

Bankruptcy-Remote Structuring: Reallocating Risk Through Law

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Abstract:

Bankruptcy-remote structuring, a legal strategy with potential public policy implications, is crucial both to a range of important financial transactions—including securitization, project finance, covered bonds, oil-and-gas and mineral production payments, and other forms of structured financing—and to the ring-fencing of utilities and other publicly essential firms. In finance, the goal is contractually to reallocate risk by structuring securities-issuing entities that, absent the bankruptcy risks inherent to operating businesses, can attract investments based on specified cash flows. In ring-fencing, the goal is contractually to structure firms to minimize bankruptcy risks, thereby assuring their continued business operations.

Parties engaging in bankruptcy-remote structuring usually seek to optimally reallocate risk, including by reducing information asymmetry and assigning higher risk to yield-seeking investors, thereby enabling firms to diversify and lower their costs of capital. In reality, bankruptcy-remote structuring can sometimes create harmful externalities. For example, some blame bankruptcy-remote securitization transactions for triggering the 2007-08 global financial crisis by shifting risk from contracting parties to the public.

This Article undertakes a normative analysis of bankruptcy-remote structuring by examining the extent to which parties should have the right to reallocate bankruptcy risk. It is the first to do so both from the standpoint of public policy—examining how bankruptcy-law policy should limit freedom of contract; and also from the standpoint of cost-benefit analysis—examining how externalities should limit freedom of contract. The Article also examines how to reform bankruptcy-remote structuring to reduce its externalities.

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INTRODUCTION

Bankruptcy has many meanings. In business, it refers to the financial state of a firm, project, or other entity that cannot pay its debts as they come due or that is the subject of a case under bankruptcy law.¹ In the United States, bankruptcy law is governed primarily by the federal Bankruptcy

¹ *Bankruptcy*, BLACK’S LAW DICTIONARY (11th ed. 2019). See also 11 U.S.C. §§ 301, 303(h)(1). The terms “case” and “proceeding” are often used interchangeably, although U.S. bankruptcy law favors “case.” See, e.g., *In re Royal*, 197 B.R. 341, 345 (Bankr. N.D. Ala. 1996) (favoring use of the term “case”).

Code (the “Code”),² which is designed to reorganize potentially viable entities and to liquidate other entities.³

Bankruptcy remoteness means that an entity is effectively protected⁴ from factors—whether internal or external to the entity—that might prevent it from paying its debts as they come due or that might make it the subject of a bankruptcy case.⁵ Internal factors include the normal risks of operating a business, such as the risk that expenses will exceed income. External factors include risks associated with the entity’s affiliates. Affiliate risks are especially important for an entity that is part of a larger corporate group, as most entities are today.⁶

Bankruptcy-remote structuring, the legal strategy used to achieve bankruptcy remoteness, is critical to a wide range of important business and financing ventures. Investors in securitization, project finance, covered bonds, oil-and-gas and mineral production payments, and other types of structured finance transactions—valued at many trillion of dollars of securities outstanding⁷—require both the entity issuing securities and the

² Title 11 of the United States Code. Bankruptcy law also can include certain common law insolvency-related proceedings such as assignments for the benefit of creditors and receiverships. *Gregg Cartage & Storage Co. v. United States*, 316 U.S. 74, 80 (1942). This Article’s references to bankruptcy law shall be deemed to include those proceedings.

³ 11 U.S.C. Chapter 11 governs reorganization, and 11 U.S.C. Chapter 7 governs liquidation. Other things being equal, entities that have an inherently good business but excessive debt (“good company, bad balance sheet”) are most suitable for reorganization. *See, e.g.*, DIP (Debtor-in-Possession) Rating Criteria, FITCHRATINGS (Nov. 30, 2020), <https://www.fitchratings.com/research/corporate-finance/dip-debtor-in-possession-rating-criteria-30-11-2020> (explaining lending rating criteria for firms in bankruptcy).

⁴ Given the inherent legal uncertainties of bankruptcy, even the best protection makes bankruptcy only a *remote* likelihood. In practice, those uncertainties prevent most entities from being deemed “bankruptcy proof.” *Cf.* Forrest Pearce, *Bankruptcy-Remote Special Purpose Entities and a Business’s Right to Waive its Ability to File for Bankruptcy*, 28 EMORY BANKR. DEV. J. 507, 520-21 (2012) (explaining how General Growth’s SPE went into bankruptcy despite various provisions intended to make it “bankruptcy remote”).

⁵ *Cf.* David F. Forti & Allison M. Whip, “Bankruptcy Remote” *Special Purpose Entities in Commercial Mortgage Lending: Characteristics, Enforcement and Limitations*, ABA (Fall 2020), https://www.americanbar.org/groups/real_property_trust_estate/publications/ereport/rpte-ereport-fall-2020/bankruptcy-remote/ (describing the main goal of bankruptcy remoteness as ensuring that “the collateral property and its financial and legal structure can essentially be boxed and then evaluated, so that things outside of that box (like the insolvency of an affiliate) will not have an adverse effect”).

⁶ *Cf.* Melvin Aron Eisenberg, *Megasubsidiaries: The Effect of Corporate Structure on Corporate Control*, 84 HARV. L. REV. 1577 (1971) (describing the growth of massive subsidiary corporations and the legal and economic reasons behind the development); Patrick L. Cusato, *The Economically Dominant Subsidiary: When Can Shareholders Maintain Control*, 37 SYRACUSE L. REV. 949, 949 (1986) (“Recently, there has been tremendous growth in the use of subsidiary corporations.”).

⁷ In the United States alone, securitization issuance reached a total of approximately \$4.24 trillion in 2020. Jordan E. Yarett, Evan R. Berman, & Nicole D. Martin, *Structured Finance and Securitisation in the United States: overview*, Practical L. Country Q&A (June 1, 2021), [https://uk.practicallaw.thomsonreuters.com/5-501-4117?transitionType=Default&contextData=\(sc.Default\)](https://uk.practicallaw.thomsonreuters.com/5-501-4117?transitionType=Default&contextData=(sc.Default)). That same year,

transaction itself to be structured as bankruptcy remote.⁸ Public service commissions and other regulators also require many utilities⁹ and other publicly essential firms to be ring-fenced, a structure equivalent to being bankruptcy remote.¹⁰

Bankruptcy-remote structuring can provide valuable economic benefits. These include optimizing resource utilization by functioning as a risk-allocation device and reducing information asymmetry.¹¹ Investors in a bankruptcy-remote entity, for example, assume the risks associated with its assets or cash flows but few of the risks associated with the entity's affiliates or with ordinary business operations. This risk allocation can make the entity more attractive to investors, which reduces the entity's cost of capital.¹² To further reduce the cost of capital, bankruptcy-remote entities often are structured to assign higher risk to yield-seeking investors.¹³ At lower borrowing costs, entities can pursue a wider range of projects and business opportunities—potentially increasing employment and shareholder wealth.¹⁴

Bankruptcy-remote structuring also can encourage productive risk-taking and innovation. It can enable a firm to undertake ventures that might otherwise be considered too risky within the corporate group. Investors that seek exposure to a particular project or technological development could invest in a bankruptcy-remote entity focused only on that project or

outstanding project-finance loans totaled approximately \$277.6 billion globally, and about \$88.3 billion in the Americas. Global Project Finance Review 2020, Refinitiv (Feb. 27, 2023) <https://thesource.lseg.com/TheSource/get-file/download/b75a2ed9-d685-492c-b3d4-c24a5cf5d4f3>.

⁸ See, e.g., Adam B. Weissburg & John Matthew Trott, *Special Purpose Bankruptcy Remote Entities*, L.A. LAW., Jan. 2004, at 12 (recognizing that in structured finance transactions, lenders often require bankruptcy remoteness). These types of financial transactions are described *infra* in Part I.A.

⁹ Utilities generally are private-sector companies that generate or otherwise provide the public with necessities such as power, clean water, and communications. 73B C.J.S. Public Utilities § 1.

¹⁰ Steven L. Schwarcz, *Ring-Fencing*, 87 S. CAL. L. REV. 69, 105–06 (2013). Ring-fencing is described *infra* in Part I.B.

¹¹ *Ring-Fencing*, *supra* note 10, at 72, 89–91.

¹² Cf. Kenneth Ayotte & Stav Gaon, *Asset-Backed Securities: Costs and Benefits of Bankruptcy Remoteness*, 24 REV. FIN. STUD. 1299, 1329 (2011) (arguing that the impact of the *LTV Steel* decision (*In re LTV Steel Co.*, 274 B.R. 278 (Bankr. N.D. Ohio 2001)) on securities pricing shows that bankruptcy remoteness can significantly lower borrowing costs). Cf. *infra* notes 109–111 and accompanying text (discussing additional sources).

¹³ This occurs by the entity issuing different classes of securities in a senior-subordinated structure. Kathryn Judge, *Fragmentation Nodes, A Study in Financial Innovation, Complexity, and Systemic Risk*, 64 STAN. L. REV. 657, 673–76 (2012).

¹⁴ *How Do Interest Rates Affect Investments?*, U.S. BANK (Mar. 1, 2022), <https://www.usbank.com/financialiq/invest-your-money/investment-strategies/how-do-interest-rates-affect-investments.html> (describing how lower borrowing costs can spur investments and create stock market gains). Cf. Kate Marino, *How Higher Borrowing Costs Hit Corporate America*, AXIOS (May 17, 2022), <https://www.axios.com/2022/05/17/higher-borrowing-costs-corporate-america> (reporting that borrowing activity for “high yield” companies “has fallen off a cliff” five months after the Federal Reserve hinted at raising interest rates).

development, rather than taking on risks more broadly associated with an operating business. Bankruptcy-remote structuring thereby can help to ensure that promising new ventures receive adequate capital and attention.

Parties engaging in bankruptcy-remote structuring usually seek to reallocate risk more optimally.¹⁵ In reality, though, such structuring can create harmful externalities¹⁶ by shifting risk from the contracting parties to the public. Some blame bankruptcy-remote securitization transactions, for example, for triggering the 2007-08 global financial crisis (“financial crisis”) by inadvertently creating systemic financial risk.¹⁷

This Article undertakes a normative analysis of bankruptcy-remote structuring, examining the extent to which parties should have the right contractually to reallocate bankruptcy risk. It is the first to do so both from the standpoint of public policy—examining how bankruptcy-law policy should limit freedom of contract; and also from the standpoint of cost-benefit analysis—examining how externalities should limit freedom of contract.¹⁸ The Article also shows why its cost-benefit analysis should go beyond simple Kaldor-Hicks efficiency¹⁹ and, instead, balance public benefits against social costs.

To those ends, Part I of the Article offers a typology of bankruptcy-remote structuring, explaining the most widely used categories of bankruptcy-remote structures. Part II then analyzes bankruptcy-remote structuring from a public policy standpoint, focusing on the tension between the freedom of contract that facilitates such structuring and the bankruptcy-law policies that such structuring can impair. Part III of the Article analyzes bankruptcy-remote structuring from a cost-benefit standpoint, balancing the public benefits of such structuring against its social costs. Part III examines

¹⁵ See, e.g., Katherine J. Baudistel, *Bankruptcy-Remote Special Purpose Entities: An Opportunity for Investors to Maximize the Value of Their Returns While Undergoing More Careful and Realistic Risk Analysis*, 86 S. CAL. L. REV. 1309, 1314 (2013) (explaining that the reason for utilizing SPEs in structured finance is to allocate the risks to different parties).

¹⁶ Cf. James A. Swaney, *Externality and Community*, 15 J. ECON. ISSUES 615, 615 (1981) (“*Externality* is synonymous with third-party effects or uncompensated side effects and is usually defined as divergence between private and social costs.”) (emphasis in original).

¹⁷ See, e.g., Ronald S. Borod, *Belling the Cat: Taming the Securitization Beast Without Killing It*, 31 REV. BANKING & FIN. L. 643, 644–47 (2012). Cf. Jason H.P. Kravitt et al., *Some Thoughts on Financial Regulatory Reform Adopted in Response to the Financial Crisis of 2008/9*, 37 REV. BANKING & FIN. L. 779, 784–85 (2018) (observing that “there is no doubt that securitization—or, more precisely, the manner in which securitization was practiced—had a major role in precipitating the crisis”; but “that, when utilized properly and wisely, securitization is an important source of funding for the so-called “real economy,” and thus “regulators and the industry should be in agreement that the goal of future regulation should be to improve securitization practices without unduly restricting the innovation and responsiveness that have been the hallmarks of securitization since its inception”).

¹⁸ Cf. Ayotte & Gaon, *supra* note 12, at 1302 (analyzing the economics of bankruptcy remoteness in a limited transactional context).

¹⁹ See *infra* notes 104–105 and accompanying text (describing Kaldor-Hicks efficiency).

how to reform bankruptcy-remote structuring to reduce those social costs and potentially achieve net positive benefits.

The Article's scope excludes certain industry lobbied, and somewhat idiosyncratic (if not misguided²⁰), legislated rights to reallocate bankruptcy risk.²¹ For example, it excludes the statutory right to foreclose on aircraft and shipping-related collateral, notwithstanding the Code's stay of foreclosure and other enforcement actions.²² It also excludes the statutory right to enforce close-out netting against parties to derivatives and related contracts, notwithstanding the aforesaid stay of enforcement actions.²³

I. TYPOLOGY OF BANKRUPTCY-REMOTE STRUCTURING

As mentioned,²⁴ two categories of bankruptcy-remote structures have evolved: structured finance transactions, such as securitizations and project finance, and the ring-fencing of utilities and other publicly essential firms. This Part I explains these categories.

A. Structured Finance

For structured finance transactions, the central goal of bankruptcy-remote structuring is to reallocate risk by creating securities-issuing special purpose entities²⁵ (SPE) that, absent the bankruptcy risks inherent to operating businesses, can attract investments based on specified cash

²⁰ Cf. Steven L. Schwarcz & Ori Sharon, *The Bankruptcy-Law Safe Harbor for Derivatives: A Path-Dependence Analysis*, 71 WASH. & LEE L. REV. 1715 (2014) (arguing that although the 11 U.S.C. §§ 555-562 exemptions—referenced *infra* notes 22-23 and accompanying text—were claimed to reduce systemic risk, they actually may exacerbate that risk).

²¹ The Article's scope also excludes the occasional use of certain bankruptcy-remote techniques in structuring finance subsidiaries of manufacturing firms.

²² Compare 11 U.S.C. § 1110 (allowing foreclosures against aircraft and shipping-related collateral) with 11 U.S.C. § 362 (automatically staying foreclosure actions). The § 1110 exemptions were lobbied by equipment manufacturers. *Title XI Bankruptcy Reform: Hearing on S. 1992 and S. 1993 Before the Subcomm. on Merchant Marine of the S. Comm. On Com., Sci., and Transp.*, 99th Cong. 82 (1986) (statement of Department of Commerce) (acknowledging the claim that 11 U.S.C. § 1110 was “included in the Code only because of ‘heavy lobbying by equipment manufacturers’”).

²³ See 11 U.S.C. §§ 555-562 (setting forth those exemptions). The §§ 555-562 exemptions were lobbied by the International Swaps and Derivatives Association (ISDA), the leading derivatives-industry trade organization. See *About ISDA*, INT'L SWAPS & DERIVATIVES ASS'N, <https://www.isda.org/about-isda>. See generally Gina-Gail S. Fletcher, *Engineered Credit Default Swaps: Innovative or Manipulative?*, 94 N.Y.U. L. REV. 1073 (2019) (discussing ISDA).

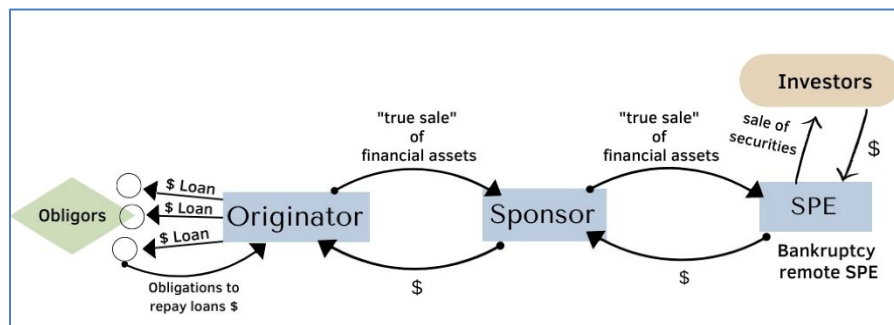
²⁴ See *supra* notes 8-10 and accompanying text.

²⁵ SPEs sometimes are called special-purpose vehicles, or SPVs, the terms being synonymous. To minimize operating risks and transaction costs, an SPE's organizational documents normally strictly limit its business purposes and functions.

flows.²⁶ Except for European covered bonds,²⁷ this structuring relies primarily on contract. Securitization and project financing epitomize structured finance transactions.

1. *Securitization.* In a typical securitization, the transaction's sponsor ("sponsor") purchases a pool of loans or other rights to payment ("financial assets") from firms, such as mortgage lenders, originating those assets ("originators") and then sells them to an SPE.²⁸ The SPE pays a negotiated market-value price for those assets, which it raises by issuing debt securities to investors; those securities are repayable from collections on the financial assets.²⁹ Investors in the SPE's securities take the risks associated with the financial assets, but they do not take bankruptcy risks associated with the sponsor or the originators.³⁰ Figure 1 illustrates this transaction structure.

Figure 1 - Securitization Transaction



Securitization transactions reallocate those bankruptcy risks in two ways: by structuring the SPE to be bankruptcy remote, and by structuring the transfers of the financial assets as "true sales" to the SPE under

²⁶ John A. Pearce II & Ilya A. Lipin, *Special Purpose Vehicles in Bankruptcy Litigation*, 40 HOFSTRA L. REV. 177, 179 (2011). For a more practice-focused discussion of applying bankruptcy remoteness to structured finance transactions, see Committee on Securitization and Structured Finance of the Business Law Section of the American Bar Association, *White Paper on Bankruptcy Remoteness*, [forthcoming in THE BUSINESS LAWYER 2022-23].

²⁷ Cf. *infra* notes 53-54 and accompanying text (discussing covered bonds which, in Europe, are sometimes structured under statutory safe harbors).

²⁸ See Steven L. Schwarcz, *What is Securitization? And for What Purpose?*, 85 S. CAL. L. REV. 1283, 1292-93 (2012).

²⁹ See *id.* at 1293, 1295-98 (explaining how the SPE's financial assets serve as a principal source of payment). The SPE's debt securities are often called asset-backed securities (ABS). When specifically backed by financial assets consisting of mortgage loans, those debt securities are commonly called mortgage-backed securities (MBS). *Id.* at 1292 (identifying ABS and MBS as securities). ABS are the subject of the economic analysis of bankruptcy remoteness by Professors Ayotte and Gaon, *supra* note 12.

³⁰ Baudistel, *supra* note 15, at 1314-15.

bankruptcy law.³¹ Structuring the SPE to be bankruptcy remote requires protecting it against all the ways that it might become the subject of a bankruptcy case, of which there are three: voluntary bankruptcy,³² involuntary bankruptcy,³³ and substantive consolidation.³⁴

Protecting an SPE against voluntary bankruptcy usually is done by restricting the circumstances, as a matter of corporate governance, under which the SPE could choose to file for bankruptcy. For example, the SPE's articles of incorporation or other organizational documents typically require the consent of one or more independent directors, whose interests would be allied with investors in the SPE's securities, in order to authorize a voluntary bankruptcy filing.³⁵ Protecting an SPE against involuntary bankruptcy usually is done by restricting the SPE's creditors to investors in its securities.³⁶

Protecting an SPE against substantive consolidation can be slightly more complicated.³⁷ Substantive consolidation is an equitable doctrine of bankruptcy law that enables a court, under appropriate circumstances, to consolidate the assets and liabilities of otherwise legally separate firms or other entities.³⁸ Bankruptcy courts assess substantive consolidation on a case-by-case basis, after consideration of the relevant facts of each case.³⁹ They consider the nature of the relationship between the entities to be consolidated,

³¹ Pearce & Lipin, *supra* note 26, at 179; Thomas J. Gordon, *Securitization of Executory Future Flows As Bankruptcy-Remote True Sales*, 67 U. CHI. L. REV. 1317, 1318 (2000).

³² See 11 U.S.C. § 301.

³³ See 11 U.S.C. § 303.

³⁴ See *infra* notes 38-45 and accompanying text (discussing substantive consolidation).

³⁵ STEVEN L. SCHWARCZ, *STRUCTURED FINANCE, A GUIDE TO THE PRINCIPLES OF ASSET SECURITIZATION* § 3:2.1, at 3-3 (3d ed. 2002) (hereinafter, "STRUCTURED FINANCE").

³⁶ *Id.* § 3:3, at 3-21-3-22.

³⁷ Substantive consolidation could allow creditors of the firm that sells financial assets to an SPE to assert their claims directly against the SPE's assets. By bringing the SPE's assets into the bankruptcy case, substantive consolidation also could impose bankruptcy law's automatic stay on the right of the SPE's creditors to be repaid from those assets.

³⁸ Entity liability, or the principle that a firm is legally separate from its shareholders, parents, and affiliates, is a fundamental tenet of U.S. corporate law. *Dole Food Co. v. Patrickson*, 538 U.S. 468 (2003). Only in a few situations does American law allow enterprise liability—the attachment of liability to the whole of an economically integrated enterprise notwithstanding the formal legal separateness of its component entities. Lynn LoPucki, *The Death of Liability*, 106 YALE L.J. 1, 67 (1996). The best known example is "piercing the corporate veil." Substantive consolidation has been analogized to corporate veil-piercing on steroids. *Cf.* Steven L. Schwarcz, *Collapsing Corporate Structures: Resolving the Tension Between Form and Substance*, 60 BUS. LAW. 109 (Nov. 2004) (analyzing when enterprise liability should override entity liability).

³⁹ *Id.* Although substantive consolidation usually arises in the context of affiliated entities in bankruptcy, a court could order a substantive consolidation even if some of the entities are not in bankruptcy. See, e.g., *Sampsel v. Imperial Paper & Color Corp.*, 313 U.S. 215 (1941) (consolidating the assets of corporation with those of its shareholders); 5 WILLIAM MILLER COLLIER, *COLLIER ON BANKRUPTCY* ¶ 1100.06[3], at 1100-44 to -46 (15th ed. 1989).

examining whether there is substantial identity between those entities.⁴⁰ If a court determines that there is such a substantial identity, there are two schools of thought as to how it should rule. One school of thought applies a balancing test, the other applies more of a “do-no-harm” test.

The balancing test currently is applied in the D.C. Circuit⁴¹ as well as in the Eleventh and Ninth Circuits.⁴² This test allows substantive consolidation if its benefits “heavily” outweigh the harm.⁴³ The do-no-harm test currently is applied in the Second and Third Circuits.⁴⁴ That test, which recognizes that an equitable remedy should not be used to harm innocent parties, allows substantive consolidation only if, effectively, no creditors are harmed.⁴⁵ Protecting an SPE against substantive consolidation usually is done by maintaining arm’s length formalities between the SPE on the one hand and the sponsor and originators on the other hand.⁴⁶

Recall that bankruptcy remoteness for securitization transactions also requires that the transfers of the financial assets from originators and sponsors to the SPE be structured as “true sales” under bankruptcy law.⁴⁷ That gives the SPE the right to use the cash collected from the financial assets to pay investors in its securities.⁴⁸ The complexities of structuring a true sale are irrelevant to this Article’s analysis, other than observing that such structuring is feasible.⁴⁹

2. *Project Financing.* Project-finance transactions reallocate bankruptcy risks so that investors take only the risks associated with the generation of cash flow from a revenue-generating project.⁵⁰ In a typical project financing, a sponsor creates (and normally invests some equity in) an SPE-project company, which issues securities to construct the project, such as a

⁴⁰ To that end, courts normally consider and balance a list of factors derived from *In re Vecco Constr. Indus.*, 4 B.R. 407, 410 (Bankr. E.D. Va. 1980). See discussion in 5 WILLIAM MILLER COLLIER, COLLIER ON BANKRUPTCY ¶ 1100.06[3] (15th ed. 1989).

⁴¹ *In re Auto-Train Corp.*, 810 F.2d 270 (D.C. Cir. 1987).

⁴² *Eastgroup Props. v. S. Motel Ass’n*, 935 F.2d 245, 249 (11th Cir. 1991); *Bonham v. Compton (In re Bonham)*, 229 F.3d 750, 766 n.11 (9th Cir. 2000).

⁴³ *Eastgroup Props.*, 935 F.2d at 249; citing *In re Auto-Train Corp.*, 810 F.2d 270 (D.C. Cir. 1987).

⁴⁴ *In re Augie/Restivo Baking Co., Ltd.*, 860 F.2d 515 (2d Cir. 1988); *In re Owens Corning*, 419 F.3d 195 (3d Cir. 2005).

⁴⁵ *In re Owens Corning*, 419 F.3d at 211.

⁴⁶ Committee on Securitization and Structured Finance, ABA Business Law Section, *Bankruptcy Remoteness: A Summary Analysis*, 77 THE BUSINESS LAWYER (October 2022).

⁴⁷ See *supra* note 31 and accompanying text.

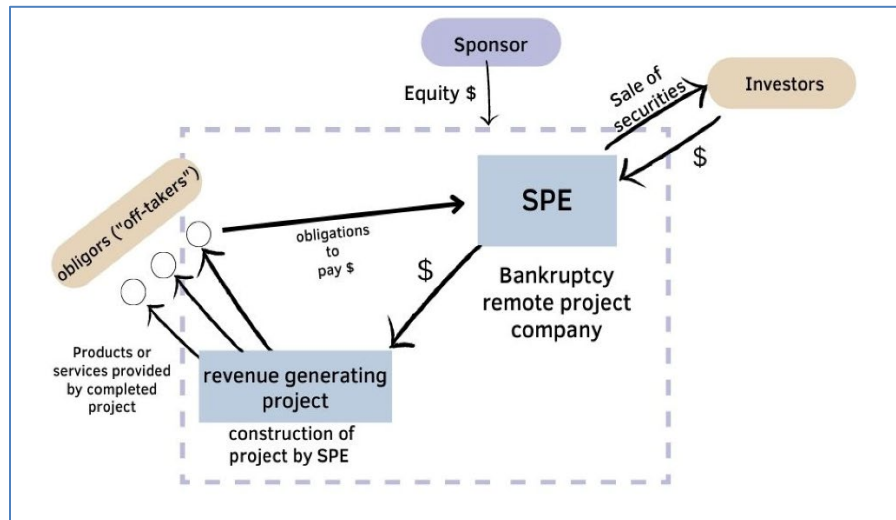
⁴⁸ STRUCTURED FINANCE, *supra* note 35, § 4:1, at 4-3.

⁴⁹ See generally *id.* Chapter 4.

⁵⁰ Carl S. Bjerre, *Project Finance, Securitization and Consensuality*, 12 DUKE J. COMP. & INT’L L. 411, 413 (2002) (“[I]n a structured finance transaction, the lender relies for repayment on assets that are legally separate from the borrower, so as to be independent of certain risks related to the possible bankruptcy of the borrower.”).

powerplant or toll road. Investors in those securities (which sometimes, at least initially, are banks that lend the money) are repaid from cash generated by the completed project—for example, from the sale of power in the case of a powerplant or from tolls paid by motorists in the case of a toll road. Investors thus take the project construction and other related risks,⁵¹ but they do not take any bankruptcy risks associated with the sponsor.⁵² Figure 2 illustrates this transaction structure.

Figure 2 – Project Financing



3. *Other Types of Structured Finance Transactions.* Other types of structured finance transactions are variations on securitization or project finance. The structure of covered bond transactions, for example, parallels securitization transactions but with certain important differences.⁵³ Covered bond transactions, especially in Europe for instance, are often structured under statutory safe harbors.⁵⁴

⁵¹ Governments sometimes help to subsidize the construction risk for publicly valuable projects. The U.S. International Development Finance Corporation (“DFC”), for example, “invest[s] across sectors including energy, healthcare, critical infrastructure, and technology,” including providing protection for project-finance construction risk. The DFC’s goal is to “make[] America a stronger and more competitive leader on the global development stage . . .” See <https://www.dfc.gov/who-we-are>.

⁵² When the proceeds of an SPE’s securities are used to construct rent-generating residential or commercial real estate projects, the transaction often is called a real estate securitization. Technically, though, that transaction could be viewed as a type of project financing.

⁵³ Cf. Steven L. Schwarcz, *Securitization, Structured Finance, and Covered Bonds*, 39 J. CORP. L. 129 (2013) (comparing securitization and covered bond transactions).

⁵⁴ Ralf Burmeister, et al., *Overview of Covered Bonds*, in ECBC EUROPEAN COVERED BOND FACTBOOK 85, 97–98 (Wolfgang Kälberer, et al. ed., 2009).

Production-payment transactions parallel project finance, but the project typically is a minerals mine or an oil-and-gas production facility, and the extracted minerals and hydrocarbons are sold to generate income to pay the SPE-project company's securities.⁵⁵ A sponsor creates (and normally invests some equity in) the SPE-project company, which issues securities to construct the project. Investors in those securities are repaid from cash generated by the sales of resources produced by the completed project. Thus, Investors take the risks associated with construction, mining, and the sales of extracted minerals, including the minerals pricing risks, but they do not take any bankruptcy risks associated with the sponsor.

B. Ring-Fencing

"Ring-fencing" refers to the reallocation of bankruptcy risk to protect public utilities, banks, and insurers.⁵⁶ Public utility commissions and other state regulators often require the ring-fencing of utility companies by legally separating their risky assets and operations from the public-utility function.⁵⁷ The United Kingdom also requires the ring-fencing of retail banking operations.⁵⁸ Federal regulators in the United States have considered ring-fencing banks and other systemically important financial institutions to reduce systemic risk.⁵⁹ The leading insurance standard-setting and regulatory support organization in the United States has advocated increased ring-fencing for insurers.⁶⁰

Because it is proposed in different industry contexts, ring-fencing is inconsistently defined.⁶¹ All of its definitions, though, include the key elements of bankruptcy remoteness: protecting an entity from internal and

⁵⁵ See, e.g., Charles E. Harrell et al., *Securitization of Oil, Gas, and Other Natural Resource Assets: Emerging Financing Techniques*, 52 BUS. LAW. 885, 893 (1997). Cf. 26 C.F.R. § 1.636-3(a) (defining the term "production payment").

⁵⁶ Ring-fencing is also sometimes referred to as "ringfencing."

⁵⁷ See, e.g., CHARLES E. PETERSON & ELIZABETH M. BRERETON, UTAH STATE DEPT OF COMMERCE, REPORT ON RING-FENCING 35-39 (Sept. 2005), available at <https://pscdocs.utah.gov/telecom/05docs/0505301/Dir%20Test%20C%20Peterson%20DPU%20Exhibit%2010.1.pdf> (summarizing selected state laws that require the ring-fencing of public utility companies).

⁵⁸ The Financial Services (Banking Reform) Act 2013, Part 9B § 142.

⁵⁹ Former Federal Reserve Governor Daniel K. Tarullo, for example, proposed ring-fencing the U.S. operations of large foreign banks and of systemically important financial institutions. Jonathan Spicer, *Update 2-Fed's Tarullo urges global action on regulating banks*, REUTERS, Feb. 22, 2013, available at <https://www.reuters.com/article/usa-fed-tarullo-regulation/update-2-feds-tarullo-urges-global-action-on-regulating-banks-idUSL1N0BMDRM20130223>.

⁶⁰ See Testimony of Daniel Schwarcz before the U.S. House of Representatives Subcommittee on Insurance, Housing and Community Opportunity regarding "Insurance Oversight and Legislative Proposals," November 16, 2011 (critiquing a proposal by the National Association of Insurance Commissioners ("NAIC") for a "windows and walls" approach to insurance group regulatory supervision). That approach is described at

⁶¹ *Ring-Fencing*, *supra* note 10, at 71-72.

external factors that might prevent it from paying its debts as they come due or that might make it the subject of a bankruptcy case.⁶² Thus, “the most common function of ring-fencing is to protect a firm from becoming subject to liabilities and other risks associated with bankruptcy.”⁶³ The other functions of ring-fencing focus on enabling the entity to pay its debts as they come due. These other functions include “ensur[ing] that [an entity] is able to operate on a stand-alone basis even if its affiliated firms fail[,] protect[ing] [an entity] from being taken advantage of by its affiliated firms—essentially preserving the business and assets of the ring-fenced firm[,] [and] limit[ing] a firm’s risky activities and investments.”⁶⁴

In the United States, the most common application of ring-fencing is to protect utilities.⁶⁵ Utilities are normally operated through a holding company structure, in which a parent company owns the shares of the utility subsidiary.⁶⁶ This structure provides flexibility because the parent is not necessarily regulated as a utility, thereby enabling the corporate group to raise capital on more favorable terms.⁶⁷ Nonetheless, as holding companies increasingly have diversified their investments to riskier (non-utility) assets, failures have increased.⁶⁸ The resulting parent-company bankruptcies have exposed their utility subsidiaries to bankruptcy.⁶⁹ To mitigate this risk, utilities typically are ring-fenced to become bankruptcy remote.⁷⁰ The terms of such ring-fencing, including the contractual means for achieving it, are

⁶² See *supra* notes 5-6 and accompanying text.

⁶³ *Ring-Fencing*, *supra* note 10, at 73.

⁶⁴ *Id.* at 73–74 (citations omitted). The protection from affiliate risks reflects the increasing use of holding company structures, in which the utility company is often a subsidiary of one or more operating companies that may engage in riskier transactions. Compare *Ring-Fencing*, *supra* note 10, at 74, with *supra* note 6 and accompanying text (observing that affiliate risks are “especially important for an entity that is part of a larger corporate group, as most entities are today”).

⁶⁵ See PETERSON & BRERETON, *supra* note 57, at 35–39 (summarizing the legislation of Maryland, Wisconsin, Virginia, Oregon, and New Jersey that uses ring-fencing techniques to achieve bankruptcy remoteness for utility companies).

⁶⁶ Richard D. Cudahy & William D. Henderson, *From Insull to Enron: Corporate (Re)Regulation After the Rise and Fall of Two Energy Icons*, 26 ENERGY L.J. 35, 57 (2005).

⁶⁷ *Id.* (also explaining why holding company structures can enable corporate groups to attract and cultivate larger pools of engineering talent).

⁶⁸ Fred Grygiel & John Garvey, *Fencing in the Regulated Utilities*, PUBLIC UTILITIES FORTNIGHTLY 32 (Aug. 2004).

⁶⁹ See, e.g., Public Citizen, “Changes in the Financial Health of the Electric and Natural Gas Utility Industries Since the PUHCA Hearings of 2001,” March 2004, available at <http://www.citizen.org/documents/industryhealth.pdf> (discussing the wave of bankruptcies that resulted from PUHCA-exempt or “non-utility” businesses in 2003).

⁷⁰ Grygiel & Garvey, *supra* note 67, 68, at 32.

usually mandated by the utility's regulator—normally a state public utility commission.⁷¹

II. ANALYZING BANKRUPTCY-REMOTE STRUCTURING FROM A PUBLIC POLICY STANDPOINT

Part I has shown that structured finance transactions and ring-fencing both rely on bankruptcy-remote structuring to reallocate bankruptcy risk. Except for certain covered bond transactions, this structuring is implemented primarily by contract.⁷² This Part II shows that by compromising the bankruptcy statutory scheme, bankruptcy-remote structuring creates a tension between freedom of contract and bankruptcy-law policy that must be balanced.⁷³

A. Freedom of Contract

Generally, the law protects freedom of contract because voluntary bargaining should lead to an economically efficient outcome for the contracting parties.⁷⁴ Freedom of contracting, however, is generally subject to three limitations: paternalism, public policy, and externalities.⁷⁵ Paternalism should not apply in this Article's context of business contracting, assuming (as normally would be the case) that the parties are sophisticated. However, the limitations imposed by public policy and externalities could apply to business contracting, including bankruptcy-remote structuring.

⁷¹ *Id.* In 1997, for example, Enron acquired Portland General Electric (PGE), which was regulated by the Oregon Public Utility Commission (OPUC). PETERSON & BRERETON, *supra* note 64, 65, at 13 (recommending the use of ring-fencing in Utah and discussing the successful use of ring-fencing by the state of Oregon in the case of Portland General Electric). The merger between Enron and PGE was contingent upon terms stipulated by the OPUC, which (among other things) mandated that PGE be held by Enron in a bankruptcy-remote structure. *Id.* at 15. When Enron eventually filed for bankruptcy, these ring-fencing measures protected PGE from bankruptcy. MILES H. MITCHELL ET AL., MD. PUB. SERV. COMM'N, COMMISSION STAFF ANALYSIS OF RING-FENCING MEASURES FOR INVESTOR-OWNED ELECTRIC AND GAS UTILITIES 14 (Feb. 18, 2005), available at <https://www.psc.state.md.us/wp-content/uploads/RevisedRing-FencingReport.pdf> (recommending the use of ring-fencing in Maryland and discussing the successful use of ring-fencing by the state of Oregon in the case of Portland General Electric).

⁷² *Cf. supra* note 27 and accompanying text.

⁷³ This tension engages the broader issue of contracting around bankruptcy. See Steven L. Schwarcz, *Rethinking Freedom of Contract: A Bankruptcy Paradigm*, 77 TEX. L. REV. 515 (1999) (hereinafter "*Rethinking Freedom of Contract*").

⁷⁴ *Cf.* MICHAEL J. TREBILCOCK, *THE LIMITS OF FREEDOM OF CONTRACT* 7 (1993) (observing that "if two parties are to be observed entering into a voluntary private exchange, the presumption must be that both feel the exchange is likely to make them better off, otherwise they would not have entered into it.").

⁷⁵ *Rethinking Freedom of Contract*, *supra* note 73, at 535–39.

Subpart B next examines the limitations on bankruptcy-remote structuring imposed by public policy under bankruptcy law. Thereafter, Part III of this Article examines the limitations imposed by externalities.

B. Bankruptcy-Law Policy

Public policy can limit freedom of contract.⁷⁶ In the context of bankruptcy-remote structuring, the relevant policy is statutory: bankruptcy-law policy as embodied by the Code⁷⁷ or other statute that codifies bankruptcy law (hereinafter, “statutory policy”). Scholars have framed this analysis by asking which rules of bankruptcy law should be regarded as “default” rules that parties should be able to contract around, and which rules are so essential to the legal bankruptcy scheme that they should be regarded as mandatory.⁷⁸ In a broader context, courts have provided some guidance for making that determination: parties should be allowed to contract around a statutory scheme so long as such contracting does not “nullify the purposes” of the statute or thwart the legislative policies the statute was designed to effectuate.⁷⁹

In bankruptcy-remote structuring, parties contract around the relevant bankruptcy statutory scheme to protect an entity from factors that might prevent it from paying its debts as they come due or that might make it the subject of a bankruptcy case.⁸⁰ Does that contracting nullify the purposes of the statutory scheme or thwart the statutory policy? The following analysis shows that it should not.

Bankruptcy-remote structuring could impact two fundamental statutory bankruptcy policies: equality of distribution, and debtor rehabilitation.⁸¹ To

⁷⁶ See *supra* note 75 and accompanying text.

⁷⁷ Recall that the Code codifies U.S. bankruptcy law. See *supra* note 2 and accompanying text.

⁷⁸ Cf. Robert K. Rasmussen, *Debtor's Choice: A Menu Approach to Corporate Bankruptcy*, 71 TEX. L. REV. 51, 52, 61-62 (1992) (arguing that viewing bankruptcy law as inherently a set of mandatory rules is anomalous because most rules in contract law are default rules, and that “one must provide a justification for invoking mandatory rules”).

⁷⁹ See, e.g., *Barrentine v. Arkansas-Best Freight Sys., Inc.*, 450 U.S. 728, 740 (1981) (holding that rights under the Fair Labor Standards Act “cannot be abridged by contract or otherwise waived” if doing so would “nullify the purposes” of the statute and thwart the legislative policies it was designed to effectuate); *Gilmer v. Interstate/Johnson Lane Corp.*, 500 U.S. 20, 26-8 (1991) (holding that the right to bring claims in federal court under the Age Discrimination in Employment Act can be contractually waived in favor of an arbitration agreement because, so long as a person may effectively pursue his statutory cause of action in the arbitral forum, the statute’s underlying purposes and policies are not compromised). Cf. Alan Schwartz, *A Contract Theory Approach to Business Bankruptcy*, 107 YALE L.J. 1807, 1840 (1998) (arguing that a mandatory rule is justifiable only if it is necessary to protect the integrity of the system itself or it enhances ex post efficiency when the parties themselves cannot reach the efficient outcome on their own).

⁸⁰ See *supra* notes 4-5 and accompanying text.

⁸¹ These are two of the fundamental policies that underlie bankruptcy law, including the Code. See *Rethinking Freedom of Contract*, *supra* note 73, at 542 (citing to REPORT OF THE COMMISSION ON THE BANKRUPTCY LAWS OF THE UNITED STATES, H.R. Doc. No. 93-137, pt. 1, at 75 (1973)).

the extent such structuring protects an entity from factors that might prevent it from paying its debts as they come due, that should not nullify the purposes of bankruptcy law or thwart either of those policies. Rather, it would help the entity to avoid defaulting on its debt. An entity that pays its debts as they come due is unlikely to be the subject of a bankruptcy filing or its statutory policies.⁸²

In contrast, bankruptcy-remote structuring that protects an entity from factors that might make it the subject of a bankruptcy case arguably could compromise the foregoing statutory policies. Such structuring could compromise the policy of equality of distribution by prioritizing repayment of investors in the SPE's securities over repayment of creditors of the sponsor and originators.⁸³ Pre-bankruptcy contractual reallocations of repayment priority, however, are generally respected notwithstanding the policy of equality of distribution. For example, the Code provides that a "subordination agreement is enforceable in a [bankruptcy] case under [the Code] to the same extent that such agreement is enforceable under applicable nonbankruptcy law."⁸⁴ It also recognizes the priority of collateral.⁸⁵ Thus, the impact of bankruptcy-remote structuring on the statutory policy of equality of distribution should not thwart that policy.⁸⁶

Similarly, bankruptcy-remote structuring could compromise the policy of debtor rehabilitation by potentially depriving the sponsor and originators of the financial assets that have been transferred to the SPE.⁸⁷ Such structuring should not, however, thwart that statutory policy because the SPE pays the sponsor—and the sponsor, in turn, pays the originators—a negotiated market-value price to purchase the financial assets.⁸⁸ Furthermore, by facilitating structured finance transactions, bankruptcy-remote structuring can advance debtor rehabilitation by providing essential

⁸² Cf. 11 U.S.C. 303(h)(1) (effectively restricting involuntary bankruptcy to entities that generally are not paying their debts as they come due). Voluntary bankruptcy filings have no explicit conditions, but entities that can pay their debts as they come due rarely file voluntarily for bankruptcy; illiquidity appears to be the main reason for bankruptcy filings. Cf. Marc Martos-Vila & Zongtao Shi, *Bankruptcy Filings During and After the COVID-19 Recession*, BUS. L. TODAY (Mar. 16, 2022) (observing that "economic downturns can sufficiently reduce liquidity such that debtors are unable to meet debt obligations as they become due and might require court-driven solutions").

⁸³ Cf. *supra* notes 29-30 & 48 and accompanying text (explaining that investors in the SPE's securities take the risks associated with the financial assets, but they do not take bankruptcy risks associated with sponsors or originators).

⁸⁴ 11 U.S.C. § 510(a).

⁸⁵ See, e.g., 11 U.S.C. § 1129(b)(2)(A) (recognizing the priority of secured claims).

⁸⁶ Parties are not allowed to contract around a federal statutory scheme if Congress specifically precludes them, as through an anti-waiver provision. See, e.g., *United States v. Mezzanatto*, 513 U.S. 196, 200-01 (1995). Bankruptcy-remote structuring should not, however, implicate any anti-waiver provisions in the Code.

⁸⁷ See *supra* notes 31 & 47 and accompanying text.

⁸⁸ See *supra* note 29 and accompanying text.

liquidity to otherwise economically viable sponsors and originators that are unable to borrow.⁸⁹ Thus, bankruptcy-remote structuring also should not thwart the policy of debtor rehabilitation.⁹⁰

C. Balancing Contractual Freedom and Bankruptcy-Law Policy

Bankruptcy-remote structuring thus does not appear to nullify the purposes of bankruptcy law or thwart its statutory policies. Therefore, from the standpoint of public policy, parties should be allowed to engage contractually in bankruptcy-remote structuring.⁹¹

This is, however, a normative analysis. In the United States, for example, if (in a specific context) a court finds that contracting for bankruptcy remoteness thwarts a policy of the Code, the Supremacy Clause of the US Constitution—which provides in relevant part that “the Laws of the United States . . . shall be the supreme Law of the Land”⁹²—would enable the court to invalidate that contracted-for structure. That recognizes that the Code is federal law, and thus part of the Laws of the United States, whereas contract law is state law.⁹³

Part III next analyzes whether, notwithstanding freedom of contract, the externalities of bankruptcy-remote structuring—including its potential to create systemic financial risk—should limit that contractual structuring.

III. ANALYZING BANKRUPTCY-REMOTE STRUCTURING FROM A COST-BENEFIT STANDPOINT

Recall that externalities, or harm to third parties, also can limit freedom of contract.⁹⁴ Bankruptcy-remote structuring can create externalities.⁹⁵ Not all externalities should defeat contract enforcement.⁹⁶ When examining externalities, the critical questions are which externalities should defeat contract enforcement and under what circumstances.⁹⁷ Unfortunately, “[d]etermining which of these [externality] impacts, if negative, are to count

⁸⁹ Steven L. Schwarcz, *Securitization Post-Enron*, 25 CARDOZO L. REV. 1539, 1574 (2004).

⁹⁰ Courts also appear reluctant to find that contracting around a statutory scheme thwarts the statute’s policy. *Rethinking Freedom of Contract*, *supra* note 73, at 538. *Cf.* *Martin v. Spring Break ‘83 Productions, L.L.C.*, 688 F.3d 247, 255–56 (5th Cir. 2012) (finding a private agreement to settle an employee’s Fair Labor Standards Act claim valid).

⁹¹ The above analysis focused on bankruptcy-remote structuring as currently performed. This Article does not address whether parties should be allowed to engage contractually in future bankruptcy-remote structuring that might be performed very differently.

⁹² U.S. CONSTITUTION, Art. VI, Para. 2.

⁹³ *See, e.g.*, Xuan-Thao Nguyen, *Contract Impossibility from the Spanish Flu of 1918 to the Covid-19 Pandemic*, 76 N.Y.U. ANN. SURV. AM. L. 779, 820 (2021) (stating that contract law is state law).

⁹⁴ *See supra* note 74 and accompanying text.

⁹⁵ *See supra* notes 16-17 and accompanying text.

⁹⁶ *Rethinking Freedom of Contract*, *supra* note 73, at 551–52.

⁹⁷ *Id.* at 552.

in constraining the ability of parties to contract with each other poses major conceptual problems.”⁹⁸

Pragmatically, insignificant externalities should not constrain freedom of contract. By way of example, corporate risk-taking creates myriad externalities, yet the law only attempts to restrict material externalities.⁹⁹ It simply would not be feasible to take all externalities into account.¹⁰⁰ Furthermore, the law generally attempts to restrict material externalities only where the benefits of doing so exceeds its costs.¹⁰¹

Bankruptcy-remote structuring can create material externalities.¹⁰² That result alone should not automatically defeat the enforcement of bankruptcy-remote structures. At a minimum, public policy analysis normally assesses the economic merits of a project by weighing its benefits and costs.¹⁰³ Likewise, this Article proposes that the merits of bankruptcy-remote structuring should be assessed by a cost-benefit analysis (“CBA”).

Traditionally, CBA parallels the Kaldor-Hicks efficiency model,¹⁰⁴ which weighs overall costs and benefits regardless of who pays the costs and who receives the benefits.¹⁰⁵ That model makes sense for a neutral governmental assessment of costs and benefits, such as deciding where to locate a new airport or whether to enact new regulation. In bankruptcy-remote structuring, however, the contracting parties both advocate and stand to

⁹⁸ TREBILCOCK, *supra* note 74, at 20.

⁹⁹ *Cf.* STEPHEN M. BAINBRIDGE, *CORPORATION LAW AND ECONOMICS* 425 (2002) (observing that material externalities created by corporate conduct should be “constrained through general welfare legislation, tort litigation, and other forms of regulation”).

¹⁰⁰ *See, e.g.*, Lisa Grow Sun & Brigham Daniels, *Externality Entrepreneurism*, 50 U.C. DAVIS L. REV. 321, 331 (2016) (illustrating the difficulty of compensating for second order externalities caused by an oil spill: “the spilled oil may contaminate the stock of local shellfish, which, in turn, damages the livelihood of local fishermen, which hurts other local businesses no longer patronized by the fishermen, which leads to further layoffs and economic distress, which decreases local property values, which decimates the budget of local schools, and so on ...”).

¹⁰¹ *Cf.* Exec. Order No. 12866, 58 Fed. Reg. 51,735 (Oct. 4, 1993) (requiring all federal agencies to conduct a cost-benefit analysis for every “major” rule).

¹⁰² *See* Part III.B, *infra*.

¹⁰³ *See supra* note 101 and accompanying text.

¹⁰⁴ *See, e.g.*, Matthew D. Adler & Eric A. Posner, *Implementing Cost-Benefit Analysis When Preferences Are Distorted*, 29 J. LEGAL STUD. 1105, 1108 (2000) (stating that CBA traditionally parallels Kaldor-Hicks efficiency).

¹⁰⁵ RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* § 1.2, at 13-14 (9th ed. 2014) (observing that a transaction is Kaldor-Hicks efficient even if the “winners” (i.e., the debtor and the contracting creditors) do not compensate the “losers” (i.e., nonconsenting creditors and any other non-contracting third parties)). *Cf.* Richard Posner, *Cost-Benefit Analysis: Definition, Justification, and Comment on Conference Papers*, in *COST-BENEFIT ANALYSIS: LEGAL, ECONOMIC, AND PHILOSOPHICAL PERSPECTIVES* 318-19 (Matthew D. Adler & Eric A. Posner, eds.) (observing that “efficiency in the Kaldor-Hicks sense—making the pie larger without worrying about how the relative size of the slices changes—is a social value”).

significantly gain from the project.¹⁰⁶ From a public policy standpoint, an impartial assessment of these private actions should weigh the socially relevant costs and benefits. This is consistent with contemporary economic doctrine that “[p]olicy must be based on social, rather than narrowly private[,] costs and benefits.”¹⁰⁷ Accordingly, this Article calculates CBA for bankruptcy-remote structuring based on its public benefits and its public, or “social,” externalities and other costs.¹⁰⁸

Subpart A next examines these public benefits, subpart B then examines these social costs, and subpart C balances these benefits and costs. Because the benefits and costs can differ significantly depending on whether the contracting is for structured finance or ring-fencing, the discussion is bifurcated accordingly. Furthermore, the ring-fencing discussion focuses on utilities, its most common application.¹⁰⁹

A. Public Benefits

1. *Structured Finance.* Bankruptcy-remote structured finance gives firms increased access to capital markets at lower costs and more favorable interest rates.¹¹⁰ Several factors—including isolating bankruptcy risk,¹¹¹

¹⁰⁶ See *supra* note 74. Cf. Alan Schwartz, *Contracting About Bankruptcy*, 13 J. L. ECON. & ORG. 127, 129-30 (1997) (arguing that prebankruptcy contracting could lead to an optimal bankruptcy procedure because the parties, in order to reach agreement, effectively would have to balance the debtor’s private benefits with the creditors’ monetary return).

¹⁰⁷ Anat R. Admati, *The Missed Opportunity and Challenge of Capital Regulation*, NAT’L INST. ECON. REV. No. 235, R4, R5 (Feb. 2016). Cf. Caroline Cecot, *Who Benefits from Cost-Benefit Analysis?*, NOTICE & COMMENT (Oct. 13, 2021), available at <https://www.yalejreg.com/nc/symposium-reviving-rationality-part-10/> (arguing from a welfare economics perspective that CBA can, and should, consider the socially relevant distribution of regulatory benefits and costs); Matthew D. Adler, *Benefit-Cost Analysis and Distributional Weights: An Overview*, 10 REV. ENV’T ECON. AND POL’Y 264 (2016) (arguing that CBA should take into account distributional concerns). The reference in the above text to public benefits and social costs means, of course, net public benefits and net social costs. That distinction is likely de minimis for bankruptcy-remote structuring.

¹⁰⁸ Although this Article hereinafter refers to “public benefits” and “social costs,” no difference is intended between the terms “public” and “social.”

¹⁰⁹ See *supra* note 65 and accompanying text. For certain other cost-benefit analyses of ring-fencing, see *Ring-Fencing*, *supra* note 10, at 99–104.

¹¹⁰ Meredith S. Jackson, *Leap of Faith: Asset-Based Lending to Asset-Backed Securitization—A Case Study*, 2 STAN. J.L. BUS. & FIN. 193, 196 (1995); Pearce & Lipin, *supra* note 26, at 186 (2011). See also *supra* note 12 and accompanying text. These lower costs and more favorable interest rates are offset to a small extent by transaction costs. Cf. Pearce & Lipin, *supra* note 26, at 190 (observing that bankruptcy-remote structuring involves transaction costs, including attorneys’ fees and rating-agency fees).

¹¹¹ See *supra* note 5 and accompanying text.

reducing information asymmetry,¹¹² and diversifying funding sources¹¹³—contribute to the lower cost. Investors in the SPE’s debt securities do not have to worry about bankruptcy risks associated with the sponsor or the originators. They need only assess the creditworthiness and quality of the financial assets purchased by the SPE.¹¹⁴ For these same reasons, credit-rating agencies such as Moody’s, Standard & Poor’s, and Fitch often rate an SPE’s debt securities higher than they rate its sponsor’s debt securities.¹¹⁵ In contrast, even traditional secured financing can be costly because of bankruptcy risks,¹¹⁶ especially if the firm is highly leveraged or its debt securities are rated below investment grade.¹¹⁷

Diversifying funding sources also increases the access to capital markets.¹¹⁸ Say, for example, that Firm X, whose credit rating is barely investment grade, is unable to cost effectively sell additional debt securities to capital-market investors. An SPE sponsored by Firm X still may be able to cost effectively issue additional debt securities, for which Firm X would indirectly receive the funding, for two reasons: that SPE will have different

¹¹² Edward M. Iacobucci & Ralph A. Winter, *Asset Securitization and Asymmetric Information*, 34 J. LEGAL STUD. 161 (2005). Cf. Salman Shah & Anjan V. Thakor, *Optimal Capital Structure and Project Financing*, 42 J. ECON. THEORY 209, 211–12 (1987) (observing that investors do not need to consider the sponsor’s creditworthiness or overall cash flows; they only need to evaluate the SPE’s cash-flow generating capability).

¹¹³ See, e.g., James J. Croke, Jr., *Project Finance and Securitization: A Natural Hybrid*, 18 TRANSNAT’L LAW. 159, 161–62 (2004) (observing that structured finance “structures offer the ability to tap into additional funding sources, to access better and potentially cheaper funding, [and] to enhance the diversity of funding sources ...”).

¹¹⁴ See, e.g., Adriana Z. Robertson, *Shadow Banking, Shadow Bailouts*, 43 DEL. J. CORP. L. 459 (2019). See also James A. Rosenthal & Juan M. Ocampo, *Analyzing the Economic Benefits of Securitized Credit*, 1(3) J. APPLIED CORP. FIN. 32 (1988) (explaining that risk exposure is more limited in securitization transactions because investors know exactly what risks they are taking).

¹¹⁵ See, e.g., STRUCTURED FINANCE, *supra* note 35, § 1:1, at 1-5 (observing that “the securities issued by the [SPE], depending upon the structure of the transaction, may have a higher investment rating than securities issued directly by the originator”).

¹¹⁶ Bankruptcy can undermine the protection of collateral in several ways. For example, the automatic stay halts all foreclosure and other enforcement actions by secured creditors. 11 U.S.C. § 362. A debtor also is authorized to continue using collateral during a bankruptcy case. 11 U.S.C. § 363. If the debtor is unable to otherwise obtain bankruptcy financing, the court may authorize a superior lien on collateral to secure that financing so long as the existing secured creditor is given adequate protection—which is a somewhat nebulous and flexible concept. Compare 11 U.S.C. § 364(d)(1) (enabling a bankruptcy court to authorize a superior lien) with 11 U.S.C. § 361(3) (providing that adequate protection includes the “indubitable equivalent” of the existing collateral).

¹¹⁷ Credit ratings provide a measure of comparing the creditworthiness of different debt securities based on the financial strength, prospects, and past history of the issuer of the securities. Investment-grade debt securities are those rated at ‘BBB-’ or higher by Standard and Poor’s or Moody’s. *What Does Investment Grade Mean*, INVESTOPIA (Jan. 21, 2021), <https://www.investopedia.com/ask/answers/what-does-investment-grade-mean/>.

¹¹⁸ See *supra* note 113 and accompanying text.

name recognition, and, because of bankruptcy remoteness, its debt securities may well have a higher credit rating.¹¹⁹

As observed, increased access to capital markets at lower costs and more favorable interest rates can provide valuable economic benefits, such as enabling firms to pursue a wider range of projects and business opportunities, which will potentially increase employment and shareholder wealth¹²⁰ and ultimately reduce consumer costs.¹²¹ Furthermore, the protection afforded by bankruptcy remoteness can encourage productive risk-taking and innovation.¹²² It is widely accepted that securitization plays an important role in supporting economic growth.¹²³ For example, securitization of loans enables a lender to monetize its existing loans, thereby acting as a money multiplier by enabling it to make more loans.¹²⁴ One study estimates that “[s]ecuritization generates an almost 14% increase in value relative to the value of the assets secured,” and a 15% increase in the total amount of debt issued due to lowered risk of default.¹²⁵ Securitization can generate an even higher 20% increase in secured asset value when the firm is riskier.¹²⁶

The subset of structured finance consisting of bankruptcy-remote project finance transactions includes many of the foregoing benefits as well as other major benefits. Like other forms of structured finance, project finance gives sponsors increased access to capital markets at lower costs and more favorable interest rates.¹²⁷ For example, if “the new project is half the size of the [sponsor], and has annual volatility of 40%, the benefits of separate financing to the [sponsor] represent 13% of project value” with most of the benefit comes from limited liability of bankruptcy-remote structuring.¹²⁸ Project financing also can help to finance renewable energy projects.¹²⁹

¹¹⁹ Cf. *supra* notes 114-115 and accompanying text and *infra* notes 224-225 and accompanying text (explaining why an SPE’s debt securities may have higher credit ratings than its sponsor’s debt securities).

¹²⁰ See *supra* notes 12-14 and accompanying text.

¹²¹ See, e.g., Steven Todd, *The Effects of Securitization on Consumer Mortgage Costs*, 29 REAL ESTATE ECON. 29, 29 (2002) (finding that securitization appears to lower mortgage-loan origination fees, “resulting in substantial savings for consumers”).

¹²² See *supra* notes 14-15 and accompanying text.

¹²³ See e.g., IMF, *Securitization: The Road Ahead*, IMF Staff Discussion Note (Jan. 2015).

¹²⁴ Devon R. Tucker, *Not All Securitizations Are Equal: Risk Retention for Commercial Mortgage-Backed Securitization in an Era of Deregulation*, 23 N.C. BANKING INST. 295, 306 (2019).

¹²⁵ Hayne E. Leland, *Financial Synergies and the Optimal Scope of the Firm: Implications for Mergers, Spinoffs, and Structured Finance*, 62 J. FIN. 765, 797 (2007).

¹²⁶ *Id.* at 798.

¹²⁷ See *supra* note 110 and accompanying text.

¹²⁸ Leland, *supra* note 125, at 799–80.

¹²⁹ Bjarne Steffen, *The Importance of Project Finance for Renewable Energy Projects*, 69 ENERGY ECON. 280, 287 (2018).

In addition to the identified benefits, project finance is often used to facilitate the construction of critical infrastructure projects, like powerplants and toll roads.¹³⁰ In that sense, the public benefits of project finance parallel those of ring-fencing, discussed below,¹³¹ which offers protection for critical utilities.

2. *Ring-Fencing*. Many of the benefits of ring-fencing utilities are obvious: it helps to protect their continued operation and thus their provision to the public of necessities such as power, clean water, and communications.¹³² The fact that public service commissions usually regulate utilities and normally require notice and a hearing to impose ring-fencing¹³³ evidences their public service nature.

Ironically, the fact that many utilities are monopolies¹³⁴ increases the benefits of ring-fencing. A monopoly utility must be protected from bankruptcy risk because, by definition, it is the only entity in its service area able to provide its particular necessities. The relevance of this lack of substitutability is illustrated by the difference between the UK and US banking systems.¹³⁵ Even though banks provide important public financial services, the need to ring-fence banks is much more important in the United Kingdom than the United States. The US banking market is highly competitive.¹³⁶ Therefore, even if some banks fail, other banks could provide replacement banking services. The UK banking market—especially for retail banking services—is much less competitive. This difference helps to explain

¹³⁰ See *supra* notes 49-51 and accompanying text.

¹³¹ See Part III.A.2, *infra*.

¹³² See *supra* note 9.

¹³³ See e.g. *New York State Public Service Commission Mission Statement*, available at <https://www.budget.ny.gov/pubs/archive/fy1415archive/eBudget1415/agencyPresentations/appropData/PublicServiceDepartment.html> (“The primary mission of the New York State Department of Public Service is to ensure safe, secure, and reliable access to electric, gas, steam, telecommunications, and water services for New York State’s residential and business consumers, at just and reasonable rates. The Department seeks to stimulate innovation, strategic infrastructure investment, consumer awareness, competitive markets where feasible, and the use of resources in an efficient and environmentally sound manner”).

¹³⁴ See, e.g., David Roberts, *Power Utilities are Built for the 20th Century. That’s why they’re Flailing in the 21st* (Sept. 9, 2015), available at <https://www.vox.com/2015/9/9/9287719/utilities-monopoly> (characterizing utility companies as monopoly providers). This Article does not purport to critique whether utility companies should be monopolies.

¹³⁵ Lack of substitutability is also a factor associated with the transmission of systemic risk. See IMF et al., *Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations*, 13 (Oct. 2009), <https://www.imf.org/external/np/g20/pdf/100109.pdf>. [<https://perma.cc/TB2P-XJWN>]; Basel Committee on Banking Supervision, *Consultative Document: Global Systemically Important Banks: Assessment Methodology and the Additional Loss Absorbency Requirement 1* (July 2011) <https://www.bis.org/publ/bcbs201.pdf> [<https://perma.cc/VAA2-U5Y6>].

¹³⁶ See, e.g., *The Nation’s Most, and Least, Competitive Banking Markets*, AM. BANKER, May 9, 2011, http://www.americanbanker.com/issues/176_89/competitive-banking-markets-1037222-1.html (finding that the U.S. banking market as a whole is highly competitive).

why the United Kingdom now requires the ring-fencing of retail banking operations whereas the United States does not.¹³⁷

Ring-fencing also can protect against systemic risk by creating modularity.¹³⁸ The financial system is highly complex, and failures are almost inevitable in complex systems.¹³⁹ Chaos theory—more technically known as the theory of complex adaptive systems—posits, however, that complex systems can be made more successful by limiting the consequences of a failure.¹⁴⁰ One way to accomplish this is by decoupling the system through “modularity,” reducing the chance that a failure in one part of the system will systemically trigger a failure in another part.¹⁴¹ Ring-fencing creates a degree of modularity by helping to ensure that the failure of one or more affiliates of a ring-fenced firm would not cause the firm to fail.

B. Social Costs

1. *Structured Finance.* Bankruptcy-remote structuring creates social costs, although it does not directly harm third parties. Theoretically, it might appear to cause direct harm because structured finance transactions¹⁴² subordinate the rights of tort creditors and other unsecured creditors¹⁴³ of sponsors and originators to the rights of investors in the SPE’s securities.¹⁴⁴ In practice, though, those unsecured creditors should benefit because the financing provides low-cost liquidity to their sponsor and originator

¹³⁷ See Steven L. Schwarcz, *Regulating Financial Change: A Functional Approach*, 100 MINN. L. REV. 1441, 1494 n. 221 (2016) (explaining that because U.K. banking is less competitive, the case for ring-fencing U.K. banks is more compelling than the case for ring-fencing U.S. banks).

¹³⁸ Ring-fencing additionally can help to reduce systemic risk by reducing panics. *Ring-Fencing, supra* note 10, at 95–96. Financial panics are a common trigger of systemic risk. Steven L. Schwarcz, *Regulating Complexity in Financial Markets*, 87 WASH. U. L. REV. 211, 248 (2009). Cf. Dan Awrey, *Complexity, Innovation and the Regulation of Modern Financial Markets*, 2 HARV. BUS. L. REV. 235, 267–277 (2012) (analyzing how financial innovation can increase complexity in financial markets and result in financial shocks).

¹³⁹ *Regulating Complexity in Financial Markets, supra* note 138.

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

¹⁴² Recall that bankruptcy-remote structuring facilitates structured finance transactions. Cf. *supra* note 8 and accompanying text (bankruptcy remoteness is critical to structured finance transactions).

¹⁴³ Because the claims of tort creditors rank, from a priority-of-payment standpoint, equally and ratably with the claims of other unsecured creditors (see 11 U.S.C. § 726(a)(2)), the above analysis of whether bankruptcy-remote structuring directly harms third parties should apply equally to those creditors.

¹⁴⁴ This “structural subordination” occurs because, as a legally independent entity, the SPE’s assets are effectively out of reach of the sponsor’s and originators’ creditors in the event of bankruptcy. Baudistel, *supra* note 15, at 1314.

debtors.¹⁴⁵ Empirical evidence confirms this benefit.¹⁴⁶ Because unsecured creditors do not anticipate being harmed, they rarely impose covenants prohibiting or restricting debtors from engaging in structured finance transactions.¹⁴⁷

Bankruptcy-remote structuring nonetheless can indirectly create externalities by increasing systemic financial risk.¹⁴⁸ This Article's discussion of social costs focuses on the costs of a systemic financial collapse.

Bankruptcy-remote structuring can increase systemic risk in several ways. Because such structuring creates a degree of legal separateness between an SPE and its sponsor, the sponsor does not necessarily bear any costs imposed by the SPE's actions (although the sponsor can participate in any upside profitability). This can create moral hazard,¹⁴⁹ motivating a sponsor to engage in, or to cause its SPE to engage in, higher risk activities. Enron, for example, is said to have used SPEs to participate in transactions that would have generally been considered highly commercially risky.¹⁵⁰

¹⁴⁵ See, e.g., Steven L. Schwarcz, *The Easy Case for the Priority of Secured Claims in Bankruptcy*, 47 DUKE L. J. 425, 482–83 (1997) (explaining why new-money priority financing benefits non-contracting creditors, notwithstanding their becoming subordinated).

¹⁴⁶ Cf. *Securitization Post-Enron*, supra note 88, at 1563–1565 (showing that securitization transactions have a positive impact on bond pricing).

¹⁴⁷ See *id.* (finding that creditors of sponsors and originators do not usually attempt to contract for negative pledge or restrictive sale covenants that could prevent structured finance transactions). But cf. Heather Hughes, *Property and the True-Sale Doctrine*, 19 U. PA. J. BUS. LAW 870, 888 (2017) (describing criticisms of securitization, including the argument that it “involves extraction of a subsidy from unsecured creditors, artificially depressing interest rates by externalizing costs”). Assuming there is no direct harm, this Article need not address whether such harm should further constrain bankruptcy-remote structuring. Cf. *In re S. E. Fin. Assocs.*, 212 B.R. 1003, 1005 (Bankr. M.D. Fla. 1997) (a bankruptcy waiver that adversely affects other creditors is unlikely to be enforced); Caroline Cecot & Robert W. Hahn, *Incorporating Equity Concerns in Regulation 1* (George Mason Univ. L. & Econ. Rsch. Paper Series, Paper No. 22-19, 2022), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4093224 (arguing on equity grounds against directly harming groups).

¹⁴⁸ Although CBA traditionally starts with direct costs, it can include indirect costs. Cf. *Cost-Benefit Analysis*, in INVESTOPEDIA, available at <https://www.investopedia.com/terms/c/cost-benefitanalysis.asp> (observing that CBA “might include” indirect costs); Tim Stobierski, *How to do a Cost-Benefit Analysis and Why It's Important*, HARV. BUS. SCHOOL ONLINE (Sept. 5, 2019), available at <https://online.hbs.edu/blog/post/cost-benefit-analysis> (stating that “[w]hen tallying costs, you'll likely begin with direct costs, ... But it's also important to go beyond the obvious” to also include indirect costs).

¹⁴⁹ Moral hazard is the temptation of persons protected from the negative consequences of their risky actions to take more risks. BOUVIER LAW DICTIONARY 710 (2011 Compact Edition, Stephen Michael Sheppard, ed.); Mark V. Pauly, *The Economics of Moral Hazard: Comment*, 58 AM. ECON. REV. 531, 535 (1968).

¹⁵⁰ Deborah L. Rhode & Paul D. Paton, *Lawyers, Ethics, and Enron*, 8 STAN. J.L. BUS. & FIN. 9, 13 (2002). Cf. Judith Schönsteiner, *Irreparable Damage, Project Finance and Access to Remedies by Third Parties*, in GLOBAL PROJECT FINANCE, HUMAN RIGHTS AND SUSTAINABLE DEVELOPMENT 278–316 (Sheldon Leader & David Ong eds., 2011) (explaining that project-finance transactions can have

Other things being equal, higher risk corporate activities increase systemic risk.¹⁵¹

Bankruptcy-remote structuring also can increase systemic risk by facilitating structured finance transactions.¹⁵² Many argue, for example, that these transactions can discourage lender monitoring, which results in riskier lending and, ultimately, a greater default rate.¹⁵³ In particular, securitization depends in part on an originate-to-distribute (“OTD”) model in which originators make loans with the intention of selling them off in the securitization transactions.¹⁵⁴ Because the originators do not hold onto, and thus do not bear risk for the ultimate performance of, the loans, the OTD model is thought to encourage them to make riskier loans.¹⁵⁵ Such riskier lending was blamed for causing the high rate of residential mortgage-loan defaults that contributed to the financial crisis.¹⁵⁶

Additionally, structured finance transactions can impair disclosure through complexity and by facilitating off-balance-sheet financing. The “complexity of [certain structured finance] transactions [can] cause[] the disclosures to be insufficient, cutting into the very heart of federal securities regulation”¹⁵⁷ Also, because debt securities issued by an SPE are not necessarily required to be disclosed on the sponsor’s balance sheet, structured

environmental, labor, social, and political costs, but affected communities have limited legal recourse because they are not contractual parties); Ted Bridis, *PNC Settles With SEC on Off-Balance-Sheet Deals*, WASHINGTON POST (June 3, 2003), <https://www.washingtonpost.com/archive/business/2003/06/03/pnc-settles-with-sec-on-off-balance-sheet-deals/f31333b4-0a48-453b-ad77-0896df42233f/> (reporting that PNC Bank settled with the SEC to pay \$90 million in restitution and \$25 million in penalties for its improper use of SPEs).

¹⁵¹ See, e.g., FIN. CRISIS INQUIRY COMM’N, THE FINANCIAL CRISIS INQUIRY REPORT: FINAL REPORT OF THE NATIONAL COMMISSION ON THE CAUSES OF THE FINANCIAL AND ECONOMIC CRISIS IN THE UNITED STATES xvii–xix (2011); Christine Hurt, *The Duty to Manage Risk*, 39 J. CORP. L. 253, 254–57 (2014) (arguing that most of the actions leading to the financial crisis represented excessive corporate risk-taking). Cf. Luc Laeven, Lev Ratnovski, & Hui Tong, *Bank Size and Systemic Risk*, IMF Staff Discussion Note (May 2014) available at <https://www.imf.org/external/pubs/ft/sdn/2014/sdn1404.pdf>. (describing how large banks are more likely to engage in riskier activities, which can subsequently lead to market failure).

¹⁵² See *supra* note 141.

¹⁵³ See, e.g., Vitaly M. Bord & João A. C. Santos, *The Rise of the Originate-to-Distribute Model and the Role of Banks in Financial Intermediation*, FED. RES. BANK ECON. POL’Y REV., July 2012, at 21, 21; Antje Berndt & Anurag Gupta, *Moral Hazard and Adverse Selection in the Originate-to-Distribute Model of Bank Credit*, 56 J. MONETARY ECON. 725, 741–42 (2009).

¹⁵⁴ Berndt & Gupta, *supra* note 153.

¹⁵⁵ *Id.* Cf. Yi-Hui Wang & Han Xia, *Do Lenders Still Monitor When They Can Securitise Loans?*, 27 R. FIN. STUD. 2354 (2014) (examining whether the OTD model discourages lender monitoring).

¹⁵⁶ Berndt & Gupta, *supra* note 155.

¹⁵⁷ Steven L. Schwarcz, *Disclosure’s Failure in the Subprime Mortgage Crisis*, 3 UTAH L. REV. 1109, 1113 (2008).

finance transactions can facilitate off-balance-sheet financing,¹⁵⁸ which can be used to hide the sponsor's de facto liabilities.¹⁵⁹ This can become especially problematic if, to protect its business reputation, the sponsor feels compelled—even if it is not legally obligated—to pay the SPE's debt in order to avoid default. This occurred in 2006-2007 when major banks—to protect their reputations—paid or assumed hundreds of billions of dollars of debt of their sponsored asset-backed-commercial-paper-conduit SPEs and structured-investment-vehicle SPEs.¹⁶⁰ If that unexpected assumption of debt is large enough and incurred by banks or other systemically important financial institutions (“SIFI”s) it can increase systemic risk by triggering financial shock¹⁶¹ or panic.¹⁶²

The default risk of maturity transformation also increases systemic risk.¹⁶³ This is the asset-liability mismatch that results from the usually profitable¹⁶⁴ short-term funding of long-term projects,¹⁶⁵ which is common in structured

¹⁵⁸ The Financial Accounting Standards Board, which is responsible for establishing generally accepted accounting principles, permits off-balance-sheet financing as long as the originator surrenders control over transferred assets to the SPE. *Summary of Statement No. 140*, FIN. ACCT. STANDARDS BD., available at <https://fasb.org/page/PageContent?pageId=/reference-library/superseded-standards/summary-of-statement-no-140.html&bcpath=tff> (last accessed July 10, 2022). See also *supra* notes 153–154 and its accompanying text.

¹⁵⁹ Cf. Shalanda H. Baker, *Unmasking Project Finance: Risk Mitigation, Risk Inducement, and an Invitation to Development Disaster?*, 6 TEX. J. OIL GAS & ENERGY L. 273, 311–12 (2011) (observing that the use of SPEs “allow[s] the sponsor to minimize exposure to risk, including environmental and human rights risks associated with [a] project, because the sponsor does not participate directly in the project”).

¹⁶⁰ See, e.g., Linda Allen & Anthony Saunders, *Risk Management in Banking*, in THE OXFORD HANDBOOK OF BANKING 160, 162 (Allen N. Berger et al. eds., 2015) (explaining that “HSBC absorbed \$45 billion in assets” held in bankruptcy-remote vehicles “in order to protect its reputation”); Anatoli Segura, *Why Did Sponsor Banks Rescue Their SIVs? A Signaling Model of Rescues 2* (June 16, 2014) (unpublished manuscript), available at <http://ssrn.com/abstract=2552475> (observing that “most sponsor banks stepped in and rescued” the asset-backed-commercial-paper conduits they sponsored “even though they were not contractually obliged to do so” and that “regulators attributed these and similar voluntary support decisions to the reputational concerns of the sponsors”).

¹⁶¹ Cf. Awrey, *supra* note 138 (discussing financial shocks and their consequences).

¹⁶² See generally Daniel M. Covitz, Nellie Liang, & Gustavo A. Suarez, *The Evolution of a Financial Crisis: Panic in the Asset-Backed Commercial Paper Market*, FED. RSRV. BD. (Aug. 18, 2009), <https://www.federalreserve.gov/pubs/feds/2009/200936/200936pap.pdf>. Financial panics are a common trigger of systemic risk. See *supra* note 137.

¹⁶³ See generally Gary Gorton & Andrew Metrick, *The Flight from Maturity*, 47 J. FIN. INTERMEDIATION 1 (explaining how maturity-transformation-related defaults were a primary cause of the financial crisis).

¹⁶⁴ The rationale for short-term funding of long-term projects includes that the interest rate on short-term debt securities is lower than that on long-term loans, making the activity profitable. Steven D. Simpson, *The Banking System: Commercial Banking – Economic Concepts in Banking*, INVESTOPEDIA, available at <https://www.investopedia.com.cach3.com/university/banking-system/banking-system2.asp.html> [<https://perma.cc/WSS6-UNNX>].

¹⁶⁵ Jeanne Gobat et al., *The Net Stable Funding Ratio: Impact and Issues for Consideration 3* (INT’L. MONETARY FUND, Working Paper No. 14/106, 2014), available at <https://www.imf.org/external/pubs/ft/wp/2014/wp14106.pdf> [<https://perma.cc/9P89-VMZP>].

finance transactions.¹⁶⁶ The default risk arises when cash flows from the long-term projects are insufficient to pay the maturing short-term liabilities.¹⁶⁷

Finally, structured finance transactions can increase systemic risk by expanding risk on the underlying financial assets from the sponsor and originators of those assets to the financial institutions investing in the SPE's securities.¹⁶⁸ As the financial crisis showed, losses in even a single, albeit highly concentrated, category of those assets—in that case mortgage loans—can cause the failure (or near failure, but for government bailouts) of numerous financial institutions worldwide that invest in securities backed by those assets—in that case, mortgage-backed securities.¹⁶⁹

The foregoing discussion of the social costs of bankruptcy-remote structured finance transactions does not, however, apply in full to the project financing subset of those transactions. Although project finance, like securitization, creates a degree of legal separateness between an SPE and its sponsor, the sponsor normally capitalizes the SPE with some meaningful amount of equity.¹⁷⁰ This helps to some degree to align the interests of the sponsor and its SPE, thereby mitigating moral hazard and reducing the motivation to engage in higher risk activities.¹⁷¹ Also, project finance transactions normally do not involve the OTD model, which is thought to encourage riskier lending.¹⁷² Project finance transactions do not appear to increase systemic financial risk nearly as significantly as securitization transactions, and thus they should have much lower social costs.

2. *Ring-Fencing.* The only material costs of ring-fencing a utility should be the transaction costs associated with implementing the ring-fenced structure, including legal costs. These costs nonetheless can be high, especially when (as is common in the author's experience) the utility is already operating. In that case, the utility's existing structure and, at least, its

¹⁶⁶ Sandra Krieger, *Shadow Maturity Transformation and Systematic Risk*, FED. RESERVE BANK NEW YORK (Mar. 8, 2011) (depicting the volume of maturity transformation of assets including securities from 1985 to 2010), available at https://www.newyorkfed.org/medialibrary/media/newsevents/speeches/2011/slides_030811.pdf.

¹⁶⁷ *Id.* at 4–6 & 10–12. *Cf.* GARY B. GORTON, *SLAPPED BY THE INVISIBLE HAND: THE PANIC OF 2007* (2010) (arguing that defaults resulting from maturity transformation led to the financial crisis).

¹⁶⁸ *See, e.g.*, Viral V. Acharya, Philipp Schnabl, & Gustavo Suarez, *Securitization without Risk Transfer*, 107 J. FIN. ECON. 515 (2013).

¹⁶⁹ *See, e.g.*, Tracey Sandilands, *Effect of Recession on Small Businesses*, CHRON, <https://smallbusiness.chron.com/effect-recession-small-businesses-61164.html> (last accessed June 15, 2022) (reporting that the failure of just a single category of financial asset can ignite a chain of events that drives the entire economy into recession).

¹⁷⁰ *See supra* notes 49–50 and accompanying text.

¹⁷¹ *Cf. supra* notes 147–148 and accompanying text (discussing how misalignment of the interests of the sponsor and its SPE can create moral hazard and encourage higher risk activities).

¹⁷² *Cf. supra* notes 152–154 and accompanying text (discussing the OTD model).

contracts with affiliates must be revised.¹⁷³ The transaction costs of ring-fencing an operating firm, such as a utility, are inherently much more involved—and hence, much higher—than those associated with structuring a bankruptcy-remote SPE, which by definition is a “special purpose” entity has strictly limited business purposes and functions.¹⁷⁴

Nonetheless, the decision to ring-fence a utility usually would be subject to approval by the utility’s regulator—its public service commission.¹⁷⁵ Because the ring-fencing costs would be payable by the utility’s public consumers,¹⁷⁶ any such approval or requirement would almost certainly involve public regulatory hearings on the efficacy of the ring-fencing.

C. Balancing Public Benefits and Social Costs

As previously indicated, the following discussion bifurcates its analysis of structured finance and ring-fencing. Furthermore, it distinguishes project financing as a subset of structured finance.

1. *Structured Finance.* As shown, bankruptcy-remote structured finance has valuable public benefits, including giving firms increased access to capital markets at lower costs and more favorable interest rates and acting as a money multiplier. That, in turn, encourages productive risk-taking and innovation and enables firms to pursue a wider range of projects and business opportunities, potentially increasing employment and shareholder wealth

¹⁷³ Cf. *supra* notes 62-63 and accompanying text (observing that utility ring-fencing involves, among other things, ensuring that the utility can operate on a standalone basis even if its affiliates fail and protecting the utility from being taken advantage of by its affiliates).

¹⁷⁴ See *supra* note 24 and accompanying text. In the author’s experience, the transaction costs associated with structuring a bankruptcy-remote SPE is in the order of magnitude of \$100-200,000 for securitization transactions and several times higher for project finance transactions. These costs are higher for project finance because the SPE engages in a limited business (e.g., constructing and operating a powerplant) and may also need to obtain government licenses and operating approvals. In contrast, the costs of ring-fencing an ongoing banking conglomerate can be astronomical. For example, Hong Kong Shanghai Bank may have paid as much as £1.5 billion to ring-fence its U.K. affiliated bank. Rory Milbank, *Ring-fencing: The Current State of Play*, DRS (June 14, 2018), available at <https://drs-als.com/ring-fencing-the-current-state-of-play/>. U.K. banks have claimed that ring-fencing their operations would impose large costs without conferring clear benefit to their customers. Sudip Kar-Gupta, *Banks Say Ring-Fencing Plans Flawed and Costly*, REUTERS (July 13, 2011, 8:09 AM), available at <https://www.reuters.com/article/uk-britain-banks/banks-say-ring-fencing-plans-flawed-and-costly-idUKTRE76C2HU20110713>. Cf. Lawrence G. Baxter, *Betting Big: Value, Caution and Accountability in an Era of Large Banks and Complex Finance*, 31 REV. BANKING & FIN. L. 765, 786-12 (2012) (exploring efficiencies of scope and scale in big banks and determining that they remain open and very difficult to measure).

¹⁷⁵ The views in the above paragraph are based on the author’s experience as both expert advisor and expert witness on the ring-fencing of Baltimore Gas & Electric in connection with its acquisition by Exelon Corp. and the ring-fencing of Oncor Electric in connection with its acquisition by a consortium led by the Hunt Brothers.

¹⁷⁶ Cf. PETERSON & BRERETON, *supra* note 56, at 10 (explaining that ring-fencing a utility could result in higher costs to ratepayers).

and ultimately reducing consumer costs.¹⁷⁷ It is difficult, though, to quantify the value of these public benefits. Being somewhat abstract and nonspecific, there do not appear to be “historical data on which anyone could base a reliable estimate.”¹⁷⁸

In contrast, bankruptcy-remote structured finance creates social costs, in the form of externalities, by increasing systemic financial risk. As discussed in subpart B.1, the legal separation between an SPE and its sponsor can create moral hazard, motivating a sponsor to engage, or to cause its SPE to engage, in higher risk activities. The OTD model is also said to discourage lender monitoring, which results in riskier lending and, ultimately, a greater default rate. Structured finance can impair disclosure, both by its complexity and also by facilitating off-balance-sheet financing which can hide a firm’s de facto liabilities. SPE funding models also are based on maturity transformation, which creates an asset-liability mismatch that increases default risk. Furthermore, bankruptcy-remote structured finance can expand risk on financial assets.¹⁷⁹

Although all of these factors can contribute to systemic risk, it is difficult to quantify the social costs because one cannot predict how much bankruptcy-remote structured finance actually contributes to the likelihood of a systemic financial collapse.¹⁸⁰ It is possible, though, to test the limits of those costs by assuming that the cost of such a financial collapse approximates the cost of the financial crisis—which has been estimated as exceeding twenty-two trillion dollars.¹⁸¹ For example, if bankruptcy-remote structuring contributes to the likelihood of a systemic financial collapse by 10%, its potential social costs could be roughly estimated as \$2.2 trillion. If, however, bankruptcy-remote structuring contributes to the likelihood of a systemic financial collapse by 50%, those costs could be roughly estimated as \$11 trillion. These substantial variations reflect more general concerns

¹⁷⁷ See *supra* notes 109-125 and accompanying text.

¹⁷⁸ John C. Coates IV, *Cost-Benefit Analysis of Financial Regulation: Case Studies and Implications*, 124 YALE L.J. 882, 976-77 (2015).

¹⁷⁹ See *supra* notes 148-168 and accompanying text.

¹⁸⁰ See generally John H. Cochrane, *Challenges for Cost-Benefit Analysis of Financial Regulation*, 43 J. LEGAL STUD. 63 (2014) (highlighting challenges of estimating costs and benefits of a regulation in the finance market)

¹⁸¹ Eleazar David Melendez, *Financial Crisis Cost Tops \$22 Trillion, GAO Says*, HUFFINGTON POST (Feb. 14, 2013, 7:49 PM ET), available at https://www.huffingtonpost.com/2013/02/14/financial-crisis-cost-gao_n_2687553.html [<https://perma.cc/GE7K-RXXF>]. Cf. *The Cost of the Crisis, BETTER MARKETS* (July 2015), https://bettermarkets.org/wp-content/uploads/2021/07/Better-Markets-Cost-of-the-Crisis_1.pdf (estimating the cost of the financial crisis as around \$20 trillion (when measured by GDP loss), not including other labor or foreclosure statistics such as two million fewer jobs in mid- and high-wage industries compared to pre-crisis estimates). Some argue that these estimates might be slightly high because the losses on housing and asset values are not permanent. See Cochrane, *supra* note 179, at 570.

over “the viability of conducting a cost-benefit analysis in systemic risk scenarios.”¹⁸²

Given the foregoing difficulty of quantifying the value of the public benefits of bankruptcy-remote structured finance, as well as the foregoing substantial variations in attempting to quantify the social costs, it may be best, as discussed in this Article, merely to categorize those benefits and costs and not purport to conclude how they balance. This approach has important precedent. When the “Volcker Rule” was published pursuant to § 619 of the Dodd-Frank Act, the Office of the Comptroller of the Currency (“OCC”) took this very approach.¹⁸³

In comparison with structured finance generally, the subset thereof consisting of project finance transactions is more likely to have public benefits that exceed the social costs. Like other structured finance transactions, project finance gives sponsors increased access to capital markets at lower costs and more favorable interest rates. Unlike those other transactions, however, project finance also provides significant public benefits by facilitating the construction of critical infrastructure projects like powerplants and toll roads.¹⁸⁴ Furthermore, project finance transactions do not appear to increase systemic financial risk nearly as significantly as other structured finance transactions.¹⁸⁵

2. *Ring-Fencing.* The public benefits of ring-fencing—especially the ring-fencing of utilities—almost certainly exceed its social costs. Many of those benefits are obvious: it helps to protect utilities’ continued operations and thus their provision to the public of necessities such as power, clean water, and communications.¹⁸⁶ The only material costs of ring-fencing a utility should be the transaction costs associated with its implementation. Although these costs can be high, they could be payable by the utility’s public consumers.¹⁸⁷ In any event, the fact that the decision to ring-fence a utility normally is made, after notice and hearing, by a public service commission regulating the utility¹⁸⁸ provides prima facie evidence of a salutary cost-benefit balancing.

¹⁸² Frederick Matthew Norchi, *Deference Debate and the Role of Cost-Benefit Analysis in Financial Regulation: MetLife v. Financial Stability Oversight Council*, 21 N.C. BANKING INST. 253, 272–73 (2017).

¹⁸³ *Id.* See also Office of the Comptroller of the Currency, *Analysis of 12 CFR Part 44*, U.S. DEPT. OF TREASURY (Mar. 2014), <http://www.occ.gov/topics/laws-regulations/legislation-of-interest/volcker-analysis.pdf>.

¹⁸⁴ See *supra* notes 126-130 and accompanying text.

¹⁸⁵ See *supra* notes 169-171 and accompanying text.

¹⁸⁶ See *supra* notes 131-140 and accompanying text.

¹⁸⁷ See *supra* notes 172-175 and accompanying text.

¹⁸⁸ See *supra* note 132 and accompanying text.

IV. REFORMING BANKRUPTCY-REMOTE STRUCTURING TO REDUCE EXTERNALITIES

Next, this Article examines how to reform bankruptcy-remote structuring to reduce its externalities, thereby rebalancing the costs and benefits to try to achieve net positive benefits. In the context of structured finance, bankruptcy-remote structuring can create systemic-risk-related externalities¹⁸⁹ by generating moral hazard, discouraging lender monitoring, impairing disclosure, creating maturity-transformation default risk, and expanding financial risk.¹⁹⁰ Consider the following possible reforms.

A. Reducing Moral Hazard

Recall that the legal separateness between an SPE and its sponsor can create moral hazard, motivating a sponsor to engage in, or to cause its SPE to engage in, higher risk activities.¹⁹¹ Reducing this moral hazard would be difficult. Although regulation could require sponsors to capitalize their SPEs with equity, as done in project finance,¹⁹² that could be expensive depending on the amount of equity needed. Moreover, in a securitization context, the more capital put into the SPE—and thus the more recourse given the SPE’s investors—the less likely the structure is seen as bankruptcy remote.¹⁹³ Alternatively, regulation could make managers of sponsors and SPEs accountable for excessive risk-taking. Although criminal prosecutions would be unlikely,¹⁹⁴ even monetary penalties may be difficult to impose on

¹⁸⁹ *Cf. supra* note 147 and accompanying text (observing that bankruptcy-remote structuring can indirectly create externalities by increasing financial systemic risk).

¹⁹⁰ *See supra* notes 140-167 and accompanying text.

¹⁹¹ *See supra* notes 148-150 and accompanying text.

¹⁹² *See supra* notes 49-50 & 169-170 and accompanying text (noting that this can mitigate moral hazard and reduce the motivation to engage in higher risk activities).

¹⁹³ *See, e.g.,* STRUCTURED FINANCE, *supra* note 34 (stating that, for securitization, “The most significant factor in the true sale determination appears to be the nature and extent of recourse that the transferee of the receivables has against the transferor. As the degree of recourse increases, the likelihood that a court will find a true sale decreases.”). *Cf. supra* notes 30 & 46-48 and accompanying text (discussing a bankruptcy-remote true sale).

¹⁹⁴ Interview by Frontline with Lanny Breuer, Head of Criminal Div., U.S. Dep’t of Justice (Nov. 30, 2012) (emphasis added), available at <http://www.pbs.org/wgbh/pages/frontline/business-economy-financial-crisis/untouchables/lanny-breuer-financial-fraud-has-not-gone-unpunished/>. Breuer suggests, as does this Article, that civil liability is the more appropriate remedy: “[I]f you can establish that you . . . were open about your greed, that you were open about [and disclosed] the fact that your representations may not be precise [and the other side accepts that or doesn’t care], do I think we . . . should sue you for every penny you’re worth? I think we should sue you for every penny you’re worth.” *Id.* Even post-financial crisis, when many raised concerns over excessive risk-taking, prosecutions of individuals were rare. *See, e.g.,* Colin Maher, Note, *Crisis Not Averted: Lack of Criminal Prosecutions Leave Limited Consequences for Those Responsible for the Financial Crisis*, 39 NEW ENG. J. ON CRIM. & CIV. CONFINEMENT 459, 462 (2013).

individual managers.¹⁹⁵ It also may be difficult to distinguish legitimate from excessive risk-taking, and erring on the side of avoiding risk could be economically harmful because firms are required to take risks to remain competitive.¹⁹⁶

B. Increasing Lender Monitoring

In theory, the OTD model of securitization could be reformed to try to increase lender monitoring.¹⁹⁷ The Dodd-Frank Act and analogous EU post-financial-crisis regulation focus on that reform, imposing risk-retention requirements that obligate originators and sponsors of loans that are sold off in securitization transactions to retain a minimum unhedged position (usually 5%) in the risk on those loans, thereby aligning lender and investor interests.¹⁹⁸

It is unclear, though, whether these risk-retention requirements will suffice to improve lending quality. Even before the financial crisis, those loan originators and sponsors commonly retained substantial risk (often more than 5%) on the underlying loans.¹⁹⁹ They did this, among other reasons, to signal the quality of the securities they were selling to investors.²⁰⁰ Ironically, that signaling created a novel information failure: not the typical asymmetric information but, instead, a mutual misinformation problem caused by *complexity*: neither the sponsors nor the investors always fully

¹⁹⁵ Cf. Steven L. Schwarcz, *Excessive Corporate Risk-Taking and the Decline of Personal Blame*, 65 EMORY L.J. 533, 562 (2015) (discussing the difficulty of imposing civil penalties on individual managers).

¹⁹⁶ Gabriel Jiménez, Jose A. Lopez & Jesús Saurina, *How Does Competition Impact Bank Risk-Taking?* 2 (Fed. Reserve Bank of S.F. Working Paper Series, Paper No. 2007-23, 2007), available at <http://www.frbsf.org/economic-research/publications/working-papers/2007/wp07-23bk.pdf> (arguing that increasing competition among banks increases the need to engage in risk-taking: “Competition [in banking] should ... encourage [banks] to pursue riskier policies in an attempt to maintain [their] former profits”).

¹⁹⁷ See *supra* notes 152-155 and accompanying text.

¹⁹⁸ See, e.g., Dodd-Frank Act, 15 U.S.C. §78o-11(c)(1)(B) (2012); *Proposal for a Regulation of the European Parliament and of the Council*, at 14, 31-32, COM (2015) 472 final (Sept. 30, 2015) (proposing a similar risk-retention requirement for securitizations in the European Union). The media often refers to risk-retention requirements as maintaining “skin in the game.”

¹⁹⁹ Ryan Bubb & Prasad Krishnamurthy, *Regulating Against Bubbles: How Mortgage Regulation Can Keep Main Street and Wall Street Safe—From Themselves*, 163 U. PA. L. REV. 1539, 1589-93 (2015); Matthew C. Turk, *Regulation by Rulemaking or by Settlement?*, 37 REV. BANKING & FIN. L. 861, 882 (2018).

²⁰⁰ Bubb & Krishnamurthy, *supra* note 199, at 1590-91; Turk, *supra* note 199, at 882. In fact, sponsors often invested in the most junior “equity” tranches of the deals they were arranging, believing that putting their own money at stake in a first-loss position would signal the quality of the deals and also would generate additional value. Cf. Michael S. Gibson, *Understanding the Risk of Synthetic CDOs* 17 (Fed. Reserve, Fin. & Econ. Discussion Series, Working Paper No. 36, 2004), available at <https://www.federalreserve.gov/pubs/feds/2004/200436/200436pap.pdf> [<https://perma.cc/JG95-D6CD>] (explaining that CDO sponsors often retain equity tranches for those reasons and also to limit informational asymmetry).

understood the risks—especially those associated with highly leveraged re-securitizations of the underlying loans.²⁰¹

To help solve this problem of complexity and mutual misinformation, the European Union has created a regulatory framework that favors simple, transparent, and standardized (“STS”) securitization transactions.²⁰² Prior to the financial crisis, securities issued in many securitization transactions were “re-securitized” in complex and highly leveraged “ABS CDO” transactions.²⁰³ Repayment of the re-securitized securities issued in these transactions was so “extremely sensitive to cash-flow variations” that, when “the cash-flow assumptions turned out to be wrong, many of these [securities] defaulted or were downgraded.”²⁰⁴ That, in turn, sparked a loss of confidence not only in securitization generally but also in the value of credit ratings and of all highly rated debt securities.²⁰⁵ The STS framework strongly disincentivizes these types of complex transactions.²⁰⁶

Furthermore, the STS regulatory framework utilizes incentives and disincentives to encourage, rather than mandating, STS transactions by reducing regulatory capital requirements for investors therein.²⁰⁷ The framework’s flexible definition of what could qualify as an STS transaction helps to provide a balance that can allow innovation while reducing complexity.²⁰⁸ US lawmakers should consider similar reform.

²⁰¹ *Regulating Complexity in Financial Markets*, *supra* note 137, at 241–42. *Cf.* Andrew G. Haldane & Vasileios Madouros, Speech at the Federal Reserve Bank of Kansas City’s 366th Economic Policy Symposium: The Dog and the Frisbee, 149 (Aug. 31, 2012) (observing that “[c]omplexity has externality type properties, making risk more difficult to monitor and manage”).

²⁰² *See generally Simple, Transparent, and Standardised (STS) Securitisation Notifications*, ESMA: <http://www.esma.europa.eu/policy-activities/securitisation/simple-transparent-and-standardised-sts-securitisation> (last accessed Feb. 24, 2023); Regulation (EU) 2017/2401, as amended by Regulation (EU) 2021/557 (SECR). *See also* Christian Noyer, *The Financing of the Economy in the Post-Crisis Period: Challenges and Risks for Financial Stability*, in *FINANCIAL STABILITY REV.* 7, 9 (Banque de Fr. ed., 19th ed. 2015) (explaining how the European Union is in the process of implementing initiatives to revive the securitization market).

²⁰³ The term ABS CDO refers to a securitization of collateralized debt obligations.

²⁰⁴ *What is Securitization?*, *supra* note 28, at 1285.

²⁰⁵ *Id.*

²⁰⁶ *Id.* at 1285–86 (using Enron as an example).

²⁰⁷ *Register for STS Notifications*, ESMA available at https://registers.esma.europa.eu/publication/searchRegister?core=esma_registers_stsre (last accessed June 16, 2022) (publishing a list of all securitizations that meet STS requirements).

²⁰⁸ The STS framework includes requiring (i) a true sale or similar transfer of the underlying financial assets; (ii) those financial assets must meet simplicity requirements, including homogeneity, creditworthiness (e.g., not in default, not from insolvent obligors or obligors with adverse credit history), and not constituting already securitized financial assets; (iii) interest-rate and exchange-rate risks must be hedged; (iv) other than to effect such hedging, the financial assets cannot be supported by derivatives, as would occur in a “synthetic” securitization; (v) transaction documents must clearly specify obligations, duties, and responsibilities of the servicer and back-up servicer to ensure efficient and continuing

C. Increasing Financial Transparency

There are at least two ways to increase financial transparency: to reduce the circumstances in which off-balance-sheet financing can be used to hide a firm's de facto liabilities, and to simplify structured finance disclosure generally.

Accounting is a specific form of disclosure about a firm's financial condition, income, and profitability. The Securities and Exchange Commission ("SEC") has delegated control over accounting disclosure to the privately organized, but independent,²⁰⁹ Financial Accounting Standards Board ("FASB") to promulgate public accounting standards.²¹⁰ These standards form the basis of generally accepted accounting principles which in turn are used as a basis for regulatory compliance with the federal securities laws.²¹¹ Ultimately, therefore, FASB is responsible for increasing balance-sheet transparency.

The SEC staff nonetheless has taken steps to try to reduce the circumstances in which firms can use SPEs and off-balance-sheet financing to hide the firm's de facto liabilities. Significantly, the staff released a report (the "Staff Report"),²¹² based on data collected from the SEC filings of a diverse sample of 200 issuers, focusing on two primary questions: the extent to which off-balance sheet arrangements and SPEs are used, and whether financial statements of issuers of securities transparently reflect the economics of these arrangements.

servicing of the financial assets and must also include clear provisions facilitating the timely resolution of conflicts among different classes of investors; (vi) and investors must receive a cash-flow model of anticipated collections on the financial assets, supported by information on historical default, delinquency, and loss performance for substantially similar financial assets to those being securitized. See Commission First Status Report on Capital Markets Union, at 2-3, 21, SWD (2016) 147 final (Apr. 25, 2016), <https://perma.cc/MY8F-J84Z>.

²⁰⁹ See FINANCIAL ACCOUNTING STANDARDS BOARD, FACTS ABOUT FASB, available at http://www.fasb.org/facts/facts_about_fasb.pdf (stating that "FASB is part of a structure that is independent of all other business and professional organizations").

²¹⁰ *Id.* at 1. Cf. Steven L. Schwarcz, *Private Ordering*, 97 NW. U. L. REV. 319, 320 & 346-47 (2002) (discussing the SEC's delegation of control over accounting disclosure to FASB).

²¹¹ Public accounting standards facilitate compliance with securities law by reducing the information asymmetry between issuers of and investors in securities. See, e.g., JOEL SELIGMAN, *THE TRANSFORMATION OF WALL STREET 70* (1995) (arguing that the primary function of the federal securities laws is remediation of information asymmetries); MARC I. STEINBERG, *UNDERSTANDING SECURITIES LAW 1* (1996) ("Undoubtedly, the central focus of the federal securities laws is that of disclosure, thereby providing shareholders and the marketplace with sufficient information to make relevant decisions.").

²¹² *Report and Recommendations Pursuant to Section 401(c) of the Sarbanes-Oxley Act of 2002 On Arrangements with Off-Balance Sheet Implications, Special Purpose Entities, and Transparency of Filings by Issuers*, United States Securities and Exchange Commission (June 15, 2005) available at <https://www.sec.gov/news/studies/soxoffbalancerpt.pdf>.

The Staff Report generally views with favor securitizations that enable issuers to enhance liquidity, manage risks, and/or obtain lower-cost funding.²¹³ It cautions, however, against “transactions and transaction structures primarily motivated by accounting and reporting concerns, rather than economics.”²¹⁴ It recommends that these transactions be discouraged through a combination of changes to accounting standards by FASB and greater awareness by participants in the financial reporting process.²¹⁵

The second way to increase financial transparency is to simplify structured finance disclosure generally. The STS regulatory framework²¹⁶ should help to make disclosure more effective, in contrast to disclosure’s occasional failure in much more highly complex securitization transactions.²¹⁷ Again, this Article suggests that the United States consider implementing such a regulatory framework.²¹⁸

D. Reducing Maturity-Transformation Default Risk

Because SIFI defaults could have systemic consequences, the Dodd-Frank Act and analogous EU post-financial-crisis regulation address maturity-transformation default risk by imposing liquidity requirements on firms designated as SIFIs.²¹⁹ These liquidity requirements do not normally apply, however, to SPEs used in structured finance transactions, which are not SIFIs.²²⁰ That creates a regulatory challenge: should SPE maturity transformation also be regulated and, if so, how should it be regulated?

Although defaults by SPEs individually would not have systemic consequences, the financial crisis has shown that defaults tend to be correlated for SPEs holding the same type of underlying financial assets.²²¹

²¹³ *Id.* at 42.

²¹⁴ *Id.* at 3.

²¹⁵ *Id.* at 3. The Staff Report suggests, for example, that technical compliance with financial reporting requirements would be unsatisfactory where investors are nonetheless misled or have insufficient information to understand the issuer’s activities.

²¹⁶ See *supra* notes 201-207 and accompanying text.

²¹⁷ See *supra* note 156 and accompanying text.

²¹⁸ Cf. *supra* notes 206-207 and accompanying text (making that suggestion).

²¹⁹ The Basel III liquidity requirements impose a “Net Stable Funding Ratio” on SIFIs, to help reduce the risk that maturity transformation will result in defaults that could trigger a systemic economic collapse. See Gobat, *supra* note 164, at 3. Cf. *supra* notes 159-161 and accompanying text (defining SIFIs).

²²⁰ Cf. Jeremy C. Kress, Patricia A. McCoy, & Daniel Schwarcz, *Regulating Entities and Activities: Complementary Approaches to Nonbank Systemic Risk*, 92 S. CAL. L. REV. 1455, 1466–67 (2019) (discussing the rise of structured finance and other forms of shadow banking, which increases maturity-transformation activity).

²²¹ See, e.g., John Geanakoplos, *Leverage Caused the 2007-2009 Crisis*, SYSTEMIC RISK IN THE FINANCIAL SECTOR: TEN YEARS AFTER THE GLOBAL FINANCIAL CRISIS available at https://ccl.yale.edu/sites/default/files/files/Geanakoplos_John_rev_Leverage_Caused_paper%281%29.pdf. In the financial crisis, the relevant underlying financial assets were mortgage loans.

The fact that structured finance transactions often rely on relatively limited categories—and thus, potentially, highly correlated types—of financial assets²²² indicates that a significant price drop for even a single asset category could cause multiple SPE defaults. That could well have systemic consequences.

To protect against that risk, regulators should consider imposing at least some liquidity requirements on SPEs used in structured finance. These liquidity requirements need not resemble the complex requirements imposed on SIFIs.²²³ They might take inspiration from the liquidity protections often used for asset-backed commercial paper SPEs. These SPEs commonly invest in long-term financial assets, such as mortgage loans, and fund the purchase of those financial assets by issuing short-term—often as short as 30-day maturity—corporate promissory notes (“commercial paper”).²²⁴ As a condition to assigning high credit ratings to that commercial paper, credit-rating agencies require the SPEs to effectively manage their maturity-transformation default risk.²²⁵

Asset-backed commercial paper SPEs normally take two steps to comply with that condition. First, they carefully monitor the commercial paper maturing each month and make arrangements to repay that commercial paper with a combination of cash collections on the underlying financial assets and proceeds from the issuance of new commercial paper.²²⁶ Second, they enter into contracts obligating banks and other creditworthy liquidity providers to purchase the newly issued commercial paper if, due to market disruptions, the SPE cannot otherwise sell that paper.²²⁷ Because the liquidity providers are not obligated to purchase commercial paper from an insolvent SPE,²²⁸ they take only a timing risk: that of a temporary mismatch between the receipt of cash collections on the financial assets and the short-term maturities on the commercial paper. Because they do not bear credit risk, the liquidity providers charge the SPE a very small fee.²²⁹ This affords protection against the default risk of maturity transformation at a very low

²²² *Id.*

²²³ *Cf. supra* note 218 and accompanying text (discussing Basel III’s SIFI liquidity requirements).

²²⁴ Thomas K. Hahn, *Commercial Paper*, 79 FED. RES. BANK RICH. ECON. Q. 45, 45, 47 (1993). *Cf.* Fitch Inv. Serv., *Corporate Asset Funding Co., Inc.*, STRUCTURED FINANCE, June 15, 1992, at 81, 83 (describing Corporate Asset Funding Company (“CAFCO”), a \$7 billion asset-backed commercial paper SPE).

²²⁵ Fitch Inv. Serv., *id.*, at 83.

²²⁶ *See, e.g., Eureka Securitization Incorporated*, MOODY’S INVESTORS SERV., Dec. 3, 2004, at 6–7 (stating that Citibank, the administrative agent of a \$10 billion ABCP conduit, performs this type of monitoring to help avoid maturity gaps).

²²⁷ *See, e.g.,* Fitch Inv. Serv., *supra* note 223, at 83.

²²⁸ *Id.*

²²⁹ In the author’s experience, liquidity providers normally charge a fee between 5 and 15 basis point (a basis point being 1/100 of a percentage point).

transaction cost. This same approach could serve as an economically feasible option to regulate the default risk of SPE maturity transformation.

E. Reducing the Expansion of Financial Risk

Recall that structured finance transactions can expand risk on the underlying financial assets beyond the sponsor and originators of those assets to the financial institutions investing in the SPE's securities.²³⁰ This expansion of risk can become systemically important if one or more categories of those underlying assets are highly correlated—such as occurred with residential mortgage loans in the financial crisis.²³¹ Because structured finance transactions often rely on relatively limited categories of underlying assets,²³² high correlations are realistically possible.

Regulators could reduce this expansion of financial risk in at least two ways. First, they could require the SPEs used in structured finance to hold more diversified financial assets. Diversification could apply to the assets held by SPEs individually²³³ or to the assets held by different SPEs.²³⁴ Diversification cannot be a complete answer, though, because asset correlations are not always foreseeable. In the financial crisis, although certain securitization transactions were backed by what appeared to be significantly diverse underlying financial assets, industry observers failed to see the correlation among certain of those assets.²³⁵ Correlations are not always detectable in advance.²³⁶

Regulators also could attempt to reduce this expansion of financial risk by motivating the SPEs used in structured finance to hold higher quality financial assets, which are unlikely to default. To a limited extent, the Dodd-Frank Act takes this approach. It permits originators and sponsors of loans that are sold off in securitization transactions to avoid having to comply with certain risk-retention requirements²³⁷ if the SPE's underlying financial assets are Qualified Residential Mortgages (“QRM”s)—a designation based on a borrower's ability to repay the mortgage loan and certain other relevant

²³⁰ See *supra* notes 167-168 and accompanying text.

²³¹ See *supra* notes 220-221 and accompanying text.

²³² See *id.*

²³³ For example, each SPE could be individually required to hold a diversified mix of assets.

²³⁴ For example, if SPE-A holds one category of assets, SPE-B could be required to hold a different category of assets, creating asset diversification as among SPEs.

²³⁵ *Regulating Complexity in Financial Markets*, *supra* note 137, at 223 (discussing the unrecognized correlation among different types of mortgage loans).

²³⁶ *Id.* at 223-24. For example, “during the late 1970s and early 1980s, investors failed to recognize an underlying correlation between mobile-home loans and the price of oil. An oil boom in Oklahoma drew an influx of oil workers, creating the nation's fastest growing market for mobile-home loans. When oil prices crashed, drilling in Oklahoma ceased, resulting in massive unemployment and causing widespread defaults on the mobile-home loans.” *Id.*

²³⁷ *Cf. supra* notes 198-199 and accompanying text (describing those risk-retention requirements).

considerations.²³⁸ For two reasons, however, the Dodd-Frank Act's approach would only partly reduce the expansion of financial risk. First, it applies merely to a single category of financial assets, mortgage loans. Furthermore, avoiding having to comply with the risk-retention requirements may provide insufficient motivation; as later discussed, the Act's risk-retention requirement appears to be somewhat of a pretense because it merely restates, as a legal requirement, what has long been a market requirement.²³⁹

In principle, regulators could go beyond those limitations by requiring the SPEs used in structured finance to hold higher quality financial assets and strictly defining the eligible categories and qualifications of those assets. In practice, though, that may not be politically feasible. At least in part because of belief that private industry can structure its financings more efficiently than can government, there is relatively little precedent for governmental micromanagement of the collateral supporting private-sector financial transactions.²⁴⁰ That might help to explain why the Dodd-Frank Act only weakly motivates SPEs to hold QRMs.²⁴¹

F. Reexamining Cost-Benefit Analysis Based on These Reforms

This subpart reexamines bankruptcy-remote-structuring CBA in light of the foregoing reforms to reduce structured finance's externalities. The foregoing estimates of externality reductions are rough, at best, and indeed any inclusion of externalities makes CBA "much more complicated."²⁴² Critics may argue that these estimates are arbitrary because they are not based on empirical data, and that other estimates could yield different results. Moreover, some scholars question the very feasibility of applying CBA to financial regulation, given that a framework to identify and model

²³⁸ 2 C.F.R. § 1026 (2015).

²³⁹ See *supra* notes 198-199 and accompanying text.

²⁴⁰ The only such restrictions of which the author is aware, besides the aforesaid QRM designation, are Regulations G, U, T, and X promulgated by the Federal Reserve after the Great Depression. Regulation U, for example, requires that loans extended by banks to enable borrowers to purchase publicly traded stock either must be secured by collateral worth at least twice as much as the loan amount—effectively 100% overcollateralization—or else the lender must independently verify that the borrower is able to repay the loan. See 12 C.F.R. § 221 (2015). The effectiveness of Regulations G, U, T, and X is still unresolved. Compare Gikas A. Hardouvelis, *Margin Requirements, Volatility, and the Transitory Component of Stock Prices*, 80 AMER. ECON. REV. 736, 745-54 (1990) (finding a statistically significant negative relationship between margin levels and stock market volatility and excess volatility in the post-Depression period); Peter Fortune, *Margin Lending and Stock Market Volatility*, 2011(4) NEW ENGLAND ECON. REV. 3 (2001) (finding that "the practical value of an active margin loan policy is limited").

²⁴¹ Cf. *supra* note 238 and accompanying text (observing that avoiding having to comply with the risk-retention requirements may provide insufficient motivation).

²⁴² CASS SUNSTEIN, LAWS OF FEAR: BEYOND THE PRECAUTIONARY PRINCIPLE 150 (2005).

the most important indirect or systemic costs of regulation remains undeveloped.²⁴³

This Article does not purport to definitively resolve whether or not these reforms would—or even could—reduce the social costs of bankruptcy-remote structured finance below its level of public benefits. Nonetheless, these reforms should make those benefits more likely to exceed those costs. Furthermore, given the reality that bankruptcy-remote structured finance transactions are widespread and inevitable, these reforms could save trillions of dollars if they merely reduce the risk of another financial collapse by even ten percent.²⁴⁴

Although this Article does not engage in a quantitative CBA of bankruptcy-remote structuring's public benefits and social costs, any such analysis would raise a related issue: whether the quantitative balancing should be a simple inequality, assessing whether the benefits exceed the costs, or whether, instead, the balancing should be modified by requiring some margin of safety—effectively applying a precautionary principle. In its strongest form, a precautionary principle requires stringent regulation of an activity that poses significant harm unless the activity can be proved safe.²⁴⁵ This approach can lead to inefficient outcomes, however, if it imposes a high burden of proof to demonstrate that the activity, as regulated, would be safe.²⁴⁶

Another form of the precautionary principle would require a margin of safety to show that the risks of a given activity are warranted.²⁴⁷ The argument for requiring a margin of safety is that when catastrophic harm could result in “large secondary losses,” those losses are often much higher than ex ante calculation would show due to the social amplification of harm.²⁴⁸ Because an environmental catastrophe could trigger far-reaching

²⁴³ John C. Coates IV, *Towards Better Cost-Benefit Analysis: An Essay on Regulatory Management*, 78 L. & CONTEMP. PROBS. 1, 8–9 (2015).

²⁴⁴ Ten percent of the \$22 trillion estimated cost of the financial crisis (*see supra* note 180) is \$2.2 trillion.

²⁴⁵ Hillary J. Allen, *A New Philosophy for Financial Stability Regulation*, 45 LOY. U. CHI. L.J. 173, 195 (2013).

²⁴⁶ *See id.* at 196 n.90 (explaining that “[r]egulators would be stymied by the strongest form of the precautionary principle” because the “impossibly high burden of proof” it imposes would block new activities and their benefits). *Cf.* Cass R. Sunstein, *Beyond the Precautionary Principle*, 151 U. PA. L. REV. 1003 (2003) (arguing that the strongest version of the precautionary principle provides little practical guidance because even the choice to regulate an activity involves risk).

²⁴⁷ Sunstein, *supra* note 246 at 1014.

²⁴⁸ Cass R. Sunstein, *The Catastrophic Harm Precautionary Principle*, 6 ISSUES LEGAL SCHOLARSHIP 6 (2007) (arguing for application of a “stronger version of the Catastrophic Harm Precautionary Principle” where there are “risks with large secondary losses”). Professor Sunstein analogizes a margin of safety as a “premium” for regulatory insurance. *Id.* at 1.

social harm, for example, a margin of safety is frequently used in environmental policy analysis.²⁴⁹

Likewise, a systemic collapse could impose large secondary social costs that extend well beyond financial market participants.²⁵⁰ For that reason, any quantitative CBA of bankruptcy-remote structuring's public benefits and social costs should not be limited to a simple inequality. Rather, the CBA balancing should be modified by requiring some margin of safety, showing that those public benefits clearly outweigh those social costs.²⁵¹

CONCLUSIONS

Bankruptcy-remote structuring, a legal strategy with potential public policy implications, is crucial to a wide range of important business and financing ventures. It can provide valuable economic benefits by efficiently reallocating bankruptcy risk. At the same time, though, it can create harmful externalities by shifting risk from contracting parties to the public.

This Article examines the extent to which parties should have the right to use bankruptcy-remote structuring to reallocate risk. To that end, the Article analyzes bankruptcy-remote structuring from both a public policy standpoint, focusing on the tension between the freedom of contract that facilitates the structuring and the bankruptcy-law policies that it can impair; and also from a cost-benefit standpoint, balancing the public benefits of bankruptcy-remote structuring against its externalities. From a policy standpoint, the Article finds that bankruptcy-remote structuring neither thwarts bankruptcy-law policy nor nullifies the law's purposes. From a cost-benefit standpoint, however, the answer is more complicated.

The Article argues that a cost-benefit analysis of bankruptcy-remote structuring should balance only social costs and public benefits. It then shows that the subset of bankruptcy-remote structuring that includes the ring-fencing of essential utilities (such as waterworks) and the protection of other critical infrastructure projects (such as powerplants) is likely to have public benefits that exceed their social costs. In contrast, the social costs and public

²⁴⁹ See, e.g., Cass. R. Sunstein, *Irreversible and Catastrophic*, 91 CORNELL L. REV. 841, 845 (2006) (explaining that the Clean Air Act's requirement that the Environmental Protection Agency include a margin of safety in setting air-quality standards can be understood as an effort to protect against irreversible, catastrophic harm).

²⁵⁰ Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193, 206 (2008).

²⁵¹ A somewhat similar test would be to require that the public benefits considerably outweigh the social costs. Cf. *Excessive Corporate Risk-Taking and the Decline of Personal Blame*, *supra* note 196, at 566 (proposing use of a "considerably outweigh" requirement in corporate risk-taking analysis because that requirement "does not merely shift to the firm's managers the burden to prove that the risk-taking activity should be permitted; it also increases the burden by adding a safety margin").

benefits of more generic bankruptcy-remote structuring, such as securitization, are harder to quantify.

Although that more generic structuring can provide valuable public benefits, such as giving firms increased access to capital markets at lower costs and acting as a money multiplier, its benefits are too abstract and nonspecific to reliably estimate. On the other hand, by increasing systemic financial risk, that more generic structuring can create social costs in the form of externalities, which cannot be quantified within a meaningful range. This Article categorizes these public benefits and social costs, without concluding how they balance—an approach that has important regulatory precedent.²⁵²

The Article also examines how to reform bankruptcy-remote structuring to reduce its externalities. Although the Article proposes reforms that should make the public benefits of that structuring more likely to exceed its social costs, one still cannot reliably conclude that those benefits would exceed those costs. Even if those benefits *would* be likely to exceed those costs, the Article further argues that the cost-benefit balancing should not be limited to a simple inequality. Because the social costs could be catastrophic if the bankruptcy-remote structuring contributes to a systemic financial collapse, the balancing should require some precautionary margin of safety, such as showing that the public benefits clearly outweigh the social costs.

The foregoing cost-benefit analysis is, of course, normative. The current reality is that bankruptcy-remote structuring is widely used and inevitable. Regardless of whether this Article's proposed reforms could achieve net positive benefits, regulators should consider adopting the reforms. By reducing externalities, the reforms could cut the social costs of bankruptcy-remote structuring by trillions of dollars.²⁵³

²⁵² Cf. *supra* note 182 and accompanying text (using that approach in the cost-benefit analysis of the Volcker Rule).

²⁵³ The Article's analysis also indirectly informs the foundational questions of what should be the right of parties to contract around bankruptcy, and what should be the limits of freedom of contract. Cf. *Rethinking Freedom of Contract*, *supra* note 72 (also examining those questions and explaining the broader context in which they can arise). Parties should have the right to contract around bankruptcy if that contracting neither thwarts bankruptcy law's policy nor nullifies its purposes. A cost-benefit analysis of contracting around bankruptcy should balance its social costs and public benefits. Even if it is difficult meaningfully to quantify those costs and benefits, it still may be useful to try to categorize them without concluding how they balance. Furthermore, if the costs could be catastrophic, such as contributing to a systemic financial collapse, any balancing should require some precautionary margin of safety, such as showing that the public benefits clearly outweigh the social costs. Finally, any analysis of the right to contract around bankruptcy should include an examination of how to accomplish that contracting to minimize its externalities. Even if that does not enable a clear cost-benefit balancing, it could help to reduce costs if such contracting inevitably occurs.