offer no analytical value.

If two sections—say A and B—are co-cited once in one case, then an edge between A and B is established. If A and B are co-cited once in each of two cases, their edge is assigned a ‘weight’ of 2. If sections A and B are co-cited once in Case 1 and twice in Case 2, then the weight for their co-citation edge would be calculated as 3. This weight serves as a quantitative representation of how frequently these sections are co-cited. The end result is a co-citation network that elucidates which sections, acting as nodes, are connected and the weight of these connections.

3. CO-CITATION ANALYSIS

After establishing the judicial section network, the first analysis to be conducted will be a straightforward co-citation analysis. As the frequency of bundling cases in modern bankruptcy increases, the co-citation relationship between operational sections and distributional sections is expected to strengthen. This implies that sections of differing natures are anticipated to be co-cited in a greater number of cases and with increased weight.

The article pays particular attention to the two most significant operational sections—Section 363 and Section 364—since 363 sales and 364 DIP financing are contexts most frequently bundled with enhanced distributional effects. In terms of distributional sections, the focus is on Sections 1121 through 1129 of Chapter 11, Subchapter II, “The Plan,” with a particular emphasis on the critical Section 1129.

Specifically, we anticipate an increase in the co-citation relationship between Sections 363 and 364 and the plan sections, particularly Section 1129. Furthermore, given that the 363 sale and 364 DIP financing are the most significant contexts for bundling, we do not expect other operational sections to exhibit a strengthened co-citation relationship with distributional sections.

4. COMMUNITY DETECTION

The limitations of co-citation analysis lie in its focus on the relationship between only two selected sections at a time. This raises the question: how can we understand the entire network of bankruptcy law, where hundreds of cited bankruptcy code sections interact? In other words, how can we examine the macro structure of the bankruptcy law network?

In network analysis, certain nodes exhibit stronger relationships with some nodes compared to others, leading these nodes to cluster and form relatively dense groups—often referred to as communities. However, such structures are usually not known beforehand. Detecting communities within a network is thus a crucial challenge.

The predominant community detection algorithms are based on modularity. The principle behind these algorithms is to maximize the difference between the actual number of edges within a community and the expected number of such edges if they were placed randomly. In other words, a node will be assigned to a certain community if the modularity can be maximized. The end result ensures that nodes within the same community have denser connections among themselves, while connections with nodes from different communities are weaker.

Applied to the context of this paper, among the many sections of the bankruptcy code, certain sections are more frequently co-cited with others. How can we categorize all the sections into distinct communities? This classification is vital for addressing the bundling question. If the co-citation relationships between operational and distributional sections change, so too might the community divisions. If bundling is infrequent, sections of the same type would likely be grouped within the same community. Conversely, if operational sections like 363 and 364 are frequently co-cited with distributional sections, then sections 363 and 364 might shift from their original communities to a community comprising distributional sections.

Unlike mere co-citation analysis, community detection offers a global perspective, revealing whether and how the relationships between operational and distributional sections are changing. This is because the relationships revealed through community detection take into account the network’s overall structure—that is, they consider the relationships formed among all sections collectively. Thus, if there are indeed changes in the distribution of section communities, this would bolster our confidence in the occurrence of bundling.

The algorithm of choice for community detection is the Leiden algorithm. Compared to other algorithms that are also based on modularity, Leiden is widely recognized as an efficient and robust method.

III. RESULT

A. CO-CITATION ANALYSIS

First, a co-citation analysis is conducted. As previously mentioned, considering the distribution of cases and time, the dataset is divided into three periods: 1982-1993, 1994-2005, and 2006-2017. We anticipate, importantly, that sections 363 and 364—sections most likely to be bundled with distributional effects—will show a significant increase in their co-citation relationships with distributional sections in the most recent window from 2006 to 2017. This hypothesis is based on existing literature that identifies the early 2000s as a transformative period in bankruptcy law.

To measure the relationship between sections 363 and 364 and sections 1121-1129, a normalized edge weight has been developed. The edge weight measures the intensity of co-citation relationship.

This normalized edge weight is calculated by first taking the weight of the edge between a node A, and another node B as the numerator. The denominator comprises the total weight of all edges formed by that node A. Including the total weight of all surrounding connections as the denominator is crucial. Otherwise, simply measuring the connection weight between one node and another might reflect the case volume for a specific time, rather than the significance of a particular connection. Such normalization also facilitates comparisons between different nodes.

We first examined the normalized edge weight between section 363 and section 364 with section 1129. As Figure 2 shows, the normalized edge weight of both sections to 1129 demonstrated a significant increase in the third time window. Specifically, the normalized edge weight between section 363 and 1129 rose markedly from 0.031 in 1982-1993 and 0.013 in 1994-2005 to 0.114 in 2006-2017. Similarly, the normalized edge weight between section 364 and section 1129 increased from 0.010 in the first and second windows to 0.040 in the third.

	Time Window	NEW between 363 and 1129	NEW between 364 and 1129	NEM between 365 and 1129	Aggregate 363 NEW	Aggregate 364 NEW	Aggregate 365 NEW
0	1982-1993	0.031	0.010	0.012	0.058	0.011	0.041
1	1994-2005	0.013	0.010	0.013	0.037	0.026	0.025
2	2006-2017	0.114	0.040	0.012	0.127	0.062	0.036

Figure 2: Normalized Edge Weight

In comparison, we explored another operational section, section 365, which governs leases and executory contracts. This section allows the debtor to decide if a contract is a net asset and, if so, to assume it based on the debtor’s business judgment. Unlike sections 363 and 364, the normalized edge weight between section 365 and section 1129 remained consistently stable across all three time windows. This comparison within operational section underscores the significance of sections 363 and 364 in bundling transactions. Asset sales and DIP finance transactions can be bundled with global distributional effects. Essentially, sections 363 and 364 are the most “powerful” operational decisions, facilitating stronger distributional effect and consequently leading to more co-citations with distributional sections. This explains why section 365 maintained a stable strength ratio instead of experiencing an increase in the third window like sections 363 and 364.

Furthermore, we calculated the aggregate normalized edge weight of section 363 between sections 1121-1129 to more comprehensively reflect the change of relationship between operational and distributional sections. The aggregate normalized edge weight of section 363 with sections 1121-1129 across the three windows were 0.058, 0.037, and 0.128, respectively, showing a significant rise in the third window. The aggregate normalized edge weight of Section 364 were 0.011, 0.026, and 0.062, respectively, indicating a similar significant increase in the third window with the distributional sections.

B. COMMUNITY DETECTION

Following the co-citation analysis is the community detection phase. Figure 3 visualizes the results of the community detection conducted on the bankruptcy judicial network from 1982 to 1993. Each node, depicted as a small circle, symbolizes a code section, and the connecting lines denote co-citation links between them. The size of a node correlates with its number of connections; more connections result in a larger node. Notably, the “definitions” section, section 101, emerges as the largest node, reflecting its extensive co-citations across various issues, owing to its definitional nature. Clusters of closely-knit nodes indicate a shared community, as identified by the leiden algorithm. There are four large circles appearing at the top, bottom, left, and right, representing four communities. The visualization of edges merely indicates the presence or absence of connections, without depicting the weight of each edge. However, the weight of the edges is taken into consideration by the community detection algorithm when assigning sections to different communities. Ultimately, the 102 sections that were cited in the first window are connected by 1,464 edges, representing 1,464 types of co-citation with a cumulative edge weight of 102, 154.

Additionally, the nodes’ colors reflect the code’s chapter structure. Nodes from the same chapter share identical colors, exemplifying that Chapter 11 nodes are red and those from Chapter 3 are green.

The first encouraging empirical result is that nodes sharing the same color tend to group within the same big circle, that is the same community. This correlation between community detection and chapter structure is expected, as sections from the same chapter address similar issues, leading to frequent co-citations and thus a higher likelihood of being in the same community. For instance, nodes from Chapter 11, specifically from Subchapter II “The Plan”, which covers sections 1121–1129, are clustered together at the top of the diagram. This actually indicates that sections of similar nature are more likely to be in the same community. Sections 1121–1129, the most important distributional sections are located within the same community.

In contrast, operational sections like 363 and 364, are situated together in the bottom community, unlike the distributional section, which shares the top community. This first indicates a closer relationship between operational sections 363 and 364, which are of similar nature, and their distant relationship with the different-natured distributional sections. In summary, in the network from 1982 to 1993, we observed operational and distributional sections in distinct communities, suggesting an unbundling relationship between these two types of sections. This resonates with the results of our previous co-citation analysis.

Network graph for 1982 to 1993

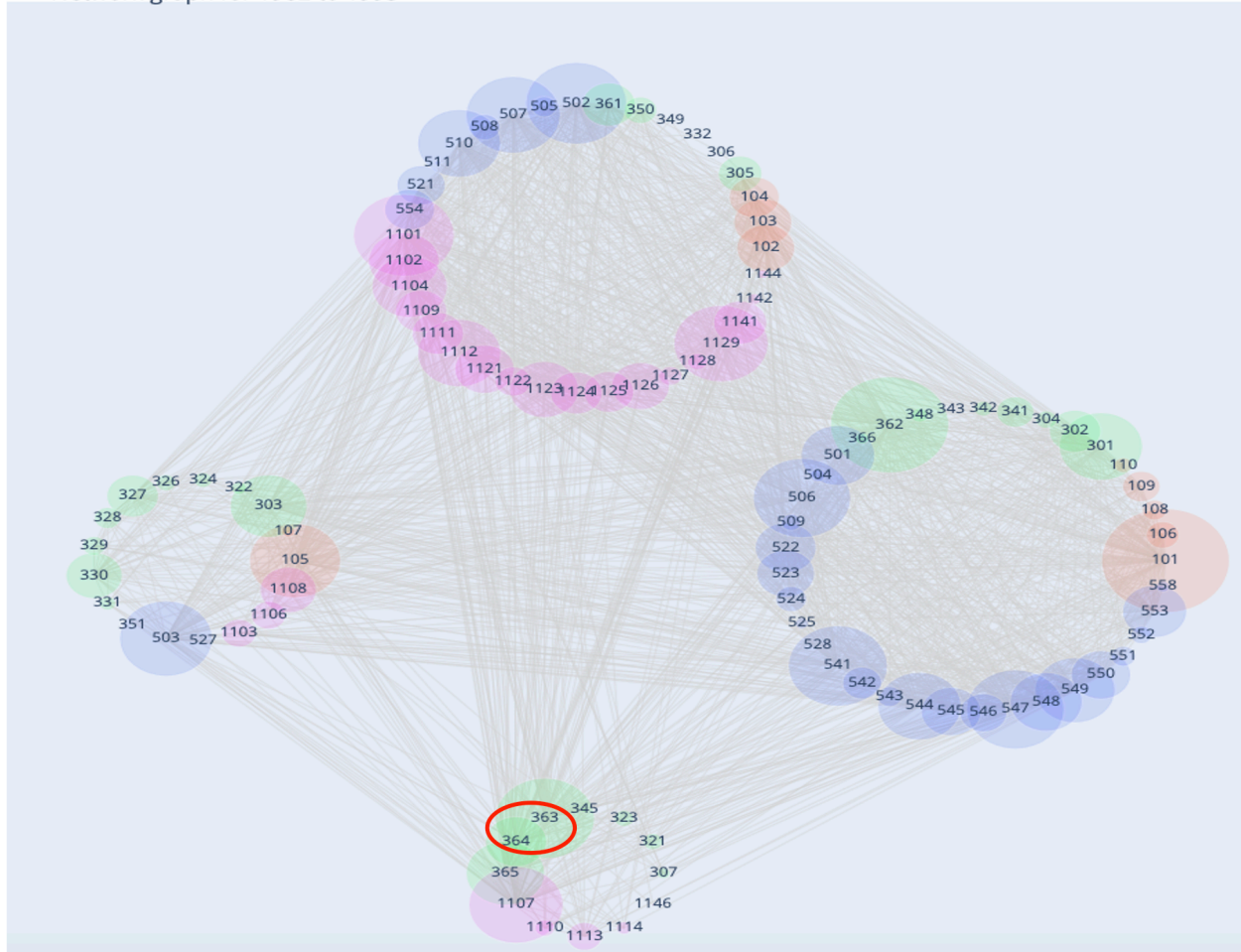


Figure 3: Network:1982-1993

The network from 1994 to 2005 exhibited a similar network structure. Figure 4 shows that the same unbundling found in the 1982-1993 network was also present in the 1994-2005 network, with sections 363 and 364, both operational decisions, still in different communities than the group of distributional sections, sections 1121–1129. Co-citation analysis indicates that the relationship between Sections 363 and 364 and the distributional sections was relatively loose in the first two time windows, as demonstrated by the lower normalized edge weights. Consistently, the community detection process corroborates these findings by placing Sections 363 and 364 in separate communities from the distributional sections during these windows.

However, a change occurred in the most recent window, namely 2006-2017. Figure 5 displays the 2006-2017 network. Amidst other structures remaining largely unchanged, a notable development was the shift of sections 363 and 364 from the bottom community to the distributional community at the top. This change signifies that the two operational sections and the distribution section are now in the same community. The relationship between the two distinct types of sections shifted from unbundling to bundling. This shift exemplifies how, with modern bankruptcy increasingly bundling operational and distributional decisions within one transaction, judges are compelled to co-cite sections of different nature in their rulings.

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individual sections does not account for the data of the entire network. It can highlight the strengthened relationship between Section 363 and Section 364 with distributional sections in an individual sense. Community detection by considering the overall network topology and the global distribution of edges, can reveal how nodes cluster in the global network context. Community detection, which initially did not group Sections 363 and 364 with the distributional sections but later did, further suggests that this strengthened connection based on the global network structure. This reinforces our confidence in the results, showing that the relationship between the two types of sections indeed underwent a transformation from weak to strong, reflecting how the popularity of bundling transactions has reshaped the bankruptcy judicial citation styles.

Figure 5: Network: 2006-2017

IV. ROBUST TESTS

In this section, I undertake two robust tests to fortify the empirical validity.

A. TEMPORAL ROBUSTNESS

The first test employs a routine robustness check commonly used in network analysis. The objective here is to ascertain whether our network findings are mere artifacts of specific data slices or hold substantive significance. To that end, we experiment by slightly altering the timeframes of the networks examined. Previously, our “Law in Action” networks were constructed based on data from 1982–1993, 1994–2005, and 2006–2017. When we modulate these ranges—say, extending 1982–1993 to 1982–1994 or truncating 2006–2017 to 2007–2017—we find a consistent pattern: sections 363, 364, the two significant operational sections and distributional sections remain “unbundled” in the first two time windows, occupying distinct communities. However, in the most recent window of 2006–2017, operational sections appear “bundled” with distributional sections, all falling within the same community. Similar temporal robustness checks have also been applied to co-citation analysis. The results are robust.

B. JUDICIAL STYLE

A more salient concern perturbing this project revolves around what exactly is being measured in the network analysis. Specifically, one might question whether the observed changes in network structure over time are indicative of shifts in the bankruptcy law paradigm or merely reflect other variables, such as judicial style. Some studies have noted that judicial styles in terms of reading difficulty, cognitive complexity, and other writing aspects are evolving.¹³⁸

Therefore, we also interrogate whether “section citation style”—on which our network edges are based—has undergone changes. For instance, if judges in the past cited sections more cautiously, invoking only the most pertinent statutes, while modern judges liberally pepper their rulings with multiple citations, such variability in judicial style could well influence the network architecture. To probe this, I examine whether there has been a significant transformation in how judges cite the Bankruptcy Code over the years.

¹³⁸ See, e.g., Keith Carlson et al., *A Quantitative Analysis of Writing Style on the U.S. Supreme Court*, 93 WASH. U. L. REV. 1461, 1463 (2016).

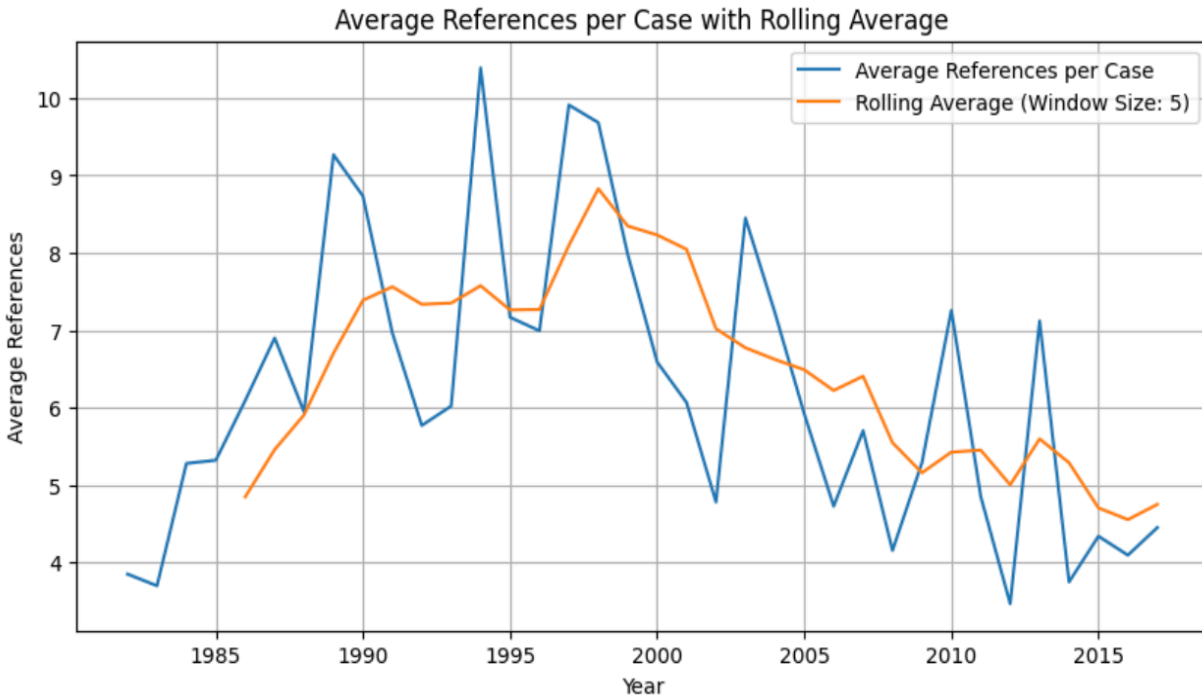


Figure 6: Citation Style

The accompanying figure depicts the average number of Bankruptcy Code sections cited in cases across different years. Remarkably, citation style does not exhibit a monotonic upward or downward trajectory. However, on the whole, most years feature an average citation count that falls within a 5-8 range.

This reveals two key insights. First, given that judges cite only a limited number of sections, the information derived from co-citation is valuable. Second, the structural changes observed in the citation network are more likely to reflect the evolving bankruptcy legal paradigm than changes in judicial citation styles.¹³⁹

CONCLUSION

Law is a complex system teeming with intricate, dynamic linkages. Just as certain cases relate more closely with others, or as some contract clauses enjoy a greater level of interaction with other clauses, some legal provisions interact more frequently with certain others. Uncovering the patterns of these provisions interactions, particularly when examined on a large scale, is invaluable for conducting a thoroughly systematic analysis.

¹³⁹ Even if a substantial shift in citation style were detected, this would not necessarily invalidate our analysis. The citation style could very well be endogenous to the nature of the cases involved—although this would complicate the interpretation of our conclusions.

In this pursuit, I turn my attention to exploring the ties between operational and distributional sections in bankruptcy law. Network analysis, as the most efficient tool for discerning connections, naturally lends itself to this research.

Based on co-citation analysis and community detection, this paper finds that the relationship between operational and distributional sections has shifted from unbundling to bundling. This shift indicates that in response to an increase in bundling transactions—a more intertwined relationship between operational and distributional decisions—judges have altered their co-citation styles in their rulings significantly.

CHAPTER III

CASH ONLY? A MODEL ON DIP LOAN PAYMENT SELECTION

INTRODUCTION

Firms enter bankruptcy proceedings to escape financial distress. However, reorganization itself requires liquidity. Debtor-in-Possession loans provide the working capital needed for the reorganization. New money infusion naturally, leads to new obligations for the firm to repay DIP loans.

Traditionally, compensation for DIP loans has been based on principal and interest. The DIP lender receives repayment in cash. However, in many recent DIP loan cases, compensation is no longer in standard cash form but rather in equity-linked securities.

Consider the case of *LATAM Airlines*.¹⁴⁰ LATAM, the leading airline group in Latin America, operated a fleet of 340 aircraft and provided passenger transportation services to 145 destinations across twenty-six countries before the onset of the COVID-19 pandemic. In 2020, LATAM filed for bankruptcy under Chapter 11, as is common in most large Chapter 11 cases, LATAM sought dip financing. The controversial issue arises in the payment of the DIP loan. LATAM's dip loan involved the most junior "Tranche C" facility, a \$900 million loan tranche provided by a group of major shareholders, including Qatar Airways Investments and Costa Verde Aeronautica S.A., who collectively held 32% of the company's equity. This loan featured a "Modified Equity Subscription" option, allowing the debtor to convert the Tranche C loan into equity in the reorganized firm at a 20% discount to the plan value.

What are the differences between a standard cash payment and a non-standard equity-linked securities payment for DIP loans? The Debtor, the proponent of the LATAM DIP loan, emphasize that this Modified Equity Subscription Election is a valuable asset for them, especially if they do not have the cash to pay off the Tranche C DIP Facility at the end of the case. In contrast, the judge points out:

"Here, there is no evidence regarding the Debtors' enterprise value, and such a valuation analysis is simply not possible at this stage of the bankruptcy. Thus, there is no record upon which the Court can determine what value or assets, if any, is left for distribution to other creditors of the LATAM estates."¹⁴¹

This article suggests that the flexibility emphasized by debtors and the uncertainty highlighted by the judge constitute two crucial dimensions of different DIP loan payments. Standard compensation through cash possesses a commonly known value, enabling the judge to assess the payoff of DIP lender more effectively, especially insider DIP lenders. Consequently, the judge can ascertain whether the interests of other creditors are diluted, thereby ensuring compliance with the

¹⁴⁰ *In re LATAM Airlines Grp.*, 620 B.R. 722, 817 (Bankr. S.D.N.Y. 2020).

¹⁴¹ *Id.* At 820.

fair treatment mandated by bankruptcy law. However, cash compensation lacks flexibility. Ex post, firms may struggle to refinance to obtain cash for repaying DIP loans.

In contrast, non-standard, equity-linked securities offer flexibility. When DIP lenders do not demand cash, firms retain cash as much as possible. This means that firm-specific assets can be retained, or cash can be used for efficient investments.¹⁴² However, the value of non-standard equity-linked securities lacks the certainty of cash. The future firm value, especially in the early stages of a case when DIP loan is in need, is difficult to measure. This makes it challenging for the judge to determine how much benefit is allocated to DIP lenders and whether the interests of other creditors are diluted.

This article points out that the difference between standard DIP loans and non-standard DIP loans lies just here, rather than in the “sub rosa” plan emphasized by the objector and the judge.

In addition to the case of LATAM, non-standard DIP loans have been evident in many recent Chapter 11 cases, such as TPC Group¹⁴³, and SAS¹⁴⁴. This article’s contribution lies in being the first to model this recent development in DIP financing.

This paper examines the balancing act a bankruptcy judge must perform between maximizing firm value and upholding priority rules when approving DIP loans. Specifically, it explores why a judge committed to defending priority rules might approve a non-standard DIP loan, despite the potential for diluting the interests of other creditors. The paper identifies two mechanisms that may lead a judge to approve such loans.

The first mechanism is based on private information. When the DIP lender possesses private insights into the firm’s promising future value, which the judge lacks, the approval of the non-standard DIP loan may occur because the judge does not perceive the DIP lender as receiving an excess payment. Under these circumstances, the judge may believe that fair treatment of creditors is maintained.

In the second scenario, private information is less pivotal. Here, the judge is aware of the firm’s high value and consequently understands that the DIP lender will receive an excess payment, thereby violating the priority rule. Nonetheless, the judge might still approve the non-standard DIP loan to preserve the firm’s value through cash conservation.

Existing law and economics literature on bankruptcy deliberates on the basic function of DIP loans, particularly as a remedy for debt overhang.¹⁴⁵ More recent works have advanced a more contextual evaluations of DIP loans, such as incorporating controlling power based on milestones clause. This article contributes by modeling the recent development of DIP loans in terms of payment structures.

¹⁴² Anthony J. Casey, *Chapter 11’s Renegotiation Framework and the Purpose of Corporate Bankruptcy*, 120 CoLUM. L. REV. 1709, 1716 (2020).

¹⁴³ *In re TPC Grp.*, No. 22-10493 (Bankr. D. Del. Aug. 2, 2022).

¹⁴⁴ *In re SAS AB*, 644 B.R. 267, 274 (Bankr. S.D.N.Y. 2022).

¹⁴⁵ See Kenneth Ayotte & David A. Skeel, *Bankruptcy Law as a Liquidity Provider*, 80 U. CHI. L. REV. 1557, 1576-77 (2013); George G. Triantis, *A Theory of the Regulation of Debtor-in-Possession Financing*, 46 VAND. L. REV. 901, 901 (1993).

In collaboration with Kenneth Ayotte, I informally justify the standardization of DIP loan payments to for judges to better detect non-participating creditors' interest dilution.¹⁴⁶

This paper formally models the selection between standard and non-standard DIP loans based on the tradeoff of cash preservation and fair treatment, thereby offering a more comprehensive analysis.

Another contribution of this paper lies in introducing the discussion on payment uncertainty. Existing theoretical literature discuss the uncertainty and disagreement surrounding collateral, claim or firm value.¹⁴⁷ Claim valuation is often discussed. However, even when claim value estimation is settled and seniority position determined, disputes may still arise between the judge, debtor, and creditors regarding the value of the payments used to settle those claims. This is precisely the focus of this paper, which particularly demonstrates how varying degrees of value uncertainty in different payments can lead to strategic behavior.

I. SETUP

The firm has only one class of creditors: h representing a majority of the class, and l , the minority. The firm's total pre-petition debt is $D = D_h + D_l$, with the majority and minority creditors holding claims of D_h and D_l , respectively.

The model operates over two dates, 1 and 2. On date 1, the DIP loan date, a firm files a bankruptcy petition. The bankruptcy judge will decide whether to approve a pos-petition DIP financing, from whom to obtain it, and what type of DIP loan to accept. The model assumes that the firm is facing a cash constraint. If no post-petition financing is accepted, the firm will be liquidated due to a lack of working capital necessary for the reorganization process. This liquidation would realize a value of L . The model assumes $D > L$, meaning that the creditors would not be fully compensated in the event of liquidation.

If the judge approves a DIP financing, the firm will receive the investment I for the reorganization process. This investment allows the firm to continue operations, thereby entering date 2.

A firm may secure DIP financing from two sources. Firstly, the majority h proposes a DIP loan. Concurrently, an external competitive lending market for DIP loans exists, with an investor e also willing to provide such financing. The outside investor e offers a standard DIP loan proposal, characterized by cash-based repayment. For simplicity, it is assumed that e is willing to lend as long as she can recover the principal, I , in date 2. That is, this model assumes an interest rate of zero for a standard DIP loan.

¹⁴⁶ Kenneth Ayotte & Alex Zhicheng Huang, *Standardizing and Unbundling the Sub Rosa DIP Loan*, 39 EMORY BANKR. DEV. J. 523, 525-26 (2023).

¹⁴⁷ Kenneth Ayotte, *Disagreement and Capital Structure Complexity*, 49 J. Legal Stud. 1(2020); Douglas G. Baird & Donald S. Bernstein, *Absolute Priority, Valuation Uncertainty, and the Reorganization Bargain*, 115 YALE L.J. (2006).

The majority h , on the other hand, present two types of DIP loans for judicial selection. One is a standard DIP loan, identical to that of the outside investor, with a zero-interest rate and cash repayment of I at date 2. The other is a non-standard repayment DIP loan, some equity linked securities, which might involve options or convertible bonds. The core idea is that the value of the non-standard payment is closely tied to the future value of the reorganized firm at date 2.

The rationale for assuming that h is willing to offer a non-standard DIP loan in addition to the standard one lies in assumption that h possess private information about the future of the firm. h is aware that the firm will achieve a high value, V , at date 2. This private information motivates h to acquire securities that link her compensation to the future value of the firm. In contrast, the outside investor e will only provide a plain vanilla debt contract. The minority creditor l also lacks private information about the future firm value. l perceives the firm value at date 2 to be merely L . It is assumed that the firm's future value on date 1 is unverifiable and non-contractible, thus preventing any Coasian bargaining among the creditors.

The bankruptcy judge has knowledge only of the probability distribution of the future value of a firm. Specifically, the judge is aware that there is a probability p that the firm will realize a high value V at date 2, and a probability $1 - p$ that it will realize a low liquidation value L . Judges can only use the expected value of $\bar{V} = pV + (1 - p)L$ ($0 < p < 1$) to make decisions about approving DIP financing.

At the reorganization plan date, date 2, the uncertainty of the firm's value will be resolved, and either a high or low firm value will be realized. The firm will need to satisfy pre-petition claims and repay the DIP lender according to the DIP loan terms decided at date 1.

If the DIP loan determined at date 1 is a standard one, then the firm must pay the DIP lender cash I , regardless of whether the DIP lender is the pre-petition creditor h or the outside investor e . This model assumes that if a firm repays cash I at date 2, the firm's value will decrease by d . This reduction d suggests that the firm's value is composed of firm-specific assets. At date 2, the firm does not automatically acquire substantial cash. In order to secure cash, the firm needs to sell non-cash assets or forego investment opportunities to repay the DIP loan.

The nature of the firm-specificity determines that this will cause an additional reduction d ($d > 0$) in firm value. Conversely, if the DIP loan established at date 1 is a non-standard loan, then the firm value does not need to undergo the reduction d at date 2. This is because the repayment of the non-standard DIP loan is in the form of equity-linked securities. Thus, the company does not need to endure a decrease in value to obtain cash. Under a non-standard loan, when a high firm value V is realized, the DIP lender's compensation for the DIP loan claim and the pre-petition claim is $V - (D_l/D)L_l$. This implies that when a high firm value is realized, the DIP lender h will receive an excess payment. In practice, the DIP lender also employs techniques such as roll-ups to enhance her payoffs. The interests of minority creditors l , on the other hand, will be diluted, and they can only receive the payoff of $\frac{D_l}{D}L$.

The relationship between the high firm value V and the low firm value L , and the total debt D is given by $V \geq D + I + d > L$. The condition implies that the high firm value is sufficient to cover all debts including the pre-petition claims and DIP loan.

Besides holding private information of the future firm value, the majority h also have institutional advantages over the outside investor e . According to the priority rule of bankruptcy law, the seniority of a post-petition DIP loan is by default below that of pre-petition claims. Even if the new money investment is efficient to increase firm value, most of the returns will accrue to existing senior creditors, thus deterring outside investors from contributing new capital. That is, a debt overhang may exist.¹⁴⁸ The debt burden is so large that a firm cannot take on additional debt to finance efficient projects.

In U.S. bankruptcy law, it is challenging for DIP lenders to secure a position senior to existing creditors to overcome debt overhang, particularly secured creditors.¹⁴⁹ In the model, when the DIP lender is an outside investor e ; her DIP loan is positioned below the pre-petition debt due to objection from h . Conversely, when h provides DIP finance, h can always lend at a senior position relative to pre-petition claims. This is why the model assumes that h proposing the DIP loan hold a majority.

In summary, a DIP loan proposal will be put forth by outside investor e and the majority lender h . The judge decides whether to accept it on date 1. On date 2, the firm repay the pre-petition creditors and DIP lender according to the DIP loan terms established on date 1.

The model depicts the judge as aiming to maximize the firm's value while defending priorities. The judge dislikes any firm value deduction. Moreover, the judge disapproves of the creditors h and l receiving unfair treatment where h may obtain excess payment at the expense of diluting l 's interests.

Assume that the judge's disutility function is based on the deduction of the firm's value, d , and the excess payment, $R_h - (D_h/D_l)R_l$. Wherein, R_h represents the payoff for the majority h , and R_l for the minority's payoff l . The expression $R_h - (D_h/D_l)R_l$ illustrates the excess payment that the majority can obtain relative to the minority.

The disutility function takes the form of:

$$N_{Judge} = wd + (1 - w)\max\left\{R_h - \frac{D_h}{D_l}R_l, 0\right\}, \quad 0 < w < 1 \quad (1)$$

¹⁴⁸ See Stewart C. Myers, *Determinants of Corporate Borrowing*, 5 J. FIN. ECON. 147 (1977); Kenneth Ayotte & Jared A. Elias, *Bankruptcy Process for Sale*, 39 YALE J. ON REGUL. 1 (2022).

¹⁴⁹ If a DIP lender wishes to obtain a senior position over existing secured creditors to overcome debt overhang, the lender must achieve one of two things: either obtain the consent of the primed secured creditor or, under Section 364(d), prove in a valuation that the primed lien is adequately protected. However, judges rarely approve the priming of an existing secured creditor, and valuations themselves are seldom conducted as they are time-consuming and costly.

In the above equation, w denotes the judge's relative aversion to the deduction in firm value, d . An increase in w indicates a relatively greater aversion of the judge to the reduction of firm value; conversely, a decrease in w suggests a relative increase in the judge's aversion to h obtaining excess payment.

II. THE CASE WHERE ONLY OUTSIDER DIP LOAN PROPOSAL IS PROVIDED

First consider the scenario where only an outside DIP loan proposal exists. This might happen when h lacks cash.

At date 1, if the judge believes that $\bar{V} - I - d \geq D$, then the outside DIP loan will be approved and granted a position senior to the existing claims. This occurs because there is no competition offer from an insider DIP loan. The outside investor is willing to lend and receive a senior position to solve debt overhang. The objection of h will be non-credible threat—if the priming DIP loan is not approved, h would only receive a lower payment under the liquidation value. At this point, let the payoff obtained by the creditors be R_i , $i \in \{h, l\}$, and we have:

$$R_i = \begin{cases} \min\left\{\frac{D_i}{D}(\bar{V} - I - d), D_i\right\}, & p \geq \frac{I + d}{\bar{V} - L} \\ \frac{D_i}{D}L, & 0 < p < \frac{I + d}{\bar{V} - L} \end{cases} \quad (2)$$

III. THE CASE WHERE BOTH INSIDER AND OUTSIDER DIP LOAN PROPOSALS ARE PROVIDED

When insider DIP financing is available, the situation becomes more complex. In such cases, the objection of the majority h to the priming DIP loan offered by e is more likely to be valid. A priming DIP loan proposal from outside investor e is obstructed due to h 's objection. Conversely, h will always consent to a priming DIP loan proposal initiated by herself.

i. $\bar{V} \geq D + I + d$

In the case where insider DIP loans are present, if the court believes that $\bar{V} - I - d \geq D$, the objections of the majority h to the outside DIP loan remain invalid. At this point, the judge does not need to consider the approval of the priming DIP loan. As the judge perceives the expected value of the reorganized firm to be so high that the debt overhang does not exist. Even if all pre-petition creditors maintain priority in repayment, the residual is still sufficient to satisfy the DIP Loan claim of outside DIP lender e . Two creditors are fully paid, with a consistent payoff structure $R_i = D_i$, $i = h, l$. Based on a standard loan, the outside investor can receive a return I and thus would be willing to invest even without securing a priming DIP loan. This model assumes that the judge will directly opt to accept the outsider, standard DIP loan proposal.

ii. $L + I \leq \bar{V} < D + I + d$

Secondly, if the judge believes that $L + I \leq \bar{V} < D + I + d$, the objection of the majority creditor h to the outsider DIP loan is valid. The judge recognizes that a debt overhang indeed exists. In this situation, outside investors are only willing to invest if they obtain a senior position. However, h 's objection to the priming outsider DIP loan leads to the outside investor withdrawing her DIP loan proposal. Consequently, h will monopolize the provision of the DIP loan. The judge must then choose between the standard and non-standard DIP loan, both provided exclusively by h .

A. STANDARD INSIDER DIP LOAN

Pre-petition claims are paid based on a pro rata allocation. Each creditor receives equity in proportion to their pre-petition claims. The majority creditor h receives a cash payout from the DIP loan. Thus, at date 2, when the high future value of V is realized, the majority creditor h receives a return of $(D_h/D)(V - I - d) + I - I = (D_h/D)(V - I - d)$, and the minority creditor l receives a payoff of $(D_l/D)(V - I - d)$.

However, the realization of a high value on date 2 is the private information of creditor h . The judge does not possess this information. At date 1, in the judge's view, the majority h 's expected profit is $(D_h/D)(\bar{V} - I - d) + I - I = (D_h/D)(\bar{V} - I - d)$, and the minority l 's expected payoff is $(D_l/D)(\bar{V} - I - d)$.

B. NON-STANDARD INSIDER DIP LOAN

The majority h acquires an equity-linked securities closely linked to the non-contractible future firm value under a non-standard DIP Loan. At date 2, when the future value of V realizes, h receives a return of $V - (D_l/D)L - I$, while the minority l receives the residual firm value of $(D_l/D)L$.

Again, at date 1, given the judge's information, h 's expected profit is $\bar{V} - (D_l/D)L - I$, with l still obtaining a fixed return of $(D_l/D)L$.

Comparing the two DIP loan proposal, the advantage of a standard DIP lies in the absence of excess payment captured by the majority. A fair treatment is achieved: both majority and minority, are allocated the reorganized firm value of $V - I - d$ in proportion to their claims. However, its disadvantage is that the firm specificity of assets causes an additional reduction in firm value, d .

Conversely, the non-standard DIP loan's advantage is that it avoids the deduction of d , but it allows the majority creditor h to achieve excess payment.

Since $\bar{V} - I - L \geq 0$, the use of a non-standard DIP loan plan would, in the judge's view, generate an excess payment of $\bar{V} - I - L$ for the majority h . This priority deviation results in a disutility for the judge of $(1 - w)(\bar{V} - I - L)$. Conversely, if a standard DIP loan is accepted, the judge's disutility would be wd . Therefore, when the following condition (3) is met, where $(1 - w)(\bar{V} - I - L) \geq wd$, the judge would favor the standard DIP loan:

$$I + L + \frac{wd}{1 - w} \leq \bar{V} < D + I + d \quad (3)$$

When the following condition (4) is met, The judge would approve a non-standard DIP:

$$I + L \leq \bar{V} < I + L + \frac{wd}{1-w} \quad (4)$$

When condition (5) is met:

$$\bar{V} < I + L \quad (5)$$

Given that the majority h possesses private information of the actual realization of firm value V , he will still make a non-standard DIP loan proposal. The majority h knows that $V > I + L - (D_h/D_l)d$ holds.

However, give judge's lack of private information, the judge only knows that condition (5) is met. From the judge's perspective, it yields no excess payment to the majority h ($R_h - (D_h/D_l)R_l = \bar{V} - (D_l/D)L - I - (D_h/D)L = \bar{V} - I - L < 0$).

Additionally, since there are no cash compensation, there is no value deduction in the firm's value ($d=0$), leading the judge to perceive the disutility under the non-standard DIP loan as zero ($Njudge=0$). In contrast, under a standard DIP loan, the judge's disutility would be greater than zero ($Njudge=wd>$). Therefore, the judge will approve the non-standard DIP loan when the following condition (6) is met:

$$\frac{D_l}{D}L + I \leq \bar{V} < I + L \quad (6)$$

Finally, when condition (5) is met, the firm will not receive DIP financing and enter liquidation:

$$0 < \bar{V} < \frac{D_l}{D}L + I \quad (7)$$

The above discussion can be summarized in the following table:

Interval	Condition	Accepted DIP Loan	Creditors' Payoff
I	$\frac{D + I + d - L}{V - L} \leq p < 1$	Outsider, Standard DIP Loan	$R_i = D_i, i = h, l$
II	$\frac{I + \frac{wd}{1-w}}{V - L} \leq p < \frac{D + I + d - L}{V - L}$	Insider, Standard DIP Loan	$R_i = \frac{D_i}{D}(V - I - d), i = h, l$
III	$\frac{I}{V - L} \leq p < \frac{I + \frac{wd}{1-w}}{V - L}$	Insider, Non-standard DIP Loan	$\begin{cases} R_h = V - \frac{D_l}{D}L - I \\ R_l = \frac{D_l}{D}L \end{cases}$
IV	$\frac{I - \frac{D_h}{D}L}{V - L} \leq p < \frac{I}{V - L}$	Insider, Non-Standard DIP Loan	$\begin{cases} R_h = V - \frac{D_l}{D}L - I \\ R_l = \frac{D_l}{D}L \end{cases}$
V	$0 < p < \frac{I - \frac{D_h}{D}L}{V - L}$	Liquidation, No DIP Financing	$R_i = \frac{D_i}{D}L, i = h, l$

For the analysis discussed above, two additional points need clarification.

First, under the condition $L + I \leq \bar{V} < D + I + d$, the majority creditor h should propose only non-standard DIP loan plans at date 1 to capture excess payment. This is because, as assumed, it is always beneficial for h if $V \geq I + L - (D_h/D_l)d$ holds. Given $V \geq D + I + d$, this condition necessarily holds.

However, in Interval II, since the judge perceives that the value deduction of d caused by a standardized DIP loan plan is relatively minor, the judge finds it even harder to tolerate unfair treatment between creditors from the non-standard DIP loan (as satisfied by condition (3)). The judge will thus mandate that h to propose a standard DIP loan on terms equivalent to an outsider DIP loan, thereby “standardizing” the DIP loan. Thus, even if h proposes only a non-standard plan, the conclusion remains unchanged.

Second, from the judge's perspective, under the condition that only outsider standard DIP loan plans are available, the firm value V can only successfully reorganize with DIP financing if $\bar{V} \geq L + I + d$. However, if insider, non-standard DIP loans are permitted, there will be a successful reorganization if $\bar{V} - I < L + wd/(1 - w)$ meets (i.e., in Intervals III and IV). Therefore, allowing insider non-standard DIP loan plans increases the likelihood of a successful reorganization.

However, in the interval V, the lack of private information might also lead to costly errors in judicial decision-making. If judges undervalue a firm, they may mistakenly force it into liquidation. In reality, for the majority of creditors h who possess private information, the true value of the firm is $V \geq D + I + d > L$ and thus worth of the DIP financing and the reorganization.

IV. ANALYSIS

Based on the table above, several conclusions can be drawn:

First, concerning p , if the judge perceives a severe debt overhang, i.e., in Intervals III and IV, a non-standard insider DIP loan plan will be accepted; conversely, if the debt overhang appears relatively mild, in Intervals I and II, a standard insider DIP loan plan will be accepted. The worsening of the debt overhang issue may prompt the judge to be more likely to accept a non-standard insider DIP loan plan. If the debt overhang worsens to the extent that $0 < \bar{V} < (D_l/D)L + I$ (Intervals V), the enterprise will enter into liquidation.

Second, regarding d , the greater the reduction in firm value d caused by the standard DIP loan, the more likely a non-standard insider DIP loan is to be accepted (expanding the range of Interval III); the smaller d is, the more likely a standard DIP loan plan is to be accepted.

Finally, concerning w , if the judge has a greater aversion to the firm value reduction caused by cash payouts under a standard DIP loan (w is high), Interval II will shrink, and Interval III will expand. The judge is more inclined to accept a non-standard DIP loan, even if it results in unfair treatment.

Conversely, if the judge has a greater aversion to the unfair treatment caused by the excess payment enjoyed by h exclusively under a non-standard DIP loan plan (w is low), Interval II will expand, and Interval III will shrink. The judge is more inclined to accept a standard DIP loan, even if it leads to a reduction in firm value.

CONCLUSION

What's in the DIP loan payment? This paper models the recent evolution of DIP loan payments, illustrating the tradeoff between preserving cash and ensuring fair treatment among creditors. It demonstrates the mechanism by which a judge, mindful of this tradeoff, may approve a non-standard DIP loan. Firstly, approval may be due to insider DIP lenders' private information. Secondly, in cases where private information is less significant, as both the judge and DIP lender perceive the company's value to be high, a non-standard DIP loan could still be approved. In such instances, the judge's approval of the DIP loan is grounded in maximizing company value through cash preservation.

Fundamentally, the tradeoff between cash preservation and fair treatment in dip loan payments, embodying a novel interpretation of the classic tension in bankruptcy law between asset maximization and respect for priority. This framework provides judges with guidance in considering whether to approve dip loans, especially non-standard dip loans.

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