



Restructuring Failed Financial Firms in Bankruptcy: Selling Lehman's Derivatives Portfolio

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Citation	Mark J. Roe & Stephen Adams, Restructuring Failed Financial Firms in Bankruptcy: Learning from Lehman (Harvard John M. Olin Discussion Paper Series Discussion Paper No. 796, Nov. 2014, Yale J. on Reg. (forthcoming 2015)).
Published Version	http://www.law.harvard.edu/programs/olin_center/papers/pdf/Roe_796.pdf
Citable link	http://nrs.harvard.edu/urn-3:HUL.InstRepos:17985220
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ISSN 1936-5349 (print)
ISSN 1936-5357 (online)

HARVARD

JOHN M. OLIN CENTER FOR LAW, ECONOMICS, AND BUSINESS

RESTRUCTURING FAILED FINANCIAL FIRMS IN BANKRUPTCY: LEARNING FROM LEHMAN

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Forthcoming in *Yale Journal on Regulation*

Discussion Paper No. 796

11/2014

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This paper is also a discussion paper of the
John M. Olin Center's Program on Corporate Governance.

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Mark J. Roe and Stephen D. Adams

Yale Journal on Regulation, forthcoming

October 23, 2014

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Abstract

Lehman Brothers' failure and bankruptcy is widely thought to have deepened the 2008 financial crisis whose negative effects the real economy is still experiencing. Yet, while financial regulation has changed in hopes of avoiding another crisis, bankruptcy rules such as those that governed Lehman's failure, have not been changed at all. When Lehman failed, it lost considerable further value when its contracting counterparties terminated their financial contracts with Lehman. Hit by broad termination, Lehman's overall value to its creditors degraded beyond the immediate losses that caused its downfall, and then, along with AIG's failure several days later, the broad termination involving Lehman further deeply disrupted financial markets in the United States, and indeed the world. Lehman's financial portfolio was thought to be running a paper profit of over \$20 billion when it filed, and is said to have lost up to \$75 billion as a result of the post-filing liquidation by Lehman's counterparties of their deals with Lehman. How such a vast shift can occur, whether bankruptcy can ameliorate the problem (yes), and whether bankruptcy law has been updated since the financial crisis to handle the problem (no) are the subjects of this paper.

For bankruptcy to handle a systemically important financial institution successfully, it must market the institution's financial contracts' portfolio, which current bankruptcy law prevents. Moreover, regulatory and bankruptcy authorities need authority to sell the portfolio along product market lines, which they lack. Such authority is needed, first, to preserve its overall portfolio value, and, second, to break up and sell a very large portfolio that could not be sold intact in the aggregate, as the most systemically difficult portfolios are embedded in the world's largest financial institutions and cannot readily be sold intact. Bankruptcy is the best and first place to put that authority. And, from a systemic perspective, bankruptcy needs to be able to dismantle a large failed portfolio, rather than sell it intact to a larger institution, a typical but undesirable solution here. Lastly, although regulatory and other conditions have changed since the financial crisis, making the bankruptcy target a moving one, the bankruptcy target deserves more consideration today, rather than less, because it is a reachable target without the complexities and uncertainties of new alternatives now in motion. Bankruptcy, however, has not been fixed and updated since the financial crisis, leaving the financial system at risk that, if a major financial institution failed and could not be otherwise resolved, the same difficulties would again arise as arose during the 2008–2009 crisis and the failures of Lehman and AIG.

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Mark J. Roe and Stephen D. Adams

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Restructuring Failed Financial Firms in Bankruptcy: Learning from Lehman

Mark J. Roe & Stephen D. Adams*

INTRODUCTION

When Lehman Brothers filed for bankruptcy in September 2008, its financial portfolio was said to be worth over \$20 billion; but as the portfolio unwound in its bankruptcy, disrupting financial markets world-wide, its portfolio's value was said to turn deeply negative, with its value declining by as much as \$75 billion from when it filed. Here, we examine how that can happen conceptually, the role bankruptcy rules played in this portfolio value destruction, how bankruptcy rules can be done better, and why Dodd-Frank's handling of the problem is (1) better than bankruptcy's today, yet (2) still inadequate for repositioning a major firm's financial portfolio.

The problem is not just backward-looking, but foundational for financial safety regulation going forward. Policymakers should want, but do not yet have, an effective bankruptcy means to resolve a failed financial firm. The newer post-crisis means to handle such resolution has not yet been tested and may not work. Just as engineers want redundant and resilient engineering system, financial regulators should want multiple, overlapping means to handle major problems, like that of major financial failure. Moreover, public authorities who invoke new and unusual remedies like the Dodd-Frank regime may damage systemic confidence, because they would be vividly announcing, as the Dodd-Frank governing legislation requires, that a financial firm's failure threatens the entire economy. Indeed, Congress, recognizing some of these problems, is considering whether to amend the relevant bankruptcy rules;¹ this article analyzes what needs to be done here.

To reduce the chance of a future failure again disrupting financial markets, bankruptcy or resolution must be able to reposition a large financial firm's financial contracts effectively. To do so, bankruptcy must have authority to hold the portfolio together for sale and then sell the portfolio along product lines. Bankruptcy, like the current regulatory alternative, lacks that power. Yet, for a large failed financial firm, the portfolio is unlikely to be saleable intact because it will often have negative value overall (the firm is, after all, bankrupt) and, worse, systemically important firm's

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¹ See *The Financial Institution Bankruptcy Act of 2014: Hearing Before the H. Judiciary Comm., Subcomm. On Reg. Reform, Commercial and Antitrust L.*, 113th Cong. (2014); *The Bankruptcy Code and Financial Institution Insolvencies: Hearing Before the H. Judiciary Comm., Subcomm. On Reg. Reform, Commercial and Antitrust L.*, 113th Cong. (2013).

financial contracts' portfolios are huge, often without a chance of being bought by any single firm anywhere in the world. Derivatives portfolios are concentrated in five major financial firms in America, with two of those firms less than assuredly safe, even in today's more regulated, more stable financial market. If a buyer of such an intact portfolio emerged, it would be another mega-firm; but concentrating finance yet further would be unwise, although it was the kind of transaction that by necessity was common in the financial crisis, including Bank of America's purchase of Merrill Lynch, and JPMorgan Chase's purchase of Bear Stearns. Under current financial resolution rules, further hyper-concentration is a plausible result in a future financial crisis, because the preferred resolution of a bankruptcy breakup of that firm and its financial portfolio is not viable under current law.

Bankruptcy rules as they now stand neither allow the bankruptcy court to hold the portfolio together for sale intact nor allow the court to sell that portfolio along product lines. Yet, to promote financial stability overall, the United States must have a procedure by which a mega-firm's financial portfolio can be broken up in a coherent fashion; the firm would have failed, a business restructuring will be needed, and the best systemic result will often be to break-up a mega-portfolio of financial contracts along product market lines. But neither Dodd-Frank nor bankruptcy can now do that restructuring. Yet, with relatively small changes in the current statute, bankruptcy can do so, by bringing financial firm restructuring back toward baseline bankruptcy rules and standard bankruptcy practice. Only a few decades ago, bankruptcy was unable to reorganize a large, failed public *industrial* firm; it can do so now, and regularly does. With stronger application of basic bankruptcy principles, it could do so for failed financial firms.

The financial crisis brought bankruptcy's special rules for financial contracts into the mainstream for policymaking. These rules, generally called the bankruptcy safe-harbors, exempt creditors with widely-used types of financial contracts from basic bankruptcy restraints on creditors' capacity to quickly extract value from the bankrupt. Creditors without these safe-harbored contracts cannot normally sue and collect from a bankrupt debtor immediately after the firm files for bankruptcy, because bankruptcy policy has the court and the parties first ascertain whether the firm is best kept together as a going concern. Only after company-wide operational decisions are made can creditors collect what they are owed. Furthermore, normal bankruptcy rules allow the debtor to repackage its assets and sell off repackaged operations to multiple buyers. To do so, bankruptcy can override individual pre-bankruptcy contracts, as long as it pays the offended creditors their due under the pre-bankruptcy contract. Bankruptcy thereby seeks to make the whole greater than the sum of individualized contractual parts. The bankruptcy concept is that without this bar to immediate collection, the bankrupt's creditors will rip apart the firm, even if it is worth more if kept whole and intact as a going concern. Each creditor's private contracting incentives, the conventional wisdom runs, can readily degrade the remaining overall value of the failed firm.

A large class of qualified financial contracts, however, is exempt from this core bankruptcy policy of holding the bankrupt's operations together; these exemptions played a large role in the Lehman bankruptcy and the AIG failure. These exempt creditors can immediately close out their deal with the bankrupt and repay themselves out of the collateral the bankrupt debtor has given them, on the theory that these

contracts especially need to be closed out rapidly and these creditors need immediate protection. The justifying theory is that those holding these contracts need quick liquidity, and that affording them that liquidity is inconsistent with a long bankruptcy and an equally long freeze on creditor actions and collections. The best evidence indicates that these exemptions from bankruptcy — the so-called safe harbors — contributed greatly to Lehman's portfolio value destruction. The value of its derivatives and related investment portfolio declined by tens of billions of dollars in the first weeks of its bankruptcy.²

When these financial contracts make up a major part of the firm's value, as they did in Lehman, and particularly if the contracts are put together to form a coherent, interacting portfolio, then the safe harbors make it impossible for the debtor (and its creditors in the aggregate) to maintain the portfolio's intrinsic going concern value. Bankruptcy cannot maintain the bankrupt's operations' going concern value because the safe harbors allow the creditors to pursue the individual remedies, terminating and liquidating their piece of the bankrupt firm. Baseline bankruptcy can, in principle, hold together and sell the portfolio, and can even sell viable subparts of the portfolio, intact. The special exemptions for these financial contracts thereby destroy the shared value of the overall portfolio because they facilitate the debtor's creditors ripping apart that portfolio. Yet, we shall see, although the baseline rules can allow the bankrupt debtor and the court to maintain portfolio value, the debtor's incentives and its considerable discretion under baseline rules would not lead it on its own to maintain the full economic value of the portfolio for the economy and financial markets. Hence, we do not recommend returning to the baseline rules. We examine the adjustments from the baseline that are needed.

Some observers, policymakers, and academics consider preservation of the firm and its going concern value a sufficiently worthy goal that they would impose costs on the firm's suppliers and creditors, to facilitate continuance. We have nothing to say here of the worthiness of that goal — of preservation and continuance for its own sake, even if costs are imposed on the debtor's contracting partners. Rather, we examine whether the total economic value of the portfolio can be maintained under current bankruptcy rules, even if the overall costs of maintaining the portfolio in coherent form are less than the benefits of doing so. We conclude that it cannot.

Lastly, more is at stake than preserving an individual firm's portfolio value for the economy overall. The major motivation for the safe harbor exemptions from the baseline rules was to reduce the chance of financial panic and loss — the systemic risk of financial disruption and a chain of illiquid failures. But, the safe harbors are likely to have the negative effect that they are intended to suppress: they exacerbate market panic and financial disruption, at the cost of the country's economic well-being.

The economic stakes implicated here are not small: Federal Reserve researchers estimate that the financial crisis overall has cost the country \$1 trillion in annual lost

² See Jeffrey McCracken, *Lehman's Chaotic Bankruptcy Filing Destroyed Billions in Value*, WALL ST. J., Dec. 29, 2008, at A10 ("the losses from derivative trades and related claims cost Lehman's unsecured creditors at least \$50 billion"). Below we conceptually disaggregate this decline: a portion just moved value to Lehman's counterparties; a portion was a social loss. Both hurt the economy overall.

capacity in the half-dozen years since the financial crisis began.³ And the Bank of International Settlements estimates that although the odds of the derivatives market inspiring a financial crisis are low each year, the costs are devastating if one occurs. The costs in lost production in the real economy from such crises extend out for multiple years and have a present value at more than half of a year's gross national product.⁴ Under such estimates even costly reforms become worthwhile. In this article we propose a low-cost reform that should noticeably reduce the chances of the financial contract, derivatives industry inducing a crisis — or of exacerbating one arising from elsewhere in the economy.

* * *

A road map for the article follows. In Part I, we show why a bankruptcy path to resolution is a critical piece to strengthening the financial economy. We want an effective process to obtain best value for the participants overall, of course. And for the financial contracting, derivatives market, we want a bankruptcy process that will facilitate a nation-wide economic recovery instead of deepening a financial and economic crisis.

In Part II, we examine how a portfolio's value can exceed the value of its parts. The primary mechanism that facilitates this value creation has two related channels: the well-known value-building character of diversification and the less well-known but cumulatively very large transaction cost of trading, canceling, and replacing these contracts when bankruptcy has them cancelled and then (usually) replaced.

In Part III, we show how portfolio concepts interact with the Bankruptcy Code. The now-famous-in-finance bankruptcy safe harbors allow the bankrupt's counterparties to close out the contracts they find profitable to terminate, as soon as bankruptcy begins. Other creditors typically cannot do so, because the Bankruptcy Code gives the court and the players in the firm time to see if the debtor firm is worth more if held intact, or sold in units instead of being ripped apart.

In Part IV, we show, however, that bankruptcy's baseline rules also facilitate value destruction. The debtor's non-safe-harbored creditors would profit from returning to the baseline rules, with value shifting to them from the safe-harbored counterparties. Although the current rules deviating from the baseline are seriously

³ See David Reifschneider, William Wascher & David Wilcox, *Aggregate Supply in the United States: Recent Developments and Implications for the Conduct of Monetary Policy* 8 (Fed. Res. Bd. Fin. & Econ. Disc. Series, Working Paper No. 2013-77, 2013) (estimating the US GDP will be about 6.75% below pre-crisis trajectory by end of 2013), available at <http://www.federalreserve.gov/pubs/feds/2013/201377/201377pap.pdf>; see also Paul Krugman, *The Mutilated Economy*, N.Y. TIMES, Nov. 7, 2013, at A35 (citing Reifschneider and noting that "economic weakness has already reduced America's economic potential by around 7 percent, which means that it makes us poorer to the tune of more than \$1 trillion a year").

⁴ Bank of Int'l Settlements, Macro-economic Assessment Group on Derivatives, *Macroeconomic impact assessment of OTC derivatives regulatory reforms* 2, 12-14 (Aug. 2013), available at <http://www.bis.org/publ/othp20.pdf> (finding derivative reforms have "economic benefits worth 0.16% of GDP per year" and "economic costs of 0.04% of GDP per year"). An unstable financial market may not cause a financial crisis. One might emerge elsewhere, with maladapted financial institutions exacerbating the economic destruction.

suboptimal, we do not recommend returning to the baseline rules. Either way, baseline or safe-harbor, the incentive for major portfolio value destruction is large.

In Part V, we examine the chaotic close-outs in the Lehman bankruptcy and show how these largely fit the theory developed in Parts II, III, and IV. Ironically perhaps, Lehman's broker-dealer could be sold intact within a few days of Lehman's filing and Lehman's financial contracts that had been transferred before bankruptcy to a third party could be rapidly sold and were sold along product market lines. Bankruptcy could do the same, but as of now cannot.

Then, in Part VI, we examine mechanisms that preserve portfolio value, and their limits. We show that the well-known §363 sale has the capacity to preserve portfolio value. The § 363 sale has revolutionized the reorganization of industrial firms, but the safe harbors prevent its use for financial firms, because their counterparties can use bankruptcy safe harbor exemptions to close out their positions and liquidate the debtor's posted collateral well before the bankruptcy court or the financial players can engineer a § 363 sale. The best resolution is to allow a short stay on counterparty close-out, but not the unlimited one that baseline bankruptcy provides. During that period, the debtor's portfolio could be sold, either intact or by product lines — interest rate swaps to one buyer, foreign exchange dealings to another, credit default swaps to a third.

Not only is a sale along product lines the natural way to sell the business, but American finance needs a way to break-up the portfolio of a large derivatives dealer that fails, and the best way will be in bankruptcy. The derivatives market is concentrated, with much of it embedded in a handful of the largest financial firms in the United States, such as Citigroup and Bank of America, which too often make it onto regulatory watch lists. There is no obvious buyer of either's huge derivatives book. But breakup along product lines could well make the portfolio saleable and finance safer. Moreover, the inability to reposition a huge derivatives portfolio incentivizes pre-failure counterparties to the five major dealers to conclude that the United States is unlikely to allow a mass close-out, which would be chaotic, as in the Lehman bankruptcy. Market actors' anticipating the government's unwillingness to allow a mass close-out for a very large firm can simultaneously further concentrate American finance and make it more fragile. It further concentrates because the largest firms are those that get this anticipatory benefit. It makes finance more fragile, because more trading then migrates to the largest firms, which are systemically vital. But if a major failure could be repositioned with several product lines sold intact, then regulatory authorities could conclude that one or two product lines, for which no buyer appears, could be closed out without systemic impact; the marketplace, anticipating this result, would be less susceptible to moral hazard and its resultant financial concentration and fragility.

In Part VII, we examine what we call "moving target" issues. While we are confident that a better bankruptcy system could have handled the Lehman bankruptcy much better, finance and financial regulation are changing, making some of the Lehman-style problems smaller and others larger. A bankruptcy mechanism is needed because enough has not changed, and some that has changed makes bankruptcy resolution more, not less, important. First, we examine the Dodd-Frank Act's approach

to the portfolio problem. Dodd-Frank allows the resolution authorities to take the entire portfolio of a large institution and put it in a separately-managed entity, which the current bankruptcy structure still does not allow. However, Dodd-Frank would not permit the portfolio to be sold and repositioned along product lines. The portfolio consequently would need to be sold to another systemically important financial firm or managed on a standalone basis by government authorities. Both are poor results; the first would further concentrate finance; the second would invite preferential and supportive financing, some analysts fear — a stealth bailout that, if anticipated by financial markets, would exacerbate ongoing moral hazard, too-big-to-fail problems. We also briefly examine the rise of clearinghouses and other safety rules and again determine that these do not change the overall need for an effective bankruptcy resolution mechanism, which we do not yet have.

Lastly, we conclude. Financial regulators wish to be able to allow failing financial firms to enter bankruptcy. Congress, via Dodd-Frank, sought the same. At the same time, regulators believe that bankruptcy now destroys value, such that, if the subject firm is systemically important, a bankruptcy proceeding could have a severely deleterious effect on the nation's economy, as the Lehman bankruptcy had. A good fraction of this value loss comes from safe-harbor-induced portfolio value destruction. Bankruptcy is not now ready to handle the problem; were a Lehman-class bankruptcy to occur in 2014, a half-dozen years after the financial crisis, it would fare no better than Lehman's did in 2008 and would have similar systemic costs. Hence, the regulatory and congressional hope that bankruptcy be the first line of defense in financial firm failure is illusory because, as bankruptcy is now structured, it cannot possibly do any better than it did with Lehman in 2008.

I. RATIONALE FOR BANKRUPTCY RESOLUTION

In the following Parts we analyze how current bankruptcy rules prevent the breakup of an unwieldy failed firm's concentrated financial portfolio, destroy portfolio value, and would repeat the chaotic knock-on effects of the Lehman bankruptcy. We then offer our best resolution of the problem: a return to some, but not all, of baseline bankruptcy structures, to allow the court to sell the derivatives portfolio over a 10-day period along product lines. This solution would allow a large derivatives portfolio of a failed firm to be broken up, instead of being kept or sold intact in a way likely to further concentrate American financial markets.

Consider in this Part why bankruptcy resolution is important. After all, Congress passed the Dodd-Frank Act in 2010, which contemplated regulatory resolution outside of bankruptcy. Why is that not enough? Indeed, why is the Dodd-Frank result not superior in all important dimensions to any possible bankruptcy result?⁵

⁵ These considerations are discussed in *The Bankruptcy Code and Financial Institution Insolvencies*, Hearing before the Subcomm. on Regulatory Reform, Commercial and Antitrust L. of the H. Comm. on the Judiciary (Dec. 3, 2013) (testimony of Mark J. Roe), available at http://judiciary.house.gov/_files/hearings/113th/12032013_2/Roe%20Testimony.pdf.

Three categories of consideration are relevant here: limits to Dodd-Frank, advantages of bankruptcy, and regulatory advantages of hybridization.

Dodd-Frank may not work as a technical matter. It is untried and one should be wary of untested systems. Better to upgrade the current system for resolving financial stress — bankruptcy — to make it work and have it available, side-by-side with Dodd-Frank. For example, Dodd-Frank may not be invoked, because to resolve a firm under Title II of Dodd-Frank, multiple regulatory approvals are needed and regulators may disagree among themselves whether resolution is wise. In the run-up to Lehman, the Secretary of Treasury's concern with the moral hazard costs to bailing out Lehman impeded a government-led Lehman rescue from bankruptcy. Congressional pressure against unpopular bailouts may stymie regulators from acting, as could a public revulsion against what average citizens consider a bailout, even if regulators conclude resolution is economically needed.

Even if the regulators act, they often do not act quickly enough but delay and hope for a natural turnaround. And, Dodd-Frank formally requires that bankruptcy be the primary line of defense against financial failure. As of now, however, it cannot function and will not be used.

Worse yet, a regulatory invocation of Dodd-Frank's Title II is potentially costly to the economy. The announcement that a firm's failure would heavily damage the economy and is imminent — justifying regulators invoking Title II — is itself systemically damaging. It makes vivid to the economy that the country's well-being is at risk. The announcement itself can panic the economy. Bankruptcy might do this too, but less so, especially if and when bankruptcy becomes as routinized for finance as it has become for airlines and large industrial firms.

Regulators ought to have a credible threat that they will do nothing vis-à-vis a failing financial firm. As of now, they do not have that threat. They must either accept a chaotic Lehman-like result or invoke Dodd-Frank's Title II. A credible bankruptcy alternative opens up more wholesome regulatory possibilities.

Bankruptcy can be regularized and made part of the background of economic reorganization and restructuring. It has growth potential as evidenced by its evolution from the 1970s — when the belief was widespread that a major industrial firm that entered chapter 11 could not exit bankruptcy, where it would die. Nowadays, bankruptcy regularly reorganizes complex industrial firms.

Lastly, engineers know that complex systems demand redundancy. As of now, we have only one useful system for resolving systemically important financial institutions — Title II of Dodd-Frank, which is untried and may not be invoked when needed. Like engineers building in resiliency to a complex system, we should want more than one way to handle a major financial problem. When we fix bankruptcy up to handle big finance, we will then have a more resilient financial system than we have now, one infused with hybrid vigor: The regulators, if in doubt, can allow a failing financial firm to enter bankruptcy, expecting that, even if the firm will not exit intact, its portfolio and business will. If bankruptcy works well, great. If it does not, the regulators can pull the firm out from bankruptcy and into Title II.

Perhaps most importantly, we now have a concentrated financial market in financial derivatives and we should have a mechanism to break-up a failed firm's

derivatives portfolio. Dodd–Frank’s Title II does not allow this break-up. Bankruptcy readily can, as a matter of standard bankruptcy technique. It is not now permitted to so, but as we recommend below, it should be permitted and encouraged to do so.⁶

II. PORTFOLIO VALUE AND ITS DESTRUCTION IN BANKRUPTCY

Here we outline basic portfolio construction to see, first, how construction economies arise and, second, how they are lost when, as is now the case in bankruptcy, the portfolio’s integrity cannot be maintained.

A. Portfolio Value

1. *The portfolio’s parts.* A risky asset, worth, say, nothing or \$2 million with equal likelihood is not worth its average expected value of \$1 million if the downside of nothing is particularly costly to its owner, or if the \$2 million upside is not twice as valuable in life amenities as the \$1 million expected cash value. Due to the diminishing marginal utility of money — we buy sustenance with the first dollar, luxuries with the twentieth dollar — most people, if unable to diversify, would trade the nothing or \$2 million bet for something less than its \$1 million expected value.⁷ For a financial firm financed with debt obligations, the costs of the downside risks are analogous: the further losses the financial firm suffers if stress, bankruptcy, and disruption are the result. The asset’s value declines if it cannot be inexpensively embedded in an appropriately diversified portfolio.

2. *The sum of the portfolio’s parts.* But if the portfolio can be constructed with offsetting risks, then its value rises by putting negatively correlated investments together. (And if it’s easy and costless to embed the asset in a diversified portfolio, the asset will command its diversified price; this is the basic lesson of the capital asset pricing model.) Another security might yield \$2 million when the first one was worth nothing and, if it was also worth nothing when the first was worth \$2 million, then the two would be perfectly negatively correlated. If the portfolio assembler could buy this second security from a risk-averse holder for \$900,000 because the holder could not itself avoid the double-or-nothing bet, then the portfolio assembler would have created value by turning two \$900,000 securities into a \$2 million portfolio.⁸

3. *Portfolio value and financial derivatives.* Risk management in derivatives markets parallels the prior paragraphs’ description of portfolio value creation. A volatile undiversified cash-flow is less valuable than a stable cash-flow, even if the two are equal in expected value. Expenses for the cash-flow holder can be lumpy and time-sensitive, making it costly to miss a payment or to lack the cash needed for smooth

⁶ Parallel developments for clearinghouses may improve the background setting, potentially reducing concentration in core financial firms, although perhaps substituting that for concentration in clearinghouses. Below we discuss clearinghouse advantages in resolving a failed member’s portfolio and why those advantages can, and should be replicated in bankruptcy.

⁷ See N. GREGORY MANKIW, *PRINCIPLES OF ECONOMICS* 437 (3rd ed. 2004).

⁸ See RENÉ M. STULZ, *RISK MANAGEMENT & DERIVATIVES* 30–36 (2003).

operations elsewhere. The firm with the volatile cash flow can hold cash reserves, but holding low-earning cash reserves is itself costly. Risk management, by smoothing cash flows with derivatives and by comparing the cost of cash versus the cost of derivatives that cover a cash need, creates value.⁹

Financial institutions are often heavily-leveraged and vulnerable, with high levels of debt that make them unable to absorb a large loss without threatening their solvency. Financial institutions that trade in derivatives often seek to have much of their portfolio in an offsetting book, in which it sits in the middle of opposite trades, analogous to the two \$900,000 investments in the prior paragraphs.¹⁰ Disruptions in the value of either side of these trades can destroy portfolio value, destabilize the financial institution, and, if the financial disruptions are wide enough then damage the real economy.

B. Value Destruction Due to Portfolio Disassembly

The Bankruptcy Code's safe harbors will stymie a court that wants to preserve an otherwise valuable portfolio, because the debtor's counterparties can terminate and sell off their positions with the debtor as soon as it files for bankruptcy (and, indeed, can and will start terminating even before it files for bankruptcy). Portfolio disassembly costs ensue: the social cost of individually replacing a large number of the debtor's derivatives contracts, one-by-one, can be, and in Lehman was, very high. If the portfolio could be repositioned wholesale, in bulk, the total transaction costs can be much lower.

1. *Diversification.* If the portfolio owner loses ownership of part of the portfolio, the value could decline by more than the market value of the lost piece. Take the diversification example, of the two risky opposites, zero or \$2 million. These bets are worth \$900,000 each standing alone but worth \$2 million together, because of their offsetting outcomes. If one piece is extracted from the portfolio, even at a fair, proportionate value — \$1 million, in this running example — the remaining piece declines in value from \$1 million to \$900,000 to the owning firm, until it can appropriately diversify the embedded risk.

2. *Transaction costs due to the bid-ask spread.* Perfectly efficient markets that transacted costlessly would not tolerate this value loss. A financial contract would be worth its expected value, without regard to the risk of that particular contract, if anyone could costlessly construct a diversified portfolio.¹¹ However, swaps markets have costs for transacting and these contracting costs, when cumulated, lead to large losses. Worse yet, these contracting costs rise when a major swap dealer fails, for both the failed, bankrupt dealer and other financial firms.

⁹ *Id.* at 36–46.

¹⁰ See DON M. CHANCE & ROBERT BROOKS, AN INTRODUCTION TO DERIVATIVES AND RISK MANAGEMENT 565 (8th ed. 2010) (“The dealer usually hedges its risk and earns a profit from the difference in the prices it bids and offers.”).

¹¹ The text's sentence captures and simplifies the basics of modern portfolio theory.

The largest trading transaction cost comes from the bid–ask spread — the difference between the price a dealer will pay and that for which it will sell it.¹² In addition, the debtor seeking to cover a lost portfolio part has to search for a good deal and bargain for it. Replacing terminated financial contracts is costly.

The gist of the debtor’s problem is that its counterparty can terminate and clear out the safe harbored transaction with the bankrupt debtor, inducing the debtor and the counterparty to replace and recontract, wastefully duplicating the search, bargain, and contracting arrangement that one or the other, or both, have already done.

A dealer will, for example, buy the right to a future payment worth \$100 million of euros for \$99 million, and it could then sell that amount in euros to a third party for \$101 million, with the difference between the obligation and the price being its profit for either bearing the risk of being the counterparty or finding someone who will.¹³ But such a portfolio does not happen by chance. The dealer must find the right parties, sell them the swap, and manage the portfolio to keep it risk-neutral. To cover its costs, and to make a profit, the dealer charges each party, offering to pay a price slightly below market, or offering to sell at slightly above market. This difference is the bid–ask spread.

However, if the dealer or one customer terminates their contract, the work in creating the social value of the balanced transactions has already been spent, and the value of the assembled transactions is then lost to the dealer and the economy. One party or the other could reestablish the lost transaction, but to do so it must find a willing counterparty, spending resources to find the party (or pay a dealer to do the work). This duplication of the costs of rebuilding the portfolio is social waste.

In a bankruptcy, these costs are typically charged under the derivatives contract to the debtor, but the main point is not where the costs fall, but that the search and replacement contracting costs are wasteful, if they can be avoided. Bankruptcy does not now avoid these costs but, via the safe harbors, exacerbates them.

On a single transaction, the loss may not be much. But when aggregated over many contracts, the aggregated costs can amount to a high fraction of the portfolio’s and the leveraged firm’s overall equity value. The financial firm (and the financial system) could then suffer further degradation if the failing firm is systemically important. Its major interconnections with the rest of the financial system can then pull down other financial institutions and financing channels.

* * *

Below we consider both how the safe harbors facilitate this inefficient result and how it can damage the overall economy. Termination problems are not just local losses, offset by another’s advantage, because they can, and in 2007–2009 did, affect

¹² See generally Solomon J. Noh, *Lesson from Lehman Brothers for Hedge Fund Managers: The Effect of a Bankruptcy Filing on the Value of the Debtor’s Derivatives Book*, HEDGE FUND L. REP., July 12, 2012 (describing how the bid–ask spread induced Lehman’s derivative losses).

¹³ The dealer and their counterparty will not actually exchange a check for \$100 million worth of euros for \$99 million in dollars, but will only exchange the net difference, here, in dollars, \$1 million. The \$100 million in euros is thus the notional basis, and the \$1 million is the net amount. The derivative can change value quickly because it is so leveraged. The parties consider the deal a \$1 million contract, and a change in the exchange rate of one percent can double (or halve) the value of the contract for each party.

the entire economy. But for now we repeat the initial bottom line: wide counterparty termination rights thereby facilitate portfolio value destruction.

III. HOW BANKRUPTCY'S SAFE HARBORS DESTROY PORTFOLIO VALUE

In this Part III we examine how the current safe harbors from normal bankruptcy rules, as well as the baseline rules themselves, incentivize parties to the termination process to destroy value in the debtor's portfolio. In subsequent Parts we show how these poor results can be ameliorated.

A. The Safe Harbors

Baseline bankruptcy rules bar the bankrupt debtor's creditors from suing and collecting from the debtor, other than through a plan of reorganization or with the court's permission. The granting of relief soon after the debtor files for bankruptcy automatically enjoins parties from trying to collect from the debtor on their pre-bankruptcy debts.¹⁴

The concept behind the automatic stay is that the whole firm can be worth more than the sum of its parts. But if the financier of the steel mill could pull the smelter out of the steel company, and leave the other steel-rolling equipment inside, then an otherwise viable steel mill might be destroyed, with its suppliers and customers having to run for replacements and its employees having to look for other jobs. True, the bankruptcy bar against creditors collecting from the bankrupt is not permanent; the creditor is paid eventually. The bar is designed to help test whether the firm has going concern value, to allow the firm to realize that going concern value, and then to distribute fair value to the widest possible group of creditors.

Other bankruptcy rules support the capacity to test whether the firm has ongoing value if kept intact, in whole or in part: the debtor's counterparties that grabbed value out from the debtor via prebankruptcy collections must return these grabs to the bankrupt's estate if the transfers cannot pass muster under bankruptcy's preference rules; fraudulent conveyances of the debtor's assets before bankruptcy for inadequate value can be pulled back into the bankrupt business; and ipso facto clauses that make the filing of the bankruptcy an event of default are generally unenforceable. These baseline rules help to keep the debtor's business intact, at least for a time. And then the sales rules in the Code, most famously § 363, allow the debtor's operations to be sold intact or in coherent subparts to third parties if sales turn out to be the best way, in the parties' and the court's estimation, to preserve value.

But the safe harbors suspend normal bankruptcy rules for financial contracts, thereby facilitating counterparties' disassembling of the debtor's portfolio.

1. Relief from the automatic stay. The most important safe harbor is relief from the automatic stay, which typically bars creditors, but not safe-harbored creditors, from collecting against the defaulting debtor just because the debtor filed for bankruptcy.

¹⁴ 11 U.S.C. (the "Bankruptcy Code") § 362 (2012).

Ordinary creditors in a regular baseline bankruptcy must wait for the court to allow them to sue and collect.

But counterparties with derivatives contracts need not comply with the bankruptcy automatic stay.¹⁵ Upon the debtor's filing for bankruptcy, the qualified counterparties can demand payment, can sue, and, if they have security for any damages, can seize and sell that security.¹⁶

2. *Revitalizing ipso facto clauses.* For the creditor to be able to act against the debtor, the debtor must have breached the contract. If there is no breach, the creditor has no complaint and must wait for the debtor's performance, which may or may not come.

Creditors have long anticipated this problem, so they often put "ipso facto" clauses into their contracts, clauses that make the debtor's bankruptcy filing in and of itself a default under the contract, thereby allowing the creditor to sue. But bankruptcy law, anticipating the threat to its ability to reorganize otherwise viable firms, has long barred the enforceability in bankruptcy of such ipso facto clauses.¹⁷

For derivatives contracts, however, the safe harbored creditor can enforce the ipso facto clause.¹⁸ (And the debtor may have defaulted under the more substantive financial covenants as well.) Thus a safe harbored creditor can pull its piece of the debtor's portfolio out from that portfolio. It is exempt from baseline bankruptcy's automatic stay and bar to the enforceability of ipso facto clauses.

3. *Safe harbors from preference law and fraudulent conveyances.* Creditors anticipate that a debtor will file for bankruptcy when business deteriorates. To avoid the inconvenience and lower recovery from being a claimant in bankruptcy, creditors seek to be repaid before the bankruptcy. Or creditors tell their debtor that if it does not post more collateral to the creditor, it will be sued. If enough creditors rush to be repaid or rush to drain the debtor's value with multiple large security postings, then reorganization could become impossible. The run on the debtor can leave the firm crippled, unable to recover.¹⁹

To reduce the lender's incentives to rush for repayment or security posting, bankruptcy makes a wide array of eve-of-bankruptcy repayments preferential, which the bankrupt can recover for the benefit of all of its creditors. If the repayment allows the creditor to garner more proportionately than others, if the payment or posting of

¹⁵ Bankruptcy Code § 362(b)(17) (2012). In financial circles, the term "qualified financial contract" is often used here. This is not a bankruptcy term, but one from financial regulation. Roughly speaking, it covers derivatives and repurchase agreements, the financial instruments that are safe harbored under the Code. The term is used in the Dodd-Frank Act and codified for financial regulation in 12 U.S.C. § 5390(c)(8)(D)(i) (2012) ("qualified financial contract" means any securities contract, commodity contract, forward contract, repurchase agreement, swap agreement, and any similar agreement...").

¹⁶ Bankruptcy Code § 362(a) (2012) (the automatic stay bars creditors from pursuing any judicial process, enforcing a judgment, acting to obtain possession of property, or setting off mutual debts).

¹⁷ Bankruptcy Code § 365(e) (2012).

¹⁸ Bankruptcy Code § 559 (2012) (repo agreement) & § 560 (swap agreement).

¹⁹ For argumentation and data that the run on repo worsened the crisis, see Gary B. Gorton & Andrew Metrick, *Securitized Banking and the Run on Repo*, 104 J. FIN. ECON. 425 (2012); Arvind Krishnamurthy, Stefan Nagel, & Dmitry Orlov, *Sizing Up Repo* 20 (SSRN working Paper, Jan. 2012), available at <http://www.nber.org/papers/w17768>.

security is made within 90 days of the debtor filing for bankruptcy, if it was not in the ordinary course of business, and if it satisfies some other requirements, it is preferential and the debtor may recover it.²⁰

Here too bankruptcy law safe harbors the creditor whose otherwise preferential payment ties to a piece of the debtor's derivatives portfolio.²¹ If the creditor is repaid or if it obtains more collateral within those 90 days before bankruptcy and, if the repayment or posting of security would otherwise have been preferential, then the payment or posting is safe harbored, exempt from normal bankruptcy processes. The debtor cannot recover it.

Hence, if a creditor of the bankrupt, due payment on one of the derivatives contract, cashes it out in a way that would otherwise be preferential, the debtor nevertheless cannot recover the preferential payment. If the debtor posts more collateral with the creditor, then even if that posting is preferential, the creditor can, after the bankruptcy commences, declare the debtor to have defaulted under the contract (because the ipso facto ban does not apply) and keep that preferential security for itself. These rules facilitate portfolio value destruction.

B. Separating Value Transferred from Value Lost

True, some portion of the loss from portfolio deconstruction, such as that which Lehman suffered in its September 2008 bankruptcy, comes from close-outs at prices beneficial to the failed institution's counterparties. These close-outs transfer value as well as destroy value, meaning that the full loss to Lehman was not entirely a loss to the economy. Lehman lost; its counterparties gained.

One might be tempted to conclude that zero-sum transfers were a large portion of Lehman's loss. Some were, but there's strong reason to believe they were not the bulk of Lehman's losses. Crisis-oriented price shifts against Lehman (and in favor of its counterparties) could not have accounted for much of Lehman's loss. First off, key parts of Lehman's book were hedged, so price changes would wash out. Secondly, where Lehman was not hedged and was speculating, prices were moving in Lehman's favor or were not volatile.²² Lehman was reportedly betting, net, that interest rates

²⁰ Bankruptcy Code § 547. On the anti-run, preservation of collective value explanation for preference law, see THOMAS JACKSON, *THE LAW AND LOGIC OF BANKRUPTCY* 122–50 (1986).

²¹ Bankruptcy Code § 546(g) (safe harbor for derivatives and repo from preference law and most fraudulent conveyance law).

²² Attorneys involved in the bankruptcy report that Lehman's large fixed-rate receiver position in interest rate swaps increased in value as interest rates fell over the two years before its petition, and would have increased even more after its bankruptcy, as further interest rate cuts were expected. Cf. Martin Z. Braun, *Lehman Reaches Beyond the Grave Seeking Millions from Nonprofits*, BLOOMBERG.COM, (May 14, 2013), available at <http://www.bloomberg.com/news/2013-05-14/lehman-reaches-beyond-grave-to-grab-millions-from-nonprofits.html> (describing the firms who were the fixed-rate payers to Lehman's receiver position); Michael Fleming & Asani Sarkar, *The Failure Resolution of Lehman Brothers*, 20 FRBNY ECON. POL'Y REV 56 (forthcoming 2014) ("many municipalities and nonprofits had issued floating-rate bonds and entered into interest rate swaps with Lehman where they paid a fixed rate and received a floating rate. Some of these swap counterparties were out-of-the-money to Lehman as the fixed rate was higher than the floating rate prior to Lehman's bankruptcy.").

would go down in its interest rate swaps. That is the way rates in fact moved. What is left to explain Lehman's portfolio losses was the powerful cumulative effect of being closed out and forced to bear the transaction costs of counterparties replacing their deals with Lehman. If the process could have been handled wholesale, at low transaction costs, as we suggest below, it can, then bankruptcy could have better limited the value loss and consequential financial disruption.

Even for the portion of losses that represent "mere" value transfers, there are serious embedded social costs. Transferring value from Lehman to a counterparty burns up economic value: the transaction cost of the close-out, the transaction cost of the counterparty finding an investment that covered the closed out investment, which is typically then charged to the debtor, the professional fees involved, and the litigation costs of the bankruptcy, which were substantial. Four years of litigation, with upwards of \$2 billion in litigation cost is an expensive way to effectuate a simple transfer of value from Lehman to the counterparties. Much of the Lehman litigation cost was driven by close-out disputes. If the breakup and transfer mechanisms we propose here were in place and effective, much of these costs could have been avoided.²³

The Coase Theorem on transaction costs can be used to conceptualize both the criticism ("it's just a value transfer") and the correct analysis (that the cumulative impact of transactions costs across many transactions due to widespread recontracting can be, and has been, exceedingly expensive in financial bankruptcy to the failed firm and the overall economy).

That is, critics of the portfolio destruction analysis could point to the famous-in-law Coase Theorem, which shows how a rule's potential inefficiencies between contracting parties can be avoided by the parties changing the contract terms.²⁴ Someone must pay, but the final contract will, if recontracting is smooth and costless, be efficient. In the standard Coasean move, all that is lost by a poor but clear rule among contracting parties is the cost of their contracting again. For portfolio value destruction, the potential (but erroneous) Coasean critique is that the debtor, even if facing portfolio value destruction, can avoid that destruction by reacquiring the missing security.

The transactional benefit for the debtor of reacquiring the offsetting, hedging position is clear, but the conceptual critique would go awry here, because the very cost of portfolio value destruction is the transaction cost of reacquiring, or covering, a defaulted contract at a wrong spot in the bid-ask spread. These costs are large when aggregated over a large portfolio, particularly when the recontracting is done during a financial crisis with disrupted financial markets.

* * *

Moreover, and importantly, the knock-on effects of the Lehman bankruptcy — reflected in the widespread view that the bankruptcy and concomitant close-outs, along with the AIG close-outs, exacerbated the financial crisis — need to then be added in for the policy balance. So, in coming up with an economic bottom line, one should

²³ The direct cost of the Lehman bankruptcy made it the most expensive bankruptcy in American history, costing the estate over \$2 billion in explicit fees. Counterparties bore costs directly as well.

²⁴ See generally Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960).

deduct from the as-much-as-\$75 billion lost by Lehman that portion that was recovered by Lehman's counterparties (the simple transfers, which we analyzed above as likely to be a small portion of the \$75 billion). But to that lowered net amount, one must *add* (1) the counterparties' own additional transaction costs, (2) the large transaction costs of the Lehman bankruptcy itself, and, (3) the quite plausibly much larger costs to the American economy as financial markets froze and economic activity declined. There's good reason to think that, particularly with the last cost, the net resulting cost to the American economy might be more than \$75 billion, not less.

C. The Safe Harbors in Action

Portfolio destruction under the safe harbors is easy to understand now. The safe harbors facilitate the interacting portfolio value destruction costs: loss of diversification, as well as transaction costs from termination and replacement.

If the debtor firm with a balanced book reaches bankruptcy, the safe harbors encourage its counterparties to rip their contracts out from the debtor's portfolio, in ways that baseline bankruptcy's automatic stay normally would preclude. Non-safe-harbored creditors need to apply to the court before they can seize and liquidate their collateral and cannot use the bankruptcy itself to declare the debtor to be in default. Not so for safe harbored creditors. Preferred creditors, who receive prebankruptcy payoffs from the debtor, must typically return payments the debtor made to them in the 90 days before bankruptcy, in law's effort to stymie a run on the debtor as it weakened. Not so for safe harbored creditors, who need not return such a payment, even if they force the debtor to pay the creditor under duress on the eve of bankruptcy. The Code thereby facilitates counterparty destruction of the debtor's portfolio.

D. How Bankruptcy's Baseline Rules Also Destroy Portfolio Value

Thus, bankruptcy's safe harbors, which deviate from baseline rules, facilitate counterparties' destroying the debtor's portfolio's value, transferring value to themselves and reducing the overall value of the portfolio to the debtor and its creditors. One might then think that bankruptcy's baseline rules do not facilitate portfolio value destruction.²⁵ However, they would also destroy value. Although the debtor would be better off without the safe harbors, overall portfolio value would nevertheless still be destroyed. Although the debtor *could* maximize the value of the portfolio for all concerned, it would lack the incentives to fully do so.

1. *The automatic stay.* In the absence of the safe harbors, the automatic stay would bar counterparties from quickly terminating their contracts, from netting out various transactions under the same contract, and from seizing and claiming their collateral. The automatic stay would also prevent the counterparty from withholding

²⁵ Perhaps for this reason, even provocatively entitled criticisms of the safe harbors retain substantial accommodation. See Stephen Lubben, *Repeal the Safe Harbors*, 18 A.B.I. L. REV. 319 (2010).

performance on their contracts with the debtor, even if the debtor were not performing on its contracts.²⁶ The stay has no formal time limit.

The stay would give the debtor an *opportunity* to preserve its portfolio value. The debtor could, for example, seek to assign its balanced book to a third-party, with the portfolio assembly intact.²⁷ Without the safe harbors, the debtor could thereby preserve portfolio value.

But it would not have the incentives to do so. It would have incentives to break up its portfolio, keeping the winners for itself and rejecting the losers. It could demand counterparty performance, but the value transferred into the bankrupt estate could reduce overall value, particularly during a financial crisis when free cash is particularly scarce. The debtor would maximize its own value, but not the total value of the portfolio to all parties.

2. *The debtor's right to reject or assume.* Bankruptcy gives the bankrupt debtor the right to choose which incomplete contracts it will keep and which it will reject.²⁸ Contracts that the bankrupt debtor rejects yield the disappointed counterparty claims with the weak status of pre-petition claims, which, to the extent not secured or otherwise prioritized, are paid proportionately with other unsecured creditors. Contracts that the debtor assumes are typically fully paid.²⁹

That is, the debtor who rejects a contract does not pay the full level of damages. Instead it pays the proportionate amount that the bankrupt debtor is paying its unsecured creditors overall.³⁰ Posit that the dealer rejects a contract and the counterparty's damages are \$100,000. A solvent dealer must pay that \$100,000. But a bankrupt dealer would pay proportionately to what it is paying other unsecured creditors. If unsecured creditors are being paid 10 cents on the dollar, a common bankruptcy assumption,³¹ then the damages in the bankruptcy would be assessed at \$100,000, but the debtor would only pay \$10,000. Jesse Fried and George Triantis

²⁶ David Skeel and Thomas Jackson argue that swaps would be treated like leases, which the debtor is required to perform while waiting to reject or assume. David A. Skeel, Jr & Thomas H. Jackson, *Transaction Consistency and the New Finance in Bankruptcy*, 112 COLUM. L. REV. 152, 171 (2012). The *Metavante* decision cuts against this requiring of performance currently in the derivatives context, see *In re Lehman Brothers, Inc.*, No. 08-13555 (JMP), 2009 WL 6057286, (Bankr. S.D.N.Y. Sept. 17, 2009).

²⁷ See Bankruptcy Code § 365(f)(1) (2012) (allowing debtor to assign executory contracts, notwithstanding anti-assignment clauses).

²⁸ Bankruptcy Code § 365 (2012). See Jesse Fried, *Executory Contracts and Performance Decisions in Bankruptcy*, 46 DUKE L.J. 517, 517 (1996); Jay Westbrook, *A Functional Analysis of Executory Contracts*, 74 MINN. L. REV. 227 (1989); Vern Countryman, *Executory Contracts in Bankruptcy: Part I*, 57 MINN. L. REV. 439, 439 (1972).

²⁹ Bankruptcy Code § 507, § 1129(a)(9) (2012).

³⁰ This is true for unsecured creditors. Secured creditors are guaranteed the value of their claim up to the value of their security. Bankruptcy Code § 506 (2012). Claims exceeding the value of the creditor's security are treated as secured up to that value and unsecured beyond it. Undersecured claims would thus be subject to pro rata damages to the extent they were unsecured. Derivative contracts are typically undercollateralized, as many counterparties of Lehman discovered. The general practice is for the security postings to be done at the middle of the bid-ask spread, leaving counterparties less than fully secured. And, in rapidly moving markets the security shortfall could be greater.

³¹ See, e.g., DOUGLAS G. BAIRD, *THE ELEMENTS OF BANKRUPTCY* 69, 85, 86 (1993).

have separately shown in another context how debtors are motivated to this kind of inefficient over-rejection when going through their books of executory contracts.³²

3. *Portfolio consequences.* The combination — reduced real damages for rejection but full payment for assumption — will lead the debtor to reject losing contracts (because it need not pay up in full, as it would outside of bankruptcy) and assume contracts on which it is ahead. Even if the two contracts together are part of the balanced book that is economically more value when kept intact instead of severed, the debtor will increase its own value by rejecting the losers and keeping the winners, even if it thereby destroys overall portfolio value for it and its counterparties.

The debtor's baseline bankruptcy right to reject or assume will lead it to destroy portfolio value — with the portfolio value conceived here as the total value that all parties, including the debtor and its counterparties, can take from the portfolio. Outside of bankruptcy, the debtor's obligation to pay full damages should deter it from rejecting the money-losing contracts embedded in the portfolio. But its incentives to perform decline if it can reject or assume, at its option, and need not pay full damages. As long as the damages to the bankrupt from portfolio destruction are less than the out-of-pocket cost to the debtor (at 10 cents on the dollar for unsecured debt, in the bankruptcy cliché), the debtor will be incentivized to reject the contract, even at the cost of lost total portfolio value. The debtor is incentivized to maximize the value of the package to itself, not to all of the parties.

To be sure here, the debtor even in the absence of safe harbors cannot “cherry-pick” through pieces of a contract, rejecting the pieces it dislikes and assuming those that it likes.³³ If the debtor has a single trading contract with Dealer A, under which it has multiple foreign exchange trades, it must assume or reject the entire contract, for all trades together or none. But if the trading book with Dealer A is net, in the debtor's favor, but not the book with Dealer B, the overall contract with A will be assumed, but the contract book with B would be rejected. The debtor would do so, even if the overall portfolio of trades with both A and B are needed for it to have a balanced portfolio.

4. *Debtor's incentive to delay.* A further major source of value destruction under baseline bankruptcy rules is the debtor's capacity for strategic delay. The Code does not directly constrain the debtor's timing in invoking its § 365 right to reject or assume. This would give the debtor a profitable option to wait to decide whether to reject or assume. For contract books that become unprofitable, it rejects; for contracts that become profitable, it assumes. While the Code allows the counterparty to request that the judge order the debtor to decide, this is not an overly common practice and, regardless, takes time, during which the debtor's optionality provides it private value but portfolio value destruction potential.

³² See Fried, *supra* note 28, at 517-18; George G. Triantis, *The Effects of Insolvency and Bankruptcy on Contract Performance and Adjustment*, 43 U. TORONTO L.J. 679 (1993). If the bankruptcy process compensated debtors, or their trustees, differently — say, based on total portfolio value — the result might be different.

³³ Bankruptcy Code § 553 (2012). David Skeel and Thomas Jackson conclude that baseline bankruptcy would honor the economic unity of derivative master agreements under the general allowance of pre-bankruptcy setoff rights in Bankruptcy Code § 553 (2012). Skeel & Jackson, *supra* note 26, at 156.

This baseline debtor authority to assume or reject can further negatively affect its counterparties and their portfolios. The counterparties' own portfolios would be destabilized because they would be uncertain whether to cover their exposure to the debtor (because the contract might be rejected) or consider the debtor's obligation part of their portfolio, requiring a further hedge (because the contract might be assumed). Their portfolio value would diminish, due to baseline bankruptcy rules. Hence, returning to the baseline rule that gives the debtor the right to assume or reject on a contract-by-contract basis, without sharp time limits, would be unwise.

* * *

In sum, while the safe harbors destroy portfolio value at the debtor's expense, baseline bankruptcy's reject-or-assume rules favor the debtor and incentivize the debtor to destroy overall portfolio value as well, but this time at the counterparties' expense, because the rules allow the debtor to externalize the costs of major downside parts of the portfolio — costs that the debtor must itself bear outside of bankruptcy. The debtor's baseline power to externalize loss thereby incentivizes it to destroy economic value in the portfolio it holds, as well as to destroy its counterparties' portfolio value. Overall, the baseline rules are too generous to the debtor, because overall portfolio value preservation should be a central policy goal for financial firm bankruptcies. The debtor's incentives are to take advantage of overly broad baseline rules and milk value from the portfolio rather than bundling it up and selling it to third parties who would pay its overall value that obtained outside of bankruptcy.

V. LEHMAN BROTHERS' BANKRUPTCY

Lehman Brothers, the huge investment bank with \$640 billion of assets, filed for bankruptcy on September 15, 2008. It was the largest bankruptcy in American history.³⁴

Lehman's failure exacerbated the financial crisis, particularly when combined with AIG's collapse, which ensued a few days after Lehman went bankrupt, as counterparties rushed to close out positions, sold collateral, and depressed and froze markets. Many financial players stopped trading for fear that their counterparty was the next Lehman or for fear that their counterparty had large unseen exposures to Lehman that would make the counterparty itself fail, as happened to the venerable Reserve Primary Fund, a money market fund whose failure, because it held too many defaulting obligations of Lehman,³⁵ led to further financial panic, a potential run on money

³⁴ See *Exhibit A to Voluntary Bankruptcy Petition at 17, In re Lehman Brother's Holding, Inc. et al.*, Case No. 08-13555 (JMP) (Bankr. S.D.N.Y. Sep. 15, 2008) (Docket No. 1), available at <http://dm.epiq11.com/LBH/Docket>; see also *Report of Anton R. Valukas, Examiner, In re Lehman Brothers Holding, Inc. et al.*, Case No. 08-13555(JMP), at 2 (Bankr. S.D.N.Y. March 11, 2010), available at <http://lehmanreport.jenner.com/>.

³⁵ See Press Release, The Reserve, A Statement Regarding the Primary Fund (Sept. 16, 2008), available at http://www.reservefunds.com/pdfs/Press%20Release%202008_0916.pdf; see also Jeffrey N. Gordon & Christopher Muller, *Confronting Financial Crisis: Dodd-Frank's Dangers and the Case for a Systemic Emergency Insurance Fund*, 28 YALE J. ON REG. 151, 164, 181 n.80 (2011); Marcin Kacperczyk & Philipp Schnabl, *When Safe Proved Risky: Commercial Paper During the Financial Crisis of 2007-2009*, 24 J. ECON. PERSP. 29, 40-41 (2010).

market funds, and a government guarantee of all money market funds to stem the ongoing financial degradation throughout the economy.³⁶

A. Lehman's Bankruptcy

Derivative dealing was a large, but not dominant, source of Lehman's profits before its bankruptcy filing. Two weeks before its bankruptcy, Lehman had derivative assets of \$46.3 billion and derivative liabilities of \$24.2 billion, for a net value of \$22.2 billion, according to its internal estimates.³⁷ As of August 2008, Lehman had more than 900,000 derivative trades worldwide.³⁸ Within two weeks of the bankruptcy filing, Lehman's derivative counterparties terminated nearly all of their transactions — 99% of them — as they can do under the safe harbors.³⁹

Lehman's counsel and its restructuring advisor both identified the bankruptcy safe harbors as a value-destructive influence on the bankruptcy. Harvey Miller, Lehman's lead counsel, said "[H]ad Lehman had the benefit of the 'breathing space' that is typically available at the initial stages of any chapter 11 case, the massive amount of value that was destroyed in the months after September 15, 2008 may have been saved."⁴⁰ Alvarez & Marsal, Lehman's restructuring advisor, estimated that the disorderly close-outs of Lehman's derivative portfolio caused the Lehman estate to lose at least \$50 billion in portfolio value, and maybe more.⁴¹ What started as a \$22 billion asset for Lehman had turned into a multi-billion dollar loss.⁴² Such a large swing in value is possible because Lehman's derivative portfolio consisted of obligations to pay (and promises to be paid) on small swings in the baseline notional value of as much as \$35 trillion in the underlying agreements.⁴³

³⁶ See Press Release, U.S. Dep't of the Treasury, Treasury Announces Guaranty Program for Money Market Funds (Sept. 19, 2008), available at <http://www.ustreas.gov/press/releases/hp1147.html>.

³⁷ Valukas, *supra* note 34, at 571-72.

³⁸ *Id.* at 569.

³⁹ McCracken, *supra* note 1. Some of the nonterminated contracts were, however, large in value.

⁴⁰ *Too Big To Fail: The Role for Bankruptcy and Antitrust Law in Financial Regulation Reform: Hearing Before the Subcomm. On Commercial and Administrative Law of the H. Comm. On the Judiciary*, 111th Cong. 9 (Oct. 22, 2009) (testimony of Harvey Miller).

⁴¹ The Lehman bankruptcy was litigation intensive, with many of Lehman's derivatives creditors ending up sharing losses from the derivative close-outs. See Fleming & Sarkar, *infra* note 22, at 46-66. Regardless of who absorbs losses, they and the costs of determination should be avoided if they, as we assert below can be avoided.

⁴² McCracken, *supra* note 1. See also Miller, *supra* note 40, at 9 (describing the chaotic closeouts of derivatives as causing a "massive destruction of value").

⁴³ See Kimberly Summe, *Misconceptions about Lehman Brothers' Bankruptcy and the Role Derivatives Played*, 64 STAN. L. REV. ONLINE 16, 16 (2011).

B. Disrupted Financial Markets

How and why did Lehman lose so much value? Applying the framework we have thus far developed in this article points us to three causes.

1. *Transaction cost destruction of Lehman's portfolio value.* Lehman lost much value because it suffered its counterparties' close-outs at the wrong-end of the bid-ask spread.⁴⁴ Again, some loss here is only a value transfer, from Lehman to its counterparties (or to those dealers from whom those counterparties buy replacement contracts); but much is a loss of value to the economy, as it costs real assets to reconstruct a balanced portfolio, and there are real costs when rapid close-outs disrupt financial markets and degrade economic activity overall.

Derivatives contracts are typically not short-term deals that naturally end after a few days; they are longer term efforts to transfer and contain risk. As such, if the contracts reliably stayed in place, the disruption to worldwide financial markets should have been less harrowing than the disruption that occurred. The immediate close-out of a massive contract book — due to the safe-harbored enforcement of ipso facto clauses in Lehman's bankruptcy — put enormous transactional pressure on a financial market that does not normally need to do as much contracting construction and reconstruction in such a short time.

2. *Lehman-induced market disruption.* Worse yet for Lehman, its counterparties, and indeed financial markets overall, the size of this bid-ask spread depends on market conditions.⁴⁵ Lehman's collapse created a huge demand for replacement positions, thereby making it harder and more costly for its counterparties to hedge and cover. While Lehman's collapse was due to financial problems, Lehman's collapse also exacerbated those financial problems. Lehman had a large position in interest rate swaps and credit default swaps. Interest rate swaps are largely standardized and liquid, but shortly after Lehman failed, the interest rate swap market became deeply stressed, with odd patterns of negative values appearing, presumably because of pressure coming from Lehman counterparties that were seeking to rebalance their disrupted portfolios.⁴⁶

⁴⁴ See *supra* Part I.B.2.–3.; Noh, *supra* note 12; Masahiko Egami *et al.*, *An Analysis of CDS Market Liquidity by the Hawkes Process* (2013) (showing bid-ask spreads for credit default swaps widened by 300% and liquidity evaporated), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2200307; *CDS liquidity drying up as Bid-Ask spreads widen*, CREDITLIME BLOG, (May 26, 2010), available at <http://blog.creditlime.com/2010/05/26/bid-ask-spreads/>. See generally SYLVIE A. DURHAM, TERMINATING DERIVATIVE TRANSACTIONS: RISK MITIGATION AND CLOSE-OUT NETTING § 5:4 (2010).

⁴⁵ See Lei Meng & Owain ap Gwilym, *The Determinants of CDS Bid-Ask Spreads*, 16 J. DERIVATIVES 70 (2008), available at <http://www.ijournals.com/doi/abs/10.3905/jod.2008.710898#sthash.cgUeOYhI.dpbs>.

⁴⁶ See Michael McKenzie, *Negative 30-year rate swap spread linger*, FIN. TIMES, Sept. 9, 2009, (attributing downward pressure on swap spread to Lehman counterparties terminating and hedging); Carrick Mollenkamp *et al.*, *Lehman's Demise Triggered Cash Crunch Around Globe*, WALL ST. J., Sept. 29, 2008 (“actual trading in the CDS market declined to a trickle as players tried to assess how much of their money was tied up in Lehman”), available at <http://online.wsj.com/news/articles/SB122266132599384845>. Ivy Wang, Public Lecture on the Impact of Lehman's Collapse, Risk Mgmt. Inst. Newsletter Iss. 3, Nat'l U. of Singapore (May 2010), available at <http://www.rmi.nus.edu.sg/aboutus/enelettermi/issue3/FeatureArticle.html>. See also Nicolas Dumontaux & Adrian Pop, Contagion Effects

This disruption to the world-wide economy is a major reason to reconsider the scope and impact of the derivatives safe harbors. The wider disruption then fed back to exacerbate Lehman's problems. The negative feedback loop had the degradation of Lehman's portfolio affecting world-wide markets, which then increase the transaction costs of replacing Lehman's derivative trades rose substantially, which then further degraded the value of Lehman's derivatives portfolio.

Lastly here, there is also a shadow cost from the value-creating transactions that were deterred by the unusually high transaction costs arising from the Lehman disruption, such as the costs arising when Lehman's counterparties could not or did not replace their positions immediately after they terminated them.⁴⁷

3. *Disintegration of Lehman's balanced portfolio and consequential value loss.* Derivatives are interdependent financial instruments. They are valuable when held with other derivatives and with non-derivative assets, with which investors and firm pair them to even out cash flow, perhaps, or to mitigate unwanted risk.⁴⁸ However, in Lehman's bankruptcy many such carefully cultivated connections snapped.

An example: Four days after Lehman's bankruptcy, the Chicago Mercantile Exchange liquidated Lehman's proprietary positions on that exchange at a loss of \$1.2 billion. Lehman took on these positions primarily to hedge Lehman's OTC, over-the-counter, swap positions. When it went bankrupt, its OTC swap contracts were cancelled, thus "stranding" its positions at the clearinghouse. Without corresponding positions, Lehman's positions on the Exchange sold at a significant discount. "[Lehman's] inability to [sell] both legs of the hedged positions meant that [it] could not liquidate the outright positions on favorable terms, because counterparties would require substantial additional collateral and margins."⁴⁹

V. PRESERVING PORTFOLIO VALUE IN A FINANCIAL MELTDOWN

In this Part V, we show how to improve the extant mechanisms that preserve and destroy portfolio value, and the conceptual limits to effective reform.

Overall, the well-known chapter 11 measure under which bankruptcy could engineer the sale of the bankrupt's portfolio, § 363, is best adapted to preserve portfolio value. The primary reform goal ought to be to make the § 363 sale available for a derivatives portfolio in bankruptcy.

in the Aftermath of Lehman's Collapse: Measuring the Collateral Damage (Banque de France Working Paper 2012) (describing "significant abnormal jumps in CDS spreads after Lehman's failure"), available at http://hal.archives-ouvertes.fr/docs/00/69/57/21/PDF/LEMNA_WP_201227.pdf.

⁴⁷ Much Lehman litigation arose because during the week following Lehman's bankruptcy filing, financial markets had become so illiquid that counterparties could not find the three quotes they needed for clean close-outs under their safe harbored contracts. Many could not replace their positions. See Fleming & Sarkar, *infra* note 22, at 45. This+ results makes it contestable as to whether the safe harbors dampen financial disruption or increase it. Some disruption persisted for more than a year after Lehman filed. See Michael McKenzie, Negative 30-year Swap Spreads Linger, FIN.TIMES.COM (Sept. 9, 2009), available at <http://www.ft.com/intl/cms/s/0/3be4e8b8-9d5c-11de-9f4a-00144feabdc0.html#axzz33t4HYubs>.

⁴⁸ See Stulz, *supra* note 8, at 52–74.

⁴⁹ See Fleming & Sarkar, *supra* note 22, at 44.

A. Preserving Portfolio Value: The § 363 Sale

The now-standard § 363 sale authority could provide substantial flexibility to maintain the debtor's portfolio value and restructure the portfolio in an economically stable way. The debtor with offsetting currency swaps, as described in Section II.A., could package the two together and sell them intact to a third party. The third party buys the portfolio intact, no one is made to bear undiversified currency risk or incur the costs of hedging an uncovered risk, and the debtor's value is, in this dimension, maximized.

But two major economic problems impede, indeed cripple whole-portfolio sales. (As is clear by now, the counterparties' terminations due to the safe harbors will preclude a whole-portfolio sale in bankruptcy today.)

B. Rationale: The Out-of-the-Money Portfolio and the Over-sized Portfolio

1. *The out-of-the-money portfolio.* Selling a whole portfolio for cash is not viable if it is "out-of-the-money," i.e., if it overall is losing positions exceed its profitable ones. When the portfolio is losing money, no one will buy it; rather it must be transferred with cash, not for cash. But *how* it is dismantled determines whether more value is destroyed, whether markets are disrupted, and whether the end result further concentrates financial contracts into an unsafe core. If the portfolio could be sold along product lines — foreign exchange swaps to one buyer, interest rate swaps to another, credit default swaps to a third — then in-the-money segments could be saved and sold, markets would be less disrupted or not disrupted at all, and a systemically important firm's failure could lead to a controlled breakup instead of it being bailed out or consolidating the financial sector even further, as has often been the case.

Even for a controlled break-up, there are variations. If the interest rate segment is, say, out-of-the-money by 10%, but its termination would lose the debtor 25% of its value, then if the debtor can come up with the 10% cash, it would maximize the value of the estate (and the overall value of the portfolio to the counterparties and the economy, depending on how some other assumptions line up) to transfer the portfolio without further loss.

Orderly close-outs over a period of weeks to prevent multiplying losses have been the standard way of closing out massively out-of-the-money portfolios before, such as in the case of Long-Term Capital Management and the Orange County disaster.⁵⁰ But these orderly break-ups were not governed by the Bankruptcy Code, which needs a similar structure available.

⁵⁰ After Long-Term Capital Management lost 92% of its value within a few months, its major dealers, organized by the Federal Reserve Bank of New York, supplied it with \$3.6 billion in rescue equity. Thus capitalized, LTCM could liquidate its portfolio over months, eventually earring a small profit. See Philippe Jorion, *Risk Management Lessons from Long Term Capital Management*, 6 EUR. FIN. MGMT. 277, 283-284 (2000), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=169449. Warren Buffett was interested in buying LTCM's whole portfolio for \$250 million at the last minute, promising to put in \$3.75 billion to stabilize the portfolio for liquidation, but his bid failed for technical reasons. The fact that

2. *The systemically important, oversized portfolio.* The concentrated quality of derivatives portfolios in the American economy demands to be factored into the policy structure. A large fraction is in five large financial institutions, two of which — Citigroup and Bank of America — are weak. If one of them is the next major failure, it's not obvious who could acquire its derivatives portfolio intact. Possibly no buyer could, thereby inviting bailout pressure, and, even if one could, the acquirer would presumably be one of the other five major derivatives dealers. The concomitant further concentration of that market would worsen financial safety. While we devote only a paragraph here to this concentration consideration, it is a major reason to reconstruct the derivatives safe harbors. The financial system should have a mechanism for an orderly break-up of one of the two or three large derivatives portfolios if the bank in which one is embedded fails. Right now, we lack an orderly break-up mechanism.

C. Doing Better

Who would buy the segments of a derivatives portfolio? Presumably others with a derivatives business, others looking to enter the derivatives business, or hedge funds or other investors looking for a bargain or a toehold in the derivatives market. The opportunity to buy product line segments of a major derivative dealer might be very attractive to other dealers (or those who would like to be dealers) who want to scale up their dealing. A sale is better for the American economy than the multi-year litigation problem that Lehman became. The mechanisms were in place for Lehman to sell its broker-dealer operation. (Barclays bought the broker-dealer within a week, with Fed financing.⁵¹) The mechanism for it to sell its derivatives business was not. And today there is still no mechanism is now in place for such a product line sale, if a similar financial bankruptcy befell the economy.

For the sale to happen, the debtor would need time to package, present, and allow for buyers' due diligence. The safe harbor from the bankruptcy stay that the derivatives counterparties enjoy would make impossible such a sale intact. Indeed, one might expect that the financial authorities would, before the bankruptcy filing, push the sinking firm to package and pre-position its portfolio for buyers, if such a product line sale were authorized. Via Title I of the Dodd-Frank Act — the so-called “living wills” provision, regulators have ample authority to make this happen, but not on a product line basis.⁵² With that authority, the regulators can have much of the business legwork done by the time of filing. Experienced bankruptcy players would recognize this process for financial firm bankruptcies as quite analogous to a common bankruptcy practice for industry firm bankruptcies — the pre-packaged bankruptcy, which has most of the business structures and plans lined up before the filing for bankruptcy.

he bid suggests, however, that private sales are viable. See ROGER LOWENSTEIN, *WHEN GENIUS FAILED: THE RISE AND FALL OF LONG-TERM CAPITAL MANAGEMENT* 202-205 (2000). Our proposal will, if implemented, make that possibility more likely.

⁵¹ Valukas, *supra* note 34, at 2165.

⁵² See Dodd-Frank Act § 165(d)(1) (2012), 12 U.S.C. § 5365(d)(1) (2012); 12 C.F.R. Part 243 (2012); 12 C.F.R. Part 381) (2012), available at <http://www.federalreserve.gov/newsevents/press/bcreg/20111017a.htm>.

However, there is no reason today for the regulatory authorities to prepare for such pre-positioning, as the bankruptcy rules would not allow for a sale of the failed firm's derivatives portfolio. To make the Title I authority meaningful, bankruptcy's safe harbor from the stay must be altered legislatively to provide for a sale and for enough time for the court to review the pre-packaged terms (and for the parties to finalize them).

Astute players in the derivatives industry understand this part of the value destruction problem and have raised the issue at derivatives industry meetings as to whether the contractual documentation should be altered to preclude immediate close-out and sale in bankruptcy (and otherwise):

Derivatives users should ... amend[] one of their most-treasured legal rights to help in the fight to end too-big-to-fail, attendees at the International Swaps and Derivatives Association Annual General Meeting ... heard

Wilson Ervin — vice-chairman ... at Credit Suisse and a leading architect of the so-called debt bail-in framework — argued in a keynote speech to ISDA delegates that modifying legal documentation that currently allows swaps to leapfrog other creditors of bankrupt firms was 'essential'.

To highlight the severity of the issue Ervin cited the US\$40bn in costs the Lehman Brothers administration had to swallow in order to comply with early termination requests from its swaps counterparties, hugely exacerbating the extent of the losses racked up by the bankrupt estate.

The swaps termination costs dwarf the estimated US\$25bn of losses from real estate and private equity holdings Lehman was harbouring on its balance sheet before it went under, and contributed substantially towards the estimated final bill of US \$150bn to wind up the firm.⁵³

Four of the world's major financial regulators have called on the derivatives market to rewrite their contracts along similar lines, facilitating a delay upon the failure of a major derivative player,⁵⁴ and a portion of these changes seem to be nearing realization.⁵⁵ While these efforts push in the right direction, they rely too heavily on contract (and the talked-about 24 to 48-hour delay is likely too short to allow for an effective § 363 sale). Counterparties may ignore organizational advice and regulatory preference, as reportedly wide classes of dealers are doing on the modest contractual rewrites now contemplated (to stabilize against invocation of cross-border

⁵³ Christopher Whittall, *Amending Swap Rights "Essential" for Resolution Regimes*, INT'L FIN. REV., Apr 26, 2013, at 1-2. My understanding is that the contract rewriting contemplated would allow the stay, but only for whole-portfolio sales, not for the product-line break-up for large portfolios recommended here.

⁵⁴ Joint Letter of FDIC, Bank of England, Bundesanstalt für Finanzdienstleistungsaufsicht, and Swiss Financial Market Supervisory Authority to ISDA, *available at* http://www.fdic.gov/news/news/press/2013/pr13099a.pdf?source=govdelivery&utm_medium=email&utm_source=govdelivery; see also Ben Moshinsky, *BOE Seeks Derivative Pact to Prevent a Repeat of Lehman Cascade*, BLOOMBERG.COM, May 4, 2014, <http://www.bloomberg.com/news/2014-03-04/boe-seeks-derivatives-pact-to-prevent-a-repeat-of-lehman-cascade.html>.

⁵⁵ See Tom Braithwaite and Tracy Alloway, *Banks rewrite derivative rules to cope with future crisis*, FIN. TIMES, Oct. 7, 2014, *available at* <http://www.ft.com/intl/cms/s/0/aeb57e26-4e6d-11e4-bfda-00144feab7de.html#axzz3FeutSZJb>.

cross-default clauses). Even if it turned out to be in their collective interest to preserve portfolio value, free-rider incentives will induce many to keep the current contractual terms in place. And, as thus far reported, the contracting arrangements do not contemplate either a delay in terminations for a derivative unit that itself goes bankrupt or a product-line sale, which if the public policy of breaking up a failed systemically-important derivatives portfolio is to be built, needs to be in place.

This is not to say that contractual changes do not have value. They encourage standardization between different jurisdictions and they could lift one of the technical barriers to the viability of successfully using current bankruptcy strategies (such as the so-called “single point of entry strategy”), by insulating different entities in a corporate group from cross-default clauses that would bring all of the entities down simultaneously.

But neglecting the other, easy-to-implement, high-payoff changes needed to the Bankruptcy Code will undermine the effectiveness of a bankruptcy resolution. Will other jurisdictions be confident these contracts will be coordinated if they see reforms only half-completed? Will a contractual solution create the confidence we need that we are committed to a good solution to this problem, or will we have chaos again when market expectations are thwarted by contractual inconsistencies? Will the contracts condition their effectiveness on regulators not pursuing some of the necessary regulatory and bankruptcy strategies outlined here as necessary, such as a product-line sale of the failed mega-portfolio? Flaws can be fixed. But truly viable solution will require fixing the Bankruptcy Code.

We should not be caught unprepared again.

D. Making a § 363 Portfolio Sale Viable

Here we outline how to make such a bankruptcy sale viable.

1. *The 10-day stay.* Bankruptcy repositioning of a failed mega-firm’s derivatives portfolio needs a shortened form of the bankruptcy stay, say a 10-day stay, so that the portfolio can be marketed intact. Recall that our goal is to avoid portfolio value destruction. Hence, the preferred solution, all else equal, would be for the portfolio to be sold intact to a third party. This could be done via a stay that’s long enough to rapidly market the portfolio, but no longer than that. Presumably that would be denominated in days or weeks, but no longer.

The appendix to this Article maps out a 10-day stay, with a judicial option to extend it another 10 days if a sale seems imminent, and a judicial option to terminate the stay earlier than 10 days if no sale seems possible or the relevant regulatory authority indicates to the court that no systemic purpose would be served by waiting out the stay.

2. *Regulatory pre-packaging.* If the sales process were to begin from scratch upon the firm’s filing, 10 days would be too short for a court to effectively structure and review a sale. Instead, if the pre-filing processes from title I of Dodd-Frank were used to pre-package such a portfolio sale, 10 days could readily be enough for the court’s review. Today, there is no reason for the regulatory authorities to

institutionalize that kind of bankruptcy planning for a failing financial firm,⁵⁶ because there is no bankruptcy sale mechanism available on the other side of bankruptcy. For the regulators to make the bankruptcy planning thrust of title I work, they will need to obtain an amended Code from Congress, along the lines we suggest here.

* * *

Policy judgment needs to be made. Policy here must balance the debtor's counterparties' need for certainty and resolution so that they can rebalance their own portfolio and otherwise protect their positions. The current system, as Lehman reveals, costs counterparties and markets overall, and loses value for the debtor. It's not enough to argue, as we have heard derivatives safe harbors' backers argue, that the counterparties need to move on smoothly. The rapid disintegration of a major dealer's portfolio hurts the counterparties as well, both directly and through the disruption of national and world-wide financial markets. The value of speed and clarity for the counterparties is slowed and obscured if the dealer's failure and consequential rapid close-outs lead to illiquid markets that stymie counterparties from rebalancing their own portfolios and if the close-outs lead to four years of litigation due to contractual ambiguities before the debtor's counterparties knew for sure where they stood, as was common in Lehman bankruptcy.

The ipso facto clause safe harbors should be cutback as well. And the debtor's right to assume or reject a product line (but without cherry-picking contract-by-contract inside that product line) should be permitted if done during those ten days, at the bankruptcy filing values. The freezing of value at the time of the bankruptcy filing should prevent the debtor from treating reject or assume authority as an option that, given market volatility, could be quite valuable to the debtor. Time-value compensation to the counterparty for delay could be incorporated. (We do not address whether the debtor should be required to perform on the underlying contracts if market-wide values shift during the 10-day stay period. Similarly, we do not address whether counterparties should be relieved from performing during that period for changes in the underlying, and could thus wait until the sale. Such a requirement on the debtor, or relief for the counterparty, would each be compatible with the sale proposal.)

3. *Portfolio sale segmentation.* Counterparties could be allowed to net in bankruptcy along product lines, not across an entire portfolio in multiple products. This product segmentation would allow for easier repositioning of the portfolio.

The debtor would not be permitted to assume or reject individual contracts, for the reasons already discussed. Instead the debtor would be required to market the portfolio intact, or by product line. The latter option would be needed for two reasons, as we have seen. First, the portfolio might not overall be in the money, i.e., profitable. If unprofitable overall, then it cannot be sold without a bailout or other subsidy.

⁵⁶ See *The Orderly Liquidation of Lehman Brothers Holdings, Inc. Under the Dodd-Frank Act*, 5 FDIC Q. 10–11 (2011) (emphasizing FDIC advance planning and on-site presence in advance of any resolution); Sylvia A. Mayer & Sunny Singh, *Resolution Lemonade: Finding the Positives in Recovery and Resolution Planning*, BANKING L.J., Feb. 2013, at 114.

Instead the debtor would have to be able off product lines separately. The profitable lines could be sold, the unprofitable ones closed down.

The extant safe harbors allow the debtor's counterparties full cross-product netting, such that Dealer A's currency trades with the debtor have winners and losers, with the net amount being the amount due.⁵⁷ While the debtor cannot "cherry-pick" among the different trades in different markets,⁵⁸ the safe harbors allow the debtor's counterparty to net trades in unrelated businesses. This protects the counterparty, but at the cost of the debtor having a complex, difficult to disentangle portfolio. The safe harbors require it to sell the entire portfolio intact.⁵⁹

Second, recall that derivatives portfolios are highly concentrated in a handful of ultra-large banks. "J.P. Morgan Chase Bank, Citibank, Goldman Sachs Bank USA, and Bank of America are the four largest derivatives counterparties in the United States [and] the collapse of any one of those institutions could mean the termination of anywhere between a \$42.67 and \$71.28 trillion notional derivatives portfolio — roughly seven to eleven percent of global notional derivatives value."⁶⁰ It is not obvious who could buy Citigroup's derivatives portfolio, even if it is in-the-money. Bankruptcy needs a mechanism to break up the portfolio, and the natural way to do so is along product lines.

Moreover, recall that these derivatives obligations do not ordinarily become due in the few days after a bankruptcy filing; they are typically longer term deals, with only a few requiring action (due to changes in value of the underlying interest rates, currency exchange rates, or commodities price) or completion. The obligations become immediately due because counterparties call a default and, due to their exemption from ipso facto rules, can do so for safe harbored contracts. A major bankruptcy with quick, mass termination puts heavy pressure on the market's ability to cover and adjust, as it did, with poor results, when Lehman failed. Moreover, although some counterparties would be better off if they benefited from a stand-alone termination, as long as no one else in the market was terminating, stand-alone termination is not a real alternative under existing rules and incentives. Mass termination is likely, as was the case for Lehman, and can and likely would make counterparties collectively worse off overall. This collective problem makes bankruptcy improvement warranted, even before accounting for the systemic costs from a disrupted financial system. This possibility of

⁵⁷ Bankruptcy Code § 561 (2012).

⁵⁸ Bankruptcy Code § 553 (2012); cf. Skeel & Jackson, *supra* note 26, at 156.

⁵⁹ Moreover, although not our major focus here, the capacity to net across product lines concentrates the derivatives market in the hands of a few dealers, as is the current structure. See Robert R. Bliss & George G. Kaufman, *Derivatives and Systemic Risk: Netting Collateral and Closeout*, 2 J. FIN. STABILITY 55 (2006); Steven Schwarcz & Ori Sharon, *The Bankruptcy-Law Safe Harbor for Derivatives: A Path-Dependence Analysis* 20 (SSRN Working Paper, Nov. 25, 2013), available at www.ssrn.com/abstract=2341025. Some policymakers may respect the netting contract. Others may consider its crippling the capacity to reposition the debtor's portfolio a sufficiently strong third-party effect — with potential economy-wide costs — that they are willing to override the contractual breadth here.

⁶⁰ Kimberly Summe, *An Evaluation of the U.S. Regulatory Response to Systemic Risk and Failure Posed by Derivatives*, 4 HARV. BUS. L. ONLINE 76, 77 (2014), citing OFFICE OF THE COMPTROLLER OF THE CURRENCY, *Quarterly Report on Bank Trading and Derivatives Activities, Second Quarter 2013* (2013), available at <http://www.occ.gov/topics/capital-markets/financial-markets/trading/derivatives/dq213.pdf>.

the derivatives market itself being made worse off by mass termination underlies market leader's call for a stay (contractual, in the proposal, not statutory) to allow for controlled portfolio repositioning.⁶¹

Hence, this central portion of the safe harbors needs major amending. A plausible policy solution is for bankruptcy to over-ride cross-product netting. There are analogous bankruptcy provisions that over-ride contract when the cost to reorganization of respecting them seems too high. We have seen one already — the usual bar to enforcing ipso facto clause and immediate collection. Even closer, the Code bars anti-assignment clauses even if they would be enforced outside of bankruptcy.⁶² A revised Code that allowed for product line sales is a type of bar on anti-assignment clauses.⁶³

4. *Cross-product netting as concentration-promoting tying.* There is yet another reason to facilitate product-line marketing. Although cross-product netting has efficiency qualities, it has negative effects as well. Financial firms that have offsetting obligations with one another in different markets can deploy less capital because of the offsets. This is privately profitable, and it also frees capital to be used elsewhere in the economy. This efficiency result is good.

But this benefit is offset by a social cost that may not at all be small. The derivatives industry is highly concentrated. “Five banks dominate the derivatives market, holding 95% of the contracts outstanding.”⁶⁴ One advantage these large banks wield is cross-product netting, which allows them to out-compete stand-alone derivatives firms. If a smaller firm operates in only one derivative market segment, it will require counterparties to post collateral accordingly, based on its exposure in that market. It cannot net offsetting exposures in, say, interest rate swaps with foreign exchange. So, it is not as enticing a counterparty for a customer who trades in both markets, as a counterparty that can offer better cross-product netting. At one level this effect of cross-product netting is efficient by economizing on capital; at another level it supports and cements concentration in the derivatives. Without it, new firms and fringe firms could more readily compete with five core firms, taking market share away, decentralizing the industry, and thereby facilitating financial safety. (Regulatory requirements that the trades move to a clearinghouse also reduce this big-firm advantage.)

5. *Is portfolio value destruction merely a private cost?* One might dismiss the public policy implications of the portfolio value destruction analysis we have

⁶¹ See Whittall, *supra* note 2.

⁶² See Andrea Coles-Bjerre, *Ipsa Facto: The Pattern of Assumable Contracts in Bankruptcy*, 40 N.M.L. REV. 77, 91 (2010) (“by protecting the debtor's power to assign, the section furthers the purpose of enabling the debtor to reorganize”).

⁶³ A half-way improvement to the Code would give counterparties with wide setoff sets an adequate protection claim for any lost value if the full portfolio was broken down to be sold along product lines. For reasons set forth in the next subsection, we do not favor that result, but such a result would still be a major step forward in facilitating mega-portfolio repositioning even if it did not facilitate deconcentration as the next subsection outlines.

⁶⁴ Katy Burne, *Big U.S. Banks Make Swaps a Foreign Affair*, WALL ST. J., Apr. 27, 2014, available at <http://on.wsj.com/S0f7tQ>.

accomplished thus far. Yes, a critic may concede, portfolio value can be destroyed, and neither the safe harbors nor the baseline rules prevent it. But if the parties anticipate that more value can be obtained by their contracting than the expected loss from portfolio value destruction, then the contracts are economically valuable and should proceed, without further analysis.

Such a contractarian critique is unconvincing for reasons we have already seen. First, if we can design rules that better facilitate contracting and risk transfer, with less, or ideally no, portfolio value destruction, then more economic value can be obtained in the relevant markets. Second, these portfolios have been attached to systemically important financial institutions. Portfolio value destruction at a core financial institution can severely damage the overall economy; deference to contract when such externalities are in play is inappropriate. Third, the portfolio value destruction can cascade, further damaging the economy. If the debtor finds itself with half of its portfolio ripped apart, it may no longer find it worthwhile to maintain the other half. Excessive selling of the contracts, of underlying collateral, or of the hedged products (often bonds) can induce a downward asset price spiral — one which during a financial crisis can exacerbate that crisis, by increasing the number of sellers without increasing the number of buyers.

E. Will a Short Stay Destroy Systemic Liquidity?

Proponents of today's robust safe harbors would reply with their original justification: Even a short stay will destabilize the financial system. It would lead to runs against otherwise stable institutions.

This answer is, however, inapt. Several reasons why have already been analyzed. We reexamine them, and emphasize further considerations.

1. *The term structure of the derivatives market.* It is the safe harbors themselves that create much of the liquidity pressure when a large financial institution fails. Derivatives are typically not short-term contracts that are repeatedly rolled over, in the way that their safe-harbored cousin, the repo contract, rolls over daily. Rather, it's the mass terminations of derivatives contracts in a short time period, such as those in Lehman's bankruptcy, that especially heighten liquidity pressures across financial markets, as counterparties terminate and scramble to fill contractual holes. If a short stay allowed a failed firm's financial contracts to be repositioned and transferred, these liquidity pressures would be much diminished.

2. *Nirvana fallacies.* Proponents of robust and extensive safe harbors here may suffer from a nirvana fallacy, of comparing a short 10-day stay to a perfectly smooth close-out of *one* counterparty with a medium-sized contract on a failed firm: for the latter, markets are not disrupted, no systemic spillover occurs, and the counterparty covers its position smoothly without bid-ask spreads widening. By comparison to that smooth close-out, a 10-day stay causes the counterparty to fret and suffer. That though is not the relevant comparison. The relevant comparison for the 10-day stay is to mass termination, worldwide financial market disruption, systemic spillovers, and four years of intense close-out litigation, the alternative to which is now, realistically, a bailout.

One must make judgments, and a short stay seems less costly to the system, and possibly even to the individual counterparty.

3. *Lehman's lesson.* Put in another, perhaps aggressive, way, proponents of broad and nearly unlimited safe harbors had their chance with Lehman and they failed. Mass terminations destroyed value not just in Lehman but in the economy overall. The derivatives market was quite plausibly bigger than it otherwise would have been because of the safe harbors and more disrupted than it had to have been because of them. Lehman's counterparties were deeply at risk *with the safe harbors in place*. Many survived only because the Federal Reserve backed up financial markets, including safe harbored markets. Once a mechanism fails, it's time to learn and adjust, as we propose here, and not to repeat the same mistakes.

F. Public Choice Explanations Why We Destroy Portfolio Value: Winners and Losers

Although our purpose is to show how portfolio value is destroyed, how both the safe harbors and the baseline rules do so, and how the situation can be ameliorated, we should note that the problems of exiting the current difficulties are not just technical issues that, once seen, will inexorably lead to congressional, regulatory, and contractual solutions.

1. *Who captures saved portfolio value?* The interests that could most effectively push for rules that would not destroy portfolio value have reasons not to do so. Although the rules changes should successfully conserve value, those most able to effectuate change are unlikely to be unable to capture that value for themselves.

The major derivatives dealers are organized in coherent lobbying organization — say ISDA, or the American Bankers' Association, or SIFMA.⁶⁵ Other creditors and stakeholders in debtors' estates are less well organized, and the biggest costs from portfolio value destruction drag down the whole the economy if a financial panic is exacerbated by a portfolio melt-down. Hence, one would predict that the current state of value-destroying rules has political economy staying power.

One way of looking at the political economy of the value destruction bankruptcy lawmaking process is that the derivatives industry successfully shifted much of the loss from portfolio value destruction from themselves to the debtor's unsecured creditors and the overall economy. They may not have intended to do so originally, but that was the effect and now that the rules allow that shift in value, it's hard to reverse those rules, because there are concentrated, organized winners, while the losers are diffuse and spread throughout the economy, with voters unresponsive here to anything other than a populist animus against concentrated finance. Perhaps only a concerted effort by responsible regulators to convince Congress of the need to reform could have an effect.⁶⁶

⁶⁵ ISDA is the International Swap and Derivatives Association, which began as the major derivatives banks' trade association. SIFMA is the Securities Industry and Financial Markets Association.

⁶⁶ The current state of the safe harbors may be the result of an incompletely vetted, path dependent sequence, not a carefully thought out policy initiative. See Schwarcz & Sharon, *supra* note 59.

The reform we recommend here has multiple configurations of winners and losers. Take mass termination as the baseline, first, and compare it to our proposed 10-day stay and sale. Counterparties in a mass termination would lose something compared to their full contract value, because termination would often leave them slightly under-compensated on the unsecured left-over of their claim. But if the debtor sold that product line, they would be fully compensated; they come out as winners. But if the debtor did not sell that product line, the counterparty would then (often) be under-compensated on its deficiency claim; they are losers from product line sales. Overall, as a pool, counterparties operating only in a single product market should on average do better via the product-line sale (against a baseline of mass termination), as they would sometimes be paid in full and, because there would be less market disruption, they should realized better value even on their contracts that are not assumed but are terminated.

For counterparties whose contract crosses multiple product lines, the recommendations here could make them worse off. If they are in-the-money when they net across product lines, dividing the sale across product market lines will hurt them. However, more counterparties should be in-the-money if the proposal leads to less market disruption, but one could not predict which effect would dominate. One would hope that clear rules and sufficient lead time, though, would allow at-risk creditors to adjust their portfolio structures.

If the baseline for comparison is the sale of the entire portfolio, intact, the recommendation here would create more losers among the counterparties. A sale of the portfolio intact, as Dodd-Frank contemplates, would leave all of the counterparties fully compensated. (If the portfolio is out-of-the-money, such a sale could not be done without concessionary financing, presumably from government authorities; because this government support seems to some skeptical observers to be a likely outcome of the Dodd-Frank structure, it has been criticized.⁶⁷)

3. The interests of the regulators. Similarly, consider the possibility that the most important regulators that could weigh in on these value-destroying safe harbors are the bank regulators. They are the regulators who are most likely to grapple with the issue and the regulators most likely to receive congressional lawmakers' deference.

But if bank regulators (1) consider bank safety a dominant goal or (2) are persuaded by banker lobbying that the current state-of-affairs for the value-destroying aspects of the safe harbors are needed for bank safety, then the most relevant regulators would conclude that no change in bankruptcy is warranted.

3. Regulatory siloes. The approach we recommend here is a hybrid one. Rebuild bankruptcy to be able to reposition the derivatives portfolio, by facilitating portfolio sale by product line segments and thereby avoid the rapid close-out, liquidation, and resulting financial turmoil from failure of a major derivatives institution. But, if the bankruptcy process fails, or moves too slowly for the regulators' liking, or leads to dysfunctional derivatives market overall (if, say, counterparties' liquidity freezes up),

⁶⁷ REPUBLICAN STAFF OF H. COMM. ON FIN. SERV., 113TH CONG., FAILING TO END "TOO BIG TO FAIL": AN ASSESSMENT OF THE DODD-FRANK ACT FOUR YEARS LATER (2014), *available at* http://financialservices.house.gov/uploadedfiles/071814_tbt_f_report_final.pdf.

then regulators could oust the bankruptcy institutions and use the Dodd-Frank liquidation mechanisms. Or, hybridization from a different perspective is that the regulators may not agree on what to do, or may be stymied by congress from acting; bankruptcy is the fallback.

This hybrid approach has not been pursued and there may be several reasons for this. First, some regulators' general view may well be that bankruptcy just will not work. Congress and Dodd-Frank may make them state in their public pronouncements that bankruptcy is the first line of defense, but maybe their heart really is not in that view. Second, for the needed amendments to run through Congress, regulators would need to propose and push them over industry objections. But the regulators have different priorities and a different mindset (regulating); they understand how much can be asked of the Senate Banking Committee, but bankruptcy goes through the alien-to-banking Judiciary Committee. Third, turf protection is not unheard of, and an alternative resolution mechanism in the bankruptcy courts may be unwelcome to some regulators for that reason.

VI. THE REGULATORY MOVING TARGET: DODD-FRANK'S INCOMPLETE EFFORT

In response to the financial crisis, and with the degradation of Lehman Brothers portfolio in mind, Congress included new mechanisms for resolving important financial institutions in the Dodd-Frank Act. That statute does better than bankruptcy in having the tools to reposition a systemically important financial institution. But it is inferior to a hybrid system with bankruptcy made operational.

A. Repositioning the Portfolio: Reintroducing the Stay, for a Day, and a § 363-Style Sale

Dodd-Frank adds back one critical, *sine qua non* piece of baseline bankruptcy: a stay on contract termination. The Dodd-Frank stay is not much — it is a one-business-day stay on counterparties closing out their derivatives contracts with the bankrupt debtor. But during that day, the debtor (or its regulatory avatar) can sell the derivatives portfolio and can do so in ways that preserve portfolio value.⁶⁸

The one day stay, with a view to a sale, is a step toward preserving portfolio value. The current thinking is that the stay would allow the portfolio to be transferred to a bridge facility, one which would assume all of the derivatives contracts and run the portfolio, which might be government-run. Perhaps the portfolio would be later sold intact to a third party.

Dodd-Frank has another advantage. The regulation contemplated will make it likely that the portfolio will be in-the-money, i.e., profitable, and therefore saleable. The banking regulators are requiring that the derivatives-trading subsidiary arrange

⁶⁸ This one-day stay appeared in the 2005 financial amendments, but was limited to the derivatives portfolio of the core bank and not all important financial firms. See 12 U.S.C. § 1821(e)(10)(B) (2012).

with its parent holding company that value can be brought down from the holding company if a subsidiary gets into financial trouble. If the regulatory plan works, Dodd-Frank and not bankruptcy will need to be invoked for a failure, because Dodd-Frank can turn the out-of-the-money derivatives firm into one that's saleable because value would be automatically brought down from the parent company into the subsidiary.⁶⁹

There is a regular refrain that bankruptcy is the preferred solution.⁷⁰ But these two advantages of Dodd-Frank over extant bankruptcy are so large and show clearly why bankruptcy today is an impossible solution: there is no stay in bankruptcy and an out-of-the-money portfolio cannot be transferred intact. Dodd-Frank is not similarly shackled. Regulators should stop stating that bankruptcy is the first line of defense because, as it stands today, it is incapable of handling such a failed financial institution. Instead, regulators should seek to make bankruptcy a real line of defense.

* * *

But, while Dodd-Frank improves on current bankruptcy here, the full Dodd-Frank rules still shackle the debtor's capacity to maintain portfolio value. First off, the stay is only a single business day, which will usually be too short a time to assess, package, and market the derivatives portfolio, or its sub-parts.⁷¹ It will suffice under Dodd-Frank because the regulators will have pre-positioned the sale before invoking the Dodd-Frank processes.

Second, the Dodd-Frank process may fail. It may fail for technical reasons — if it is not designed well enough or if financial markets evolve without the Dodd-Frank design evolving quickly enough. And the process needed to initiate the Dodd-Frank mechanism is politically charged.⁷² A core financial firm may fail, but regulators may not agree on what to do and Congress may impede them even if they agree. They may wait too long.⁷³

⁶⁹ See Federal Deposit Insurance Corporation, *Notice and Request for Comments, Resolution of Systemically Important Financial Institutions: The Single Point of Entry Strategy*, 77 Fed. Reg. 76614 (Dec. 18, 2013); John F. Bovenzi, Randall D. Guynn & Thomas H. Jackson, *Too Big to Fail: The Path to a Solution* (Bipartisan Policy Center, May 2013), available at <http://bipartisanpolicy.org/sites/default/files/TooBigToFail.pdf>.

⁷⁰ See, e.g., Thomas M. Hoenig, Vice Chairman, Fed. Depository Insurance Commission, Presentation to the Boston Economic Club (May 7, 2014), available at <http://www.fdic.gov/news/news/speeches/spmay0714.html> (bankruptcy as preferred resolution option); James R. Wigand, Director, Office of Complex Financial Institutions, Fed. Depository Insurance Commission, Statement to S. Subcomm. on Nat'l Sec. and Int'l Trade and Fin.: Improving Cross Border Resolution to Better Protect Taxpayers and the Economy (May 15, 2013), available at http://www.fdic.gov/news/news/speeches/spmay1513_2.html ("While bankruptcy remains the preferred option, Title II provides a back-up authority").

⁷¹ See 12 U.S.C. § 5390 (2012). One business day could stretch over a weekend, as is common in FDIC-initiated bank shut-downs.

⁷² See Timothy F. Geithner, *The Paradox of Financial Crises*, WALL ST. J., May 13, 2014, ("Americans don't give their presidents much in the way of emergency authority to fight [financial crises]... That ... makes governments, even when they do have the authority, too slow to act."), available at <http://online.wsj.com/news/articles/SB10001424052702304885404579552430842061834>; DAVID A. SKEEL, JR., *THE NEW FINANCIAL DEAL* 137–42 (2011); Douglas Baird & Edward Morrison, *Dodd-Frank for Bankruptcy Lawyers*, 19 AM. BANKR. INST. L. REV. 287, 290–94 (2011).

⁷³ David Skeel, *Single Point of Entry and the Bankruptcy Alternative* (SSRN working paper, Feb. 2014) (manuscript, at 11), available at <http://ssrn.com/abstract=2408544>.

Third, regulatory authorities ought to seek a credible threat that they would do nothing. A viable bankruptcy alternative, which is now lacking, would go far in making make credible such a regulatory threat of full forbearance.

A short bankruptcy stay would allow the firm's derivative portfolios to stay intact briefly after a bankruptcy filing, allowing the financial regulators to decide whether to intervene or to let the bankruptcy play out. A short stay would allow management to decide when to seek protection, and allow regulators to decide whether to intervene, a more natural division of responsibility. Under the Code as it now exists, bankruptcy is ratchet-like: the debtor files and its portfolio will be ripped apart by safe-harbored close-outs; the financial regulators cannot then put it back together. The filing threat of a systemically important financial institution would put the regulators to a stark choice: take it over or let it go bankrupt. But if they let the institution go bankrupt, they cannot go back to the status quo ante, before the filing, to repair the firm that they then conclude is hurting the economy, because it will already have been shredded.⁷⁴

B. Dodd-Frank's Inability to Reposition Product Lines

Dodd-Frank requires that the debtor assign its entire book with a counterparty, not parts of it along product lines. Dodd-Frank thereby severely limits the debtor's capacity to package the mega-portfolio for sale along product lines.⁷⁵ As long as the underlying documentation with the counterparty is in order, the debtor must assume and sell the currency derivatives, interest rate swaps, commodity contracts, and credit-default package of the counterparty intact, making it difficult or impossible to package or sell an out-of-the-money derivatives book during that one-day stay.

Hence, consider the possibility that a systemically important institution has three major product lines: \$1 trillion of foreign currency swaps, \$1 trillion of interest rate swaps, and \$1 trillion of credit default swaps. Its counterparties are the world's other major systemically important financial institutions with which it has extensive trades in all three product lines. Dodd-Frank, accordingly, bars the debtor from selling the product lines separately in a Dodd-Frank resolution.

Consider the following failure scenario. The foreign currency swaps are overall in-the-money by \$100 billion, as are the interest rate swaps. The credit default swaps are \$250 billion out-of-the-money. The portfolio cannot, hence, be transferred intact to a third party, without an influx of at least \$50 billion.

If the planned resolution procedures work, then \$50 billion will flow from elsewhere, presumably the parent holding company, into the derivatives portfolio, or perhaps from the regulatory authorities if the parent does not or cannot make good on the \$50 billion shortfall. The federal authorities would then invoke the Dodd-Frank

⁷⁴ See Stephen D. Adams, *Derivative Exemptions in Bankruptcy and Dodd-Frank: A Structural Analysis*, STAN. J.L. BUS. & FIN. (forthcoming), available at www.ssrn.com/abstract=2348828 (discussing potential negative effects of this dynamic).

⁷⁵ 12 U.S.C. § 5390(c)(11) (requiring that any assignment or rejection by the debtor be of a counterparty's entire book with the debtor).

mechanisms to reposition the portfolio. But if the process fails, because the \$50 billion is not there, because the authorities cannot agree to invoke the processes as a technical matter, or because political constraints (another bailout! shouts Congress) constrain the regulatory authorities, then the firm will fail and will need to be reorganized in bankruptcy.

But, as of today, it cannot be effectively reorganized, despite that simple fixes would enable bankruptcy to do better. Better than today's bankruptcy and, on this margin, better than Dodd-Frank, is to fix bankruptcy so that it can resolve a large financial institution's derivatives effectively, via an adapted, tightened, and fast-acting version of the § 363 sale.

C. Clearinghouse Portfolio Repositioning

There is another moving target: clearinghouses are becoming more important for derivatives than they were when Lehman failed. Lehman's exchange-traded positions, although not a large fraction of Lehman's financial contracts, were sold effectively and well, generally along product lines, which is currently impossible in bankruptcy and at the heart of the proposal here. Barclays assumed LBI's Chicago Mercantile Exchange energy derivatives portfolio, Goldman Sachs assumed its equity derivatives portfolio, and DRW Trading assumed its foreign exchange, interest rate, and agricultural derivatives portfolios.⁷⁶ The clearinghouse could break up and transfer Lehman's portfolio along product lines because it was the single counterparty on all of these Lehman trades. This result speaks well for exchange and clearinghouse resolution.⁷⁷ The good result, however, depended on an institutional capacity to move the derivatives portfolio along product market lines — a capacity that bankruptcy needs to obtain.

As more trading moves into clearinghouses, the capacity to reposition a failed firm's derivatives book along product lines increases (as long as termination-oriented clearinghouses do not acquire the bulk of the business⁷⁸), even without changing the Bankruptcy Code to accommodate that kind of repositioning. This is a good potential

⁷⁶ See Valukas, *supra* note 31, at 1841-1855; Hal Scott, *Interconnectedness and Contagion* (manuscript, Nov. 20, 2012), available at http://www.capmksreg.org/pdfs/2012.11.20_Interconnectedness_and_Contagion.pdf.

⁷⁷ See Will Acworth, *The Lessons of Lehman: Reassessing Customer Protections*, Futures Industry Association (Jan/Feb 2009), available at http://www.futuresindustry.org/files/2009_jan_feb_mag_pdfs/08_Jan_Feb_Lehman.pdf (“[V]irtually all customer futures positions on dozens of futures exchanges around the world were safely transferred out of Lehman accounts within five days of the bankruptcy announcement on Sept. 15.”); Natasha de Teran, *How the World's Largest Default was Unravelling*, FIN. NEWS, Oct. 13, 2008, available at <http://www.efinancialnews.com/story/2008-10-13/how-the-largest-default-was-unravelling?ea9c8a2de0ee111045601ab04d673622> (“[T]here has been an almost total absence of criticism for LCH.Clearnet. Not only did it not have to tap the default fund, it never even came close to using up the initial margin that had been collected on the Friday morning prior to Lehman's demise”).

⁷⁸ Some major clearinghouses bar transfers, requiring the termination and portfolio liquidation we argue should be avoided. See Summe, *supra* note 60, at 78–79.

development and a positive aspect of the clearinghouse development.⁷⁹ Rough estimates indicate that clearing will in time account for three-quarters of the relevant trades, while it now accounts for one-quarter.⁸⁰ But even if that number is reached, there will still be a very big uncleared portfolio for a systemically important institution; Lehman was less than half the size of the current largest derivative players and still bankruptcy's inability to redeploy its portfolio had systemic shocks.⁸¹ Moreover, it remains unclear whether the clearinghouse will fully operate in the public interest in terms of risk prevention or will be captured by its owners, dominated by the current large derivatives players.⁸² And, as more systemic risk for derivatives trading comes to reside in clearinghouses, bankruptcy may need authority to restructure a failed clearinghouse effectively. Product-line sales-authority is a place to start.

Nevertheless, like Dodd–Frank's Title II, clearinghouses provide an incomplete but potentially useful alternative resolution mechanism for derivatives portfolios. As before, financial engineers, like structural engineers, should want to build in redundancy and resiliency in stabilizing complex systems. We lack sufficient redundancy and resiliency now, with bankruptcy improvement an obvious place to seek the advantages of greater institutional resiliency. If clearinghouses are selling coherent portfolios (as happened in Lehman), there would be good reason to exempt them from the stay (either formally in the statute, or upon application to the court for relief), since they would be effectuating the transaction that the stay would be intended to facilitate. If they are closing out and liquidating positions, as some now require, they should be subject to the same limits as other counterparties, so that the portfolio can be coherently sold, if that is possible.

D. The Moving Target Can Continue Moving

These post-Lehman changes also may make bankruptcy more important. For example, the move to clear more plain-vanilla derivatives will leave the more opaque, more difficult to value, more difficult to sell derivatives contracts inside the failed financial institution.⁸³ This result would make the need for a stay and a considered sale

⁷⁹ Whether clearinghouses are major bulwarks against systemic risk overall, or just primarily move the risk from visible places to less visible places is analyzed in Mark J. Roe, *Clearinghouse Over-Confidence*, 101 CAL. L. REV. 1641 (2013).

⁸⁰ John Hull, *The Changing Landscape for Derivatives* (SSRN working paper, 2014), available at <http://ssrn.com/abstract=2428983>

⁸¹ And one-third of the current size for uncleared derivatives may underestimate the end-state. Regulators will be pressured to relent further on requiring so much clearing, and the larger institutions may write more of the type of derivatives that will not need to be cleared.

⁸² See Sean J. Griffith, *Clearinghouse Hope or Hype?: Why Mandatory Clearing May Fail to Contain Systemic Risk*, 3 HARV. BUS. L. REV. ONLINE 160 (2013), <http://www.hblr.org/?p=3261>; Sean J. Griffith, *Governing Systemic Risk: Towards a Governance Structure for Derivatives Clearinghouses*, 61 EMORY L.J. 1153, 1189–1226 (2012).

⁸³ See Tracy Alloway and Michael Mackenzie, *Investors dine on fresh menu of credit derivatives*, FINANCIAL TIMES, Aug. 19, 2014 (describing proliferation of complex credit derivatives since financial crisis encouraged by lack of clearing requirement as yet), available at <http://www.ft.com/intl/cms/s/0/66fd5916-23eb-11e4-86fc-00144feabdc0.html#axzz3B8iErhhM>.

more important, not less important. And, here, when we speak of clearinghouses, we should not underestimate the financial industry's capacity to move the target to their own advantage: if clearinghouses impede their profits, as has often been said, then one would expect that could impede the full move to clearinghouses. Some of this has happened.

Similarly, regulatory effort can change over time. The past few years have had regulators on high alert for financial safety. But as the financial crisis fades in vividness over time, the interests of the regulated for lower capital requirements and for a rollback of other safety measures can more readily be implemented. That regulatory intensity over time can be seen as a crisis-drive sine curve is well known.⁸⁴ When we are in the future on the downward sloping side of that curve, the economy could well benefit from having already built a viable bankruptcy system to restructure and break up a large derivatives portfolio in a large but failed financial firm.

CONCLUSION

We have shown in this Article how bankruptcy's safe harbors destroy the debtor's portfolio value, make sensible restricting of a failed financial firm impossible, and exacerbate systemic costs. Financial activity can freeze up and then real economic activity can decline; jobs are lost and businesses close.

Bankruptcy does not now provide a viable means to reposition a failed financial firm's financial portfolio, because it allows its counterparties to rapidly and irreversibly close-out and dismember the bankrupt's portfolio of financial contracts. The process can disrupt financial markets, as it did when Lehman went bankrupt. But we have symmetrically shown that proposals to reverse the safe harbors would largely just change the identities of the winners and losers in the value destruction. The safe harbors pin the losses on the firm's unsecured creditors; the baseline rules pin the losses on the firm's derivatives counterparties. The losses and systemic costs persist, regardless of the rules. While some of the portfolio value destruction considerations are simple transfers that determine who the winners and losers are, many destroy overall economic value. We saw this destruction during the 2008–2009 financial crisis, after the failure of Lehman and the collapse of AIG.

We showed, with straightforward examples, how derivatives portfolios are built and then are undone in bankruptcy, via reversals of diversification, counterparty close-out at the expensive end of the bid-ask spread, and potential debtor portfolio reconstruction at the other, but still expensive end of that spread. Some costs are simple transfers from the debtor and its general creditors to its derivatives counterparties; some are deadweight costs that are not recovered. Coasean critiques highlight the problem: the players' transaction costs — which the bid-ask spread measures — are raised by both the safe harbors and the baseline rules. Solutions in place are weak and incomplete. We can do better than we do now, by facilitating sensible §363 sales of product lines or a more orderly wind-down.

⁸⁴ See, e.g., Eric J. Pan, *Understanding Financial Regulation*, Cardozo Legal Stud. Res. Paper No. 329 (2011), available at www.ssrn.com/abstract=1805018.

Because the derivatives market is highly concentrated in five very large institutions, it is imperative for bankruptcy viability that bankruptcy can reposition parts of a failed financial firm's derivatives portfolio. There would generally be no buyer for the portfolio in full other than perhaps, one of the already over-sized financial institutions among those five. The portfolio at Citigroup, were it to fail, would have no buyer other than perhaps JPMorgan Chase, and perhaps not even JPMorgan Chase. We want a mechanism not just to resolve the local portfolio problem but also to breakup concentrated financial portfolios if a major firm fails.

However, the § 363 mechanisms in current law fall far short of what we can and should do, as there are portfolios that they cannot reposition well. First off, the bankrupt debtor needs time to sell off the portfolio intact; the Code gives it no time to do so for qualified financial contracts, not even the one day that Dodd-Frank gives the regulators. Bankruptcy also falls short because a money-losing portfolio is unsalable intact. It would have to be broken up along product lines, with the profitable product lines then sold. Under current bankruptcy law (as well as under Dodd-Frank's resolution mechanism) that kind of breakup along product lines is not permitted.

Financial regulators wish to be able to allow failing financial firms to enter bankruptcy. At the same time, regulators believe that bankruptcy now destroys value, such that, if the subject firm is systemically important, a bankruptcy proceeding could have a severely deleterious effect on the nation's economy, as the Lehman bankruptcy had. A good fraction of this value loss comes from portfolio value destruction from safe harbors' wide scope. We can do more to prevent this destructive financial event from happening again.

Appendix: Revisions for the Bankruptcy Code

Section 362(b)(17). [Automatic stay and rights in Section 560]

The filing of a petition under S 301, 302, or 303 of this title, or of an application under section 5(a)(3) of the Securities Investor Protection Act of 1970, does not operate as a stay... under subsection (a) of this section, of the exercise by a swap participant or financial participant of any contractual right (as defined in section 560) under any security agreement or arrangement or other credit enhancement forming a part of or related to any swap agreement, or of any contractual right (as defined in section 560) to offset or net out any termination value, payment amount, or other transfer obligation arising under or in connection with 1 or more such agreements, including any master agreement for such agreements; *provided, however, that any such exemption from the automatic stay hereunder shall be subject to stay provided in section 563.*

Section 362(b)(27) [Automatic stay and master netting agreements]

The filing of a petition under S 301, 302, or 303 of this title, or of an application under section 5(a)(3) of the Securities Investor Protection Act of 1970, does not operate as a stay... under subsection (a) of this section, of the exercise by a master netting agreement participant of any contractual right (as defined in section 555, 556, 559, or 560) under any security agreement or arrangement or other credit enhancement forming a part of or related to any master netting agreement, or of any contractual right (as defined in section 555, 556, 559, or 560) to offset or net out any termination value, payment amount, or other transfer obligation arising under or in connection with 1 or more such master netting agreements to the extent that such participant is eligible to exercise such rights under paragraph (6), (7), or (17) for each individual contract covered by the master netting agreement in issue; *provided, however, that any such exemption from the automatic stay hereunder shall be subject to stay provided in section 563.*

Section 560 [Right to Terminate a Swap Agreement]

The exercise of any contractual right of any swap participant or financial participant to cause the liquidation, termination, or acceleration of one or more swap agreements because of a condition of the kind specified in section 365(e)(1) of this title or to offset or net out any termination values or payment amounts arising under or in connection with the termination, liquidation, or acceleration of one or more swap agreements shall not be stayed, avoided, or otherwise limited by operation of any provision of this title or by order of a court or administrative agency in any proceeding under this title; *provided, however, that any such exercise shall be limited by the stay and sale provisions provided for in section 563.*

As used in this section, the term “contractual right” includes a right set forth in a rule or bylaw of a derivatives clearing organization (as defined in the Commodity Exchange Act), a multilateral clearing organization (as defined in the Federal Deposit Insurance Corporation Improvement Act of 1991), a national securities exchange, a national securities association, a securities clearing agency, a contract market designated under the Commodity Exchange Act, a derivatives transaction execution facility registered under the Commodity Exchange Act, or a board of trade (as defined in the Commodity Exchange Act) or in a resolution of the governing board thereof and a right, whether or not evidenced in writing, arising under common law, under law merchant, or by reason of normal business practice.

Section 561 [Right to terminate a master netting agreement and across contracts]

(a) Subject to subsection (b), the exercise of any contractual right, because of a condition of the kind specified in section 365(e)(1), to cause the termination, liquidation, or acceleration of or to offset or net termination values, payment amounts, or other transfer obligations arising under or in connection with one or more (or the termination, liquidation, or acceleration of one or more)—

- (1) securities contracts, as defined in section 741 (7);
- (2) commodity contracts, as defined in section 761 (4);
- (3) forward contracts;
- (4) repurchase agreements;
- (5) swap agreements; or
- (6) master netting agreements,

shall not be stayed, avoided, or otherwise limited by operation of any provision of this title or by any order of a court or administrative agency in any proceeding under this title; *provided, however, that any such exercise shall be limited by the stay and sale provisions provided for in section 563.*

(b)(1) A party may exercise a contractual right described in subsection (a) to terminate, liquidate, or accelerate only to the extent that such party could exercise such a right under section 555, 556, 559, or 560 for each individual contract covered by the master netting agreement in issue;

(2) If a debtor is a commodity broker subject to subchapter IV of chapter 7—

- (A) a party may not net or offset an obligation to the debtor arising under, or in connection with, a commodity contract traded on or subject to the rules of a contract market designated under the Commodity Exchange Act or a derivatives transaction execution facility registered under the Commodity Exchange Act against any claim arising under, or in connection with, other instruments, contracts, or agreements listed in subsection (a) except to the extent that the party has positive net equity in the commodity accounts at the debtor, as calculated under such subchapter; and
- (B) another commodity broker may not net or offset an obligation to the debtor arising under, or in connection with, a commodity contract entered into or held on behalf of a customer of the debtor and traded on or subject to the rules of a contract market designated under the Commodity Exchange Act or a derivatives transaction execution facility registered under the Commodity Exchange Act against any claim arising under, or in connection with, other instruments, contracts, or agreements listed in subsection (a).

(3) No provision of subparagraph (A) or (B) of paragraph (2) shall prohibit the offset of claims and obligations that arise under—

- (A) a cross-margining agreement or similar arrangement that has been approved by the Commodity Futures Trading Commission or submitted to the Commodity Futures Trading Commission under paragraph (1) or (2) of section 5c(c) of the Commodity Exchange Act and has not been abrogated or rendered ineffective by the Commodity Futures Trading Commission; or
- (B) any other netting agreement between a clearing organization (as defined in section 761) and another entity that has been approved by the Commodity Futures Trading Commission;

provided, however, that all such rights and limitations provided for in this section (b) shall be limited by the stay and sale provisions provided for in section 563.

(c) As used in this section, the term “contractual right” includes a right set forth in a rule or bylaw of a derivatives clearing organization (as defined in the Commodity Exchange Act), a multilateral clearing organization (as defined in the Federal Deposit Insurance Corporation Improvement Act of 1991), a national securities exchange, a national securities association, a securities clearing agency, a contract market designated under the Commodity Exchange Act, a derivatives transaction execution facility registered under the Commodity Exchange Act, or a board of trade (as defined in the Commodity Exchange Act) or in a resolution of the governing

board thereof, and a right, whether or not evidenced in writing, arising under common law, under law merchant, or by reason of normal business practice.

(d) Any provisions of this title relating to securities contracts, commodity contracts, forward contracts, repurchase agreements, swap agreements, or master netting agreements shall apply in a case under chapter 15, so that enforcement of contractual provisions of such contracts and agreements in accordance with their terms will not be stayed or otherwise limited by operation of any provision of this title or by order of a court in any case under this title, and to limit avoidance powers to the same extent as in a proceeding under chapter 7 or 11 of this title (such enforcement not to be limited based on the presence or absence of assets of the debtor in the United States), *other than the stay and sale provisions provided for in section 563.*

[New] Section 563. Limited Stay and Sale Provisions.

(a) In the case of contractual rights, including without limitation master netting agreements, and other obligations exempted from the automatic stay of section 362 by sections (b)(17) and (b)(27) thereof, such rights and obligations shall be subject to the stay and sale provisions provided for in this section 563 in the case of a proceeding involving a financial institution or an affiliate of a financial institution. For such otherwise exempt rights and obligations, there shall automatically issue a temporary stay, on the same terms and conditions of the automatic stay provided for in section 362 and such stay shall continue in place for 10 days after the filing of the petition by a financial institution or an affiliate of one under section 301, 302, or 303 of this title, or an application filed under section 5(a)(3) of the Securities Investor Protection Act of 1970. The court may extend this temporary stay for up to another 10 business days if it finds that an orderly wind-down or transfer of a substantial portion of such contractual rights and obligations is likely to be completed within that additional 10 business days. The standards for relief from the stay, provided for in section 362(d), shall apply to this temporary stay.

(b) However, notwithstanding subsection (a) hereof, if the Financial Stability Oversight Council has determined under 12 U.S.C. § 5323 that the debtor is a nonbank financial company and material financial distress at the debtor, or the nature, scope, size, scale, concentration, interconnectedness, or mix of the activities of the debtor, could pose a threat to the financial stability of the United States and if the Secretary of the United States Department of Treasury determines that the continuation of the stay is likely to cause significant risk to the United States financial system and the American economy, the court may not approve the extension under subsection (a), and must terminate the temporary stay forthwith.

(c) During the period of such a temporary stay, or its extension, the trustee or any party, including a financial institution's primary regulator, may propose a sale of such contractual rights and obligations. Notwithstanding any master netting agreement as defined in section 101(38A) of this title, the court may sell packages of such contractual rights and obligations under section 363 grouped by product lines (as generally recognized in the financial industry). After notice and a hearing appropriate for the circumstances, such sale shall be consummated pursuant to section 363. Such sale or sales may include some or all of the debtor's contracts and obligations handled under this section 563, grouped by product line, but does not require that all such contracts and obligations be sold.

Conforming changes would be needed to other safe harbor provisions, including §§ 555, 556, and 559, as well as the safe harbor from § 547 preferences.