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ARTICLE

Bankruptcy as Bailout: Coal Company Insolvency and the Erosion of Federal Law

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Abstract. Almost half of all the coal produced in the United States is mined by companies that have recently gone bankrupt. This Article explains how those bankruptcy proceedings have undermined federal environmental and labor laws. In particular, coal companies have used the Bankruptcy Code to evade congressionally imposed liabilities requiring that they pay lifetime health benefits to coal miners and restore land degraded by surface mining. Using financial information reported in filings to the Securities and Exchange Commission and in the companies' reorganization agreements, we show that between 2012 and 2017, four of the largest coal companies in the United States succeeded in shedding almost $5.2 billion of environmental and retiree liabilities. Most of these liabilities were backed by federal mandates. Coal companies disposed of these regulatory obligations by placing them in underfunded subsidiaries that they later spun off. When the underfunded successor companies liquidated, the coal companies managed to get rid of their regulatory obligations without defaulting on the pecuniary debts they owed to their creditors.

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During the editorial process for this Article, Mr. Salovaara was employed by McKinsey & Company, a global consulting firm. McKinsey offers consulting services to coal companies, including on restructuring matters. Mr. Salovaara did not advise any coal companies while employed at McKinsey, nor did he have access to nonpublic information on any coal company.

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Our analysis of the coal industry also has implications for bankruptcy theory. First, we provide a novel reason for questioning the view that bankruptcy proceedings should prioritize Chapter 11 reorganization over Chapter 7 liquidation. Recent coal bankruptcies show that companies are using the Bankruptcy Code to externalize costs onto third parties, despite statutes designed to force coal companies to internalize those costs. We argue that reorganization should not undermine Congress's efforts to force firms to internalize the costs they impose on others. When a reorganization threatens to do so, liquidation is the better method for resolving bankruptcies. Second, our account poses challenges for scholars who argue that parties in bankruptcy proceedings should be able to contract around Chapter 11. While there are compelling reasons to allow parties to do this, some mandatory federal rules are necessary to prevent creditors and debtors from negotiating around federal regulatory programs. And third, the use of Chapter 11 to discharge regulatory obligations whose purpose is to further congressional policy impedes the government's ability to adopt certain efficient regulatory designs. Liabilities that can be discharged generally have to have been incurred before the bankruptcy petition. Such policies often take the form of market-based regulations or performance standards. Moreover, bankruptcy judges treat liabilities that can be converted to money judgments as ordinary contracts while giving injunctions what amounts to an effective priority claim. As a result, bankruptcy law creates incentives for regulators to adopt command-and-control regulations—a common regulatory design that is disfavored in scholarly circles for being less efficient than the alternatives. We conclude by arguing that many of the strategies coal companies have used to discharge these federal regulatory obligations are illegal.

Table of Contents

Introduction

In March 2017, Arch Coal and Alpha Natural Resources, respectively the second- and third-largest coal producers in the country,[1] were honored at a summit held at President Trump's Mar-a-Lago resort for their recent emergence from bankruptcy.[2] Alpha received a "Reorganization of the Year" award[3] and Arch won a "Restructuring Deal of the Year" award.[4] Arch's CEO praised the company's restructuring agreement as "establish[ing] a solid foundation for long-term success."[5] A bankruptcy attorney who represented Arch said that the plan would transform the company into a "lean, mean, fighting machine for the coming era."[6]

Although the coal industry commended itself for shedding billions of dollars of debt,[7] the reality is that coal companies designed these agreements to flout federal environmental and labor laws meant to ensure that coal companies restore lands degraded by their extractive activities[8] and provide lifetime retirement benefits to miners.[9] According to the Environmental Protection Agency (EPA) and the Department of the Interior (DOI), these restructuring agreements were "obviously a carefully constructed scheme to evade environmental liabilities through discriminatory classifications and treatments of environmental general unsecured creditors as opposed to other

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1. *See* Arathy S Nair, *Peabody Chapter 11 Tops String of U.S. Coal Bankruptcies*, REUTERS (Apr. 15, 2016, 1:00 PM), https://perma.cc/6LEZ-ERRX.
2. Rebecca Leber, *A Recently Bankrupt Coal Company Is Being Honored at Mar-a-Lago: It's the Annual Distressed Investing Summit*, MOTHER JONES (Mar. 22, 2017, 10:36 PM), https://perma.cc/T46M-L6CT.
3. Specifically, Alpha was awarded "Chapter 11 Reorganization of the Year (Over $5B)." *See* The M&A Advisor, 11th Annual Turnaround Award Winners 9 (2017) [hereinafter The M&A Advisor, Award Winners], https://perma.cc/2ZNG-JYHB. Alpha was also awarded "Sec. 363 Sale of the Year (Over $500 MM to $1B)." *See id.* at 7; *see also* Press Release, The M&A Advisor, Winners Announced for the 11th Annual Turnaround Awards: Top Deals, Firms and Professionals to Be Honored March 23 at the Colony Hotel (Jan. 30, 2017), https://perma.cc/8CHX-SPBF.
4. Specifically, Arch was awarded "Restructuring Deal of the Year (Over $5B to $10B)." *See* The M&A Advisor, Award Winners, *supra* note 3, at 10.
5. *See* Jacqueline Palank, *Arch Coal Restructuring Plan Wins Court Approval*, WALL ST. J. (Sept. 13, 2016, 5:04 PM EST), https://perma.cc/EZA8-UHJF.
6. *See id.*
7. *See infra* Part II.B.
8. *See* Surface Mining Control and Reclamation Act of 1977 (SMCRA), Pub. L. No. 95-87, 91 Stat. 445 (codified as amended at 18 U.S.C. § 1114 (2017); and 30 U.S.C. §§ 1201-1211, 1231-1328 (2017)).
9. *See* Coal Industry Retiree Health Benefit Act of 1992, Pub. L. No. 102-486, tit. XIX, subtitle C, 106 Stat. 2776, 3036-56 (codified as amended at I.R.C. §§ 9701-9722 (2017); and 30 U.S.C. §§ 1231-1232).

general unsecured creditors."[10] Since 2012, four of the largest American coal producers[11] have used Chapter 11 to discharge or otherwise avoid approximately $5.2 billion in regulatory debts: $3.2 billion in retiree benefits and $1.9 billion in environmental liabilities.[12] These regulatory debts constituted 22% of the total debt discharged in the bankruptcies.[13] This means that at least 22% of the liabilities discharged by the largest coal companies were not business debts, but rather liabilities under federal laws intended to force companies to mitigate environmental damage and to honor pension and health care obligations.[14]

10. United States', States', and Tribes' Objection to Debtors' Second Amended Joint Plan of Reorganization at 1, *In re* Peabody Energy Corp., No. 16-42529-399 (Bankr. E.D. Mo. Mar. 9, 2017), ECF No. 2648 [hereinafter Governments' Objection to Second Amended Joint Plan of Reorganization].

11. Three of the coal companies analyzed in this Article—Peabody, Arch, and Alpha—have been among the three largest coal operators in the country, accounting for 42% of all coal production in 2015. *See* U.S. ENERGY INFO. ADMIN., ANNUAL COAL REPORT 2015, at 16 tbl.10 (2016), https://perma.cc/PV89-QJ27.

    All of the coal companies analyzed in this Article filed for bankruptcy between April 2015 and April 2016. *See* Matt Jarzemsky & Joseph Checkler, *Alpha Natural Resources File for Chapter 11*, WALL ST. J. (Aug. 3, 2015, 10:34 PM ET), https://perma.cc/3TQU-2YCW; Matt Jarzemsky & Peg Brickley, *Patriot Coal Again Files for Chapter 11 Bankruptcy*, WALL ST. J. (May 12, 2015, 7:32 PM ET), https://perma.cc/9AK6-NGFW; John W. Miller & Peg Brickley, *Arch Coal Files for Bankruptcy*, WALL ST. J. (Jan. 11, 2016, 7:56 AM ET), https://perma.cc/4HP9-SMYT; John W. Miller & Matt Jarzemsky, *Peabody Energy Files for Chapter 11 Bankruptcy Protection*, WALL ST. J. (Apr. 14, 2016, 6:37 PM ET), https://perma.cc/T4AU-U2C9.

12. *See infra* Table 2; *infra* Appendix. These numbers do not even include the potentially billions of dollars in environmental liabilities unrelated to SMCRA. *See, e.g.*, Master Proof of Claim of the United States of America, on Behalf of the United States Environmental Protection Agency at 48-49, *In re* Peabody Energy Corp., No. 16-42529 (BSS) (Bankr. E.D. Mo. Oct. 11, 2016) [hereinafter Master Proof of Claim], https://perma.cc/LPW5-B5B9 (indicating that Peabody Energy and Gold Fields Mining, the company that purchased most of Peabody's assets, should respectively be held liable for $867 million and $914 million in environmental obligations).

    During reorganization, many of these obligations settled for just a fraction of their original amounts. For example, although the EPA claimed that Peabody and Gold Fields should pay over $150 million to clean up the ASARCO Taylor Springs Superfund Site, *see id.*, the entities ended up paying just under $5.4 million. *See* Settlement Agreement of the Debtors, Gold Fields Liquidating Trust, and the Governments at 7-8, *In re* Peabody Energy Corp., No. 16-42529-399 (Bankr. E.D. Mo. July 14, 2017), ECF No. 3245-1 [hereinafter Gold Fields Settlement Agreement]. Similarly, although the EPA claimed that Peabody and Gold Fields owed just under $100 million for cleanup activities at the Old American Zinc Plant Superfund Site, *see* Master Proof of Claim, *supra*, at 48-49, the companies again paid just under $3.4 million, *see* Gold Fields Settlement Agreement, *supra*, at 8.

13. *See infra* Table 2; *infra* Appendix.

14. For a general overview of the history of coal debt and bankruptcies, see Patrick Rucker, *How Big Coal Summoned Wall Street and Faced a Whirlwind*, REUTERS INVESTIGATES (Aug. 5, 2016, 3:25 PM GMT), https://perma.cc/3U9X-WBDM.

Taxpayers, regulators, and retired miners have been left to foot the bill for reclaiming degraded mines; cleaning up polluted water and farmland; and treating black lung disease, damaged appendages, and other ailments borne of careers in the mines.[15] It is worth noting that these discharges are likely to underestimate the real amount of liabilities owed by the coal companies. A report by the Office of Surface Mining Reclamation and Enforcement found that the bonds forfeited by bankrupt coal companies in Kentucky covered only 52.8% of the true cost of reclaiming the degraded land.[16] And the EPA estimates that it will cost $50 billion to manage the environmental hazards created by the more than 250,000 abandoned and inactive mines that have yet to be reclaimed.[17]

These discharges have left a legacy of uninhabitable land and contaminated water. Abandoned coal mines can poison the local water, destroy marine ecosystems, and devastate agricultural communities.[18] For example, Peabody's failure to reclaim a mine in northeastern Wyoming has ruined the livelihoods of ranchers by destroying the lands their cattle used to graze, choking off the water supply, and displacing cattle and sheep herds.[19] One cattle rancher has been forced to spend hundreds of thousands of dollars to drill wells to support his animals.[20] Another coal mine that Peabody abandoned in Kansas continues

15. *See, e.g.*, Governments' Objection to Second Amended Joint Plan of Reorganization, *supra* note 10, at 10 (arguing that Peabody's reorganization agreement would allow the Gold Fields Liquidating Trust to abandon environmental cleanup orders); ALEXIS BONOGOFSKY ET AL., NAT'L WILDLIFE FED'N ET AL., UNDERMINED PROMISE II, at 22-30 (2015), https://perma.cc/PJ6C-DTE4 (discussing how coal companies' failure to properly reclaim surface coal mines causes water quality to deteriorate, endangers local wildlife, and harms farming communities); Alec MacGillis, *The Incredible Disappearing Health Benefits*, NEW REPUBLIC (Feb. 18, 2013), https://perma.cc/TXH7-Q2MW (describing how Peabody reduced health coverage for retired coal miners, including those suffering from black lung disease and emphysema, by transferring health care liabilities to an entity that later liquidated).

16. KY. DEP'T FOR NAT. RES. & LEXINGTON FIELD OFFICE, OFFICE OF SURFACE MINING RECLAMATION & ENF'T, ANNUAL EVALUATION REPORT 9 (2017), https://perma.cc/8WWU-V2F4 (estimating that the cost of reclamation will be about $1.9 million, while the total bond posted is only about $985,000—"which accounts for 52.8% of the total cost of reclamation").

17. *See* Scott Streater, *Polluted Mines as Economic Engines?: Obama Admin Says "Yes,"* N.Y. TIMES (Feb. 26, 2009), https://perma.cc/75HT-N95C ("[T]he Government Accountability Office estimates at least 250,000 abandoned mines dot the landscape . . . . [O]ne EPA estimate placed the full cost of abandoned mine cleanup at $50 billion."). The $50 billion figure is not limited to coal mines but also includes mines that were used to extract metals and other minerals. *See id.*

18. *See, e.g.*, Rachael Bale, *The Problem with America's Abandoned Mines*, REVEAL (Oct. 21, 2014), https://perma.cc/UFZ4-EMV5; *Extent of the Problem*, ABANDONEDMINES.GOV, https://perma.cc/P6XB-86N7 (archived Feb. 25, 2019).

19. *See* BONOGOFSKY ET AL., *supra* note 15, at 22, 30.

20. *See id.* at 22.

to leach approximately 4,500 gallons of metals-contaminated water per month, and the reclamation costs have been foisted onto taxpayers.[21]

Moreover, despite the fact that Congress requires coal companies to provide pensions and health care to retired coal miners, the United Mine Workers of America (UMWA) claims nearly $6 billion in unfunded pension promises.[22] The situation for retired miners became so dire that in 2017, Congress stepped in, introducing a bill to guarantee health care benefits to retired miners whose coverage had been dropped in the course of coal company bankruptcies.[23] Perhaps most troublingly, the coal industry's "success" in this regard threatens to inspire other industries to follow suit; for instance, the owner of the largest East Coast oil refinery filed for bankruptcy at the beginning of 2018 with the aim of discharging its federal environmental obligations,[24] and a natural gas company recently used bankruptcy to evade California's carbon tax.[25]

This Article shows how bankruptcy law has operated to thwart other federal laws. The key takeaway is simple: Coal companies have used the Bankruptcy Code to discharge or otherwise restructure substantial environmental, pension, and health care liabilities in a manner that has eviscerated the regulatory schemes that gave rise to those obligations. From the perspective of bankruptcy theory, we posit that bankruptcy law can be manipulated in a manner that allows corporations to ignore federal environmental and labor laws even when those companies are solvent.[26]

21. *See* Governments' Objection to Second Amended Joint Plan of Reorganization, *supra* note 10, at 10.

22. *See* Rachel Greszler, *Government Intervention in Coal Mining Seven Decades Ago No Justification for Pension Bailout Today*, BACKGROUNDER 2 (Sept. 6, 2016), https://perma.cc/6ARJ-T45J.

23. *See* Miners Protection Act of 2017, H.R. 179, 115th Cong.; Nick Thornton, *Miners Get Permanent Funding for Health Care, but Fate of Pensions Is Dubious*, BENEFITSPRO (May 1, 2017, 1:03 PM), https://perma.cc/N7ZP-WP98.

24. *See, e.g.*, Barbara J Powell & Tiffany Kary, *Biggest U.S. East Coast Oil Refinery Files for Bankruptcy*, BLOOMBERG (updated Jan. 22, 2018, 8:46 AM PST), https://perma.cc/ZGQ2-4LZR ("Under the terms of the filing . . . [Philadelphia Energy Solutions LLC] seeks to sell off assets while leaving behind $300 million to $350 million worth of the compliance liabilities, effectively erasing them.").

25. *See* Daniel S. Shamah, *Bankruptcy Court Authorizes Sale of Power Plant Without Environmental Cap-and-Trade Obligations*, LEXOLOGY (Dec. 6, 2017), https://perma.cc/9DQQ-JS95.

26. *See* Sarah E. Light, *The Law of the Corporation as Environmental Law*, 71 STAN. L. REV. 137, 146 (2019) ("A failure to address simultaneously the tension between bankruptcy law's principle of giving debtors a 'fresh start' and environmental law's 'polluter pays' principle . . . may minimize or undermine the value of a single legal change.").

A commonly held view about corporate bankruptcy—known as the Creditors' Bargain Theory[27]—is that bankruptcy proceedings should (1) not disturb nonbankruptcy entitlements[28] and (2) maximize the value of the insolvent firm's estate.[29] The role of bankruptcy law, on this view, is primarily to solve the coordination problem caused by having multiple creditors who all want to seize an insolvent debtor's assets before other creditors.[30] Adherents of the Creditors' Bargain Theory readily concede that bankruptcy law should—and does—"accord substantial respect to nonbankruptcy entitlements."[31] This Article shows that strategic reorganizations that occur before and during a bankruptcy proceeding can be used to rearrange nonbankruptcy entitlements to the detriment of regulatory obligations. Many of the substantive rules embraced by the Creditors' Bargain Theory as maximizing asset values and preserving nonbankruptcy entitlements have been weaponized by corporations to evade their regulatory obligations. The implication is that the Bankruptcy Code allows corporations and their creditors to make ex post readjustments to nonbankruptcy entitlements, and they do so at the expense of the government's ability to effectively regulate.

To be sure, strategic prebankruptcy conduct has played a critical role in allowing coal companies to evade their regulatory obligations. By spinning off underfunded subsidiaries and giving those subsidiaries legal responsibility for the parent's regulatory obligations, coal companies have been able to separate productive assets from onerous regulatory debts. When the underfunded successor entity liquidates, it is difficult to hold that original company

27. *See, e.g.*, Kenneth Ayotte & David A. Skeel Jr., *Bankruptcy Law as a Liquidity Provider*, 80 U. CHI. L. REV. 1557, 1560 (2013) ("The predominant theoretical foundation for corporate bankruptcy is known as the Creditors' Bargain theory.").

28. *See* Douglas G. Baird, *Loss Distribution, Forum Shopping, and Bankruptcy: A Reply to Warren*, 54 U. CHI. L. REV. 815, 822 (1987) (replying to Elizabeth Warren, *Bankruptcy Policy*, 54 U. CHI. L. REV. 775 (1987)) ("Whenever we must have a legal rule to distribute losses in bankruptcy, we must also have a legal rule that distributes the same loss outside of bankruptcy.").

29. *See* Thomas H. Jackson, *Bankruptcy, Non-Bankruptcy Entitlements, and the Creditors' Bargain*, 91 YALE L.J. 857, 860-67 (1982) (explaining that bankruptcy proceedings are necessary to maximize the collective value of an estate).

30. *See* Ayotte & Skeel, *supra* note 27, at 1560 ("This normative theory argues that the scope of bankruptcy law should be limited to solving the particular problems caused by multiple, uncoordinated creditors when firms face financial distress."); Douglas G. Baird & Thomas H. Jackson, *Corporate Reorganizations and the Treatment of Diverse Ownership Interests: A Comment on Adequate Protection of Secured Creditors in Bankruptcy*, 51 U. CHI. L. REV. 97, 103 (1984) ("A collective insolvency proceeding is directed toward reducing the costs associated with diverse ownership interests and encouraging those with interests in a firm's assets to put those assets to the use the group as a whole would favor.").

31. *See* Jackson, *supra* note 29, at 859.

responsible for honoring those regulatory debts. In this way, the ability to siphon off regulatory obligations through spin-offs and divestitures—whether those spin-offs occurred during or before the reorganization—has allowed companies to pay unsecured pecuniary creditors a relatively high percentage of what they are owed while paying regulatory creditors virtually nothing.[32] In this way, strategic prebankruptcy conduct has allowed coal companies to externalize social costs despite regulations intended to force them to internalize those costs.[33] A more aggressive application of fraudulent conveyance law, substantive consolidation, and the Bankruptcy Code's feasibility requirement would make it more difficult for corporations to do this. Bankruptcy law's failure to prevent such strategic behavior has thus allowed coal companies to pay similarly situated classes of creditors dramatically different payouts.[34]

32. *See* Governments' Objection to Second Amended Joint Plan of Reorganization, *supra* note 10, at 3-4 (explaining that Peabody's Second Reorganization Plan proposed allowing some of Peabody's creditors to recover between 22.1% and 50% of their claims, while some unsecured creditors, including Peabody's environmental claimants, would recover only 0.1% of their claims). This observation is important to our critique of the Creditors' Bargain Theory because it challenges the conventional wisdom that the problems faced by tort, environmental, and regulatory creditors would be resolved if those parties were simply given priority in bankruptcy. *See* Barry E. Adler, *A World Without Debt*, 72 WASH. U. L.Q. 811, 826 (1994); Hanoch Dagan, *Restitution in Bankruptcy: Why All Involuntary Creditors Should Be Preferred*, 78 AM. BANKR. L.J. 247, 277 (2004); Kathryn R. Heidt, *Cleaning Up Your Act: Efficiency Considerations in the Battle for the Debtor's Assets in Toxic Waste Bankruptcies*, 40 RUTGERS L. REV. 819, 851-63 (1988); Robert K. Rasmussen, *Resolving Transnational Insolvencies Through Private Ordering*, 98 MICH. L. REV. 2252, 2269 (2000). While we agree that these claims should be given priority, this would not have prevented the kind of regulatory evasion exhibited by the coal companies because a priority claim is of little value if corporate reorganizations have already placed the priority claim into a corporate vehicle that has been wholly stripped of assets.

33. Although we argue that coal companies should be forced to liquidate when they cannot honor their regulatory obligations, we are nevertheless critical of the brand of liquidations that have occurred during the coal company bankruptcies. There is a distinction between a liquidation of a corporate entity that incurred regulatory obligations and a liquidation of a subsidiary that was designed to fail in order to allow the original parent company to skirt its regulatory obligations. Indeed, the parent company will be more valuable if it does not have to comply with environmental and labor laws. The same logic applies to prebankruptcy spin-offs whose aim is to shed a company's regulatory obligations. Bankruptcy judges' unwillingness to use fraudulent conveyance law to hold the original company liable for the regulatory debts it shed through strategic spin-offs makes it more likely that the original company will remain operational, but prevents regulatory creditors from sharing in the distribution of assets that occurs during Chapter 11 reorganization.

34. This observation builds on the work of Jared Ellias, Melissa Jacoby, Edward Janger, Mark Roe, David Skeel, and others who have argued that bankruptcy law allows insiders and other privileged parties to a bankruptcy proceeding to receive a higher payout than they would be entitled to if distributional priorities were respected. *See* Jared A. Ellias & Robert J. Stark, *Bankruptcy Hardball*, 108 CALIF. L. REV. (forthcoming

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There is a clear tension between bankruptcy law's goal of maximizing the value of an estate and regulatory programs that operate by forcing regulated parties to internalize the social costs of their behavior. Maximizing the value of an estate is obviously in the interest of both debtors and creditors, because a corporation's ability to extricate itself from its regulatory obligations will increase the pool of assets available to the other creditors. Unfortunately, maximizing asset valuations can conflict with—and even undermine—regulatory schemes whose force stems from their compliance costs.[35]

The central claim of this Article is that regulatory obligations need to be understood as fundamentally different from debts incurred in capital markets, and that a company should not be able to use bankruptcy to dispose of obligations whose purpose is to force corporations, shareholders, and creditors to bear the social costs of corporate activities. It is especially problematic that bankruptcy favors command-and-control regulations over market-based regulations. This bias occurs because in a reorganization, injunctions enjoy

2020) (manuscript at 5), https://perma.cc/PMQ9-2LRA ("The managers of a distressed firm can use their control to select from a range of options with important distributional ramifications for the firm's stakeholders."); Jared A. Ellias, *Regulating Bankruptcy Bonuses*, 92 S. CAL. L. REV. (forthcoming 2019), https://perma.cc/D9MM-Q4AA (showing how firms sidestep regulations on bankruptcy bonuses); Melissa B. Jacoby & Edward J. Janger, *Ice Cube Bonds: Allocating the Price of Process in Chapter 11 Bankruptcy*, 123 YALE L.J. 862, 895 (2014) (arguing that speedy going-concern sales "place[] the estate at the mercy of the sale's advocates—usually, although not always, incumbent managers, the senior secured lender, and the purchaser"); Mark J. Roe & Frederick Tung, *Breaking Bankruptcy Priority: How Rent-Seeking Upends the Creditors' Bargain*, 99 VA. L. REV. 1235, 1238 (2013) (arguing that certain interest groups, such as financial institutions, have obtained "priority jumps"—through both legislation and innovative corporate practices—that allow them to obtain higher payouts during bankruptcy); David A. Skeel, Jr., *The Empty Idea of "Equality of Creditors,"* 166 U. PA. L. REV. 699, 703 (2018) (observing that "current bankruptcy law provides numerous devices for privileging one creditor or group of creditors over others" and questioning whether "reinvigorating the equality of creditors norm would improve bankruptcy law"). We extend these scholars' arguments to the context of regulatory debts.

For an argument that the Bankruptcy Code does not give retirees priority in the municipal bankruptcy context, see Richard M. Hynes & Steven D. Walt, *Fair and Unfair Discrimination in Municipal Bankruptcy*, 37 CAMPBELL L. REV. 25, 27-28 (2015). *See also* Richard M. Hynes & Steven D. Walt, *Inequality and Equity in Bankruptcy Reorganization*, 67 U. KAN. L. REV. (forthcoming 2019), https://perma.cc/6N58-B693 (pointing out that the Bankruptcy Code does not actually treat creditors equally, and suggesting that courts properly permit deviations from the principle of equality among creditors when doing so is Pareto efficient).

35. *See, e.g.*, Aaron M. Levine & Joshua C. Macey, Note, *Dodd-Frank Is a Pigouvian Regulation*, 127 YALE L.J. 1336, 1344 (2018) (showing that the Dodd-Frank Act's compliance costs "serve an important regulatory purpose by incentivizing [systematically important financial institutions] to shed the business units that generate financial risk" (emphasis omitted)); *see also* Dodd-Frank Wall Street Reform and Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010) (codified as amended in scattered sections of the U.S. Code).

what amounts to an effective priority claim while pecuniary liabilities are generally treated no differently than are ordinary contracts—even when such liabilities are designed to further regulatory goals.[36]

These conclusions are based on our analysis of the coal industry, but they also apply more broadly to all regulations for which parties can defer the costs of compliance. When the social costs of an activity are greater than the market value of the goods produced by a firm, and when a regulatory scheme has been specifically designed to force firms to internalize those social costs, the firm should not be able to shed those regulatory obligations in bankruptcy or reorganization unless Congress has explicitly permitted it. And if a firm's ability to reorganize is predicated on its ability to shirk its regulatory obligations, then it should be forced to liquidate, and its outstanding regulatory obligations should be given first priority when the assets of the business are distributed. These principles should apply whether a regulatory obligation takes the form of a command-and-control regulation or a money judgment.

Finally, we criticize bankruptcy judges for reading the Bankruptcy Code to permit discharges of regulatory debts despite plausible interpretations that would except such debts from discharge. Specifically, we argue that certain provisions of the Code—the prohibition against fraudulent transfers,[37] the regulatory and administrative expense exceptions to the automatic stay,[38] and the feasibility requirement[39]—should be understood to prevent companies from using bankruptcy to avoid federal regulations.

This argument is also relevant to recent developments in the field of bankruptcy law. First, it poses challenges for scholars and judges who have questioned the structure of the U.S. bankruptcy system for its reliance on mandatory federal rules. These critiques take one of two approaches. Scholars such as David Skeel have argued that states should play a larger role in the development of bankruptcy law.[40] Others such as Alan Schwartz have argued

36. *See infra* Part III.C.

37. *See* 11 U.S.C. § 548 (2017).

38. *See id.* §§ 362(b)(4), 503 (allowing parties to petition for payment of administrative expenses during the automatic stay).

39. *See id.* § 1129(a)(11) (requiring that the proponents of a plan to reorganize a debtor show that it is unlikely to be followed by either a liquidation or another reorganization).

40. *See* David A. Skeel, Jr., *Rethinking the Line Between Corporate Law and Corporate Bankruptcy*, 72 TEX. L. REV. 471, 475 (1994) ("[L]awmaking authority over corporate bankruptcy should be shifted back to the states."); *see also* Theodore Eisenberg, *Bankruptcy Law in Perspective*, 28 UCLA L. REV. 953, 953 (1981) ("The new bankruptcy act is a failure . . . [in part because of] inadequate coordination with preexisting federal and state laws.").

Nor is this position limited to academics. For a recent and important example of the judiciary's willingness to enforce private contracts that alter bankruptcy procedures, see Franchise Servs. of N. Am., Inc. v. U.S. Tr. (*In re* Franchise Servs. of N. Am., Inc.), 891

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that bankruptcy law should be a default—not a requirement—and that parties should be able to select whatever rules they want via contract.[41] We show that these arguments are persuasive only if federal regulations do not force firms to bear some of the social costs of firm activities.[42] Negative externalities require a mandatory, consistent framework. They therefore justify the use of a uniform federal bankruptcy law. Thus, while we criticize the manner in which federal bankruptcy law has been applied in recent coal company reorganizations, we also defend its basic structure against proposals urging that Congress replace the Bankruptcy Code with a decentralized alternative.

This Article also destabilizes core assumptions embraced by both sides of one of the most enduring debates in bankruptcy law.[43] For several decades, a principal dispute in bankruptcy scholarship has been between traditionalists, who think that bankruptcy proceedings should further social values such as increased employment, and proceduralists, who argue that bankruptcy should aim exclusively to maximize asset values.[44] Although proceduralists argue that

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F.3d 198 (5th Cir. 2018). The Fifth Circuit affirmed a bankruptcy judge's dismissal of a bankruptcy petition on the ground that petitioners had failed to secure the consent of a majority of all the classes of the corporation's shareholders, as required by the corporation's charter. *See id.* at 213-14; *see also* Jesse Fried (@jessefried), TWITTER (Nov. 7, 2018, 5:20 AM), https://perma.cc/Q79X-F43W.

41. *See* Alan Schwartz, Essay, *A Contract Theory Approach to Business Bankruptcy*, 107 YALE L.J. 1807, 1809 (1998) ("Because bankruptcy systems should function to maximize the monetary value of the estate, these systems need not contain mandatory redistributional rules." (footnote omitted)); *see also* Steven L. Schwarcz, *Rethinking Freedom of Contract: A Bankruptcy Paradigm*, 77 TEX. L. REV. 515, 584-85 (1999) (arguing for the limited use of prebankruptcy contracting). Lucian Bebchuk and Mark Roe have proposed an interesting variant on this idea, arguing that the market, rather than a bankruptcy court, should determine a company's going concern. *See* Lucian Arye Bebchuk, *A New Approach to Corporate Reorganizations*, 101 HARV. L. REV. 775, 777 (1988) (proposing a new method of reorganization in which the participants would "receive a set of rights with respect to the securities of the reorganized company"); Mark J. Roe, *Bankruptcy and Debt: A New Model for Corporate Reorganization*, 83 COLUM. L. REV. 527, 559-62 (1983) (proposing that insolvent companies' valuation be determined by selling a portion of the reorganized company's stock on the market).

42. Bebchuk's and Roe's proposals could be compatible with our theory, but only if their proposed competitive processes for determining the value of a firm assume the costs of market-based regulatory debts. *See infra* Part III.

43. Academics refer to the preference for reorganization among scholars and practitioners as bankruptcy law's "continuation bias." *See* Edward R. Morrison, *Bankruptcy Decision Making: An Empirical Study of the Continuation Bias in Small-Business Bankruptcies*, 50 J.L. & ECON. 381, 392-93 (2007) ("Traditional accounts of Chapter 11 . . . argue that the bankruptcy process is biased in favor of preserving businesses that are economically distressed and should be liquidated immediately. This continuation bias, it is thought, arises from the control incumbent managers exercise over the bankruptcy process.").

44. *See* JEFF FERRIELL & EDWARD J. JANGER, UNDERSTANDING BANKRUPTCY § 1.02, at 7-10 (3d ed. 2013) (describing the proceduralist and traditionalist positions).

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broad social goals should be pursued outside of bankruptcy,[45] some believe that bankruptcy law should still favor reorganization because it generally maximizes the value of a firm's assets.[46] In showing that bankruptcy can implicate the social goals that Congress has chosen to pursue outside of bankruptcy, we show that it is often impossible to isolate bankruptcy's goals

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The proceduralist position is frequently associated with Thomas Jackson and Douglas Baird, though David Skeel has also written prominently in a manner that could be understood to endorse this view. *See, e.g.*, Douglas G. Baird, Essay, *Bankruptcy's Uncontested Axioms*, 108 YALE L.J. 573, 574-75 (1998) ("I have been involved in these debates for a long time and have been strongly identified with the ranks of those whom I call proceduralists."); Thomas Jackson & David Skeel, *Bankruptcy and Economic Recovery*, *in* FINANCIAL RESTRUCTURING TO SUSTAIN RECOVERY 97, 98 (Martin Neil Baily et al. eds., 2013) ("Modern bankruptcy law primarily exists to reduce the frictions that otherwise would impede assets from moving to their highest-and-best use." (footnote omitted)). When the current Chapter 11 provisions were introduced in 1977, the House Judiciary Committee report endorsed the traditionalist view: "The purpose of a business reorganization case, unlike a liquidation case, is to restructure a business's finances so that it may continue to operate, provide its employees with jobs, pay its creditors, and produce a return for its stockholders . . . . It is more economically efficient to reorganize than to liquidate, because it preserves jobs and assets." H.R. REP. NO. 95-595, at 220 (1977). The Supreme Court cited—and seemingly embraced—this language when it said that "[t]he fundamental purpose of reorganization is to prevent a debtor from going into liquidation, with an attendant loss of jobs and possible misuse of economic resources." *See* NLRB v. Bildisco & Bildisco, 465 U.S. 513, 528 (1984), *superseded in other part by statute*, Bankruptcy Amendments and Federal Judgeship Act of 1984, Pub. L. No. 98-353, sec. 541(a), § 1113, 98 Stat. 333, 390-91 (codified at 11 U.S.C. § 1113 (2017)).

Elizabeth Warren and Jay Westbrook are two prominent traditionalists. *See* Warren, *supra* note 28, at 795-97, 811 ("Baird and I disagree about the fundamental purpose of bankruptcy law. But the differences Baird and I nurture run deeper. Baird believes in a method of policymaking that will ineluctably yield a single right answer. I believe in an approach that only asks better questions, focuses on better evidence, yields closer approximations, and offers increasingly better, but still tentative, answers."); Elizabeth Warren & Jay Lawrence Westbrook, *Searching for Reorganization Realities*, 72 WASH. U. L.Q. 1257, 1269-70 (1994) (acknowledging that the authors do not endorse a single, overarching theory of bankruptcy).

For an argument that the Bankruptcy Code embraces each of these theories at different stages of the reorganization process, see Vincent S.J. Buccola, *The Janus Faces of Reorganization Law*, 44 J. CORP. L. 1, 2-3 (2018) ("One paradigm orients interpretation during the early stages of a reorganization case; the other orients interpretation at its conclusion.").

45. *Cf.* Schwartz, *supra* note 41, at 1809 ("[B]ankruptcy systems should function to maximize the monetary value of the estate . . . .").

46. *See* Shai Bernstein et al., *Asset Allocation in Bankruptcy*, 74 J. FIN. 5, 8 (2019) ("[E]ven after accounting for the subsequent reallocation of real estate to new users, liquidated plants are 17.4% less likely to be occupied five years after the bankruptcy filing, suggesting that in liquidation, on average, assets are less utilized.").

from other competing statutory mandates. In these situations, proceduralists' preference for reorganization undermines the very nonbankruptcy federal goals that bankruptcy should respect.

Traditionalists have a similar problem. They assume that reorganization is preferable to liquidation because reorganization has positive spillovers in the form of increased employment.[47] For this reason, traditionalists have provided a theoretical defense of the "continuation bias" on the ground that it reduces the economic and employment disruptions caused by liquidation.[48] We agree that social concerns are relevant to bankruptcy proceedings. The recent experience of the coal mining industry, however, indicates that in some situations, these social concerns are more effectively promoted by liquidation, not reorganization. The assumption that bankruptcy should, as a default, aim to reorganize is therefore contingent on whether a given reorganization would undercut congressional goals unrelated to employment.

This Article proceeds in four Parts. Part I outlines the regulatory regime that aims to force coal companies to reclaim land degraded by mining, and to provide pensions and health benefits to retired coal miners. Part II describes the coal industry's recent financial difficulties, and explains how bankruptcy law has operated to undermine environmental and labor laws. Part III argues that the Bankruptcy Code should not be used to allow firms to externalize social costs when federal legislation and regulation aim to force firms to internalize such costs. Firms' ability to externalize costs incentivizes regulators to control firms' behavior through design standards—not through more economically defensible performance standards or market-based approaches. Part IV explains how judges and regulators could make it more difficult for firms to misuse bankruptcy to evade their environmental and retiree obligations. While Part III offers a normative defense of our position that Chapter 11 should not be used to thwart such obligations, Part IV puts forward legal and policy suggestions intended to help judges and lawmakers accomplish this goal.

47. *See* Stephen J. Lubben, *The "New and Improved" Chapter 11*, 93 KY. L.J. 839, 850 n.47 (2004-2005); Elizabeth Warren, Essay, *Bankruptcy Policymaking in an Imperfect World*, 92 MICH. L. REV. 336, 338, 344, 357 (1993) (arguing that bankruptcy law should consider a number of policy goals, including employment).

48. *See, e.g.*, Elizabeth Warren & Jay Lawrence Westbrook, *The Success of Chapter 11: A Challenge to the Critics*, 107 MICH. L. REV. 603, 625 (2009) ("A reorganization is also thought to produce substantial positive externalities, such as maintaining employment, preserving the local tax base, and advancing community stability."). For a creative efficiency-based defense that the continuation bias should be taken more seriously during economic downturns, see Zachary Liscow, *Counter-Cyclical Bankruptcy Law: An Efficiency Argument for Employment-Preserving Bankruptcy Rules*, 116 COLUM. L. REV. 1461, 1464 (2016).

I. The Regulatory Landscape

This Part provides an overview of the regulatory landscape governing coal companies. The Surface Mining Control and Reclamation Act (SMCRA) requires that coal companies reclaim land degraded by coal mining.[49] SMCRA contemplates the possibility that coal companies will become insolvent and requires that they post performance bonds to ensure that the land will be reclaimed.[50] Meanwhile, the Coal Industry Retiree Health Benefit Act (Coal Act) mandates that coal companies pay health care benefits to retired miners.[51] These statutes aim to force coal companies to internalize the social costs of mining, and to produce coal only when the market value of mining exceeds *both* the costs of production and the environmental and health costs associated with coal extraction.[52]

A. The Surface Mining Control and Reclamation Act (SMCRA)

Congress passed SMCRA in 1977, shortly after certain coal companies had abandoned thousands of mine sites.[53] SMCRA requires coal companies to

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49. *See* Surface Mining Control and Reclamation Act of 1977, Pub. L. No. 95-87, 91 Stat. 445 (codified as amended at 18 U.S.C. § 1114 (2017); and 30 U.S.C. §§ 1201-1211, 1231-1328 (2017)). Other environmental statutes, such as the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also underlie environmental liabilities for some coal companies. *See* Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. No. 96-510, 94 Stat. 2767 (codified as amended at 42 U.S.C. §§ 9601-9675 (2017)). CERCLA imposes liability for cleanup of sites contaminated with hazardous wastes. *See* 42 U.S.C. § 9607. Coal companies can be held directly liable under CERCLA for cleanup of sites contaminated by subsidiary companies when the parent company "actively participated in, and exercised control over, the operations of the facility itself." *See* United States v. Bestfoods, 524 U.S. 51, 55 (1998).

50. *See* 30 U.S.C. § 1259(a).

51. *See* Coal Industry Retiree Health Benefit Act of 1992, Pub. L. No. 102-486, tit. XIX, subtitle C, 106 Stat. 2776, 3036-56 (codified as amended at I.R.C. §§ 9701-9722 (2017); and 30 U.S.C. §§ 1231-1232).

52. This is the aim of any statute that forces individuals or corporations to account for some of the social costs of their activities. *See* Henry N. Butler & Jonathan R. Macey, *Externalities and the Matching Principle: The Case for Reallocating Environmental Regulatory Authority*, 14 YALE L. & POL'Y REV. (SYMP. ISSUE) 23, 29 (1996) ("Because producers will manufacture the quantity of goods that reflects their private costs of production, externalities lead to overproduction, which in turn leads to an inefficient overallocation of resources to the production of the good. This is the economic justification for government regulation of pollution.").

53. *See* 30 U.S.C. §§ 1201-1202 (summarizing the purpose of SMCRA and describing the negative consequences of coal mining activity).

The timing of SMCRA's passage is significant. Regulators were shifting to market-based approaches that forced firms to bear the social costs of their behavior and away from command-and-control regulations that simply mandated compliance.

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restore land affected by surface mining to "a condition capable of supporting the uses which it was capable of supporting prior to any mining."[54] This may involve replacing the topsoil,[55] restoring the "approximate original contour" of the land,[56] disposing mine wastes,[57] protecting the local hydrology,[58] and revegetating the surrounding area.[59] SMCRA also requires coal mine operators to obtain a permit and post a bond prior to the commencement of any mining activity.[60] Regulators can also inspect surface mines, impose penalties and fines, and require operators to forfeit bonds for violations of the Act.[61]

SMCRA's bonding requirement forces coal companies to post reclamation bonds to ensure that they will be able to restore a site's land to its original condition once mining concludes. The bond must be "sufficient to assure the completion of the reclamation plan if the work had to be performed by the regulatory authority,"[62] and regulators can revoke a permit if they establish that a coal company's failure to reclaim a mine site was "willfully caused" or "unwarranted."[63] These bonds serve two purposes. They ensure that the land will be reclaimed, and they force coal companies to internalize the environmental costs associated with mining.

SMCRA permits coal companies to post three kinds of bonds to satisfy this requirement: surety bonds, collateral bonds, and self-bonds. A surety bond is a third-party guarantee.[64] It is basically a form of insurance that pays out to the government in the event that the mining company fails to reclaim the land.

See Robert N. Stavins, *Experience with Market-Based Environmental Policy Instruments*, *in* 1 HANDBOOK OF ENVIRONMENTAL ECONOMICS 355, 358-62 (Karl-Gorän Mäler & Jeffrey R. Vincent eds., 2003) (describing the history of environmental regulation and the shift in the 1970s toward market-based approaches); Robert Stavins, *Market-Based Environmental Policies: What Can We Learn from U.S. Experience (and Related Research)?*, *in* MOVING TO MARKETS IN ENVIRONMENTAL REGULATION: LESSONS FROM TWENTY YEARS OF EXPERIENCE 19, 19 (Jody Freeman & Charles D. Kolstad eds., 2006) (explaining that command-and-control regulations "allow relatively little flexibility" and "force firms to take on similar shares of the pollution control burden, regardless of the cost").

54. 30 U.S.C. § 1265(b)(2).
55. *See id.* § 1265(b)(5)-(6).
56. *See id.* § 1265(b)(3).
57. *See id.* § 1265(b)(10)-(11).
58. *See id.* § 1265(b)(10).
59. *See id.* § 1265(b)(19)-(20).
60. *See id.* §§ 1256(a), 1259(a).
61. *See id.* §§ 1259, 1267-1268.
62. *See id.* § 1259(a); 30 C.F.R. §§ 800.11, .14 (2018).
63. *See* 30 U.S.C. § 1271(a)(4).
64. *See* 30 C.F.R. § 800.20 (outlining the requirements governing surety bonds for purposes of SMCRA).

A collateral bond involves posting assets as collateral.[65] If the coal company fails to reclaim the land, the government can seize the posted assets and use the proceeds obtained from their sale to restore the land.[66] The third type of bond, a self-bond, allows a coal company to act as guarantor of its own reclamation obligations.[67] Unlike surety and collateral bonds, self-bonds do not provide particular sources for repayment in the form of third-party guarantees or tangible assets.[68]

For this reason, SMCRA states that a company can use self-bonds only when it can establish that it is in good financial health.[69] As a result, since a company that uses self-bonds merely commits to performing reclamation work without posting collateral, the company must meet certain metrics of financial health.[70] Leading up to their bankruptcy filings, many coal companies had used self-bonds far more frequently than they had used surety or collateral bonds. We would expect coal companies to prefer self-bonding because it frees up assets that would otherwise be used to collateralize a company's reclamation obligations.[71] A number of states enforcing SMCRA have secured billions of dollars of reclamation obligations in self-bonding programs.[72]

The total value of self-bonded reclamation obligations is sizable. By 2015, the four largest coal companies totaled nearly $2.8 billion in self-bonds.[73]

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65. *See id.* § 800.21 (outlining the requirements governing collateral bonds for purposes of SMCRA).

66. *See id.* § 800.50 (allowing the government to seize performance bonds, use the funds to reclaim land, and hold the coal company liable for any remaining costs if the "amount forfeited is insufficient to pay for the full cost of reclamation").

67. *See id.* § 800.23.

68. *See id.*

69. Specifically, a company can post a self-bond and thereby avoid identifying a guarantor or posting tangible collateral only if it has been in continuous operation for five years, has an "A" rating or higher from Moody's or S&P, has a ratio of total liabilities to net worth of 2.5 or less, and a ratio of current assets to current liabilities of 1.2 or greater. *Id.*

70. *See* 30 U.S.C. § 1259(c) (2017); 30 C.F.R. § 800.23.

71. *See* BONOGOFSKY ET AL., *supra* note 15, at 11; *see also, e.g.*, Peabody Energy Corp., Quarterly Report (Form 10-Q), at 30 (May 11, 2017) ("[T]he Company's ability to self-bond reduces the Company's costs of securing reclamation obligations and enhances liquidity to the extent alternate forms of bonding would require the Company to post collateral.").

72. *See* Ensuring That Companies with a History of Financial Insolvency, and Their Subsidiary Companies, Are Not Allowed to Self-Bond Coal Mining Operations, 81 Fed. Reg. 31,880, 31,880-81 (proposed May 20, 2016) (to be codified at 30 C.F.R. pt. 800) ("According to the most recent data from the States, outstanding self-bond obligations total approximately $3.86 billion . . . ."); *see also* 30 U.S.C. §1253(a)(2) (requiring state SMCRA programs to meet minimum federal standards concerning bond forfeiture).

73. *See infra* Table 1.

For example, the largest of those companies, Peabody, had guaranteed more than $1.43 billion in self-bonds by the end of 2015.[74] This was approximately 71% of its total reclamation obligations.[75] At that time, Peabody's total reported net worth was only $918.5 million.[76]

Table 1
Reclamation Bond Totals for the Top Four Coal Companies in the United States (in millions of dollars)[77]

Company	Surety Bonds	Collateral Bonds	Self-Bonds
Peabody Energy[78]	$293	$299	$1,431
Arch Coal[79]	$155	$11	$486
Cloud Peak Energy[80]	$434	$0	$200
Alpha Natural Resources[81]	$399	$212	$676
Total	**$1,281**	**$522**	**$2,793**

In theory, SMCRA forces coal companies to internalize some of the environmental costs of surface mining by requiring a financial guarantee that they will reclaim degraded land. Operational costs are reduced for companies more likely to reclaim mine sites because surety companies will offer favorable rates to those that meet their obligations. In this way, reclamation bonds take advantage of market forces because they encourage coal companies to compete to develop more efficient reclamation plans. Thus, SMCRA attempts to align coal companies' financial interests with society's interest in preserving environmental quality.

74. *See* Peabody Energy Corp., Annual Report (Form 10-K), item 1A, at 25 (Mar. 15, 2016).

75. *See infra* Table 1 (showing that Peabody's $1.43 billion of self-bonds are part of a total of $2.02 billion in reclamation bonds of all types, or 71%).

76. Peabody Energy Corp., Annual Report (Form 10-K), item 6, at 47 (Mar. 15, 2016).

77. For Peabody, Arch, and Cloud Peak, the totals are as of December 31, 2015. For Alpha, the totals are as of December 31, 2014.

78. *See* Peabody Energy Corp., Annual Report (Form 10-K), at F-68 (Mar. 15, 2016).

79. *See* Arch Coal, Inc., Annual Report (Form 10-K), item 7, at 76 (Mar. 15, 2016); *id.* at F-34.

80. *See* Cloud Peak Energy Inc., Annual Report (Form 10-K), item 1, at 14 (Feb. 17, 2016).

81. *See* Alpha Nat. Res., Inc., Annual Report (Form 10-K), item 7, at 84 (Feb. 26, 2015); *see also* BONOGOFSKY ET AL., *supra* note 15, at 18 tbl.6. Alpha's reporting to the SEC combines surety and collateral bonds for mine reclamation with similar bonding for workers' compensation and retiree health care obligations, without a clear division. Thus, these two numbers overstate Alpha's environmental liabilities.

In reality, however, self-bonding undermines this regulatory scheme. The ability to self-bond makes it less likely that coal companies will actually internalize the costs of abandoning mine sites. Because self-bonds are not secured by any assets, they provide scant assurance that coal companies will reclaim the degraded land if they go bankrupt. When a mine operator declares bankruptcy, the government may not be able to recover the full value of the company's reclamation obligations because self-bonds are treated like unsecured debt.[82]

Self-bonding is ineffective. When a company's financial position deteriorates and it is no longer eligible for self-bonding, it also lacks the financial resources to post surety or collateral bonds.[83] Once a company becomes financially distressed, regulators may become reluctant to require the company to cease operating if it is unable to obtain a surety bond, or if acquiring a surety bond would force the company into greater financial distress.[84] This dynamic occurs because if a mining company continues to operate, it will at least be able to generate some revenue to offset the ongoing costs of reclamation. But if regulators force the company to shut down its operations, they might thereby reduce the company's liquidity and push the company into bankruptcy. At that point, it is unlikely that the company would be able to pay the full value of its bonds.[85] The Executive Director of the Interstate Mining Compact

82. Federal regulations aim to ensure that self-bonding does not allow coal companies to foist reclamation costs onto taxpayers. Specifically, if an applicant's or guarantor's financial condition changes at any time during the period of the self-bond such that the requirements are no longer met, the permittee is required to notify the regulatory authority immediately and post an alternate form of bond within ninety days, or be forced to cease coal extraction. *See* 30 C.F.R. §§ 800.16(e), .23(g) (2018). In the case of Alpha Natural Resources, however, the company filed for bankruptcy before the end of the ninety-day compliance period, negating the effectiveness of an enforcement action. *See* Press Release, W. Va. Dep't of Envtl. Prot., WVDEP and Alpha Natural Resources Reach Agreement Related to Self-Bonded Mine Reclamation Obligations (Dec. 8, 2015), https://perma.cc/57KY-CKZL.

83. *See* BONOGOFSKY ET AL., *supra* note 15, at 11-13.

84. Although federal regulations permit companies that fall out of compliance with the self-bonding requirements to either put forward an alternative bond (such as a surety) or cease operating, *see* 30 C.F.R. §§ 800.16(e), .23(g), it may not be possible to obtain a surety bond once a company is already in financial distress. The same factors that make a self-bond risky to taxpayers also create risks for surety companies, which may be unwilling to provide sureties in such circumstances—at least not at a price that a failing mining company could afford. *See, e.g.*, Spencer Cutter & Yuanliang Huang, *Bonding Needs May Accelerate Coal Crunch*, BLOOMBERG PROF. SERVS. (Aug. 2, 2015), https://perma.cc/YG3Y-X354 (noting that Alpha "may be challenged to find a company willing to take on the credit risk related to providing reclamation bonds" after the Wyoming Department of Environmental Quality determined that Alpha no longer qualified for self-bonding).

85. The U.S. Bankruptcy Court for the Eastern District of Virginia noted this reality while upholding a settlement agreement between West Virginia and Alpha: "If the Debtors

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Commission described this situation as "a classic Catch-22: if the state chooses to insist on alternative financial assurances or collateral as a result of the company's diminished financial situation, the threat to the company's financial solvency would only increase."[86]

Thus, ex ante, we would expect state regulators to want coal companies to internalize the costs of environmental regulations so that they do not leave taxpayers with unreclaimed mine sites. But after environmental liabilities reach a certain size and a coal company cannot afford to actually reclaim damaged land, state regulators' incentives change: Regulators now want the company to continue mining in the hope that additional revenue will offset at least some of the reclamation costs that will otherwise fall on taxpayers. Moreover, once a coal company finds itself in a financially precarious situation, it has an incentive to continue to expand as rapidly as possible, because the larger its unclaimed environmental obligations, the more desperate state regulators will be to find a way for the company to stay in business.

This pattern played out repeatedly in the recent wave of coal company bankruptcies. Just as the market for coal began to contract, large coal companies in precarious financial positions expanded dramatically.[87] These acquisitions increased the number of sites each coal company mined, which in turn increased their reclamation costs and left regulators even more fearful that the failure of any company would leave taxpayers on the hook for billions of dollars in cleanup costs.[88]

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were to lose the litigation with West Virginia, they would be required to immediately post over $244 million in substitute bonds in order to continue mining in West Virginia." *In re* Alpha Nat. Res., Inc., 544 B.R. 848, 857, 859 (Bankr. E.D. Va. 2016).

86. Gregory E. Conrad, Interstate Mining Compact Comm'n, Mine Reclamation Bonding—From Dilemma to Crisis to Reinvention: What's a State Regulator to Do? 9 (2014), https://perma.cc/2V7E-R8BG.

87. Coal prices reached a peak in 2011 and then declined. *See Coal Data Browser*, U.S. ENERGY INFO. ADMIN., https://perma.cc/3S2J-R5J8 (to access data, click "View the live page," then select the "Market average price" dataset). This was precisely when large coal companies began expanding at a rapid pace. *See, e.g.*, Michael Erman & Ann Saphir, *Alpha Agrees to Buy Massey Energy for About $7.1 Billion*, REUTERS (Jan. 29, 2011, 5:44 PM), https://perma.cc/QY58-ADJ3; Steve James, *U.S. Coal Miner Alpha Buying Rival Foundation*, REUTERS (May 12, 2009, 7:32 AM), https://perma.cc/P5BM-BNEX (reporting Alpha's offer to acquire Foundation Coal Holdings for $1.5 billion); Chris V. Nicholson, *Arch Coal to Buy International Coal for $3.4 Billion*, N.Y. TIMES: DEALBOOK (updated May 2, 2011, 6:40 PM), https://perma.cc/R3LA-22CP; Mark Scott, *Peabody Energy Wins Full Control of Macarthur Coal*, N.Y. TIMES: DEALBOOK (Nov. 16, 2011, 5:55 AM), https://perma.cc/B9ZV-YCQL.

88. This is consistent with the view in bankruptcy literature that a company's incentive to take outsize risks increases as it approaches bankruptcy. *See, e.g.*, Viral V. Acharya et al., *Creditor Rights and Corporate Risk-Taking*, 102 J. FIN. ECON. 150, 151-52 (2011) (showing that companies in distress seek to acquire high-recovery assets to delay default); Barry E. Adler, *Bankruptcy and Risk Allocatio*n, 77 CORNELL L. REV. 439, 448 n.31 (1992) (explaining that because equity holders are residual claimants and will likely receive no

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Before the major coal companies began filing for bankruptcy in 2015, only 10% of land disturbed by surface mining in Montana, North Dakota, and Wyoming had been fully reclaimed.[89] Roughly a third of disturbed land had seen no reclamation activity whatsoever.[90] As described in Part II.B below, the recent slate of bankruptcies has allowed some coal companies to get rid of these obligations altogether.

B. The Coal Act

In addition to their environmental obligations, coal companies are also required to provide lifetime health care benefits and pensions to retired miners under the Coal Act.[91] The Coal Act is similar to SMCRA in that it aims to force companies to internalize some of the deleterious health effects of coal mining. If expansion would only make economic sense if the company did not have to provide these health benefits, then the costs imposed by the Coal Act would deter the company from expanding—at least in theory, assuming that the company actually has to pay these costs.

The coal industry's commitment to fund health care and pension obligations to coal miners was only secured after a protracted battle between coal companies and miners unions. In the late 1980s, it was not clear that coal companies would continue to provide health care benefits to retired miners.[92] Increased medical costs, consolidation in the coal industry, and a flood of new retirees contributed to a deficit of $114.7 million owed to retirees.[93] This deficit was projected to increase to $300 million by 1993.[94] And coal companies threatened to default on these obligations.[95] At the time, 120,000 retirees were receiving benefits from coal companies.[96]

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compensation in bankruptcy, they would rather pursue risks with any opportunity for profit over bankruptcy).

89. "Of [the] 450 square miles of disturbed land in Montana, North Dakota and Wyoming, only 46 square miles" have been sufficiently restored to achieve bond release. BONOGOFSKY ET AL., *supra* note 15, at 4.

90. *See id.* at 7 tbl.1.

91. *See* Coal Industry Retiree Health Benefit Act of 1992, Pub. L. No. 102-486, tit. XIX, subtitle C, 106 Stat. 2776, 3036-56 (codified as amended at I.R.C. §§ 9701-9722 (2017); and 30 U.S.C. §§ 1231-1232 (2017)).

92. *See Coal Commission Report on Health Benefits of Retired Coal Miners: Hearing Before the Subcomm. on Medicare & Long-Term Care of the S. Comm. on Fin.*, 102d Cong. 194-96 (1991).

93. *See id.* at 155.

94. *Id.*

95. *See id.* at 133, 155, 278.

96. *Id.* at 278.

This set the stage for a congressional intervention. The Coal Act was not the first time Congress stepped in to require that companies take action to mitigate the health and safety risks of coal mining,[97] but it was the first time that the federal government required that the coal companies provide postretirement benefits for all miners.[98] The Coal Act requires employers who had been providing benefits to coal miners to continue to do so for the life of all beneficiaries who retired before October 1994.[99] The Act also provides benefits to coal miners who were not covered by the union agreements.[100]

In addition, the Act guarantees a minimum level of benefits.[101] Any company that had employed miners under a previous UMWA coal wage agreement is required to participate in the benefit program.[102] If the employer is defunct, responsibility is reallocated to any entity that was a "related person" to the employer on the date that the signatory employer went out of business.[103] This means that any company that has ever employed a given coal miner—or is connected with a company that had—can be held responsible for that individual's Coal Act benefits. Insolvency is therefore not supposed to be an avenue to circumvent the obligations.

Like SMCRA, the Coal Act permits coal companies to defer payment on their regulatory liabilities. Pensions and health care services owed to retired miners often do not come due for a number of years because benefits are paid periodically throughout a miner's retirement.[104] While companies will be more likely to have funds available if they allocate money beforehand, the Coal Act does not require them to do so. Coal companies' unwillingness to fully fund these obligations before they are due has contributed to numerous congres-

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97. *See, e.g.*, Federal Coal Mine Health and Safety Act of 1969, Pub. L. No. 91-173, § 101(a), 83 Stat. 742, 745 (codified as amended at 30 U.S.C. § 811(a) (2017)) (directing the Secretary of the Interior to "develop, promulgate, and revise . . . mandatory health standards"); Act of Mar. 3, 1891, ch. 564, 26 Stat. 1104 (establishing minimum ventilation requirements for underground mines and prohibiting the employment of children under the age of twelve).

98. *See* John R. Woodrum, *Retiree Health Benefits in the Coal Industry: A Final Solution to the High Cost of Easy Promises?*, *in* 28 ENERGY & MINERAL LAW FOUND., ANNUAL INSTITUTE 219, 220 (2008) ("The impending crisis ultimately resulted in enactment of the [Coal Act], the first and (to date) only time Congress has intervened to elevate a private-party contractual promise to provide retiree health benefits into a statutory obligation.").

99. *See* I.R.C. § 9711(a)-(b) (2017).

100. *See id.* §§ 9711(a)-(b), 9712.

101. *See id.* § 9704(a)-(b).

102. *See id.* §§ 9701(c), 9706.

103. *See id.* §§ 9701(c)(2)(A), 9704(a), 9706(a).

104. *See* OFFICE OF INSPECTOR GEN., U.S. DEP'T OF THE INTERIOR, REP. NO. C-IN-OSM-0044-2014A, OVERSIGHT OF ANNUAL FUND TRANSFER FOR MINER BENEFITS NEEDS IMPROVEMENT 14-15, 32 (2017), https://perma.cc/K6DP-SLJN.

sional interventions.[105] As shown in Part II.B below, the ability to defer payment is a crucial factor that has allowed coal companies to evade these regulatory liabilities.

C. Bankruptcy: A Primer

The goal of corporate bankruptcy, according to the law and economics literature, is to maximize the expected value of the pool of assets that will ultimately be divvied up among creditors.[106] This goal originates with the Creditors' Bargain Theory, which argues that reorganization should be "designed to mirror the agreement one would expect the creditors to form among themselves were they able to negotiate such an agreement from an *ex ante* position."[107]

The Creditors' Bargain Theory provides a coherent justification for the use of collective proceedings in bankruptcy. The theory posits that bankruptcy is necessary for a single reason: By temporarily shielding the debtor's assets from its creditors, the Code "prevent[s] a race that rewards the first creditor to the courthouse, it avoids dismemberment of a firm with going-concern value and [it] facilitates a collective proceeding in which the parties (debtor and creditors) can negotiate the terms under which the firm will continue as a going concern."[108] The idea is that when a debtor does not have enough assets to pay all its creditors, a tragedy of the commons ensues. Each creditor will worry that it will not be paid, so it rushes to collect whatever assets it can. Creditors take what is available without thinking about how to maximize the total value of the debtor. Although a few creditors might come out ahead, most will not, because this rush to the courthouse will destroy the company—even if it is still viable. This situation harms creditors ex post because the assets that are distributed may be worth less piecemeal than as a going concern.[109] It will also harm the debtor ex ante by making creditors insist on harsher credit terms in

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105. *See id.*

106. *See* Jackson, *supra* note 29, at 864-67; *see also supra* text accompanying notes 27-31.

107. Jackson, *supra* note 29, at 860.

108. Franklin R. Edwards & Edward R. Morrison, *Derivatives and the Bankruptcy Code: Why the Special Treatment?*, 22 YALE J. ON REG. 91, 95 (2005).

109. Railroads are a commonly discussed example in which assets are ultimately worth less if creditors race to the courthouse to collect the assets over which they have a claim. This is because a railroad's creditors historically had a security interest on a small part of its tracks. But railroad tracks are worth hardly anything unless they can be used to operate a railroad. *See* DAVID A. SKEEL, JR., DEBT'S DOMINION: A HISTORY OF BANKRUPTCY LAW IN AMERICA 48-69 (2001); Douglas G. Baird & Robert K. Rasmussen, Essay, *Control Rights, Priority Rights, and the Conceptual Foundations of Corporate Reorganizations*, 87 VA. L. REV. 921, 925-36 (2001); Douglas G. Baird & Robert K. Rasmussen, *The End of Bankruptcy*, 55 STAN. L. REV. 751, 759-60 (2002).

order to compensate for the risk that they will not get paid. The Creditors' Bargain Theory thus justifies bankruptcy law for supplying the terms of the contract that the parties would have agreed to if they had been able to negotiate with each other ex ante.[110]

According to Douglas Baird,[111] Thomas Jackson,[112] and other adherents of the Creditors' Bargain Theory, the Bankruptcy Code realizes this ideal through the automatic stay,[113] the prohibition on fraudulent transfers,[114] and the absolute priority rule.[115] When a company files a petition for bankruptcy, the automatic stay operates as an injunction that halts all actions by creditors.[116] The stay prevents creditors from collecting debts, seizing the debtor's assets, or otherwise "exercis[ing] control over the property."[117] The stay is designed both to provide relief to a struggling debtor and to prevent creditors from rushing to collect assets in a manner that will destroy the value of the firm.

The rule against fraudulent transfers serves a similar purpose. This rule prohibits debtors from making payments shortly before bankruptcy that are designed to place certain assets outside the reach of creditors.[118] For instance, a debtor may decide to pay her sister shortly before filing for bankruptcy, or she may repay a bank, even if she cannot repay her other creditors, in the hope that the bank will continue to do business with her after she emerges from bankruptcy. Not only are such tactics unfair to the other creditors, but the prospect that a firm will pay favored creditors first will exacerbate the "race to the courthouse" problem that justifies the automatic stay. If creditors fear that debtors will pay certain creditors first, they may demand early repayment from debtors who are not insolvent but who may be experiencing financial

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110. *See* THOMAS H. JACKSON, THE LOGIC AND LIMITS OF BANKRUPTCY LAW 16-17 (1986) (explaining why creditors would agree to a system that halts the race to the courthouse and distributes assets in a way that maximizes the total value of the firm).

111. *See* Douglas G. Baird, *The Uneasy Case for Corporate Reorganization*, 15 J. LEGAL STUD. 127, 127 (1986) ("An analysis of corporate reorganizations should properly begin with a discussion of whether all those with rights to the assets of a firm (be they bondholders, stockholders, or workers) would bargain for one if they had the opportunity to negotiate at the time of their initial investment.").

112. *See* JACKSON, *supra* note 110, at 5 ("The goal [of bankruptcy] is to permit the owners of assets to use those assets in a way that is most productive to them *as a group* in the face of incentives by individual owners to maximize their own positions. Not all debt-collection rules are created equal.").

113. *See* 11 U.S.C. § 362 (2017).

114. *See id.* § 548.

115. *See id.* § 507.

116. *See id.* § 362(a).

117. *See id.* § 362(a)(2)-(6).

118. *See id.* § 548. For a detailed analysis of this provision, its scope, and its justification, see generally Baird & Jackson, *supra* note 30.

hardships. If every creditor does this at the same time, an otherwise solvent debtor may *become* insolvent because she may be unable to get a fair return for her assets if she is forced to sell them all at once. While creditors might theoretically agree to arrangements that would prevent this kind of self-interested behavior if they were able to bargain about distribution ex ante, once a firm actually files for bankruptcy, individual creditors will rush to get whatever they can get from the firm. The Bankruptcy Code is therefore intended, at least in theory,[119] to mitigate these pathologies and maximize the total worth of an insolvent firm's assets.

Whereas the automatic stay and the prohibition against fraudulent conveyances ensure that a debtor's assets are shielded from its creditors, the absolute priority rule governs the ultimate distribution of an insolvent debtor's assets. The rule entitles senior creditors to be paid in full before junior creditors receive anything.[120] In practice, creditors often deviate from the absolute priority rule by negotiating restructuring support agreements—ex post agreements.[121] In other words, the absolute priority rule is the default rule, but parties can contract for other terms after a debtor files for bankruptcy.[122]

In a Chapter 11 reorganization, the parties can agree to whatever new arrangement they wish, subject to a few conditions. First, the creditors and debtors must be divided into classes based on the seniority and character of their claims.[123] Each class votes separately on any proposed reorganization

119. There is a robust body of scholarship arguing that the Bankruptcy Code fails to actually prevent creditors from partitioning off assets, and that certain insiders or privileged creditors can contract around the Code's provisions in a manner that harms the creditor group as a whole. *See, e.g.*, Douglas G. Baird & Anthony J. Casey, *No Exit?: Withdrawal Rights and the Law of Corporate Reorganizations*, 113 COLUM. L. REV. 1, 5-8 (2013).

120. *See* 11 U.S.C. § 1129(b)(2)(B)(ii).

121. *See* Kenneth Ayotte et al., *Bankruptcy on the Side*, 112 NW. U. L. REV. 255, 264-73 (2017) (summarizing cases where creditors have deviated from the absolute priority rule); Douglas G. Baird, *Bankruptcy's Quiet Revolution*, 91 AM. BANKR. L.J. 593, 603 (2017) ("[S]ecured creditors have . . . discovered that they could increase their control over the debtor . . . through the use of restructuring support agreements."); David A. Skeel, Jr. & George Triantis, *Bankruptcy's Uneasy Shift to a Contract Paradigm*, 166 U. PA. L. REV. 1777, 1780-81 (2018) ("While the Code and bankruptcy practice allow for ex post contracting, they provide little encouragement for ex ante contracts.").

122. *See* Skeel & Triantis, *supra* note 121, at 1789-98 (explaining the theory and current practice of ex post contracting).

123. *See* 11 U.S.C. § 507 (establishing a priority of interests); *id.* § 1129(a)(7)-(8) (requiring that every class vote to approve a proposed reorganization).

plan.[124] Second, the plan must be approved by creditors in each class that own two-thirds of the value of the debt for that class and that also constitute a majority of individual creditors for that class.[125]

It is worth noting that all of these rules assume that the purpose of bankruptcy is to allow the debtor to access credit and to allow the creditor to receive a return on her investment. This assumption is often true, but the pervasiveness of this view suggests that bankruptcy scholarship and the legal framework governing bankruptcy insufficiently contemplate debts that are primarily intended to further policy goals unrelated to capital formation. As the rest of this Article shows, this assumption may not apply to regulatory debts. Creditors whose goal is to make money will prefer—and vote in favor of—a reorganization agreement that maximizes their return on investment. However, creditors who value a corporation's compliance with its regulatory obligations may choose terms accordingly, even if compliance comes at the expense of future profits.

D. Local Impacts of Coal Company Bankruptcies

Bankruptcy does not eliminate the social losses that arise when a corporation fails. Rather, it allocates losses between various stakeholders. Part II below describes the financial and legal strategy that coal companies have used to shed at least $1.9 billion in environmental liabilities, as well as $3.2 billion in pension, health care, and other retiree benefits.[126] But these monetary figures do not fully convey how much damage this behavior has caused: The strategies coal companies have used to get rid of their regulatory obligations have imposed real human costs on the communities and workers associated with the mines. Unlike traditional creditors in a bankruptcy, who bear the costs of bankruptcy in the form of lowered investment performance, the communities affected by coal companies' bankruptcies bear these costs in the form of worse health, poor financial security, and diminished land and water quality. Thus, while every bankruptcy forces stakeholders to bear the costs of the failing firm, regulatory discharges often impose those costs on third parties. The farmers whose livelihoods are threatened by surface mining were not involved in the insolvent firm, yet they bear many of the costs of its insolvency—despite the existence of regulations intended to prevent that from happening.

Although many coal miners were promised lifetime health benefits, coal companies have evaded their retiree liabilities, leaving many retired miners to face debilitating diseases and disabilities on their own. In many cases, miners

124. *See id.* § 1126.

125. *See id.* § 1126(c).

126. *See infra* Part II.

became sick or disabled as a direct result of the hazards of coal mining. Consider the example of West Virginia resident Alfred Price, who spent nearly thirty years working for Peabody.[127] Mining exposed Price to a neurotoxic chemical called polyacrylamide, which has caused memory loss and severe mood swings, and has left him cognitively impaired.[128] Peabody's bankruptcy has allowed the company to avoid covering Price's health care costs and to cut his pension.[129] Or consider Carlyn Rehbein, who spent twenty-seven years working at Peabody's Illinois mines, and now suffers from lung cancer.[130] Peabody transferred the liabilities for his health care benefits to Patriot, which then went through its own bankruptcies.[131] In Rehbein's own words, "I ate coal dust and rock dust for 27 years and was promised all these benefits, and now they're trying to back out."[132]

The discharge of liabilities extends beyond health care to pensions as well, causing financial security issues for many retired miners. Roger Merriman worked in the coal industry for twenty-eight years.[133] As a result of Patriot's two bankruptcies, he was slated to lose both his pension and health care benefits, putting him and his wife in an untenable position.[134] Merriman described the difficulty his family was facing: "We'll have to make a choice of whether [we're] going to the doctors and buying prescriptions or paying bills and eating. It's a life and death situation realistically is what it is."[135] Price, Rehbein, and Merriman are representative of thousands of coal mining families across the country.[136] Coal companies promised their employees that career miners would have their needs taken care of in old age. Recent bankruptcies show that the companies are reneging on that deal.

Moreover, coal companies have evaded their environmental liabilities, leaving a legacy of damaged land and polluted water—the burden of which falls on local communities. L.J. Turner, a Wyoming rancher, saw his whole livelihood displaced by the arrival of mining activities near his land.[137] Since

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127. Emily Sanders, *Forget the War on Coal. The War Is on Miners.*, GRIST (Mar. 31, 2017), https://perma.cc/XG6D-FS3J.

128. *Id.*

129. *Id.*

130. Jacob Barker, *Peabody Retirees Again Face Loss of Benefits*, ST. LOUIS POST-DISPATCH (Nov. 7, 2015), https://perma.cc/XM9Z-NS44.

131. *Id.*

132. *Id.*

133. Kara Lofton, *Retired Coal Miners at Risk of Losing Promised Health Coverage and Pensions*, NPR: SHOTS (Dec. 8, 2016, 4:43 PM ET), https://perma.cc/B83D-C45W.

134. *Id.*

135. *Id.*

136. *Id.*

137. BONOGOFSKY ET AL., *supra* note 15, at 22.

the 1930s, his family has grazed livestock on the same assigned public lands. Six thousand acres of that land were turned over to coal mining operations, displacing Turner's cattle and sheep herds.[138] The mining operations also choked off the water supply. Spring-fed streams that flowed since Turner was a young child have dried up because of depressurization from mining. Turner has been forced to spend nearly $250,000 to drill wells to provide his animals with water.[139]

In another example, Peabody's Gold Fields subsidiary is responsible for a hazardous waste site in Caney, Kansas, where smelter waste was stockpiled.[140] Peabody discharged cleanup costs for the site as part of its bankruptcy. The site, which is located next to Caney High School, continues to leach almost 4,500 gallons of metals-contaminated water per month.[141] Peabody's abandonment of the property is likely to lead to the malfunction of the current leachate containment system, causing more contaminated water to spread to the high school and surrounding residences.[142] In short, liability discharges pose real threats to public health, the environment, and the livelihoods of surrounding communities.

II. How Coal Companies Avoid Federal Regulation Through Bankruptcy

By requiring coal companies to internalize some of the social costs of mining, SMCRA and the Coal Act theoretically force coal companies to make business decisions with these costs in mind. In practice, however, coal companies have been able to avoid these costs by strategically using bankruptcy to evade federal regulatory liabilities. This Part examines the recent history of the industry to explain how this has happened.

Time and again, coal companies have relied on a consistent strategy to evade their regulatory obligations. Coal companies either file for bankruptcy themselves, or they spin off or sell underfunded subsidiaries laden with environmental and retiree obligations. When a company files for bankruptcy, it will try to discharge its regulatory obligations. When a coal company spins off a subsidiary, which can happen in a reorganization or in the normal course of business, the new company typically declares bankruptcy after a short period of time. At that point, the short-lived spin-off abandons its regulatory

138. *See id.*

139. *Id.*

140. *See* Governments' Objection to Second Amended Joint Plan of Reorganization, *supra* note 10, at 10.

141. *Id.*

142. *See id.*

obligations, making it very difficult to hold the original entity responsible for those obligations. The result is that individual coal companies continue to operate—and generate new reclamation and retiree obligations—despite their failure to honor their existing obligations.

This Part traces the bankruptcy process of four large coal companies. Part II.A explains the methodology used to determine when a company is insolvent. Part II.B provides a broad history of coal company bankruptcies and conducts a financial analysis of Peabody, Patriot, Alpha, and Arch to explain the strategies adopted by coal companies to use bankruptcy to avoid their regulatory obligations. Part II.C explains which provisions of the Bankruptcy Code were used to effect this strategy.

A. Methodology

It is important to clarify at the outset how we use the term "insolvency." There is considerable debate about when a firm becomes insolvent.[143] Broadly speaking, courts employ two tests—the balance sheet test and the cash flow test—to make this determination.[144] Under the balance sheet test, a bankruptcy judge determines whether the fair market value[145] of a corporation's liabilities exceeds the fair market value of its assets.[146] This definition is consistent with

143. *See* Robert B. Millner, *What Does It Mean for Directors of Financially Troubled Corporations to Have Fiduciary Duties to Creditors?*, 9 J. BANKR. L. & PRAC. 201, 219 (2000) ("Insolvency . . . is a term with more than one meaning. . . . The practical problem here is that it is hard to determine when, exactly, a corporation becomes insolvent."); Myron M. Sheinfeld & Judy Harris Pippitt, *Fiduciary Duties of Directors of a Corporation in the Vicinity of Insolvency and After Initiation of a Bankruptcy Case*, 60 BUS. LAW. 79, 90 (2004) ("No court has provided a clear definition of what constitutes insolvency.").

144. *See* Brandt v. Hicks, Muse & Co. (*In re* Healthco Int'l, Inc.), 208 B.R. 288, 301-02 (Bankr. D. Mass. 1997) (explaining that the balance sheet test applies to questions of fraudulent conveyances while the cash flow test is used more frequently when determining whether a corporation's precarious financial condition has created a situation in which management owes fiduciary duties to the company's creditors); *see also* Julie E. Margret, *Insolvency and Tests of Insolvency: An Analysis of the "Balance Sheet" and "CashFlow" Tests*, AUSTL. ACCT. REV., July 2002, at 59, 59 ("National and international case law refers to two basic tests of insolvency: the 'balance sheet' test and the 'cashflow' test. While the former method is argued to be the bona fide test for insolvency, accounting principles fail to provide serviceable data for that function. Hence, the cashflow test is superior to the balance-sheet test principally because it quantifies the market worth of assets."). A corporation is also insolvent if it has "an unreasonably small capital." 11 U.S.C. § 548(a)(1)(B)(ii)(II) (2017).

145. Fair market value is the value an asset would fetch in the marketplace. It can be described as the price that a reasonable person interested in buying something would pay for it.

146. *See* 11 U.S.C. § 101(32); *see also, e.g.*, Akers v. Koubourlis (*In re* Koubourlis), 869 F.2d 1319, 1322 (9th Cir. 1989) (per curiam) ("Inability to pay debts in the ordinary course of business is insufficient to establish insolvency—there must be evidence that assets, at fair evaluation, exclusive of exempted property, are exceeded by the debts.");

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the definition of insolvency provided in the Bankruptcy Code.[147] It has also become the settled test for determining whether a prebankruptcy payment qualifies as a fraudulent conveyance.[148] By contrast, the cash flow test considers whether a corporation can "produce sufficient cash (which can be derived from continuing operations, disposition of assets, or other capital-raising activities) for the payments of debts as they mature."[149] Under the cash flow test, a company must be able to show that it can make good on its obligations as they come due.

In this Article, we apply a version of the balance sheet test to determine when coal companies became insolvent. We choose the balance sheet test for a few reasons. First, it comports with the definition of insolvency provided in the Bankruptcy Code: A company is legally insolvent when its liabilities exceed its assets.[150] By establishing that some coal companies became legally insolvent years before filing for bankruptcy, we show that they were only able to continue operating because their creditors assumed that they would be able to shed their environmental and retiree obligations. Second, because a company can fail the cash flow test even if it has a positive net worth, the balance sheet test establishes with greater certainty that the coal companies would no longer have been financially viable if they had accounted for their federal regulatory obligations.[151] Third, the balance sheet test measures whether a corporation

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Clarkson Co. v. Shaheen, 660 F.2d 506, 513 (2d Cir. 1981) ("[A] debtor is insolvent 'when the present fair salable value of his assets is less than the amount that will be required to pay his future liability of his existing debts as they become absolute and matured.'" (quoting N.Y. DEBT. & CRED. LAW § 271)).

147. *See* 11 U.S.C. § 101(32); *In re Healthco*, 208 B.R. at 301 (noting that statutory insolvency is "in essence, an excess of liabilities over the value of assets"). However, a few sections of the Code use the cash flow test. *See* 11 U.S.C. § 303(h)(1) (granting relief in an involuntary bankruptcy when "the debtor is generally not paying such debtor's debts as such debts become due unless such debts are the subject of a bona fide dispute as to liability or amount").

148. *See In re Healthco*, 208 B.R. at 301. A fraudulent conveyance is the illegal transfer of property to another party in order to defer, hinder, or defraud creditors, or to put such property out of the reach of a creditor. *See* 11 U.S.C. § 548. For instance, a fraudulent conveyance would occur if an individual sold certain possessions for an insignificant amount of money to a spouse, relative, business partner, or friend in order to reduce the pool of assets available to creditors.

149. Richard M. Cieri & Michael J. Riela, *Protecting Directors and Officers of Corporations That Are Insolvent or in the Zone or Vicinity of Insolvency: Important Considerations, Practical Solutions*, 2 DEPAUL BUS. & COM. L.J. 295, 310 (2004).

150. *See* 11 U.S.C. § 101(32); *see also* LaSalle Nat'l Bank v. Perelman, 82 F. Supp. 2d 279, 290 (D. Del. 2000) ("[A] corporation is insolvent when it is unable to pay its debts as they become due in the ordinary course of business.").

151. The balance sheet test is generally more stringent than the cash flow test because it is possible that a company will be unable to pay all of its debts even if its assets exceed its liabilities. This is because the cash flow test measures a company's liquidity. The balance sheet test, by contrast, measures the present value of a company's assets against

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has a positive net worth, whereas the cash flow test simply measures a company's ability to pay its debts. In doing so, the balance sheet test measures whether the market valuation of a company indicates that the company provides a good for which the demand exceeds the costs of production and financing. A corporation could provide value while failing the cash flow test if it cannot readily convert assets to cash, or if its debts are for some reason all due in a short period of time. However, failure to satisfy the balance sheet test indicates that the company has a negative present value.[152]

We use a more stringent version of the balance sheet test than that applied during bankruptcy proceedings. Specifically, we rely on asset and liability valuations reported by the coal mining companies in their SEC and bankruptcy filings—not the fair market valuation of the companies' assets and liabilities, which would more accurately indicate the companies' precarious financial condition. Corporations regularly inflate asset valuations and discount liabilities in their SEC filings.[153] As discussed below, these overvaluations were so significant in the cases of Peabody[154] and Alpha[155] that

the present value of its liabilities. If a significant percentage of a company's assets cannot be readily converted to cash, then the company may struggle to pay its debts as they come due even if its assets are worth more than its liabilities. By contrast, if assets are worth less than liabilities, then the company by definition cannot pay all of its debts as they are currently valued because the present value of expected future cash flows is less than the present value of expected future outlays. Of course, we recognize that a corporation can be balance sheet insolvent, in the sense that it records liabilities in excess of its assets, without ever filing for bankruptcy protection or otherwise reorganizing its debts. Market conditions can change, so it is possible for a corporation to avoid insolvency despite having been balance sheet insolvent at some point in time; here, this could occur if coal prices were to significantly increase. Alternatively, the market can undervalue the company's assets. However, in such a case, the company is actually balance sheet insolvent. The problem is that the company has been valued incorrectly by financial analysts.

152. One notable aspect of the coal company bankruptcies is that the ability to defer sizable regulatory debts allowed balance sheet insolvent companies to remain cash flow solvent for a period of time.

153. *See* William W. Bratton, *Enron and the Dark Side of Shareholder Value*, 76 TUL. L. REV. 1275, 1284-85 (2002) (discussing lax corporate accounting practices and tying those practices to Enron's collapse).

154. We discuss the unfeasibility of Peabody's reorganization plan in further detail in Part II.B below. It is worth noting that independent financial analysts hired by the Sierra Club have also raised doubts about the feasibility of Peabody's reorganization plan. *See* Limited Objection of Sierra Club to Second Amended Joint Plan of Reorganization of Debtors & Debtors in Possession at 10-11, *In re* Peabody Energy Corp., No. 16-42529-399 (Bankr. E.D. Mo. Mar. 9, 2017), ECF No. 2640 [hereinafter Sierra Club Limited Objection].

155. *See, e.g.*, Taylor Kuykendall, *In Bankruptcy Reorganization, U.S. Coal Giant Alpha Is Overstating Cash Flows by $100 Million, Regulators Say*, INST. FOR ENERGY ECON. & FIN. ANALYSIS (Nov. 17, 2016), https://perma.cc/XQ2Q-WG43 (reporting that the West Virginia Department of Environmental Protection discovered that Alpha had

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those companies might have been insolvent the second they emerged from bankruptcy had they provided an accurate accounting of their assets and liabilities. However, in order to avoid the critique that we ourselves employ misleading valuation techniques, we rely on the values reported by the companies themselves.

B. Recent History of Coal Bankruptcies

Since the mid-2000s, the U.S. coal mining industry has been in structural decline. Reduced demand for coal triggered a number of bankruptcies—an average of one per month—between 2012 and 2016.[156] Without a government bailout, the coal industry will likely continue to contract.[157] By the beginning of 2017, companies accounting for over 40% of ongoing U.S. coal production had gone bankrupt in the previous five years, including the first-, second-, and fourth-largest producers.[158] Additional bankruptcies have followed since.[159]

Coal was once the dominant fuel source for U.S. electricity, providing approximately 49% of all utility-scale generation in 2007.[160] By 2017, that number had fallen to 30%.[161] There is now widespread economic consensus that the coal industry can no longer compete with less expensive energy

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overstated cash flows by $100 million just three months after relying on those numbers to strike a deal with the company). Alpha ended up accounting for that $100 million shortfall by posting $15 million in additional collateral. *See* Press Release, W. Va. Dep't of Envtl. Prot., WVDEP and Alpha Natural Resources Reach $15 Million Settlement (Nov. 29, 2016), https://perma.cc/79WJ-DL2R.

156. *See* Mary Anne Hitt, *Coal Bankruptcy 101: Companies Are Leaving Workers and Communities in the Lurch*, HUFFINGTON POST: BLOG (updated Jan. 28, 2017), https://perma.cc/3TPY-8VC9; Dana Varinsky, *Nearly Half of US Coal Is Produced by Companies That Have Declared Bankruptcy—and Trump Won't Fix That*, BUS. INSIDER (Dec. 9, 2016, 11:09 AM), https://perma.cc/E9V4-QUFV.

157. *See, e.g.*, Scott DiSavino & Valerie Volcovici, *FirstEnergy Seeks Emergency Lifeline for U.S. Nuclear, Coal Plants*, REUTERS (Mar. 29, 2018, 9:10 AM), https://perma.cc/FYU6-488K ("Ohio-based FirstEnergy said it would shut several nuclear plants in Ohio and Pennsylvania in the next three years without some kind of state or federal relief.").

158. *See* U.S. ENERGY INFO. ADMIN., *supra* note 11, at 16 tbl.10.

159. *See, e.g.*, Matt Egan, *Coal Power Company Files for Bankruptcy and Asks Trump for Bailout*, CNNMONEY (Apr. 2, 2018, 2:50 PM ET), https://perma.cc/4KDB-YHEV (reporting the bankruptcy of FirstEnergy); Matt Egan, *First Coal Bankruptcy of Trump Era*, CNNMONEY (Nov. 1, 2017, 3:12 PM ET), https://perma.cc/SS4Y-HXPA ("Armstrong Energy is the first coal company to succumb to bankruptcy since Trump was elected nearly a year ago . . . .").

160. *See Table 3.1.A. Net Generation by Energy Source: Total (All Sectors), 2007-2017*, U.S. ENERGY INFO. ADMIN., https://perma.cc/QP4Q-F95V (archived Mar. 3, 2019).

161. *See id.*

sources.[162] According to a 2015 McKinsey & Company report, the coal industry's production capacity has vastly outpaced demand.[163] The report found that market conditions will make it difficult for the coal industry to service the $70 billion it has in outstanding debt.[164] Demand for coal dropped 27% in the five-year period between 2011 and 2016.[165] McKinsey predicts a decline in demand of more than 20% by 2020,[166] and Bloomberg has estimated that coal generation's market share will decline 70% over the next three decades.[167] As a result of this structural decline, over fifty coal companies have filed for bankruptcy protection since 2012, when Patriot Coal filed for Chapter 11 protection.[168]

Thus, our analysis does not show that the viability of the coal industry is predicated solely on its ability to use bankruptcy to evade federal regulatory requirements. Rather, this Article shows that bankruptcy has allowed coal companies to produce more coal and for longer than they otherwise would. The analysis below provides a history of recent bankruptcies and explains how they have allowed coal companies to evade their environmental obligations.

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162. *See, e.g.*, TREVOR HOUSER ET AL., COLUMBIA CTR. ON GLOB. ENERGY POLICY, CAN COAL MAKE A COMEBACK? 16, 18 (2017), https://perma.cc/L6BM-ZJZ7; TOM SANZILLO & DAVID SCHLISSEL, INST. FOR ENERGY ECON. & FIN. ANALYSIS, IEEFA 2017 U.S. COAL OUTLOOK: SHORT-TERM GAINS WILL BE MUTED BY PREVAILING WEAKNESSES IN FUNDAMENTALS 8 (2017), https://perma.cc/J8Y9-ZF3L; Ed Crooks & Joanna Kao, *The Future of Coal in Seven Charts*, FIN. TIMES (Sept. 19, 2017), https://perma.cc/B398-C79A; Eliza Griswold, *The Future of Coal Country*, NEW YORKER (July 3, 2017), https://perma.cc/R3JR-VKP5; Peter Morgan, *Trouble Behind, Trouble Ahead: The Post-Bankruptcy Coal Landscape*, SIERRA CLUB (Mar. 18, 2017), https://perma.cc/3TXP-VRNS.

163. *See* STEFAN REHBACH & ROBERT SAMEK, MCKINSEY & CO., DOWNSIZING THE US COAL INDUSTRY: CAN A SLOW-MOTION TRAIN WRECK BE AVOIDED? 3 (2015), https://perma.cc/7FUY-XRES ("The United States has plenty of coal, but the world does not need it.").

164. *See id.*

165. *See Coal Data Browser*, *supra* note 87 (to access data, click "View the live page," then select the "Total consumption" dataset).

166. REHBACH & SAMEK, *supra* note 163, at 3.

167. *See New Energy Outlook 2018: Overview*, BLOOMBERGNEF, https://perma.cc/NBU5-EN3R (archived Mar. 3, 2019) (predicting that coal will provide just 11% of global electricity generation by 2050).

168. *See Coal Bankruptcy: How WORC Took Advantage of an Unusual Opportunity and Won*, W. ORG. RESOURCE COUNCILS (June 16, 2017), https://perma.cc/SK2Y-RR84 ("The gusher of coal bankruptcies began around 2012, with the bankruptcy filings of 50 smaller companies . . . ."); Matt Daily & Caroline Humer, *Patriot Coal Files for Bankruptcy Protection*, REUTERS (July 9, 2012, 12:57 PM), https://perma.cc/DFW7-DU4J; Miller & Jarzemsky, *supra* note 11 ("The bankruptcy of St. Louis-based Peabody Energy Corp. came after similar filings by Arch Coal Inc., Alpha Natural Resources Inc., Patriot Coal Corp. and Walter Energy Inc., all of which have recently sought chapter 11 protection.").

1. Patriot Coal

Patriot Coal was formed out of mines spun off from Peabody Energy and Arch Coal. Peabody and Arch seem to have used Patriot to shed a large portion of their environmental and pension obligations.[169] When Patriot was initially spun off from Peabody, it inherited only 13% of Peabody's coal reserves but 40% of its health care liabilities.[170] These liabilities included $557 million in health care liabilities[171] as well as over $233 million in environmental liabilities.[172] In late 2008, Patriot acquired several additional Appalachian mines from the Magnum Coal Company, which had been formerly held by Arch Coal.[173] Many of the assets Patriot acquired were unprofitable[174] and had to be idled.[175] The Magnum mines were also heavily burdened with $500 million of retiree liabilities,[176] as well as environmental liabilities. As the bankruptcy judge observed in Patriot's first reorganization, Arch's spin-off of Magnum to Patriot "allowed Arch to assign to Magnum only 12.3% of its assets but also, 96.7% of Arch's retiree health care liabilities."[177] Two years after its formation, Patriot had amassed over $2 billion in environmental and retiree obligations that had

169. *See In re* Patriot Coal Corp., 492 B.R. 518, 528 (Bankr. E.D. Mo. 2013) ("Debtors announced that they will seek to terminate eight traditional retiree health plans, eliminate its medical premium reimbursement program and eliminate life insurance coverage for active employees upon retirement."); Fourth Amended Disclosure Statement for Debtors' Fourth Amended Joint Plan of Reorganization Pursuant to Chapter 11 of the Bankruptcy Code at 3, *In re* Patriot Coal Corp., No. 15-32450 (KLP) (Bankr. E.D. Va. Sept. 18, 2015), ECF No. 1333 [hereinafter Patriot Fourth Amended Disclosure Statement]. *See generally* Mike Elk, *In the Coal Fields, a Novel Way to Get Rid of Pensions Is Born*, WORKING IN THESE TIMES (Dec. 31, 2012, 1:45 PM), https://perma.cc/UG76-KRLE ("In 2007, Peabody Energy spun off a new company, Patriot Coal, which inherited 10 unionized mines . . . [and] $557 million in healthcare obligations to UMWA retirees.").

170. *See* Alec MacGillis, *Peabody Energy's Coal Train Has Hauled Health-Care Benefits Away*, NEW REPUBLIC (May 30, 2013), https://perma.cc/JMX5-AGZR.

171. *See* Elk, *supra* note 169.

172. *See* Patriot Fourth Amended Disclosure Statement, *supra* note 169, at 28.

173. *See* Elk, *supra* note 169.

174. *See In re Patriot Coal*, 493 B.R. at 91 ("Debtors inherited below-cost coal contracts from both Peabody and Arch whereby the cost to Debtors to excavate and prepare the coal exceeds the price at which Debtors must sell the coal.").

175. *See id.* at 94 ("[I]n 2012, Debtors closed and idled several mines, including the Big Mountain complex, the Bluegrass complex and the Kanawha Eagle complex, which consequently decreased thermal coal production by 3.9 million tons. It was determined that the thermal coal produced from those mines could not be sold at a profit.").

176. *See* Elk, *supra* note 169 ("From Magnum, Patriot inherited another $500 million in obligations to retired miners, according to the UMWA.").

177. *In re Patriot Coal*, 493 B.R. at 89.

all been originally incurred by Peabody or Arch. In fact, Patriot's financial situation was so precarious when it was founded that the UMWA alleged that Patriot was a "company created to fail."[178]

The UMWA was correct. Patriot was a corporate vehicle into which Arch and Peabody dumped onerous regulatory debts. Peabody's CEO, Gregory H. Boyce, described the Patriot spin-off as a "key element in transforming our business portfolio."[179] On an earnings call, one executive described how the spin-off meant that "[o]ur retiree, health care liability and related expense will be reduced by about 40[%]," adding that "[w]orkers compensation liability will be cut nearly 90% . . . and the combined fund and multi-employer co-act obligations will now fully reside with Patriot."[180] Even Patriot's own CEO, Ben Hatfield, did not see a future for the company he was managing. When asked by a West Virginia newspaper if Patriot was designed to fail from the beginning, Hatfield seemed to agree, stating: "Frankly, . . . we looked at that and said, 'how could that work?' It looks like a bad balance . . . [with] too many liabilities and not enough assets . . . . I frankly agree with many of the things [UMWA President] Cecil Roberts has said. Something doesn't quite smell right here."[181]

The company's publicly reported financial data bear this theory out.[182] In its first annual report in 2008, when all of its assets were mines that had been spun off from Peabody, Patriot reported assets of $1.20 billion and liabilities of $1.12 billion.[183] While a company is legally insolvent only when its assets are worth less than its liabilities,[184] in practice, companies need some cushion in order to actually pay debts as they come due. But Patriot's leverage ratio (that

178. Ken Ward Jr., *Patriot Bankruptcy Case Heating Up*, CHARLESTON GAZETTE-MAIL (Aug. 25, 2012), https://perma.cc/KGT3-PLFS (quoting the United Mine Workers Journal).

179. Daniel Flatley, *Patriot Coal: An American Bankruptcy, Part III; The Strange, Brief Life of Patriot Coal*, 100 DAYS IN APPALACHIA, https://perma.cc/L88Z-CA76 (archived Mar. 3, 2019).

180. Thomson StreetEvents, BTU—Q3 2007 Peabody Energy Corp. Earnings Conference Call Preliminary Transcript 3 (2007) (on file with authors).

181. Flatley, *supra* note 179 (fifth alteration in original) (quoting Kenneth Quinnell, *Current Patriot Coal CEO Agrees with UMWA Claim That Patriot Seemed Designed to Fail*, AFL-CIO: BLOG (Apr. 15, 2013), https://perma.cc/EEL2-PKJ6).

182. When it exited bankruptcy for the first time in 2013, Patriot ceased to be a publicly traded company and became instead a private entity owned by its previous debtholders. As such, it only made public filings from 2007 to 2013. *See* Press Release, Patriot Coal Corp., Patriot Coal Emerges as Well-Capitalized Private Company with Competitive Cost Structure (Dec. 18, 2013), https://perma.cc/8DWB-MQUN ("As a result of the effectiveness of the Plan, Patriot is a private company and is no longer subject to the reporting requirements of the U.S. Securities and Exchange Commission.").

183. *See* Patriot Coal Corp., Annual Report (Form 10-K), at F-4 (Mar. 14, 2008).

184. *See* 11 U.S.C. § 101(32) (2017).

is, the ratio of debt to assets) was 93% upon its founding,[185] and its debt-to-equity ratio was about 14.[186] A debt-to-equity ratio of 1, which means that "no more than half of the company's assets . . . [are] financed by debt," is considered healthy.[187] Patriot's debt-to-equity ratio was nearly fourteen times that benchmark.

Over its short four-year life span, Patriot Coal added a number of Arch Coal assets, but its financial condition changed very little.[188] Generally, a company's financial condition deteriorates before it files for bankruptcy. But Patriot's financial health hardly changed at all. The implication is that Patriot was never in a position to pay all of its debts. When Patriot filed for bankruptcy in 2012, it had assets of $3.6 billion against $3.4 billion of liabilities.[189] In other words, although Patriot had acquired additional assets since it was formed in 2008, those assets also carried substantial liabilities such that the company's financial position hardly changed. Included in these liabilities were $1.4 billion in health care and pension liabilities, and $700 million in environmental liabilities.[190]

Patriot Coal entered Chapter 11 bankruptcy for the first time in August 2012. At that time, the company employed over 4,000 employees, about half of whom were unionized.[191] The bankruptcy proceedings consisted largely of disputes over Patriot's pension and health care liabilities.[192] During the restructuring negotiations, unions challenged Patriot's proposed plan on the ground that the spin-off was a fraudulent conveyance and Peabody should be liable for the union members' health care and pension entitlements.[193] In the

185. $1.12 billion / $1.20 billion = 93%.

186. $1.12 billion / ($1.20 billion - $1.12 billion) = 14.

187. Daniel Kurt, *How Investors Use Leverage Ratios to Gauge Financial Health*, INVESTOPEDIA, https://perma.cc/MLJ7-LSSV (last updated Dec. 30, 2018) (describing a 0.5 debt ratio as healthy); *see id.* (equating a debt-to-equity ratio of 1 to a debt ratio of 0.5).

188. Patriot's self-reported debts continued to approach the value of its assets. *See* Patriot Coal Corp., Quarterly Report (Form 10-Q), item 1, at 3 (Aug. 9, 2012) (reporting a net worth that was 5.6% of total liabilities).

189. *Id.*

190. *Id.*

191. *See In re* Patriot Coal Corp., 493 B.R. 65, 90 (Bankr. E.D. Mo. 2013).

192. *See* Disclosure Statement for Debtors' Third Amended Joint Plan of Reorganization Under Chapter 11 of the Bankruptcy Code at 28-29, *In re* Patriot Coal Corp., No. 12-51502-659 (Bankr. E.D. Mo. Nov. 4, 2013), ECF No. 4928 [hereinafter Patriot Disclosure Statement for Debtors' Third Amended Reorganization Plan].

193. *See* Kris Maher, *Patriot Coal, Creditors Probe Firm's Spinoff*, WALL ST. J. (Apr. 3, 2013, 5:55 PM ET), https://perma.cc/Q7X9-NJ9W ("Patriot Coal Corp. and its creditors in bankruptcy court are investigating whether its 2007 spinoff from Peabody Coal Corp. was a 'fraudulent transfer,' designed to purposefully rid Peabody of liabilities such as retiree health and pension benefits and problematic mines.").

end, only around $385 million of these liabilities was funded.[194] Peabody agreed to pay $310 million toward the health care and pension liabilities,[195] though it has since tried to reduce this amount.[196] Arch also made negligible payments toward these liabilities.[197]

The bankruptcy judge thus allowed Patriot to breach its contracts with the UMWA and steeply reduce the mine workers' retiree benefits. As a result, the company was able to discharge roughly $1.1 billion of health care and pension liabilities.[198] In addition, Patriot was able to delay compliance with environmental obligations concerning selenium water discharge.[199] Patriot emerged from bankruptcy with purported assets of $3.6 billion and liabilities of $2.0 billion.[200] At least $1.1 billion out of the $1.8 billion in Patriot's discharged

194. *See infra* note 437 and accompanying text.

195. *See* Barker, *supra* note 130. It is worth pointing out, however, that Peabody only ended up paying $240 million of the $310 million because it threatened to default on this liability in a separate bankruptcy proceeding. *See* Second Amended Disclosure Statement with Respect to Second Amended Joint Plan of Reorganization of Debtors and Debtors in Possession at 45 n.66, *In re* Peabody Energy Corp., No. 16-42529-399 (Bankr. E.D. Mo. Jan. 27, 2017), ECF No. 2231 [hereinafter Peabody Second Amended Disclosure Statement].

196. *See* Barker, *supra* note 130.

197. *See* Patriot Disclosure Statement for Debtors' Third Amended Reorganization Plan, *supra* note 192, at 33 (requiring that Arch pay $5 million toward these liabilities); *see also* Declaration of Ray Dombrowski, Chief Restructuring Officer of Patriot Coal Corp., et al., in Support of First Day Motions at 12-13, *In re* Patriot Coal Corp., No. 15-32450 (KLP) (Bankr. E.D. Va. May 12, 2015), ECF No. 22 (summarizing Patriot's 2012 settlements with Peabody and Arch).

198. *See infra* Table 2; *infra* Appendix.

199. *See* Brian Sewell, *Under Pressure, Patriot Coal to Phase Out Mountaintop Removal*, APPALACHIAN VOICE (Dec. 5, 2012), https://perma.cc/G8VD-6GFV ("As part of the agreement, Patriot is able to delay $27 million in selenium pollution compliance costs until 2014, improving the company's ability to pay an estimated $400 million in long-term selenium cleanup costs."). The nonprofit Virginia Conservation Legacy Fund (VCLF) agreed to take on Patriot's obligations to remediate selenium pollution, but it too was underfunded. *See* Stan Parker, *Enviros Reach $6M Deal over W.Va. Coal Mining Cleanup*, LAW360 (Aug. 19, 2016, 9:09 PM EDT), https://perma.cc/24BU-L52H ("A company that took over mines and environmental liabilities from bankrupt Patriot Coal Corp. has agreed to put $6 million toward environmental restoration efforts in exchange for extra time complying with a selenium pollution settlement. . . . The agreement modifies a previous settlement reached in a Clean Water Act suit brought . . . against Patriot Coal back when it owned the mines. In the 2012 agreement, Patriot Coal had agreed to remediate selenium pollution in 43 outflows, something that never came to fruition, according to VCLF CEO Tom Clarke.").

200. *See* Patriot Disclosure Statement for Debtors' Third Amended Reorganization Plan, *supra* note 192, at 318.

liabilities—around 60% of the total discharged obligations—consisted of liabilities that were owed to retired coal miners who had spent their careers at Peabody or Alpha.[201]

Patriot's second life also proved short. In May 2015, less than eighteen months after it reorganized, Patriot again filed for Chapter 11.[202] It turned out that Patriot's assets were worth nowhere near $3.6 billion. Although the judge who approved Patriot's 2013 reorganization found that the Plan was "not likely to be followed by the liquidation or the need for further financial reorganization,"[203] the bankruptcy court had relied on assumptions about the coal industry that turned out to be incorrect. As dryly noted in the second bankruptcy disclosure statement, "[Patriot Coal's] feasibility after the 2012-13 Restructuring was predicated on assumptions about coal prices and operating performance that ultimately did not materialize."[204] Patriot's second bankruptcy turned out to be part of a wave of bankruptcies across the U.S. coal mining industry in 2015 and 2016.[205]

Patriot's second bankruptcy resulted in a sale of all its assets. Blackhawk Mining purchased a portion.[206] Although Blackhawk initially tried to purchase Patriot's mines free and clear of reclamation obligations, the company ended up

201. *See infra* Table 2 (showing that Patriot discharged $1.048 billion in retiree liabilities); *infra* Appendix (same). Our calculation likely underrepresents the extent of these liabilities, as the bankruptcy judge and news articles valued Patriot's retiree liabilities at $1.6 billion. *See In re* Patriot Coal Corp., 493 B.R. 65, 91 (Bankr. E.D. Mo. 2013) ("The estimated present value of Debtors' retiree benefit obligations exceeds $1.6 billion."); Kris Maher & Jacqueline Palank, *Bankruptcy Judge Allows Patriot Coal to Scrap Union Contracts*, WALL ST. J. (updated May 29, 2013, 6:25 PM ET), https://perma.cc/BER7-DF2R.

202. *See* Voluntary Petition, *In re* Patriot Coal Corp., No. 15-32450-KLP (Bankr. E.D. Va. May 12, 2015), ECF No. 1.

203. Order Confirming Debtors' Joint Plan of Reorganization Under Chapter 11 of the Bankruptcy Code at 13, *In re* Patriot Coal Corp., No. 12-51502-659 (Bankr. E.D. Mo. Dec. 17, 2013), ECF No. 5157.

204. Disclosure Statement for Debtors' Joint Plan of Reorganization Pursuant to Chapter 11 of the Bankruptcy Code at 19, *In re* Patriot Coal Corp., No. 15-32450 (KLP) (Bankr. E.D. Va. July 13, 2015), ECF No. 498 [hereinafter Patriot Disclosure Statement for Debtors' Joint Plan of Reorganization].

205. *See* Nair, *supra* note 1.

206. Notice of Filing of Supplemental Exhibit to Debtors' Motion for Entry of (I) an Order (A) Approving Bidding Procedures & Bid Protections in Connection with the Sales of Certain of the Debtors' Assets, (B) Approving the Form & Manner of Notice, (C) Scheduling Auctions & a Sale Hearing, (D) Approving Procedures for the Assumption & Assignment of Contracts, and (E) Granting Related Relief & (II) an Order (A) Approving the Sale of Assets Pursuant to the Bidding Procedures, (B) Authorizing the Sale of Assets Free & Clear of Liens, Claims, Encumbrances & Interests, (C) Authorizing the Assumption & Assignment of Contracts & (D) Granting Related Relief exhibit at 1, *In re* Patriot Coal Corp., No. 15-32450 (KLP) (Bankr. E.D. Va. June 23, 2015), ECF No. 385 [hereinafter Blackhawk Asset Purchase Agreement].

agreeing to reclaim Patriot's former mine sites after state regulators objected.[207] Still, the company inherited only Patriot's most desirable mines.[208] The lease agreement between Patriot and Blackhawk stipulated that Blackhawk would be responsible only for reclaiming the assets it purchased.[209] The remaining assets, with an estimated $738 million in environmental and retiree liabilities, were not included in the asset purchase agreement between Patriot and Blackhawk.[210] These remaining assets included Patriot's Federal No. 2 mine and Hobet 21 mountaintop removal complex, which had accrued hundreds of millions of dollars in reclamation obligations.[211] These assets were originally scheduled to be abandoned, but a nonprofit called the Virginia Conservation Legacy Fund (VCLF), which has dedicated itself to reclaiming lands, acquired them and is attempting to fulfill Patriot's environmental obligations.[212]

But it is not clear that the VCLF has any ability to make good on its commitment to reclaim the West Virginia mines. The VCLF's business plan involved offsetting its mines' reclamation obligations by planting trees so that it would receive carbon credits.[213] As of 2018, one of the mines the VCLF inherited from Patriot has been inactive since the VCLF purchased it.[214] In addition, the only operating mine it received from Patriot closed when the

207. *See* Press Release, W. Va. Dep't of Envtl. Prot., WVDEP, Patriot Coal Reach Agreement (Oct. 6, 2015), https://perma.cc/Y97G-7YHP.

208. *See* Peg Brickley, *Blackhawk Mining Wins Patriot Coal Bankruptcy Auction*, WALL ST. J. (updated Sept. 22, 2015, 2:37 PM ET), https://perma.cc/QX95-G84D. Patriot's reorganization plan originally contemplated selling Blackhawk the company's "profitable working non-union mines . . . considered its 'core assets'" and "abandoning its 'noncore assets' including non-working mines, unionized mines and nearly all of its environmental and workers' compensation liabilities." Black Diamond Commercial Fin., LLC v. Va. Conservation Legacy Fund, Inc. (*In re* Patriot Coal Corp.), No. 15-32450-KLP, 2018 WL 4699628, at *3 (Bankr. E.D. Va. Sept. 28, 2018). Those noncore assets, along with "$400 million in environmental and employee-related Patriot liabilities," went to the VCLF, a charitable trust whose "purpose is to protect and conserve land." *Id.* at *4.

209. Blackhawk Asset Purchase Agreement, *supra* note 206, at 26-27 (listing excluded assets and liabilities).

210. *See infra* Table 2; *infra* Appendix.

211. *See* Ken Ward Jr., *Concerns Grow About Coal Industry Pensions, Reclamation*, CHARLESTON GAZETTE-MAIL (Aug. 9, 2015), https://perma.cc/7G4R-YEVY ("Patriot listed a $233 million reclamation liability . . . .").

212. *See* Patriot Fourth Amended Disclosure Statement, *supra* note 169, at 3; *see also supra* note 208 and accompanying text.

213. *See* Matt Robinson & Bryan Gruley, *This Nursing Home Operator Thinks He Can Save Minnesota Mining*, BLOOMBERG BUSINESSWEEK (Mar. 21, 2018, 2:00 AM PDT), https://perma.cc/2Z92-Y9BB.

214. *See id.*

"tree planting plan went nowhere."[215] Perhaps most troublingly, Tom Clarke, the VCLF's CEO, has a "*modus operandi*" of "drain[ing] substantial funds from his projects into a web of related companies—through which he can then use funds for his own benefit—all while delaying payment or entirely defaulting on legitimate debts owed to creditors."[216]

From the moment it was founded in 2008, Patriot had insufficient cash flow to meet its liabilities. Its very existence allowed Peabody and Arch to move onerous assets off their books. And after Patriot liquidated, Blackhawk, which took over Patriot's attractive assets, continued to mine 11.9 million short tons of coal in 2016.[217] Blackhawk has done so, moreover, without having to pay for the labor obligations associated with those mines or for the environmental obligations associated with the Patriot's unproductive mines.[218]

2. Alpha Natural Resources

Alpha Natural Resources followed Patriot into bankruptcy in August 2015.[219] At the time, Alpha was the fourth-largest coal producer in the country and produced almost 8% of all coal in the United States.[220] Alpha adopted three mutually reinforcing strategies to shed its environmental and retiree liabilities during and immediately following bankruptcy. Its first tactic was simply to

215. *See id.*

216. The Official Committee of Unsecured Creditors' Motion for an Order Pursuant to Bankruptcy Rule 2004 Authorizing the Examination & Production of Documents by Thomas M. Clarke exhibit C at 10, *In re* Mission Coal Co., No. 18-04177 (TOM) (Bankr. N.D. Ala. Nov. 12, 2018), ECF No. 245; *see* Erin Savage, *Central Appalachia's Newest Coal Boss Facing Bankruptcies*, APPALACHIAN VOICES: FRONT PORCH (Dec. 10, 2018), https://perma.cc/VT7U-DKJK ("State regulators and communities alike had hoped that Clarke's purchases would lead to better mine management and more timely reclamation. But Mission's bankruptcy is raising doubt. Mission currently owes more than $32 million to its creditors, including $9.73 million to United Mine Workers of America members' pensions and benefits trustees. Mission also has $18.2 million in black lung benefit obligations and more than $30 million in asset retirement obligations.").

217. U.S. ENERGY INFO. ADMIN., ANNUAL COAL REPORT 2016, at 16 tbl.10 (2017), https://perma.cc/NZ3Q-ZRAF. Not all of Blackhawk's 2015 production is attributable to Patriot mines. Still, the mines Blackhawk purchased from Patriot constituted a considerable percentage of the company's coal production. The Kanawha mine, for example, sold 6.3 million short tons in 2015. *See* U.S. ENERGY INFO. ADMIN., *supra* note 11, at 52. Kanawha was just one of the mines Blackhawk purchased from Patriot. *See Our Story*, BLACKHAWK MINING LLC, https://perma.cc/89QN-K4PZ (archived Mar. 5, 2019) (listing Blackhawk's acquisition of Kanawha in 2015).

218. *See* Blackhawk Asset Purchase Agreement, *supra* note 206, at 26-27; *see also supra* notes 208-09 and accompanying text.

219. *See* Nathan Vardi, *U.S. Coal Company Alpha Natural Resources Files for Bankruptcy*, FORBES (Aug. 3, 2015, 10:36 AM), https://perma.cc/3AHL-F9YF.

220. U.S. ENERGY INFO. ADMIN., *supra* note 11, at 16 tbl.10.

discharge retiree obligations and convince state regulators to accept a haircut on its environmental obligations. The second was to rely on unrealistic accounting assumptions to convince interested parties to approve reorganization. And the third was to follow Patriot's playbook by spinning off mine sites with significant liabilities so that the successor company would not actually have to account for its environmental and pension liabilities. Altogether, these strategies allowed Alpha to separate its profitable mines from many of its regulatory liabilities.

In their objection to Alpha's Second Plan of Reorganization, the EPA and the DOI said that the plan "would extract over $300 million as well as [Alpha's] more valuable mines out of [Alpha's] estate, leaving behind what presently are proposed to be inadequately funded and infeasible reorganized entities."[221] According to the agencies, such a "depletion of [Alpha's] assets renders it unable to comply with significant environmental compliance obligations under federal and state law for the mines it will continue to own."[222]

The first part of the strategy was simple. As part of the bankruptcy proceedings, Alpha cut deals with Wyoming and West Virginia regulators which allowed the company to continue mining, even though it no longer met the self-bonding requirements and could not post alternative bonds. For instance, Alpha granted Wyoming a $61 million superpriority claim to cover the company's $411 million of reclamation bonding obligations in that State.[223] Similarly, Alpha granted West Virginia a $24 million superpriority claim and a $15 million letter of credit to cover the company's $244 million of reclamation obligations in that State.[224] Although Alpha owed a total of $655 million in reclamation liabilities, state regulators agreed to accept a superpriority claim on only $85 million in the event that the company stopped operating. This arrangement seemingly gave Alpha a legal right to abandon over $500 million in cleanup costs that the company would have had to pay had it been forced to liquidate.

The deals Alpha struck with states in which it self-bonded (and other similar deals executed by other coal companies) arguably represent a violation of SMCRA's permitting and bonding provisions. Under SMCRA, coal companies are not allowed to operate surface mines without adequate

221. United States' Objections to Confirmation of Debtors' Plan of Reorganization at 2, *In re* Alpha Nat. Res., Inc., No. 15-33896-KRH (Bankr. E.D. Va. June 29, 2016), ECF No. 2855.

222. *Id.*

223. Second Amended Disclosure Statement with Respect to Second Amended Joint Plan of Reorganization of Debtors & Debtors in Possession at 32, *In re* Alpha Nat. Res., Inc., No. 15-33896-KRH (Bankr. E.D. Va. May 25, 2016), ECF No. 2528 [hereinafter Alpha Second Amended Disclosure Statement].

224. *Id.* at 32-33.

bonding.[225] The deals reassured senior secured creditors that Alpha's reclamation obligations would dilute the pool of assets available to senior creditors in a liquidation by only a few million dollars—rather than by hundreds of millions of dollars. The Office of Surface Mining Reclamation and Enforcement, a federal agency that oversees state mining programs, filed a Reservation of Rights in several coal company bankruptcy proceedings asserting that the state agreements had no bearing on its own legal rights, but the agency did not prevent the companies from continuing to operate during or after reorganization.[226] And although environmental groups challenged the deals on the ground that they violated SMCRA's bonding requirements, a bankruptcy judge dismissed the case for lack of standing.[227]

In addition to environmental liabilities, Alpha owed its retired miners over $2.3 billion in health care and pension liabilities.[228] The discharge of these liabilities resulted in 4,500 retired miners losing their health care, and another 6,670 current employees losing future health coverage.[229] A bankruptcy judge in the Eastern District of Virginia determined that these retirement obligations could be discharged.[230]

Equally troubling is Alpha's use of unrealistic accounting assumptions to push its remaining environmental and retiree obligations onto corporate vehicles that seem to have been designed to fail. On the surface, Alpha actually appeared to have been solvent when it filed for bankruptcy, with $10.1 billion in assets and $7.1 billion in liabilities.[231] Whereas Patriot, Peabody, and Arch were close to or actually underwater when they filed for bankruptcy, Alpha had breathing room relative to its competitors.

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225. *See* 30 CFR §§ 800.1, .30, .50 (2018).

226. *See, e.g.*, Reservation of Rights of United States of America in Response to Motion of the Debtors, Pursuant to Bankruptcy Rule 9019, for Entry of Stipulation & Order Concerning Reclamation Bonding of Their Surface Coal Mining Operations in Wyoming at 4, *In re* Alpha Nat. Res., Inc., No. 15-33896 (KRH) (Bankr. E.D. Va. Sept. 29, 2015), ECF No. 542.

227. *See In re* Alpha Nat. Res., Inc., 544 B.R. 848, 856 (Bankr. E.D. Va. 2016) ("The Environmental Parties have failed to plead any concrete and particularized injury in fact that would result from the approval of the West Virginia Settlement. The only allegations set forth in the Environmental Parties' objection are that the settlement violates the laws of the United States of America and West Virginia.").

228. *See* Alpha Second Amended Disclosure Statement, *supra* note 223, at 21, 23 (claiming liabilities of $219.7 million for Qualified Plans; $38.2 million for Non-Qualified Plans; $1,060 million for medical and life insurance benefits; $158.6 million for black lung benefits; and $782 million for the 1974 Pension Plan).

229. *See* Ken Silverstein, *Health and Pension Benefits to Coal Retirees Are Hampered by Disabled Companies and Dirty Politics*, FORBES (Aug. 16, 2016, 8:22 AM), https://perma.cc/N69D-WCUP.

230. *See In re* Alpha Nat. Res., Inc., 552 B.R. 314, 319 (Bankr. E.D. Va. 2016).

231. *See* Alpha Second Amended Disclosure Statement, *supra* note 223, at 13.

However, this appearance was belied by the reality that Alpha inflated the value of its assets and left significant liabilities off its books. In fact, Alpha only declared bankruptcy after Wyoming found that Alpha no longer qualified for self-bonding, and that Alpha would therefore have to come up with collateral or surety to guarantee its $411 million in reclamation bonding obligations in that State.[232] West Virginia submitted a similar request for $244 million in self-bonds.[233] The fact that Alpha was immediately unable to service its debt despite ostensibly having a net worth of $3 billion[234] indicates that its self-reported valuation was incorrect. As it turns out, Alpha did not record much of its SMCRA obligations on its balance sheet. The company recognized $1.6 billion in total asset retirement obligations,[235] which consisted largely of reclamation liabilities, while only $583 million was accounted for on the balance sheet.[236] The company thus assumed, for purposes of calculating its assets and liabilities, that it would not have to pay $1 billion in reclamation bonds. Moreover, despite its reported positive net worth, Alpha had recorded losses ranging from $730 million to $2.4 billion in each of the four years prior to its bankruptcy.[237] But when state regulators attempted to force the company to account for those very liabilities, Alpha was unable to do so and immediately declared bankruptcy.

Alpha's accounting gimmickry was especially critical to its restructuring during the bankruptcy proceedings. Alpha used Chapter 11 to split into two companies, Contura and the reorganized Alpha (we refer to this company as

232. *See* JAYNI FOLEY HEIN ET AL., INST. FOR POLICY INTEGRITY, N.Y. UNIV. SCH. OF LAW, SELF-BONDING IN AN ERA OF COAL BANKRUPTCIES 7 (2016), https://perma.cc/4A63-MBWR ("On May 26, 2015, [the Wyoming Department of Environmental Quality] ordered Alpha to obtain replacement bonds worth approximately $411 million in place of existing self-bonds for the Belle Ayr and Eagle Butte Mines in Wyoming. Not long after this order, Alpha filed for Chapter 11 bankruptcy protection.").

233. *See In re* Alpha Nat. Res., Inc., 544 B.R. 848, 857 (Bankr. E.D. Va. 2016) ("If the Debtors were to lose the litigation with West Virginia, they would be required to immediately post over $244 million in substitute bonds in order to continue mining in West Virginia.").

234. Alpha Nat. Res., Inc., Annual Report (Form 10-K), item 8, at 95 (Feb. 26, 2015) (listing $2.9 billion in shareholders' equity).

235. *Id.* item 7, at 86.

236. Alpha Nat. Res., Inc., Quarterly Report (Form 10-Q), item 1, at 14 (Aug. 3, 2015). Alpha declared a larger figure for reclamation liabilities, $683 million, upon entering bankruptcy. *See* Declaration of Philip J. Cavatoni, Executive Vice President & Chief Financial & Strategy Officer of Debtor Alpha Natural Resources, Inc., in Support of First Day Pleadings of Debtors & Debtors in Possession at 14, *In re* Alpha Nat. Res., Inc., No. 15-33896-KRH (Bankr. E.D. Va. Aug. 3, 2015), ECF No. 6 [hereinafter Cavatoni Declaration] ("As of the Petition Date, [Alpha's] aggregate accrued reclamation obligations . . . are approximately $683 million . . . ."). We use the balance sheet figure here given this Part's focus on balance sheet inconsistencies.

237. *See* Alpha Nat. Res., Inc., Annual Report (Form 10-K), item 6, at 58 (Feb. 26, 2015).

Alpha II).[238] Contura inherited the crown-jewel mining assets in the Powder River Basin,[239] while Alpha II inherited Alpha's unprofitable Appalachian mines, along with much of Alpha's environmental and retiree liabilities.[240] Alpha thus used bankruptcy to create a new company, Contura, that retained only the valuable assets, and to load up its regulatory liabilities onto a new reorganized entity, Alpha II.

The reorganization plan was approved only after the company convinced state environmental regulators that Alpha II would be able to use the proceeds from the mines it inherited to reclaim those mine sites and eventually unwind.[241] In other words, Alpha's right to spin off Alpha II was conditioned on the new company being financially viable. To this end, the financial statements Alpha submitted during the bankruptcy proceedings indicated that Alpha II would be able to reclaim damaged land.[242] But Alpha omitted sizable

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238. *See* Asset Purchase Agreement, Dated as of July 26, 2016, Among Contura Energy Inc. et al. (Exhibit 2.5 to Form 8-K), § 2.01 (July 27, 2016) [hereinafter Alpha Asset Purchase Agreement].

239. *See id.*

240. *See* Press Release, Alpha Nat. Res., Alpha Natural Resources Files Plan of Reorganization (Mar. 8, 2016), https://perma.cc/7Y43-XPEL.

241. In fact, the settlement between Alpha and the government agencies required that Alpha II submit an "initial budget . . . , subject to approval by the [West Virginia] Department [of Environmental Protection], with respect to any reclamation, mitigation and water treatment and management to be performed using monies in the Restricted Cash Accounts." Second Notice of Filing of Certain Agreements in Connection with Resolution of Reclamation Obligations exhibit A at 11, *In re* Alpha Nat. Res., Inc., No. 15-33896 (KRH) (Bankr. E.D. Va. July 8, 2016), ECF No. 3010; *id.* (requiring Alpha to submit periodic budgets and a long-term budget "reflecting the Reorganized Debtors' reasonable best efforts to project estimated expenditures from the Restricted Cash Accounts on account of reclamation, mitigation and water treatment and management expenses at all Reclaim-Only Sites through December 31, 2018"); *see also* Jacqueline Palank, *Judge Approves Alpha Natural Resources' Restructuring Plan*, WALL ST. J. (July 7, 2016, 3:44 PM ET), https://perma.cc/5RBF-6VF2; Press Release, Alpha Nat. Res., *supra* note 240 ("Through the Plan of Reorganization, all remaining unsold assets will become part of reorganized Alpha, a smaller, sustainable company, structured to focus primarily on fulfilling all of the company's environmental reclamation obligations on an ongoing basis. To ensure that the company is able to fulfill these obligations, the Plan provides that reorganized Alpha will be sufficiently funded to meet all of its operating and reclamation activities, including through contributions from Alpha's first lien lenders.").

242. *See* Complaint ¶ 2, W. Va. Dep't of Envtl. Prot. v. Alpha Nat. Res., Inc. (*In re* Alpha Nat. Res.), No. 15-33896 (KRH) (Bankr. E.D. Va. Nov. 16, 2016), ECF No. 3554 [hereinafter WVDEP Complaint] ("The reorganized debtors recently disclosed, however, that those projections were materially false and misleading when made, the debtors having failed to properly account for as much as $100 million in known (or at least knowable) liabilities under their agreement with Contura."); Tom Hals, *U.S. Agrees to Clean-Up Deal with Bankrupt Miner, Hopes for Payment*, REUTERS (July 7, 2016, 2:16 PM), https://perma.cc/VU9N-SKNA ("[The] agreement was meant to assure that Alpha has the finances to restore mines to their natural setting and clean up polluted streams.").

obligations from Alpha II's books.[243] The projections ignored significant capital expenditures that would make it difficult for Alpha II to honor its ongoing obligations.[244] Alpha's failure to report these expenditures decreased the cash Alpha expected to have available by $233 million and resulted in an immediate expected cash flow of *negative* $87 million.[245] As soon as Alpha II emerged from bankruptcy, its liabilities turned out to be so significant that the corporation could not pay its debts as they came due.[246]

As the West Virginia Department of Environmental Protection pointed out, "[t]he conclusion thus seems almost inescapable that the debtors' senior management knew about but did not disclose those impending 'unaccounted-for' expenditures to ensure consummation of the debtors' Contura sale and chapter 11 plan for their own benefit and to secure the releases of environmental liability."[247] In short, Alpha purposefully undervalued its liabilities in order to keep environmental and retiree liabilities off of Contura's balance sheet. The fact that Alpha II had insufficient cash flow to meet its obligations was part and parcel of the bargain. Even worse, the bankruptcy agreement expressly stipulated that Contura could not be held liable if Alpha II eventually liquidated.[248]

And the process did not end there. Alpha II got rid of its own reclamation obligations by selling the mines affiliated with those obligations to other companies. Specifically, Alpha II transferred $192 million of self-bonds to a company called Lexington Coal.[249] As part of the deal, Alpha II kept twenty active mining operations and gave its legacy and abandoned mines to Lexington Coal.[250] And after shedding those obligations, Alpha II and Contura merged again.[251]

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243. WVDEP Complaint, *supra* note 242, ¶¶ 1-3.

244. *Id.* ¶¶ 4-5.

245. *Id.* ¶ 29.

246. *See id.* ¶¶ 37-41.

247. Response of the West Virginia Department of Environmental Protection to the Reorganized Debtors' Motion to Approve Settlements with Contura Energy, Inc. & the First-Lien Lenders at 4, *In re* Alpha Nat. Res., Inc., No. 15-33896 (KRH) (Bankr. E.D. Va. Nov. 15, 2016), ECF No. 3543.

248. *See* Alpha Asset Purchase Agreement, *supra* note 238, § 2.05.

249. Press Release, Alpha Nat. Res., Inc., Alpha Natural Resources Completes Transfer of Idle Assets to Lexington Coal (Oct. 24, 2017), https://perma.cc/FH5P-FZ7A.

250. *Id.*

251. *See* Tom Corrigan, *Alpha, Contura to Merge Following Bankruptcy Split*, WSJ PRO: BANKR. (Apr. 30, 2018, 6:32 PM ET), https://perma.cc/B88N-64G8.

It is unclear whether Lexington Coal, the company that took over many of Alpha II's idle mines,[252] will be able to perform its reclamation obligations. Lexington's CEO, Jeff Hoops, has adopted a business strategy in which he receives compensation in exchange for taking over coal mines laden with environmental obligations.[253] But Hoops's history in the coal industry does not suggest that he will be able to honor the environmental obligations his companies have assumed. Rather, his businesses have begun to exhibit a pattern: Hoops takes over abandoned mines, receives cash from the company that wants to get rid of them, and then fails to actually remediate the environmental problems. Hoops also owns Revelation Energy,[254] which previously took over idle mines from Keystone Industries.[255] Two years later, state environmental regulators shut down the mines because Revelation had failed to reclaim any of the land, and the toxic waste emitted from the legacy mines was endangering local farmlands and exposing residents to toxic water.[256] Moreover, a bank recently sued Revelation, alleging that its owners were stripping the company of its assets and did not intend to make good on its obligations.[257]

252. *See* Jim Ross, *Alpha Sells Idle Mine Properties to Eliminate Self-Bonding Obligations*, ST. J. (July 19, 2017), https://perma.cc/J9DT-QSTG ("[Alpha] announced . . . that it has entered into an asset purchase agreement with Lexington Coal Co. to convey real and personal properties in West Virginia, Kentucky, Illinois and Tennessee. The conveyance will include approximately 280 permits, reclamation equipment, ongoing royalty payments associated with the properties and 100 million tons of reserves. No active mines are included in the transaction.").

253. *See* Heather Richards, *Energy Company Sued for Loan Default*, BILLINGS GAZETTE (Apr. 25, 2018), https://perma.cc/LDF8-NTQ5 ("[Hoops's] various coal firms have spent the last few years picking up coal assets on a dime, in many cases getting paid in return for an assumption of environmental obligations and reclamation costs.").

254. *See id.* (reporting that Jeff Hoops owns Revelation, Blackjewel, and Lexington, and that Alpha used Blackjewel to dispose of its regulatory obligations).

255. *See* Dustin White, *Revelation: Alpha Weasels Out of Bonding Obligations*, OHIO VALLEY ENVTL. COALITION (Nov. 16, 2017), https://perma.cc/H3R8-NKDC.

256. *See* Paul J. Nyden, *Cessation Order Issued for Mine near Kanawha State Forest*, CHARLESTON GAZETTE-MAIL (June 5, 2015), https://perma.cc/8SJ7-6ZR6 (reporting that state regulators cited Revelation for "violations more than 20 times since the permit for the [K.D. No. 2] mine was issued 13 months ago"); Heather Richards, *Eastern Violations Follow Coal CEO to Wyoming as Mine Transfers Hit Snags*, CASPER STAR TRIB. (Feb. 4, 2018), https://perma.cc/B5Z8-3PD5 ("Violations for Revelation in West Virginia include failure to maintain water quality in streams, damage outside the project boundaries and violation of discharge limits . . . ."). Specifically, the K.D. No. 2 mine was cited for "failure to properly construct and maintain sediment-control structures, failure to protect off-site areas from landslides, exceeding blasting limits, failure to meet monitoring, sampling and reporting requirements and exceeding water-quality discharge limits." Nyden, *supra*.

257. *See Bank Alleges Fraud in Coal Company Asset Dealings*, INST. FOR ENERGY ECON. & FIN. ANALYSIS (Apr. 25, 2018), https://perma.cc/2A6V-TVBT; *see also* Fifth Third Bank v.
footnote continued on next page

Furthermore, Contura recently sold additional mines to another small coal company called Blackjewel, which also happens to be run by Hoops.[258] The transaction allowed Contura to "unload hefty reclamation obligations from [its] books."[259] Hoops's past environmental obligations have caused state environmental regulators to delay transferring Contura's coal leases to Blackjewel. But once ownership changes hands, it becomes more difficult for regulators to enforce reclamation. The coal company that originally incurred the liabilities is no longer responsible for them, and the new company lacks the financial resources to make good on the inherited obligations.

Finally, as mentioned above, in April 2018 Contura and Alpha II announced plans to merge and rejoin the two companies.[260] Each company had separately shed its high-liability mines, and the two were now able to recombine with only their profitable assets. In sum, actions taken in bankruptcy reduced reclamation liabilities by roughly $200 million; subsequent divestitures to Lexington and Blackjewel eliminated another $355 million in asset retirement obligations.[261] And when Contura and Alpha II announced their merger, they mentioned Alpha II's success in shedding obligations as one of the central arguments to justify the merger.[262] In other words, Contura and Alpha II split so that Alpha's senior creditors would not have to pay to reclaim degraded mines. Alpha II had promised to reclaim its Appalachian mines while in bankruptcy, but its own operational insolvency led it to shed those same mines. Once Alpha II did so, it became financially viable again, and thus the two companies reunited. This series of reorganizations effectively shielded Alpha's profitable mines from half a billion dollars' worth of environmental liabilities.

Revelation Energy, LLC, No. 3:18-cv-00270, 2018 BL 470183, at *2 (S.D. W. Va. Dec. 19, 2018).

258. *See* Richards, *supra* note 256.

259. *Id.*

260. Press Release, Contura Energy, Contura Energy and Alpha Natural Resources Announce Definitive Merger Agreement (Apr. 30, 2018), https://perma.cc/6WCR-RVD9.

261. *See* Contura Energy & Alpha Nat. Res., Contura + Alpha: Transformative Combination 6 (2018) (on file with authors) (showing that Alpha and Contura reduced their asset retirement obligations by a total of $355 million by selling mines to Blackjewel and Lexington Coal).

262. *See id.*; *see also* Tim Thornton, *Coal Firms Created by Bankruptcy Plan to Recombine*, VA. BUS. (June 29, 2018), https://perma.cc/29PV-LFGU ("By selling mines in Wyoming's Powder River Basin, Contura removed about $120 million of reclamation liabilities from its books, according to a PowerPoint presentation prepared by the company. The presentation says Alpha's sale of about 250 permits on inactive properties also relieved it of $167 million in liabilities for reclamation, water treatment and other issues.").

3. Arch Coal

Arch Coal, the second-largest U.S. coal producer in 2015,[263] was producing approximately 15% of American coal just before it filed for bankruptcy on January 11, 2016.[264] In its last SEC filing before entering bankruptcy, the company reported assets of $5.1 billion and liabilities of $6.35 billion.[265] Arch's bankruptcy was more conventional than those of its coal industry peers: Its reorganization primarily consisted of a straightforward discharge of approximately $5 billion in unsecured debt. The reason, we think, that Arch engaged in fewer accounting gimmicks than its competitors is that the company had previously so effectively discharged and otherwise avoided its regulatory liabilities through the Patriot divestitures that it had the luxury of being able to give a more accurate accounting of its assets and liabilities.

Arch emerged from bankruptcy in 2016 having shed $5 billion—or about 80%—of its debt.[266] Like Alpha and Peabody, Arch used its bankruptcy proceedings to renegotiate its SMCRA obligations. To cover $485.5 million in self-bonded obligations, Arch promised $75 million in superpriority bonds and agreed to provide some form of collateral on $17 million of self-bonds.[267] In other words, like Alpha, Arch reached an agreement that would have required it to pay only a small fraction of its environmental liabilities had the company distributed all of its assets in bankruptcy. Then, in its reorganization agreement, Arch agreed to replace its self-bonds with surety or collateralized bonds.[268]

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263. *See* U.S. ENERGY INFO. ADMIN., *supra* note 11, at 16 tbl.10.

264. *See id.*; *Restructuring Information*, ARCHCOAL, https://perma.cc/Q9DL-S6UV (archived Mar. 5, 2019).

265. *See* Arch Coal, Inc., Annual Report (Form 10-K), at F-7 (Mar. 15, 2016). Note that the company's assets declined by $3.3 billion between 2014 and 2015. *Compare id.* item 6, at 61 (reporting $5.1 billion in total assets), *with* Arch Coal, Inc., Annual Report (Form 10-K), item 6, at 61 (Feb. 27, 2015) (reporting $8.4 billion in total assets). Though we do not know with certainty what accounted for this decline, a decline of this magnitude suggests that Arch misvalued its assets in the years leading up to its bankruptcy, and only adjusted the valuations when environmental regulators sought to force the company to show that it could honor its SMCRA obligations.

266. *See* Arch Coal, Inc., Annual Report (Form 10-K), at F-21 (Feb. 24, 2017) (stating that Arch's bankruptcy plan reduced liabilities from $6.3 billion to $5.0 billion).

267. *See* Disclosure Statement for Debtors' Third Amended Joint Plan of Reorganization Under Chapter 11 of the Bankruptcy Code at 34, *In re* Arch Coal, Inc., No. 16-40120-705 (Bankr. E.D. Mo. July 6, 2016), ECF No. 1091.

268. *See* Debtors' Fourth Amended Joint Plan of Reorganization Under Chapter 11 of the Bankruptcy Code at 37, *In re* Arch Coal, Inc., No. 16-40120-705 (Bankr. E.D. Mo. Sept. 11, 2016), ECF No. 1301 ("No later than 15 days after the Effective Date, Arch Western Resources, LLC, Thunder Basin Coal Company, L.L.C., Arch of Wyoming, LLC and Energy Development Co. shall have replaced all former self-bonds relating to

footnote continued on next page

As noted above, Arch had successfully spun off unproductive mines, loading them up with health care and environmental liabilities in the years before it filed for bankruptcy. Although Arch did not do this in its 2016 bankruptcy filing, it had already shed $522 million in environmental and retiree liabilities when Patriot acquired some of the company's mines in 2008.[269] Because Arch shed those obligations before it filed for bankruptcy, they are not calculated in the company's 2015 debt load. It is worth noting, however, that since emerging from bankruptcy, Arch has managed to use Revelation Energy, the same company that took over Alpha's reclamation obligations, to get rid of high-cost and idle mines.[270]

4. Peabody Energy

Peabody Energy, the world's largest coal company, was producing nearly 20% of all U.S. coal by the time it filed for Chapter 11 protection on April 13, 2016.[271] Like Alpha, Peabody adopted three strategies to offload its environmental obligations. The first was to spin off subsidiaries that contained unwanted liabilities and unprofitable mines. In this way, Peabody shed $527 million in pension obligations and $134 million in reclamation liabilities when it transferred those assets to Patriot in 2007.[272] Its continued reliance on this strategy during its reorganization prompted the EPA and the DOI to object that the entire plan was "a carefully constructed scheme to evade environmental liabilities."[273] The second strategy was to convince regulators to accept a haircut on Peabody's outstanding environmental liabilities. The third was to discharge or substantially write down significant environmental and pension obligations.

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reclamation obligations in the State of Wyoming with surety, cash or collateralized financial assurances.").

269. *See* Patriot Coal Corp., Quarterly Report (Form 10-Q), item 1, at 2, 4 (Nov. 13, 2008). Patriot acquired Magnum Coal, which had itself spun off of Arch Coal, in 2008. *See supra* text accompanying notes 173-77. The $522 million in environmental and retiree liabilities (transferred from Arch to Patriot) is reflected on Patriot's balance sheet in the difference between the end of 2007 and the end of the third quarter of 2008 for asset retirement obligations, accrued postretirement benefit costs, and other noncurrent liabilities (consisting of other environmental liabilities).

270. *See* Jim Levesque, *Revelation to Acquire Lone Mountain, Other Arch Properties*, S&P GLOBAL PLATTS (July 25, 2017, 8:42 AM UTC), https://perma.cc/UU7W-QALR.

271. *See* U.S. ENERGY INFO. ADMIN., *supra* note 11, at 16 tbl.10; Nair, *supra* note 1.

272. *See* Patriot Coal Corp., Annual Report (Form 10-K), item 1, at 10 (Mar. 14, 2008) (affirming that Patriot had $134.4 million in asset retirement obligations and $527 million in pension obligations).

273. *See* Governments' Objection to Second Amended Joint Plan of Reorganization, *supra* note 10, at 1.

In its bankruptcy filing, Peabody listed $11.0 billion in assets and $10.1 billion in liabilities.[274] Included in its liabilities were $687 million in asset retirement obligations and $723 million in postretirement benefits.[275] Peabody's 2015 10-K also noted significant off-balance-sheet arrangements, including $2.0 billion in reclamation obligations.[276] Adding these off-balance-sheet reclamation obligations to the company's retiree liabilities indicates that Peabody's labor and reclamation liabilities amounted to more than $3.0 billion (not the $1.4 billion that the balance sheet suggests).[277] Moreover, when Peabody had to disclose its liabilities for its bankruptcy filing, it shifted these liabilities onto its balance sheet.[278] Most companies become insolvent before their liabilities exceed their assets because as the company's leverage ratio increases, it becomes increasingly difficult to generate enough income to meet obligations as they come due. Peabody was legally insolvent by almost $700 million when it filed for bankruptcy.[279] In other words, Peabody assumed that it would not have to pay its environmental liabilities, and that assumption allowed it to continue operating and report a positive net worth.

Peabody thus had roughly $2.0 billion in recognized reclamation obligations, only $600 million of which were covered by surety bonds or other guarantees. The remaining $1.4 billion of these environmental liabilities were self-bonded.[280] Accordingly, Peabody pursued a superpriority claim swap with the states in which it practiced self-bonding, akin to the strategy employed by Alpha and Arch. Superpriority bonds are paid out first when assets are distributed in a Chapter 7 bankruptcy.[281] In Wyoming, Peabody granted the State a $126.9 million superpriority claim to cover $726.8 million in reclamation liabilities;[282] in New Mexico, a $31.6 million claim for

274. Second Amended Disclosure Statement with Respect to Second Amended Joint Plan of Reorganization of Debtors & Debtors in Possession at 31, *In re* Peabody Energy Corp., No. 16-42529-399 (Bankr. E.D. Mo. Jan. 27, 2017), ECF No. 2231 [hereinafter Peabody Second Amended Disclosure Statement].

275. Peabody Energy Corp., Annual Report (Form 10-K), at F-4 (Mar. 15, 2016).

276. *Id.* at F-68.

277. *See id.* item 7, at 76.

278. Peabody Energy Corp., Current Report (Form 8-K), at 16 (Mar. 20, 2017) (listing $3.9 billion in asset retirement obligations).

279. To reach this figure, we added Peabody's $1.6 billion in environmental and retiree liabilities—the difference between the $1.4 billion reported on its balance sheet and the $3.0 billion figure that includes liabilities held off balance sheet—resulting in $11.0 billion in assets and $11.7 billion in liabilities. *See* Peabody Energy Corp., Annual Report (Form 10-K), item 7, at 76 (Mar. 15, 2016); *id.* at F-4.

280. *See* Peabody Energy Corp., Annual Report (Form 10-K), at F-64 (Feb. 25, 2015).

281. *See* 11 U.S.C. § 507(b) (2017).

282. *See* Peabody Second Amended Disclosure Statement, *supra* note 274, at 61.

$181 million in liabilities;[283] in Indiana, a $17.9 million superpriority claim and a collateral bond of $7.5 million for $145.2 million in liabilities;[284] and in Illinois, a $12.9 million superpriority claim and a $3.2 million collateral bond to cover $92.2 million in liabilities.[285] State regulators feared that the liabilities associated with these reclamation obligations would be eliminated entirely in a Chapter 7 liquidation. So they agreed to accept guaranteed payouts of just over 17% of the value of the bonds. Although we argue in Part IV below that these obligations are nondischargeable, the threat that Peabody would be unable to make good on any of its reclamation obligations convinced state regulators to accept a mere 17 cents on the dollar.

In order to emerge from bankruptcy, Peabody discharged over $8 billion in debt. This left it with some $8.3 billion in assets and $5.1 billion in liabilities.[286] However, the assumptions Peabody relied on to arrive at these numbers misrepresent the size of Peabody's assets and its coal production outlook.[287] When analyzing the viability of Peabody's reorganization plan, the Institute for Energy Economics and Financial Analysis (IEEFA) thought Peabody's reorganization looked familiar: "Peabody's bankruptcy is reminiscent of the bankruptcy of Patriot Coal . . . . [T]he similarities are striking, especially in terms of stated coal reserves and in being overly optimistic about the effects of its cost-management strategies."[288] These accounting gimmicks are troubling for two reasons. First, they have allowed the single largest coal producer in the United States to continue operating and generating new reclamation obligations despite the fact that it has no real future. Second, in allowing the company to continue operating, the reorganization agreement gave Peabody additional opportunities to shed environmental and retiree obligations by spinning off its assets.

The primary accounting infirmities were unrealistic assumptions about the price of coal, as well as impossible predictions about Peabody's ability to cut costs. For instance, Amherst Consulting pointed out that although Peabody did not explain many of the assumptions behind the projections made in its reorganization plan, a number of the projections were inconsistent.[289] Amherst's report emphasizes that Peabody assumed that it would dramatically

283. *See id.*

284. *See id.* at 61-62.

285. *See id.* at 62.

286. Peabody Energy Corp., Quarterly Report (Form 10-Q), item 1, at 3 (Aug. 14, 2017).

287. *See* Memorandum from Tom Sanzillo, Dir. of Fin., Inst. for Energy Econ. & Fin. Analysis 2 (Aug. 31, 2016), https://perma.cc/5Q3Z-KFNH.

288. *Id.* at 3.

289. *See* Sierra Club Limited Objection, *supra* note 154, exhibit B at 4.

increase market share in certain regions[290] while simultaneously cutting costs.[291] It further observed that Peabody's cost estimate seemed to assume that the company would not have to pay to reclaim degraded mines. As the IEEFA said, "[a]n overestimate of coal reserves and related asset values at this time in the company's financial history . . . frustrates state regulators as they try to manage environmental liabilities."[292] Based on these assumptions, financial analysts found that Peabody's reorganization plan was not credible.[293]

What is potentially more interesting, however, is that Peabody's ability to inflate its assets gave it an opportunity to spin off regulatory liabilities once it emerged from bankruptcy. In our view, the hidden assumption behind Peabody's overly rosy projections was perhaps not that the company would increase its market share while cutting costs, but that the company would be able to shed environmental liabilities by selling them or spinning them off into inadequately funded successor companies.

This theory has been borne out by Peabody's post-reorganization spin-offs, which have used this very technique to shed onerous assets since emerging from bankruptcy.[294] As part of its reorganization plan, Peabody liquidated Gold Fields Mining, a subsidiary that formerly operated noncoal smelting operations.[295] Through Peabody's reorganization, Gold Fields's assets were liquidated and the proceeds placed into a trust.[296] Peabody's reorganization agreement required it to pay an additional $43 million into that trust and to use the proceeds to cover Gold Fields's environmental liabilities.[297] Under the liquidation analysis, Gold Fields had assets of roughly $6 million against claims of almost $13 billion, including at least $745 million in environmental

290. *Id.* exhibit B at 7-8.

291. *Id.* exhibit B at 11 ("[T]hrough 2020, [Peabody] must cut approximately $406 million in existing annual costs . . . while simultaneously increasing production by 6.6%." (emphasis omitted)).

292. Memorandum from Tom Sanzillo, *supra* note 287, at 3.

293. *See, e.g.*, *id.* at 1; Sierra Club Limited Objection, *supra* note 154, exhibit B at 4-5.

294. *See* Press Release, Peabody Energy Corp., Peabody Reports Earnings for Quarter Ended March 31, 2018 (Apr. 25, 2018), https://perma.cc/AGZ5-AWXE ("[T]he company eliminated $4 million of reclamation liabilities as well as future take-or-pay obligations through the sale of Peabody's 50 percent interest in the coal handling and preparation plant and associated rail loading facility utilized by the Millennium Mine."); Tom Sanzillo, *Peabody's Recent Asset-Sale Maneuvers Alone Won't Work*, INST. FOR ENERGY ECON. & FIN. ANALYSIS (Dec. 8, 2015), https://perma.cc/3X2A-JMG6.

295. *See* Peabody Second Amended Disclosure Statement, *supra* note 274, at 58-59 (summarizing the history of Gold Fields).

296. *See id.* at 111-14.

297. *See* Tracy Rucinski, *U.S. Judge Signs Peabody Bankruptcy Exit After Environmental Deal*, REUTERS (Mar. 18, 2017, 1:14 PM), https://perma.cc/25YK-7SA6.

liabilities.[298] The EPA and the DOI have determined that the Gold Fields Liquidating Trust was a stratagem—and an effective one at that—for Peabody to shed its environmental obligations.[299] The agencies objected that Gold Fields "will own certain contaminated properties, including one subject to an administrative order protecting public health and safety, but . . . [will] fail to make provision for compliance and protection of public health and safety."[300] Moreover, the reorganization plan would allow "the Gold Fields Trust to abandon the contaminated property seemingly without notice or approval of the Court and without conditions formulated to protect public health and safety."[301]

Peabody also used Gold Fields to formally discharge and write down substantial environmental obligations. According to the EPA and the DOI, Gold Fields and Peabody each owed close to $1 billion in environmental obligations to the federal government, along with hundreds of millions to states.[302] The reorganization agreements allowed Peabody and Gold Fields to pay just $32 million to settle these environmental claims.[303] If the government's estimate was correct and the two companies actually owed closer to $1.8 billion, Peabody's bankruptcy proceedings allowed the company to receive a haircut of greater than 98% on these environmental claims. Granted, some of

298. *See* Notice of Filing Exhibits B & C to Disclosure Statement exhibit B at 9, *In re* Peabody Energy Corp., No. 16-42529-399 (Bankr. E.D. Mo. Jan. 16, 2017), ECF No. 2019 [hereinafter Peabody Liquidation Analysis]. The liquidation analysis shows the hypothetical proceeds and distribution of those proceeds if the debtor were to cease operations and sell all assets. It is a theoretical analysis, rather than a reflection of actual economic transactions. In Peabody's bankruptcy, most of the company's entities underwent restructuring. The Gold Fields subsidiary, however, was liquidated. The actual liquidation is a lengthy process where not all transactions are public. As such, we use the liquidation analysis for the Gold Fields subsidiary as a proxy for the actual liquidation. The analysis shows that there are scant assets to sell and the environmental liability of $745 million would have likely been fully discharged.

299. *See* Governments' Objection to Second Amended Joint Plan of Reorganization, *supra* note 10, at 1.

300. *Id.* at 2.

301. *Id.*

302. *See* Gold Fields Settlement Agreement, *supra* note 12, at 7-10; *supra* note 12 and accompanying text. Peabody's bankruptcy also protected the company against pending climate-related lawsuits. *See* Michael Hiltzik, *How a Bankruptcy Filing Shielded a Big Coal Company from California's Climate-Change Lawsuits*, L.A. TIMES (Nov. 28, 2017, 1:40 PM), https://perma.cc/275J-VR8A.

303. Gold Fields Settlement Agreement, *supra* note 12, at 7-10.

the earlier environmental obligations did not stem from SMCRA. Many, for example, came from the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), another environmental statute that requires mining companies to provide financial assurance to guarantee that they can mitigate environmental damage from their activities.[304] That does not count the $745 million of SMCRA obligations Peabody offloaded onto Gold Fields. The point, however, is that, according to federal environmental agencies, Peabody has avoided having to pay $3 billion in environmental obligations simply because it pushed the obligations onto a former subsidiary, and in that way immunized itself from its environmental obligations.

Table 2 below summarizes the environmental and retiree liabilities that coal companies have shed through corporate reorganizations in which an underfunded successor entity eventually liquidates. These obligations formed 22% of the total debts that were wiped out in the series of bankruptcies and spin-offs that began when Patriot was formed in 2007.[305]

304. *See* Master Proof of Claim, *supra* note 12, at 44; *see also* Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. No. 96-510, 94 Stat. 2767 (codified as amended at 42 U.S.C. §§ 9601-9675 (2017)); *supra* note 49.

305. For an annotated version of Table 2, see Appendix below.

Table 2
Summary of Coal Company Financials in Bankruptcy (in millions of dollars)

	Patriot I	Patriot II	Alpha	Arch	Peabody	Total
Assets, prebankruptcy	3,580	N/A	9,971	5,107	11,021	29,678
Liabilities, prebankruptcy	3,391	N/A	7,331	6,351	10,103	27,176
Asset retirement obligations	738	N/A	683	411	687	2,519
Postretirement benefit obligations	1,384	N/A	1,167	127	723	3,401
Self-bonding	0	N/A	676	486	1,431	2,592
Long-term environmental and retiree liabilities	2,193	N/A	3,086	N/A	3,050	
Environmental liabilities discharged	0	471	708	0	745	1,924
Retiree liabilities discharged	1,048	268	1,846	0	70	3,232
Total environmental and retiree liabilities discharged	1,048	739	2,554	0	815	5,156
Total environmental and retiree liabilities discharged (Patriot reallocated)			2,554	1,072	1,530	5,156
Total liabilities discharged	1,776	2,972	5,182	4,988	8,061	22,979
Total liabilities discharged (Patriot reallocated)			5,182	7,837	9,960	22,979
Environmental and retiree liabilities discharged as share of total liabilities discharged			49%	14%	15%	22%

In summary, coal companies have adopted three mutually reinforcing strategies to evade their environmental and retiree liabilities through bankruptcy. First, companies structure regulatory arrangements in a manner that allows them to avoid fully internalizing costs. In the case of their environmental obligations, coal companies take advantage of the ability to self-bond. Then, before filing for bankruptcy, they convince state regulators to allow them to continue mining in exchange for steeply discounted superpriority claims. In the case of their retiree obligations, coal companies simply neglect to adequately fund them. Just as with reclamation obligations, once a company experiences financial difficulties, it can threaten to default.

Second, parent companies repeatedly spin off subsidiaries comprised of depleted mining assets and significant liabilities, either through divestiture or liquidation. The leading coal companies have embraced a strategy of depleting the value of assets by extracting all of the easily accessible coal, incurring significant environmental and retiree liabilities at the mine sites, and then disposing of the assets through divestiture or liquidation. When a successor company inevitably liquidates, the company that originally incurred these liabilities is shielded from the obligations.

This pattern occurs with sufficient regularity to suggest that the leading companies never intended to cover their liabilities. Peabody executed this maneuver in the original formation of Patriot Coal in 2007. Patriot consisted of only 13% of Peabody's coal reserves but 40% of its retiree liabilities to 8,400 former Peabody employees.[306] Furthermore, the mines Patriot inherited were largely legacy mines in the Appalachia basin whose coal could no longer be sold at a profit, but which had accrued significant environmental liabilities.[307] The addition of legacy Arch assets in 2008 with responsibility for 2,300 retirees followed the same pattern.[308] By divesting these mines into a separate entity, Peabody and Arch removed the associated liabilities from their respective balance sheets. This spin-off arrangement is also how Alpha used bankruptcy to separate its profitable assets from its onerous regulatory liabilities.

Third, coal companies engage in financial gimmickry by overvaluing assets, undervaluing liabilities, or pushing liabilities off balance sheet in order to appear solvent and continue operating. This is how Patriot and Peabody were able to operate for years despite being legally insolvent, and it is how Alpha was able to pile all of its worthless assets and environmental and retiree

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306. *See* MacGillis, *supra* note 15; MacGillis, *supra* note 170.

307. *See In re* Patriot Coal Corp., 493 B.R. 65, 93-94 (Bankr. E.D. Mo. 2013).

308. *See id.* at 94 (explaining that during bankruptcy, Patriot had to reject or renegotiate "numerous unprofitable coal supply contracts which [it] inherited from Arch through the acquisition of Magnum and Peabody . . . [that] required [it] to supply coal to customers at below-market prices, and at times, prices below the cost of production").

liabilities onto a company that was unable to pay its debts just weeks after it began operating. In the language of the disclosure statement in Patriot's second bankruptcy, "the Debtors' feasibility upon emergence from the 2012-13 Restructuring was predicated on assumptions about coal prices and operating performance that ultimately did not materialize."[309] An incorrect valuation of coal company assets and liabilities effectively amounts to a discharge of environmental liabilities because allowing an insolvent company to continue operating creates additional environmental costs that will ultimately be borne by the public. This valuation tactic thus works in concert with the divestiture and liquidation tactic described above, because an incorrect valuation enables divestitures that would not have occurred had the company liquidated.

C. Bankruptcy Code Provisions That Have Eroded Environmental and Labor Laws

The previous Subpart described the various strategies that the coal industry has employed to evade federal regulations through bankruptcy. This Subpart provides a descriptive, technical overview of the legal provisions of the Bankruptcy Code that have allowed this to happen. We argue in Part IV below that the Code need not—and should not—be interpreted in this manner.

Coal companies rely on three different parts of the Bankruptcy Code to avoid federal regulatory obligations. First, they simply reject health care and pension obligations in their reorganization plans. Second, they transfer sizable regulatory liabilities to successor companies that are inadequately funded and arguably set up to fail. Third, they discharge or abandon those regulatory liabilities when the successor companies liquidate. Along the way, coal companies convince bankruptcy judges to approve a reorganization plan by inflating asset valuations during bankruptcy. That, in turn, allows the corporation to incur additional regulatory liabilities that they will be unable to honor when they liquidate.

All of these provisions further the Bankruptcy Code's general goal of maximizing the going-concern value of firms in financial distress.[310] Moreover, the tendency of these provisions to favor reorganization over liquidation is consistent with the view that reorganizations maximize firm

309. *See* Patriot Disclosure Statement for Debtors' Joint Plan of Reorganization, *supra* note 204, at 19.

310. *See* Todd J. Zywicki, *Bankruptcy*, LIBR. ECON. & LIBERTY, https://perma.cc/5EWD-JKGD (archived Mar. 7, 2019) ("Bankruptcy law serves . . . to save and preserve the going-concern value of firms in financial distress by reorganizing rather than liquidating."). *See generally* Lynn M. LoPucki & Joseph W. Doherty, *Bankruptcy Fire Sales*, 106 MICH. L. REV. 1, 24-29 (2007) (presenting empirical evidence that reorganizations preserve firm value).

value by avoiding disorderly fire sales and preserving economies of scale.[311] In fact, the bankruptcy judge who oversaw Patriot's first reorganization explicitly embraced these goals, stating: "The overarching goal for this Court is to guide Debtors through the Bankruptcy Code, particularly its Chapter 11 strictures, to maximize the value of Debtors' estates for the organized benefit of all stakeholders . . . ."[312] As this Article shows, however, the overzealous application of these goals can be in tension with other purposes of bankruptcy law.[313]

1. Rejecting regulatory obligations

Coal companies have shed billions of dollars of pension and health care liabilities by rejecting executory contracts.[314] While executory contracts are typically rejected under § 365(a) of the Bankruptcy Code,[315] the key provisions that bankruptcy judges have relied on to reject obligations incurred in accordance with the Coal Act are §§ 1113 and 1114, which govern the specific circumstances under which debtors can reject collective bargaining agreements.[316] Bankruptcy judges have pitted the Coal Act's precise language requiring payment of lifetime health benefits against the general provisions of the Bankruptcy Code that allow corporations to reject collective bargaining agreements during reorganization.[317] The Bankruptcy Code was enacted

311. *See, e.g.*, Harvey R. Miller & Shai Y. Waisman, *Does Chapter 11 Reorganization Remain a Viable Option for Distressed Businesses for the Twenty-First Century?*, 78 AM. BANKR. L.J. 153, 192-93 (2004).

312. *In re Patriot Coal*, 493 B.R. at 78-79.

313. This is, unfortunately, not a new phenomenon. Corporate polluters have used the Bankruptcy Code to evade federal environmental laws since the 1980s, when the U.S. Supreme Court allowed corporations to discharge environmental obligations in bankruptcy. *See* Ohio v. Kovacs, 469 U.S. 274, 283 (1985) (holding that the debtor's obligation to clean up a hazardous waste site "had been converted into an obligation to pay money, . . . dischargeable in bankruptcy"). *But cf.* Midlantic Nat'l Bank v. N.J. Dep't of Envtl. Prot., 474 U.S. 494, 507 & n.9 (1986) (stating that a corporation "may not abandon property in contravention of a state statute or regulation that is reasonably designed to protect the public health or safety" but limiting its holding to "imminent and identifiable harm").

314. *See* Vern Countryman, *Executory Contracts in Bankruptcy: Part I*, 57 MINN. L. REV. 439, 460 (1973) (defining an executory contract as one in "which the obligation of both the bankrupt and the other party to the contract are so far unperformed that the failure of either to complete performance would constitute a material breach excusing the performance of the other").

315. *See* 11 U.S.C. § 365(a) (2017).

316. *See id.* §§ 1113-1114.

317. *See In re* Alpha Nat. Res., Inc., 552 B.R. 314, 336-38 (Bankr. E.D. Va. 2016); *see also id.* at 328 ("A plain reading of § 1114(a) of the Bankruptcy Code would appear to encompass obligations under the Coal Act. There is no dispute that the obligations in question are benefit payments or that the payments are made to retirees under a plan or program.").

before the Coal Act and does not distinguish between retiree obligations that have an independent statutory basis and those that do not. Nevertheless, bankruptcy judges have determined that the Code's language trumps the language in the Coal Act.[318]

According to the bankruptcy judge who allowed Alpha to reject its Coal Act liabilities, "[t]he threat of liquidation and loss of every union and non-union job permeates the Court's concern in this case, and overrides the other equitable considerations."[319] The court thus felt that the economic consequences of liquidation tipped the scale toward reorganization and justified getting rid of significant Coal Act obligations: "Without a rejection of the collective bargaining agreements, the sale . . . will not close. . . . The Debtors desperately need to bring their cash bleed under control if they have any hope of avoiding liquidation."[320]

To reject obligations owed to retirees, a debtor must show that the modification is "necessary to permit the reorganization of the debtor."[321] Bankruptcy judges overseeing reorganizations have interpreted this provision generally to mean that the rejection will "prevent the debtor's liquidation."[322] Under this test, an important concern is whether the discharges facilitate the company's reorganization.[323] But of course, the act of rejecting a contract and transforming it into a claim that will only receive pro rata payment on equal terms as the claims of other unsecured creditors will make a company more financially viable. The simple act of discharging a debt axiomatically reduces the company's costs and thereby makes it more competitive.

The Bankruptcy Code has thus been interpreted in a manner that makes it easy for coal companies to reject retiree liabilities. Once a company such as Patriot has inherited retiree liabilities from Peabody and Alpha, it will, of course, be "necessary" for it to reject those inherited liabilities, because it was never in a position to pay them in the first place.

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318. *See id.* at 337-38.

319. *Id.* at 337. The bankruptcy judge expressed satisfaction that Alpha's reorganization would preserve jobs in other contexts as well. *See* Palank, *supra* note 241 ("'As you have told me probably 10 times today, this has substantial consensus of the various constituencies, significant support from all of the creditors and parties-in-interest, [and] it's going to preserve jobs,' Judge Huennekens said . . . . 'This is a wonderful outcome.'" (first alteration in original)).

320. *In re Alpha Nat. Res.*, 552 B.R. at 337.

321. *See* 11 U.S.C. § 1113(b)(1)(A).

322. *In re Alpha Nat. Res.*, 552 B.R. at 332-33.

323. *See In re* Patriot Coal Corp., 493 B.R. 65, 126 (Bankr. E.D. Mo. 2013) ("There is no dispute that for Debtors' survival, concessions are necessary. Debtors' obligations for Retiree Benefits consume double Debtors' revenue in relation to Debtors' competitors.").

On its own, the ability to reject collective bargaining agreements might not be as problematic. Rejection transforms the counterparty into an ordinary creditor who shares in the distribution of the estate's assets with other, similarly situated creditors.[324] If retirees truly shared in the distribution of a company's assets, however, retirees would be in the same position as other claimants because they would be able to share equally in the distribution of the company's assets. While we urge Congress to give such claims priority status, Congress's failure to do so could be read to imply that the companies are actually treating retirees no differently than they are treating other unsecured creditors.

But even a priority claim or the elimination of self-bonding would not have protected retirees and environmental claimants during the coal bankruptcies described above. This is because the situation is different after a company engages in a series of prebankruptcy corporate reorganizations that separate its employment obligations from its lucrative assets. At that point, coal miners are left without a good option because their claims are supported by an empty corporate shell that has already been stripped of all of its valuable assets. In this way, retired miners' inability to claw back assets from the entity that actually incurred these Coal Act obligations renders the discharge more problematic.

2. Abandoning regulatory obligations

Coal companies have also taken advantage of their right to abandon burdensome property.[325] To abandon property, the trustee merely has to demonstrate to the bankruptcy court that such property is burdensome or of inconsequential value.[326]

In a Chapter 11 reorganization case, courts require the trustee (or debtor) to show also that there is a "good 'business reason' or 'articulated business justification'" for the proposed abandonment.[327] But this requirement suffers a similar infirmity as the requirement that a debtor can only reject collective

324. *See* NLRB v. Bildisco & Bildisco, 465 U.S. 513, 531 (1984) ("Damages on the contract that result from the rejection of an executory contract . . . must be administered through bankruptcy and receive the priority provided general unsecured creditors."), *superseded in other part by statute*, Bankruptcy Amendments and Federal Judgeship Act of 1984, Pub. L. No. 98-353, sec. 541(a), § 1113, 98 Stat. 333, 390-91 (codified at 11 U.S.C. § 1113).

325. We acknowledge that abandonment can occur outside of bankruptcy.

326. *See* 11 U.S.C. § 554(a) ("After notice and a hearing, the trustee may abandon any property of the estate that is burdensome to the estate or that is of inconsequential value . . . to the estate.").

327. *In re* Beker Indus. Corp., 64 B.R. 900, 906 (Bankr. S.D.N.Y. 1986) (quoting Comm. of Equity Sec. Holders v. Lionel Corp. (*In re* Lionel Corp.), 722 F.2d 1063, 1070-71 (2d Cir. 1983)).

bargaining agreements if it can show that doing so is "necessary" for the reorganization. The mandate that parties communicate a business reason for abandoning burdensome property hardly creates a meaningful barrier. Because environmental obligations are, by definition, financially burdensome, the "good reason" requirement ends up rubber-stamping the right to abandon property laden with environmental obligations.

The abandonment power confers wide latitude to abandon burdensome property. Although the U.S. Supreme Court has held that property cannot be abandoned if abandonment would contravene state laws designed to protect public health and safety,[328] the Court qualified that exception by explaining in a footnote that the abandonment power "is not to be fettered by laws or regulations not reasonably calculated to protect the public health or safety from imminent and identifiable harm."[329] The question is therefore not whether abandonment undermines a state or federal law; it is whether it undermines a law that protects the public from immediate danger.

Courts have relied on this qualification to permit corporations to abandon property even when abandonment allows the companies to expressly violate environmental laws. Under the terms of Patriot's liquidation agreement, for instance, any property not sold, regardless of any regulatory encumbrances associated with the property, will be abandoned pursuant to § 363.[330] Because Patriot could abandon burdensome property, Blackhawk Mining—the corporation that purchased most of Patriot's productive mines—was able to pick and choose the assets it wanted; all other assets were scheduled to be abandoned.[331] Blackhawk is thus liable only for the reclamation obligations of the mines it purchased. The rest of Patriot's reclamation obligations will likely go unfulfilled. In other words, the abandonment power allowed insolvent corporations to flout congressional policy.

Unlike Patriot, the other firms we analyzed did not abandon property during their bankruptcies. That does not mean, however, that abandonment did not play a role in those companies' reorganizations. In fact, Peabody and Alpha were able to obtain such favorable terms in part because state regulators feared that the companies would abandon burdensome property if they were forced to liquidate.[332] Peabody, for instance, expressly threatened to liquidate

328. Midlantic Nat'l Bank v. N.J. Dep't of Envtl. Prot., 474 U.S. 494, 507 (1986).

329. *Id.* at 507 n.9.

330. *See* Blackhawk Asset Purchase Agreement, *supra* note 206, at 26-27.

331. *See supra* notes 206-12 and accompanying text.

332. *See Patriot Coal CEO: Givebacks or Liquidation*, BRISTOL HERALD COURIER (Apr. 7, 2013), https://perma.cc/6V43-SBRL ("[The CEO] wrote that the company's liquidation would result in the loss of thousands of jobs and have a devastating impact on workers, their families, retirees and their communities."); Rucinski, *supra* note 297 ("In court filings, Peabody said that were it required to replace its self-bonded liabilities, its entire
footnote continued on next page

in order to convince both the UMWA and state environmental regulators to accept a haircut on their regulatory obligations.[333]

This abandonment power has historically been used to thwart environmental laws in a wide variety of contexts. It has, for instance, been used to abandon toxic chemical sites in contravention of state environmental laws.[334] Similarly, despite the debtor's ongoing obligations under state environmental laws, the Fourth Circuit permitted the Bankruptcy Code to be read to preempt "[s]tate laws which obstruct expeditious and equitable distribution" of assets out of bankruptcy proceedings.[335] The Tenth Circuit reached the same result in *In re L.F. Jennings Oil Co.*, in which it held that former gas stations could be abandoned without fulfilling environmental obligations because there was no immediate or identifiable harm to public health or safety.[336]

3. Transferring regulatory obligations

Coal companies have been especially successful in evading environmental and retiree liabilities by transferring those obligations to companies that will not be able to make good on them. These transfers have made the other strategies much more effective because they have depleted the pool of assets the underfunded subsidiaries have available to honor their noncontractual, regulatory obligations when they eventually liquidate.

Debts inherited by successor companies are theoretically subject to the prohibition against fraudulent transfers, which prevents a debtor from "dispos[ing] of his property with the intent or the effect of placing it beyond the reach of his creditors."[337] In theory, an otherwise valid transfer can be voided if it impairs the ability of creditors to reach the debtor's property.[338] To establish that a transaction is a fraudulent conveyance, courts generally ask

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liquidity would be depleted, leaving it without enough cash to run its business. This is a scenario regulators have said they want to avoid. If a producer walks away from its self-bonded mines, the state would be stuck with the cleanup.").

333. *See* Tim Bross & Nick Brown, *Update 3: Patriot Warns of Liquidation Without Major Cuts to Labor*, REUTERS (Apr. 29, 2013, 7:15 PM), https://perma.cc/W6VM-UMQA; Dashka Slater, *Coal-Country Scam*, SIERRA CLUB (Nov. 1, 2016), https://perma.cc/CP4U-7FXK.

334. *See, e.g.*, *In re* Guterl Special Steel Corp., 316 B.R. 843, 858-59 (Bankr. W.D. Pa. 2004).

335. *See* Borden, Inc. v. Wells-Fargo Bus. Credit (*In re* Smith-Douglass, Inc.), 856 F.2d 12, 15-16 (4th Cir. 1988).

336. *See* N.M. Env't Dep't v. Foulston (*In re* L.F. Jennings Oil Co.), 4 F.3d 887, 890 (10th Cir. 1993).

337. VERN COUNTRYMAN, CASES AND MATERIALS ON DEBTOR AND CREDITOR 127 (2d ed. 1974). We argue below that fraudulent conveyance law could allow government and union creditors to establish that these spin-offs and divestitures are fraudulent conveyances. *See infra* Part IV.A.

338. COUNTRYMAN, *supra* note 337, at 127.

(1) if the debtor is unable to pay its debts, and (2) if the debtor received "less than a reasonably equivalent value" in the transfer.[339] The difficulty, however, is that SMCRA and Coal Act liabilities do not become due for many years, and so it may not be apparent that a spin-off defrauded regulatory beneficiaries out of the debts due them. Patriot's first filing, for example, occurred just after the look-back period, which is when creditors could still have clawed assets back from Peabody.[340]

Equally problematic is that the creditors who vote to approve a reorganization plan understandably want the company to shed its environmental obligations. Creditors are eager to approve arrangements that allow the company to get rid of these liabilities and thereby increase the share of the insolvent company's assets that will be available to them. Although the spin-offs described above seem intended to defraud government and union creditors, the government environmental creditors generally did not get to vote along with other creditors, and had to file separate petitions objecting to the plans.[341] As described in Part II.B above, the Peabody retirees had more luck, but were dissuaded from bringing their fraudulent transfer claim once the company threatened to liquidate. In fact, the CEO of Peabody publicly stated that his goal in spinning assets off to Patriot was to ensure that Peabody did not have to pay the environmental and retiree obligations associated with those assets.[342]

Moreover, the fact that the company that inherits the regulatory debts either (1) was originally a subsidiary company of the corporation that incurred the debts (like Patriot or Alpha II), or (2) is intentionally underfunded such that it never intends to perform the regulatory obligations (like Lexington Coal), means that the parties will not negotiate as if they were actually going to honor their regulatory requirements. And because the company that inherits these obligations often did not give anything when it took them—it may even have received a small fee to accept the regulatory obligations—there is nothing to claw back from the parent company that has accepted responsibility for reclaiming damaged mines and for paying health and pension benefits to retired coal miners.

339. *See* Official Comm. of Unsecured Creditors v. Hancock Park Capital II, L.P. (*In re* Fitness Holdings Int'l), 714 F.3d 1141, 1145 n.5 (9th Cir. 2013) (quoting 11 U.S.C. § 548(a)(1)(B)).

340. The Bankruptcy Code provides a two-year look-back period, *see* 11 U.S.C. § 548(a) (2017), though many states use a four-year look-back period, *see, e.g.*, OHIO REV. CODE ANN. § 1336.04 (LexisNexis 2019); TEX. BUS. & COM. CODE ANN. § 24.010 (West 2017).

341. *See, e.g.*, Peabody Second Amended Disclosure Statement, *supra* note 274, at 19-27; *see also, e.g.*, Governments' Objection to Second Amended Joint Plan of Reorganization, *supra* note 10, at 1.

342. Flatley, *supra* note 179 (reporting that Peabody CEO Gregory H. Boyce called the Patriot spin-off a "key element in transforming our business portfolio").

4. Inflating asset values

Part II.B above showed how Alpha, Peabody, and Patriot inflated asset valuations in order to stay in business, and that these misleading analyses gave them additional opportunities to shed burdensome debts. For instance, Alpha's accounting wizardry allowed the company to offload the vast majority of its environmental and retiree obligations onto an insolvent successor corporation.[343] Peabody made dubious claims about its future viability that prompted the bankruptcy judge to approve its reorganization agreement, only to promptly spin off the very mines it had promised to reclaim.[344]

Overly optimistic asset valuations seem to be consistent with the preferences for reorganization expressed by the judges in the Patriot, Alpha, and Peabody bankruptcies. While it is not clear that the continuation bias even makes sense in the context of the Bankruptcy Code's goal of maximizing firm value,[345] any judicial preference for reorganization is especially questionable when it allows the continued operation of companies in violation of two federal regulatory schemes. The purpose of regulatory approaches that force corporations to internalize the social costs of their activities is to decrease the private value of a good, such that production levels account for the externalities of the regulated behavior. To the extent that the continuation bias enfeebles regulations that operate in this way, it is in direct tension with regulatory approaches that rely on markets to reduce the level of production of goods and services.

III. A Critique of the Continuation Bias

Coal companies' use of the Bankruptcy Code to avoid SMCRA's bonding requirement and the Coal Act's guaranty of lifetime health benefits demonstrates how bankruptcy law can be used to undermine efficient regulatory approaches. Academics describe the view that corporations should prioritize reorganization over liquidation as the "continuation bias."[346] This Part first offers a brief summary of the traditional arguments supporting the continuation bias. It then argues that the continuation bias should not trump congressionally mandated obligations.

343. *See supra* Part II.B.

344. *See supra* Part II.B.

345. *See* Morrison, *supra* note 43, at 382 ("Chapter 11 prevents or retards the reallocation of the assets even when a failing business's assets may have greater value in the hands of another owner.").

346. *See, e.g.*, *id.* at 392-411 (describing the conventional view of continuation bias and showing that judges did not exhibit this bias in a sample of small business bankruptcies in the Northern District of Illinois).

It is important to clarify one thing at the outset. Although we suggest that reorganization permits corporations to evade market-based regulations such as SMCRA and that liquidation does not, certain provisions of the Bankruptcy Code can also be used by successor firms to operate without internalizing regulatory costs in the manner SMCRA envisions. As described above, abandonment generally permits new firms to take control of those assets unencumbered by the debts left behind by the failing firm.[347] In doing so, the Code allows new companies to operate assets without incurring the regulatory costs that the liquidated corporation faced. Insofar as we argue that firms should not be able to use bankruptcy to avoid internalizing social costs, our argument applies with equal force to all provisions of the Bankruptcy Code—both Chapter 11 and, indirectly, Chapter 7—that allow firms to avoid market-based regulatory schemes.

A. Bankruptcy Law's Continuation Bias

There is a longstanding debate in bankruptcy theory between traditionalists, who support considering community concerns in bankruptcy proceedings, and proceduralists, who argue that bankruptcy law's exclusive aim should be to maximize the value of the assets in the bankruptcy estate.[348] The traditionalists point to congressional language that indicates that one of the goals of bankruptcy law is to promote employment.[349] They emphasize legislative history[350] and Supreme Court language stressing "the congressional goal of encouraging reorganizations."[351] According to the traditionalists, these

347. *See supra* Part II.C.

348. *See supra* text accompanying note 44. For a recent theory that argues that bankruptcy should maximize asset value without relying on the Creditors' Bargain Theory, see Vincent S.J. Buccola, *Bankruptcy's Cathedral: Property Rules, Liability Rules, and Distress*, 114 NW. U. L. REV. (forthcoming 2019), https://perma.cc/FG8V-NF3D.

349. *See supra* text accompanying notes 47-48.

350. *See, e.g.*, Liscow, *supra* note 48, at 1465 ("Legislative history suggests that Congress intended for the bankruptcy process to support employment."); Warren, *supra* note 28, at 788 & n.25 (pointing to legislative history demonstrating Congress's interest in the "community goals and values" implicated in bankruptcy, particularly in reorganizations).

351. United States v. Whiting Pools, Inc., 462 U.S. 198, 204 (1983); *see also* Harvey R. Miller & Shai Y. Waisman, *Is Chapter 11 Bankrupt?*, 47 B.C. L. REV. 129, 146-49 (2005) ("[R]ehabilitation and reorganization were the policy goals underlying the enactment of the Bankruptcy Code. In the early years following the 1978 Act, judges did not hesitate to interpret the Bankruptcy Code and exercise their perceived equity powers to achieve and implement that policy."); Peter B. Brandow, Note, *Rejection of Collective Bargaining Agreements in Bankruptcy: Finding a Balance in 11 U.S.C. § 1113*, 56 FORDHAM L. REV. 1233, 1237 (1988) ("The rationale underlying reorganization is that a successful reorganization is preferable to liquidation: a reorganized debtor will be in a better

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policy goals are embedded in U.S. bankruptcy law and should be considered during bankruptcy proceedings. The proceduralists, by contrast, argue that Congress can realize these policy concerns more effectively outside of bankruptcy. On this view, bankruptcy law's primary goal should be to maximize the value of bankrupt firms' assets.[352]

Despite their disagreement about bankruptcy law's fundamental goals, traditionalists and proceduralists generally agree that there are situations in which bankruptcy law should prioritize reorganization over liquidation. Their reasons differ. Traditionalists support the continuation bias because they fear that liquidation will reduce employment and harm local communities.[353] Although proceduralists will, of course, prefer liquidation when it maximizes asset values, it is often the case that a corporation's assets will be worth more when they are preserved as a going concern.[354] When that is the case, proceduralists will prefer reorganization because it furthers what they perceive as the central goal of bankruptcy.[355] But for both traditionalists and proceduralists, the perceived benefits of reorganization—either the employment benefits or the maximization of asset values—associated with the continued operation of firms justify a bias toward Chapter 11 restructuring over Chapter 7 liquidation.

B. Continuation Bias Should Not Undermine Federal Laws

We agree with traditionalists that externalities should play an important role in bankruptcy but think that employment concerns are far from the only externality relevant to bankruptcy proceedings. We also agree with proceduralists that bankruptcy is not the proper forum to advance broad social

position to repay its creditors, provide a dividend for its shareholders, and supply uninterrupted employment for its workers." (footnote omitted)).

352. *See* Baird & Jackson, *supra* note 30, at 100 ("[B]ankruptcy law at its core should be designed to keep individual actions against assets, taken to preserve the position of one investor or another, from interfering with the use of those assets favored by the investors as a group."); Morrison, *supra* note 43, at 392-93.

353. *See supra* text accompanying note 47. A corporation's future earning potential is measured by the productive value of its present assets. Regardless of whether a corporation liquidates piecemeal or continues as a reorganized enterprise, its present value derives from the future earnings stream expected from its existing assets.

354. *See, e.g.*, B. Espen Eckbo & Karin S. Thorburn, *Automatic Bankruptcy Auctions and Fire-Sales*, 89 J. FIN. ECON. 404, 405 (2008); LoPucki & Doherty, *supra* note 310, at 3-4 (showing empirically that "creditors and shareholders can more than double their recoveries by reorganizing large public companies instead of selling them"); Per Strömberg, *Conflicts of Interest and Market Illiquidity in Bankruptcy Auctions: Theory and Tests*, 55 J. FIN. 2641, 2644-45 (2000) (critiquing liquidation on the ground that fire sales fail to maximize asset values).

355. *See* Jackson, *supra* note 29, at 861-63; Schwartz, *supra* note 41, at 1809.

policy goals that Congress has not prioritized in other contexts. Unlike proceduralists, however, we recognize that there are situations in which bankruptcy cannot avoid operating at cross-purposes with other public policy goals.

As Part II above shows, attempts to maximize the value of corporate assets can themselves undermine other congressional policy goals. In recent coal company bankruptcies, the value of mining assets increased because coal companies were able to avoid SMCRA's reclamation requirements (perhaps this is axiomatic—the ability to discharge debts by definition makes an asset more valuable). But by artificially increasing the value of these assets, bankruptcy undermines SMCRA's goal of forcing coal companies to reclaim legacy mine sites. The coal company bankruptcies have shown that by focusing so single-mindedly on maximizing asset values, the proceduralist tendency to exclude other policy goals from bankruptcy decisionmaking can undermine those congressionally mandated policies that remain in effect.

C. Continuation Bias Should Not Undermine Market-Based Regulations or Performance Standards

The provisions of the Bankruptcy Code that incentivize reorganization can also operate to undermine some types of federal regulations. This Subpart shows that coal companies' reorganizations have thwarted the mechanism by which SMCRA and the Coal Act aim to regulate firms' behavior. The result is more coal production than is socially optimal, despite the fact that SMCRA and the Coal Act are designed to ensure that coal production bears some of the social costs of coal extraction.

The government can regulate behavior in several ways. It can implement command-and-control regulations that force firms to engage in or forbear from certain actions. Or it can use market-based instruments that raise the costs associated with socially harmful activities and thereby provide incentives for firms to reduce or eliminate negative externalities. Market-based regulations and performance standards are more efficient than command-and-control regulations.[356] Regulatory obligations that can be deferred are the only

356. *See, e.g.*, Louis Kaplow & Steven Shavell, *On the Superiority of Corrective Taxes to Quantity Regulation*, 4 AM. L. & ECON. REV. 1, 2 (2002) ("[T]he traditional notion of the superiority of corrective taxes should continue to be a benchmark for economists' thinking about the control of externalities."); Steven Shavell, *Corrective Taxation Versus Liability as a Solution to the Problem of Harmful Externalities*, 54 J.L. & ECON. S249, S249 (2011) ("The corrective tax has long been viewed by most economists as a, or the, theoretically preferred remedy for the problem of harmful externalities."); Martin L. Weitzman, *Prices vs. Quantities*, 41 REV. ECON. STUD. 477, 477 (1974) ("[I]t is a fair generalization to say that the average economist in the Western marginalist tradition has at least a vague preference towards indirect control by prices, just as the typical non-economist leans toward direct regulation of quantities.").

ones that can be discharged during bankruptcy. Moreover, within the group of obligations that are potentially dischargeable because they can be deferred, bankruptcy law treats market-based regulations especially disfavorably. This is because an obligation can generally be discharged only if it can be reduced to a payment.[357] Thus, injunctions and other command-and-control regulations receive what amounts to a special priority interest, whereas regulations that force a corporation to internalize social costs by charging polluters is treated as an ordinary contractual claim.[358] In our view, the priority a regulation receives should not depend on whether the claim can be converted to a money judgment.

Command-and-control regulations require a person or firm to take or refrain from a particular action.[359] The regulator—be it an administrative agency, a court, the executive, or the legislature—determines whether an activity should be prohibited or required. Within the category of command-and-control regulations, the government can issue design standards, in which the regulated party must do a specific thing in a specific way. It can also promulgate performance standards, in which it orders the party to do a specific thing but permits the party to decide *how* to comply.

Market-based solutions, in contrast, influence behavior by changing the costs associated with certain actions. The government uses the market-based model regularly. The Tax Code has been used, for example, to incentivize the use of clean energy,[360] to encourage homeownership,[361] and to motivate charitable giving.[362] Most economists regard incentive-based approaches as preferable to command-and-control regulations in nearly all situations.[363] Writing about market-based policy instruments in the context of environmental regulations, one scholar has observed that regulatory goals are often "frustrated by a lack of information" when regulators adopt command-and-control approaches.[364] By contrast, market-based solutions "create a system of incentives in which those who have the best knowledge about control opportunities, the environmental managers for the industries, are encouraged

357. *See* Ohio v. Kovacs, 469 U.S. 274, 279 (1985).

358. *See infra* Part IV.A.

359. *See* Jonathan S. Masur & Eric A. Posner, *Toward a Pigouvian State*, 164 U. PA. L REV. 93, 95 (2015) ("Other forms of regulation are inferior to the Pigouvian tax. Consider command-and-control regulation, in which a regulator forces a firm to take a particular action . . . .").

360. *See, e.g.*, I.R.C. § 45 (2017) (incentivizing renewable energy with a tax credit).

361. *See, e.g.*, *id.* § 163.

362. *See, e.g.*, *id.* § 170.

363. *See* sources cited *supra* note 356.

364. Thomas H. Tietenberg, *Economic Instruments for Environmental Regulation*, OXFORD REV. ECON. POL'Y, Mar. 1990, at 17, 21.

to use that knowledge to achieve environmental objectives at minimum cost."[365] While this description applies to prototypical market-based regulation, the advantages apply to market-based regulations and performance standards alike.[366] This is because both these types of regulations permit regulated parties to determine for themselves the best means of compliance.[367] Despite this academic consensus, policymakers have generally been reluctant to use market-based regulations.[368]

The reason performance standards and market-based solutions contain informational advantages compared to command-and-control alternatives is that when promulgating a command-and-control regulation, the regulator must be aware of both the costs and the benefits of a behavior.[369] In market-based solutions, by contrast, the government only needs to know the social costs of the activity. For example, if the government simply stipulated the amount of coal that a company is allowed to produce, then the government—not those subject to the regulation—would have to determine both the costs and the benefits associated with coal mining. This would require not only that the government know the negative spillovers created by coal mining, but also the market demand for coal as well as the costs a company would face in extracting coal and reclaiming degraded mines. Market-based solutions, by

365. *See id.* at 21-22.

366. For an in-depth analysis of why performance standards may be preferable to design standards, see David Besanko, *Performance Versus Design Standards in the Regulation of Pollution*, 34 J. PUB. ECON. 19 (1987).

367. *See* DANIEL J. FIORINO, THE NEW ENVIRONMENTAL REGULATION 199 (2006); CASS R. SUNSTEIN, SIMPLER: THE FUTURE OF GOVERNMENT 11-12 (2013); *cf.* Exec. Order No. 12,866, § 1, 3 C.F.R. 638, 638-40 (1993), *reprinted as amended in* 5 U.S.C. § 601 app. at 94, 95 (2017) (directing regulators to aim to "specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt").

368. One scholar has framed the tension between academic exuberance for Pigouvian taxes, which are taxes that deter harmful behavior by forcing firms to internalize social costs, and the reluctance on the part of policymakers to implement them in stark terms: "To many economists, the basic argument for increased use of Pigovian taxes is so straightforward as to be obvious." N. Gregory Mankiw, *Smart Taxes: An Open Invitation to Join the Pigou Club*, 35 E. ECON. J. 14, 15 (2009).

369. Brief of Economists Thomas C. Schelling et al. as Amici Curiae in Support of Petitioners at 15, Chamber of Commerce of the U.S. v. EPA, 134 S. Ct. 1051 (2014) (No. 12-1272), 2013 WL 6673703 ("Uncertainty—as to costs *and* benefits—increases the difficulty for regulators seeking to judge whether a policy gives rise to net benefits to society."); *see also* Tietenberg, *supra* note 364, at 17; *cf.* Victor Fleischer, Essay, *Curb Your Enthusiasm for Pigovian Taxes*, 68 VAND. L. REV. 1673, 1674-75 (2015) ("[T]he command-and-control model of regulation . . . has fallen out of grace."); Rena I. Steinzor, *Reinventing Environmental Regulation: The Dangerous Journey from Command to Self-Control*, 22 HARV. ENVTL. L. REV. 103, 104-06 (1998) (examining the ascent of "self-regulation" as an alternative to command-and-control regulations in the context of EPA reinvention initiatives).

contrast, allow the net benefit to be calculated based on the market's appetite for the regulated good. The regulator need only provide a mechanism by which to force a company to internalize social costs. In the case of SMCRA, regulators do not even need to make a precise calculation. If one company can reclaim the land more efficiently than others, it is free to do so and thereby gain an advantage over its competitors. All that matters is that the companies actually reclaim the land and that they post bonds to prove that they will do so.

Another benefit of market-based approaches is that they are less invasive than the alternatives.[370] Because the regulator only determines the social cost of an activity, the regulated parties are free to adjust the intensity of that activity based on their private costs.[371] In raising the costs associated with surface coal extraction, the government permits coal companies to innovate by coming up with less invasive mining practices and more efficient reclamation policies. This consideration has also led some to assert that incentive-based regulations are better able to encourage technological development.[372] Because the government allows parties to come up with innovative solutions rather than mandating a specific behavior, the government rewards parties who develop mechanisms to comply with the regulations more efficiently.

Of course, some market-based regulations and performance standards cannot be evaded through bankruptcy. An example is a tax on alcohol. Individuals cannot avoid the regulatory burden that accompanies such taxes for the simple reason that the tax attaches at the time of sale.[373] A requirement that one reclaim a degraded coal mine at some point in the future, by contrast, allows the regulated party to enjoy the monetary benefits of selling coal before

370. The Office of Management and Budget has acknowledged that performance standards "give the regulated parties the flexibility to achieve regulatory objectives in the most cost-effective way." *See* OFFICE OF MGMT. & BUDGET, CIRCULAR A-4, REGULATORY ANALYSIS 8 (2003), https://perma.cc/84ZZ-9C3T. For decades, environmentalists have praised market-based regulations for their flexibility. *See, e.g.*, Robert N. Stavins, *Market-Based Environmental Policies* 8-9 (Res. for the Future, Discussion Paper No. 98-26, 1998), https://perma.cc/E46Q-9FXT.

371. *See* Stavins, *supra* note 370, at 2 ("Because the costs of controlling emissions may vary greatly among firms, and even among sources within the same firm, the appropriate technology in one situation may be inappropriate in another. Thus, control costs can vary enormously due to a firm's production design, physical configuration, age of its assets, or other factors.").

372. *See* Douglas A. Kysar, Commentary, *Politics by Other Meanings: A Comment on "*Retaking Rationality *Two Years Later,"* 48 HOUS. L. REV. 43, 59 (2011) (responding to RICHARD L. REVESZ & MICHAEL A. LIVERMORE, RETAKING RATIONALITY: HOW COST-BENEFIT ANALYSIS CAN BETTER PROTECT THE ENVIRONMENT AND OUR HEALTH (2008)); Stavins, *supra* note 370, at 2 ("The two most notable advantages that market-based instruments offer over traditional command-and-control approaches are cost effectiveness and dynamic incentives for technology innovation and diffusion.").

373. Technically, it would be possible to discharge this obligation if one paid with a credit card and later discharged the credit card debt in bankruptcy.

having to fully internalize the costs. It is this temporal gap that allows companies to use bankruptcy to externalize costs even when a regulatory regime exists that should force companies to bear such costs.

Rather than outlawing surface mining, SMCRA instructs coal operators to post reclamation bonds to ensure that land be reclaimed according to the standards set out in the Act.[374] SMCRA leaves coal operators a great deal of discretion. They can reclaim the land themselves, pay someone else to do it, or reimburse regulators if the companies fail to reclaim mine sites. The same applies with the Coal Act: Companies can determine how to fund their retirement obligations, and they are free to allocate capital in whatever manner they see fit, so long as they are able to provide retirement benefits as they come due.[375] Both statutes give coal companies a great deal of discretion to determine how to minimize the costs of complying. Coal companies also retain the freedom to devise innovative reclamation and investment techniques to make good on these obligations.

The statutes' regulatory force thus stems as much from the incentives they create as it does from the standards they prescribe. While coal companies have significant leeway to figure out how to reclaim mine sites and fund retirement benefits, no matter how they do so, they must bear the social costs of reclamation in the form of a performance bond, and they must bear the social cost of exposing employees to hazardous work conditions in the form of health care. Of course, those companies that reclaim mines more efficiently will be able to pay less, but that is simply a reward for effective reclamation practices. The fact that those companies have to pay less does not suggest that they are bearing less social cost; it instead indicates that those companies have figured out how to reduce the social costs of coal mining more effectively.

Having to earmark funds for reclamation and retiree liabilities decreases the total amount of capital available for a firm to use to support coal production. Basic economic principles suggest that companies will produce a good until marginal cost equals marginal demand. When a company does not need to account for social costs, it will produce more of a good than is socially desirable because it is not internalizing some of the costs of that good.[376] In forcing companies to bear social costs, market-based regulations reduce output to the socially optimal point. Moreover, by reducing the aggregate amount of coal production, market-based regulations reduce the social harms caused by coal mining.

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374. *See* 30 U.S.C. § 1259 (2017).

375. *See* I.R.C. §§ 9711-9712 (2017).

376. *See* Brian Galle, *The Tragedy of the Carrots: Economics and Politics in the Choice of Price Instruments*, 64 STAN. L. REV. 797, 807 (2012).

As shown in Part II above, however, coal companies are able to use bankruptcy to avoid paying the social costs of coal mining, despite the fact that Congress has ordered that they do so. Coal companies thus do not actually internalize social costs in the manner envisioned by SMCRA and the Coal Act. For that reason, coal companies engage in more mining than is socially optimal, in turn resulting in more environmental and health damage. Patriot's brief and troubled existence illustrates this point. The company was likely insolvent throughout its existence, but was able to continue mining nonetheless.

Moreover, the ability to externalize social costs is not only beneficial to the nongovernment creditors of companies that become insolvent. Such discharges provide a boon to *all* companies that issue corporate debt. If coal companies were unable to discharge obligations to the government, their capital costs would be higher. If private creditors' claims became subordinate to regulatory liabilities, the pool of assets available to repay private creditors would shrink,[377] decreasing the likelihood that private creditors would be repaid and reducing the expected payout by reducing the amount of total available funds. Creditors would thus charge higher rates to compensate for the additional risk they incur for lending to a company that has environmental and pension creditors with claims senior to their own.[378] In other words, the Bankruptcy Code allows coal companies to borrow on more favorable terms than would otherwise be possible if they truly had to internalize the externalities of mining. This, in turn, incentivizes excessive mining because it reduces the marginal costs of producing coal and provides a windfall to every coal company—solvent or not.

These problems are exacerbated by the fact that bankruptcy allows these companies to stay in business even after they have violated their environmental and labor obligations. For example, Patriot's ability to avoid liquidation allowed it to produce more coal than it otherwise would have, generate additional reclamation obligations, and employ more miners, thereby increasing the amount of retirement obligations it incurred. Of course, the company's inevitable bankruptcy allowed Patriot to shed those added obligations.

This ex post windfall means that the deterrent purpose of SMCRA and the Coal Act is eroded even after companies are found to be in express violation of the statutes. But the fact that Patriot was able to continue operating years after it became insolvent meant that the company incurred new environmental

377. *Cf.* Clifford W. Smith, Jr. & Jerold B. Warner, *On Financial Contracting: An Analysis of Bond Covenants*, 7 J. FIN. ECON. 117, 118-19 (1979) (identifying four major sources of conflict between bondholders and stockholders: dividend payment, claim dilution, asset substitution, and underinvestment).

378. *See* William D. Cohan, Opinion, *The Big, Dangerous Bubble in Corporate Debt*, N.Y. TIMES (Aug. 9, 2018), https://perma.cc/8VXW-UUE.

obligations and generated additional retiree liabilities despite the fact that it was incapable of paying for the regulatory obligations that were already on its balance sheet.

As the foregoing analysis makes clear, when regulation aims to control production levels by increasing the costs of engaging in the regulated activity, the ability to shed those costs in bankruptcy undermines such performance standards and market-based regulatory schemes. Note that the Bankruptcy Code can only be used to undermine certain types of regulations: regulations that allow the regulated party to defer payment.[379] Perhaps most problematically, judicial interpretations of the Code exempt injunctions but not market-based regulations from the automatic stay.[380] In doing so, judges have given command-and-control regulations what amounts to a priority claim while treating market-based approaches as ordinary contractual debts.

The Bankruptcy Code's ability to erode federal regulatory programs cannot be justified on policy grounds, and both the regulators and the regulated would prefer the use of market-based approaches if the alternative is more-direct regulatory intervention. As the next Part shows, the corporate reorganizations Patriot, Alpha, Arch, and Peabody have relied on to shed their regulatory obligations also cannot be justified on legal grounds.

IV. Solutions

Whereas the previous Parts explained how bankruptcy can be used to thwart federal regulations, this Part identifies solutions. Part IV.A argues that existing doctrine can—and should—be interpreted to give the government and other beneficiaries of regulatory debts the right to collect on those debts. First, companies such as Peabody should not be able to get rid of their regulatory obligations simply by spinning off new companies such as Patriot. The prohibition against fraudulent conveyances applies to corporate reorganizations in which companies shed their obligations before bankruptcy, and the doctrine of substantive consolidation applies to reorganizations in which the divestiture occurs during bankruptcy proceedings. Second, regulators and other beneficiaries of regulatory debts should have first priority whenever their claims further congressional policy goals. Part IV.B makes policy suggestions that would further reinforce the goal of ensuring that private companies make good on their regulatory obligations. Note that these two proposals work hand in hand. While scholars who have considered the

379. Some costs, like taxes, must be paid immediately when a firm engages in a regulated activity, so the corporation cannot perform a regulated activity and later use bankruptcy to evade the full costs of that activity.

380. *See, e.g.*, United States v. LTV Corp. (*In re* Chateaugay Corp.), 944 F.2d 997, 1008 (2d Cir. 1991).

treatment of environmental claims in bankruptcy have generally argued that the solution to the problem of environmental discharges is to give such debts priority in bankruptcy, our analysis has shown that a simple priority claim is meaningless if prior corporate restructurings have drained the company of valuable assets. A priority claim, for example, will not guarantee payment on regulatory obligations if spin-offs and divestitures leave the company an empty shell with insufficient assets left to pay even its senior creditors. Thus this is a difficult challenge, as each of the solutions we propose is insufficient by itself.

A. Judicial Solutions

1. No spinning off regulatory obligations

Beneficiaries of regulatory obligations are entitled to claw back debts when companies have transferred those obligations in a manner that prevents the beneficiaries from recovering. One of the most effective ways coal companies have been able to evade regulatory obligations is by spinning off burdensome assets to affiliates that cannot possibly make good on those obligations. This is patently illegal under the prohibition on fraudulent transfers, discussed in Part II.C.3 above.

Under this doctrine, the company that originally incurred a regulatory obligation should remain liable for its regulatory debts where the purpose of the transfer was to prevent beneficiaries from collecting on their obligations.[381] Fraudulent conveyance law prohibits debtors from making transfers that hinder, delay, or defraud their creditors,[382] and makes such transfers voidable.[383] Substantive consolidation, which allows bankruptcy judges to consolidate related legal entities in a bankruptcy estate, could accomplish the same goal during a reorganization.[384] Finally, bankruptcy judges should use the Code's feasibility requirement, which is supposed to ensure that reorganized companies are actually financially viable,[385] to prevent clearly insolvent

381. *See* Douglas G. Baird & Thomas H. Jackson, *Fraudulent Conveyance and Its Proper Domain*, 38 VAND. L. REV. 829, 829 (1985) ("A debtor cannot manipulate his affairs in order to shortchange his creditors and pocket the difference.").

382. *See* 11 U.S.C. § 548(a)(1)(A) (2017).

383. *See In re* Tribune Co. Fraudulent Conveyance Litig., 818 F.3d 98, 106 (2d Cir. 2016).

384. *See* FDIC v. Colonial Realty Co., 966 F.2d 57, 58 (2d Cir. 1992) ("The substantive consolidation of estates in bankruptcy effects the combination of the assets and the liabilities of distinct, bankrupt entities and their treatment as if they belonged to a single entity."); *see also* United States v. Bestfoods, 524 U.S. 51, 62 (1998) ("[T]he corporate veil may be pierced . . . when, *inter alia*, the corporate form would otherwise be misused to accomplish certain wrongful purposes . . . .").

385. *See* 11 U.S.C. § 1129(a)(1).

companies to continue to operate. This is especially important when continued operation allows companies to further drain resources that could be used to satisfy their regulatory obligations. So long as the predictable consequence of a transaction is that the creditor will be hindered in its ability to collect, government and union creditors should be able to prevail under a theory that coal companies divested assets without fair consideration.[386]

As explained above, Arch and Peabody gave Patriot approximately half of their regulatory obligations, but they did not provide Patriot with enough assets to pay its debts.[387] The CEO of Patriot even stated publicly that the company was designed to fail, and that it was spun off to allow other coal companies to get rid of their retiree obligations.[388] Patriot ultimately liquidated, and its debts were wiped out with minimal consequence to Peabody and Arch. The same scenario occurred when Alpha declared bankruptcy, gave Contura all of its valuable assets, and shunted its regulatory obligations onto Alpha II. The consequences are entirely predictable: The company with worthless assets laden with regulatory debts is unable to pay those debts. Such transactions should be considered fraudulent conveyances.

This was precisely the UMWA's theory when it sued Peabody for spinning off Patriot in order to get out of its retiree obligations.[389] That case ultimately settled because Peabody threatened to liquidate and thereby discharge all of its regulatory debts. We think that environmental regulators and unions should be able to bring similarly meritorious suits against similar coal companies. As the next Subpart shows, the threat of liquidation should not control, because regulatory debts should receive first priority in bankruptcy.

2. Judicial priority

In our opinion, the regulatory and police power exception to the automatic stay should be interpreted to prevent companies from evading market-based regulations and discharging other liabilities that serve a clear regulatory purpose.[390] The regulatory exception applies when "the government is effectuating public policy rather than adjudicating private rights."[391] The exception allows regulators to pursue environmental claims after a firm

386. *See* Abramson v. Lakewood Bank & Tr. Co., 647 F.2d 547, 549 (5th Cir. 1981) (per curiam) (finding a sale fraudulent because it was made without fair consideration).

387. *See supra* Part II.B.

388. *See supra* text accompanying note 181.

389. *See* Patriot Coal Corp. v. Peabody Holding Co. (*In re* Patriot Coal Corp.), 497 B.R. 36, 39-40 (B.A.P. 8th Cir. 2013).

390. *See* 11 U.S.C. § 362(b)(4).

391. *See In re* Nortel Networks, Inc., 669 F.3d 128, 139-40 (3d Cir. 2011).

files for bankruptcy protection.[392] In this way, the exception "in effect makes the bankrupt's clean-up obligation prior to the bankrupt's other obligations."[393] The bankruptcies described above did not confront this issue because state environmental regulators and bankrupt coal companies agreed that only a small percentage of SMCRA obligations would be given priority treatment.[394] Nonetheless, exempting reclamation bonds from the automatic stay would seemingly be consistent with the spirit of § 362(b)(4) because doing so would further the regulatory goal of protecting the environment.

Unfortunately, Supreme Court and courts of appeals precedent suggests that our interpretation of the regulatory exception to the automatic stay would not be regarded favorably by courts.[395] The Court has held that if an environmental obligation requires a debtor to spend money, then the obligation counts as a "claim" and can be discharged.[396] By contrast, an order to clean up a polluted site is not a "claim" and therefore not dischargeable.[397] Still, a capacious understanding of § 362(b)(4) aligns with the notion that regulations designed to force companies to internalize social costs should receive priority in bankruptcy. Such a conception of the automatic stay provision would ensure that regulations that charge corporations for polluting receive the same treatment as regulations that enjoin corporations from polluting. The current approach means that command-and-control regulations such as injunctions enjoy favored status in bankruptcy whereas market-based regulations are treated no differently than ordinary contractual claims.

392. *See* MARK J. ROE, BANKRUPTCY AND CORPORATE REORGANIZATION: LEGAL AND FINANCIAL MATERIALS 377-78 (3d ed. 2011).

393. *See id.*

394. *See supra* Part II.B.

395. *See, e.g.*, Ohio v. Kovacs, 469 U.S. 274, 279 (1985).

396. *See id.*

397. *See* United States v. LTV Corp. (*In re* Chateaugay Corp.), 944 F.2d 997, 1008 (2d Cir. 1991) ("Since there is no option to accept payment in lieu of continued pollution, any order that to any extent ends or ameliorates continued pollution is not an order for breach of an obligation that gives rise to a right of payment and is for that reason not a 'claim.' But an order to clean up a site, to the extent that it imposes obligations distinct from any obligation to stop or ameliorate ongoing pollution, is a 'claim' if the creditor obtaining the order had the option, which CERCLA confers, to do the cleanup work itself and sue for response costs, thereby converting the injunction into a monetary obligation.").

B. Legislative Solutions

1. No payment deferrals

The ability to shed federal debts in bankruptcy is predicated on the ability to defer payment on those debts for many years. Self-bonding allowed coal companies to evade SMCRA because the government did not demand a security interest and because payment on the debt was deferred such that the obligation was outstanding when the company declared insolvency. Similarly, the companies did not need to fund Coal Act obligations for many years—not until the miners actually retired. Patriot, for instance, seems to have never been in a position to honor its environmental and retiree obligations.[398] However, because those obligations did not have to be paid out until retirement benefits came due, Patriot could defer payment and continue operating.

If companies were unable to defer payment—that is, if they were required to fully fund pensions and post collateral on reclamation obligations—then regulatory obligations would be funded in the event that the company filed for bankruptcy. That would make it more difficult for coal companies to avoid their regulatory obligations: If they had set aside actual funds for coal reclamation, taken out surety bonds, posted collateral, or fully funded their pensions, the regulations' intended beneficiaries would not have had to compete for funds during bankruptcy proceedings.

2. Accurate accounting

Bankruptcy judges should use generally accepted accounting principles when valuing insolvent corporations that owe significant regulatory debts. As shown in Parts II and III above, the continuation bias is indefensible when it supports the circumvention of federal law. Insofar as bankruptcy judges sanction disingenuous predictions about companies' future cash flows, they facilitate chronic regulatory violations.

Patriot, Peabody, and Alpha took questionable measures to make it look as though they could cover their SMCRA and Coal Act obligations. The companies kept their environmental and retiree obligations off their balance sheets and valued their assets on the basis of impossible projections about future cash flows. In doing so, they ensured that insolvent spin-offs would be assigned, and then default on, regulatory obligations. That, in turn, allowed coal companies to take on new environmental and retiree obligations despite

398. *See supra* Part II.B.

the fact that they had already violated their regulatory obligations. Requiring corporations to give an accurate accounting in bankruptcy would make it more difficult to reorganize in a manner that allows them to repeatedly evade regulatory obligations.

3. First priority through legislative decree

Congress should stipulate that certain regulatory debts should get first priority in bankruptcy and cannot be discharged. The current regime has failed to make coal companies fully internalize the social costs of mining in part because private creditors can take precedence over regulatory obligations. Legislation prohibiting such arrangements would force companies to honor their regulatory obligations. In this way, Congress could ensure that its legislative mandates do not wither away whenever a company finds itself in a precarious financial condition.

Note again that the current priority scheme disfavors market-based regulations. The Bankruptcy Code only allows debtors to discharge a "debt,"[399] which the Code defines as a "liability on a claim."[400] A claim is a "right to payment" or a "right to an equitable remedy for breach of performance if such breach gives rise to a right to payment."[401] This means that a regulatory obligation is dischargeable only if it can be converted to a money judgment.[402] Injunctions thus receive superiority in bankruptcy. The ability of senior creditors to enjoy priority over regulatory programs should not depend on whether a given regulatory obligation is a pecuniary obligation or an injunction.

4. Extend the look-back period

Finally, Congress and state legislatures should extend the look-back period for fraudulent transfers. Creditors generally have no more than four years to bring fraudulent conveyance claims,[403] though the Internal Revenue Service (IRS) can collect some wrongfully withheld tax obligations for up to ten years.[404] This allows the IRS to go after would-be tax evaders long after they have defrauded the agency. A longer look-back period for other regulatory obligations would reduce coal companies' ability to evade their regulatory obligations through spin-offs or sales to undercapitalized corporations.

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399. *See* 11 U.S.C. §§ 727(b), 1141(d)(1)(A) (2017).
400. *Id.* § 101(12).
401. *Id.* § 101(5)(A)-(B).
402. *See supra* text accompanying note 357.
403. *See supra* note 340.
404. *See* I.R.C. § 6502 (2017).

Conclusion

Perhaps there are situations in which it makes sense for courts to favor reorganization over liquidation in order to prevent job losses.[405] For example, it is understandable that the bankruptcy judge in Patriot's reorganization expressly cited unemployment concerns when he approved Patriot's reorganization plan despite misgivings about its viability.[406] But Patriot's bankruptcy judge did not ensure compliance with any federal law by approving Patriot's reorganization agreement. Rather, he rubber-stamped the company's continued violations of environmental and labor laws. Alpha, Arch, and Peabody all enjoyed the same inappropriate windfall. At the end of the day, compliance with laws that have been duly enacted by Congress should trump other policy concerns, and any Bankruptcy Code bias in favor of reorganization should be balanced with statutes that require firms to account for the social costs of their operations.

405. *See* Liscow, *supra* note 48, at 1464 ("If labor markets are working properly and unemployment rates are low, then the bankruptcy judge should not consider employment effects and instead focus on maximizing return to creditors. If labor markets are not working properly and unemployment rates are high (so that a job saved at a reorganized firm is likely to lead to a reduced unemployment rate), then the bankruptcy judge should return less to creditors in some cases, thereby saving jobs and, in turn, saving the government money.").

406. *See In re* Patriot Coal Corp., 493 B.R. 65, 137 (Bankr. E.D. Mo. 2013) ("If Debtors liquidate, the overwhelming majority of Debtors' current employees . . . will be unemployed. There is no question that even today, numerous miners remain unemployed from the liquidation of Debtors' former competitors, and Debtors' employees would add to this joblessness.").

Appendix

Table A.1

Table 2 Annotated—Summary of Coal Company Financials in Bankruptcy (in millions of dollars)

	Patriot I	Patriot II	Alpha	Arch	Peabody	Total
Assets, prebankruptcy	3,580[407]	N/A	9,971[408]	5,107[409]	11,021[410]	29,678
Liabilities, prebankruptcy	3,391[411]	N/A	7,331[412]	6,351[413]	10,103[414]	27,176
Asset retirement obligations[415]	738[416]	N/A	683[417]	411[418]	687[419]	2,519
Postretirement benefit obligations	1,384[420]	N/A	1,167[421]	127[422]	723[423]	3,401

407. Patriot Coal Corp., Quarterly Report (Form 10-Q), item 1, at 3 (Aug. 9, 2012).
408. Alpha Nat. Res., Inc., Quarterly Report (Form 10-Q), item 1, at 2 (Aug. 3, 2015).
409. Arch Coal, Inc., Annual Report (Form 10-K), at F-58 (Mar. 15, 2016). Arch Coal has a complex financial structure with numerous subsidiaries owning and operating individual mines. We use the consolidated figures for assets and liabilities to reflect the financial picture for the whole company rather than any subset of subsidiaries.
410. Peabody Energy Corp., Annual Report (Form 10-K), at F-4 (Mar. 15, 2016).
411. Patriot Coal Corp., Quarterly Report (Form 10-Q), item 1, at 3 (Aug. 9, 2012).
412. Alpha Nat. Res., Inc., Quarterly Report (Form 10-Q), item 1, at 2 (Aug. 3, 2015).
413. Arch Coal, Inc., Annual Report (Form 10-K), at F-58 (Mar. 15, 2016).
414. Peabody Energy Corp., Annual Report (Form 10-K), at F-4 (Mar. 15, 2016).
415. These figures reflect those reported on balance sheets and are based on the companies' calculations in accordance with accounting principles. These figures are often less than the amounts bonded under SMCRA calculations.
416. Patriot Coal Corp., Quarterly Report (Form 10-Q), item 1, at 19 (Aug. 9, 2012).
417. Cavatoni Declaration, *supra* note 236, at 14.
418. Arch Coal, Inc., Annual Report (Form 10-K), item 7, at 78 (Mar. 15, 2016).
419. Peabody Energy Corp., Annual Report (Form 10-K), at F-4 (Mar. 15, 2016).
420. Patriot Coal Corp., Quarterly Report (Form 10-Q), item 1, at 3 (Aug. 9, 2012).
421. Alpha Nat. Res., Inc., Quarterly Report (Form 10-Q), item 1, at 2 (Aug. 3, 2015).
422. Arch Coal, Inc., Annual Report (Form 10-K), at F-58 (Mar. 15, 2016).
423. Peabody Energy Corp., Annual Report (Form 10-K), at F-4 (Mar. 15, 2016).

	Patriot I	Patriot II	Alpha	Arch	Peabody	Total
Self-bonding	0[424]	N/A	676[425]	486[426]	1,431[427]	2,592
Long-term environmental and retiree liabilities[428]	2,193[429]	N/A	3,086[430]	N/A	3,050[431]	
Environmental liabilities discharged	0	471[432]	708[433]	0[434]	745[435]	1,924

424. Patriot Coal Corp., Annual Report (Form 10-K), at F-30 (Feb. 22, 2012).
425. Alpha Nat. Res., Inc., Annual Report (Form 10-K), item 7, at 84 (Feb. 26, 2015).
426. Arch Coal, Inc., Annual Report (Form 10-K), item 7, at 76 (Mar. 15, 2016).
427. Peabody Energy Corp., Annual Report (Form 10-K), at F-47 (Mar. 15, 2016).
428. These figures reflect the sum of future cash flows for environmental and retiree liabilities, not discounted to present value.
429. Patriot Coal Corp., Annual Report (Form 10-K), item 7, at 82 (Feb. 22, 2012).
430. Alpha Nat. Res., Inc., Annual Report (Form 10-K), item 7, at 86 (Feb. 26, 2015).
431. Peabody Energy Corp., Annual Report (Form 10-K), item 7, at 76 (Mar. 15, 2016).
432. *See* Patriot Fourth Amended Disclosure Statement, *supra* note 169, at 28 (reporting bonded obligations for environmental liabilities totaling $233.37 million); Patriot Coal Corp., Quarterly Report (Form 10-Q), item 1, at 3 (Nov. 8, 2013) (reporting environmental liabilities of $704.36 million).
433. Alpha had a total of $846 million in environmental liabilities. *See* Cavatoni Declaration, *supra* note 236, at 14, 19. Out of these liabilities, we know Alpha ended up responsible for paying $138 million. *See* Alpha Second Amended Disclosure Statement, *supra* note 223, exhibit D at 9 (claiming a $10 million "decrease in ARO liabilities" (capitalization altered)); Contura Energy & Alpha Nat. Res., *supra* note 261, at 6 (claiming a $128 million "reduction of ARO liabilities" (capitalization altered)).
434. *See* Arch Coal, Inc., Annual Report (Form 10-K), at F-21 (Feb. 24, 2017). The fresh-start adjustment reflects a change of accounting assumptions for future cash flows and thus is not treated as an actual discharge of liabilities.
435. Peabody Liquidation Analysis, *supra* note 298, exhibit B at 12. The liquidation analysis is a statutory requirement of the Bankruptcy Code, providing a baseline comparison for a restructuring plan. The analysis shows the hypothetical proceeds and distribution of those proceeds if the debtor were to cease operations and sell all assets. It is a theoretical analysis, rather than a reflection of actual economic transactions. In Peabody's bankruptcy, most of the company's entities underwent restructuring. The Gold Fields subsidiary, however, was liquidated. The actual liquidation is a lengthy process in which not all transactions are made public. As such, we use the liquidation analysis for the Gold Fields subsidiary as a proxy for the actual liquidation. The analysis shows that there are scant assets to sell and the environmental liability of $745 million would be likely fully discharged.

	Patriot I	**Patriot II**	**Alpha**	**Arch**	**Peabody**	**Total**
Retiree liabilities discharged	1,048[436]	268[437]	1,846[438]	0[439]	70[440]	3,232

436. *See* Supplemental Order Authorizing, Approving Pursuant to 11 U.S.C. §§ 363(b), 1114(e) & 105(a) & Fed. R. Bankr. P. 9019(a), (I) an Amendment to the VEBA Funding Agreement with the United Mine Workers of America, (II) an Amendment to the Memorandum of Understanding with the United Mine Workers of America & (III) a Waiver of Bankruptcy Rule 6004(h) Stay exhibit A at 2, *In re* Patriot Coal Corp., No 12-51502-659 (Bankr. E.D. Mo. Nov. 7, 2013), ECF No. 4964 [hereinafter Patriot Supplemental Order] (reporting a payment of $75 million); Patriot Disclosure Statement for Debtors' Third Amended Reorganization Plan, *supra* note 192, at 21 (reporting payments of $250,000 and $3.75 million); Patriot Coal Corp., Quarterly Report (Form 10-Q), item 1, at 7, 12 (Nov. 8, 2013) (reporting postretirement benefit obligations of $1,437 million and a payment by Peabody of $310 million to satisfy some of those obligations).

437. After its first bankruptcy, Patriot I discharged $1,048 million in retiree liabilities, funding only $389 million out of the $1,437 million in retiree obligations subject to compromise. *See supra* text accompanying note 436. During its second bankruptcy, Patriot also had an additional $374 million of retiree liabilities, which were not subject to compromise in its first bankruptcy. *See* Patriot Coal Corp., Quarterly Report (Form 10-Q), item 1, at 3 (Nov. 8, 2013) (reporting worker's compensation obligations of $259 million, Coal Act obligations of $82.9 million, and $31.8 million in industry obligations). Of the $763 million in total retiree liabilities held by Patriot in its second bankruptcy, we assumed $310 million was funded by Peabody, *see id.* item 1, at 7; $15 million was paid by Patriot to union retiree under the terms of its first bankruptcy, *see* Patriot Supplemental Order, *supra* note 436, exhibit A at 2; and $1 million (one-quarter) of the $4 million was paid by Patriot to non-union retiree under the terms of its first bankruptcy, *see* Patriot Disclosure Statement for Debtors' Third Amended Reorganization Plan, *supra* note 192, at 21. Patriot II and Peabody respectively provided $150.6 million and $18.3 million in letters of credit for these liabilities. Patriot Fourth Amended Disclosure Statement, *supra* note 169, at 32.

438. Alpha had a total of $2,258.5 million in retiree liabilities. *See* Alpha Second Amended Disclosure Statement, *supra* note 223, at 21, 23 (claiming liabilities of $219.7 million for Qualified Plans; $38.2 million for Non-Qualified Plans; $1,060 million for medical and life insurance benefits; $158.6 million for black lung benefits; and $782 million for the 1974 Pension Plan). Out of these liabilities, we know Alpha ended up responsible for $378.1 million and paying $34.3 million. *See id.* exhibit D at 9; *id.* exhibit E at 8; Contura Energy & Alpha Nat. Res., *supra* note 261, at 6, 20.

439. *See* Arch Coal, Inc., Annual Report (Form 10-K), at F-21 (Feb. 24, 2017). The fresh-start adjustment reflects a change of accounting assumptions for future cash flows and thus is not treated as an actual discharge of liabilities.

440. Peabody Second Amended Disclosure Statement, *supra* note 195, at 45 n.66. At the time of Patriot's second bankruptcy, Peabody owed two further payments to Patriot for retiree benefits amounting to $145 million, based on a deal in Patriot's first bankruptcy. Peabody claimed that the second bankruptcy removed the obligation to pay the $145 million. The ensuing conflict was resolved with a settlement to pay $75 million, resulting in a $70 million discharge.

	Patriot I	Patriot II	Alpha	Arch	Peabody	Total
Total environmental and retiree liabilities discharged	1,048	739	2,554	0	815	5,156
Total environmental and retiree liabilities discharged (Patriot reallocated)[441]			2,554	1,072	1,530	5,156
Total liabilities discharged	1,776[442]	2,972[443]	5,182[444]	4,988[445]	8,061[446]	22,979

441. Patriot Coal was spun off from Peabody Energy in 2007. The $1.1 billion in liabilities reflected in Patriot's 2007 10-K are all legacy Peabody liabilities. *See* Patriot Coal Corp., Annual Report (Form 10-K), at F-4 (Mar. 14, 2008). Patriot Coal additionally acquired a number of mines spun off of Arch Coal in 2008 such that Patriot's 2008 10-K reflected $2.8 billion in liabilities. *See* Patriot Coal Corp., Annual Report (Form 10-K), at F-4 (Feb. 27, 2009). The incremental $1.7 billion, or 60% of the total liabilities, is assumed to be the liabilities associated with the legacy Arch mines. Similarly, the $1.1 billion from the 2007 10-K, or 40% of the total liabilities, is assumed to be the liabilities associated with the legacy Peabody mines. This 60-40 split is applied to the liabilities discharged in Patriot's two bankruptcies for the purpose of reallocating these liabilities to Arch and Peabody, respectively.

442. Patriot Disclosure Statement for Debtors' Third Amended Reorganization Plan, *supra* note 192, at xii; Patriot Coal Corp., Quarterly Report (Form 10-Q), item 1, at 12 (Nov. 8, 2013).

443. Notice of Filing of Solicitation Version of Third Amended Disclosure Statement for Debtors' Third Amended Joint Plan of Reorganization Pursuant to Chapter 11 of the Bankrupty Code exhibit 1, *In re* Patriot Coal Corp., No. 15-32450-KLP (Bankr. E.D. Va. Aug. 25, 2015), ECF No. 941-1. The sales of Patriot assets to Blackhawk and the VCLF were private, and thus the purchase price for the assets is unknown. To compensate, we used the liquidation analysis in the 2015 disclosure statement as a proxy and assumed the highest net proceeds. The Total liabilities discharged figure represents the sum of all claims, $3,242 million, minus the liquidation proceeds (in a high-end case, as reported in the liquidation analysis) of $270.2 million.

444. *See* Alpha Second Amended Disclosure Statement, *supra* note 223, at 8. To be conservative in calculating what was actually discharged, we took the high end of the range of the estimated recovery and the high end of the range of the estimated allowed amount.

445. Arch Coal, Inc., Annual Report (Form 10-K), at F-21 (Feb. 24, 2017).

446. *See* Peabody Second Amended Disclosure Statement, *supra* note 195, at 45 n.66; Peabody Liquidation Analysis, *supra* note 298, exhibit B at 9; Peabody Energy Corp., Quarterly Report (Form 10-Q), at 16 (Nov. 3, 2017). The discharge of the Gold Fields liabilities and the discharged debts to Patriot are not contemplated in Peabody's 10-Q on emergence from bankruptcy, and are thus added in separately.

	Patriot I	Patriot II	Alpha	Arch	Peabody	Total
Total liabilities discharged (Patriot reallocated)			5,182	7,837	9,960	22,979
Environmental and retiree liabilities discharged as share of total liabilities discharged			49%	14%	15%	22%