

Ring-Fencing¹

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Abstract: “Ring-fencing” is often touted as a regulatory solution to problems in banking, finance, public utilities, and insurance. However, both the precise meaning of ring-fencing, as well as the nature of the problems that ring-fencing regulation purports to solve, are ill defined. This article examines the functions and conceptual foundations of ring-fencing. In a regulatory context, the term can best be understood as legally deconstructing a firm in order to more optimally reallocate and reduce risk. So utilized, ring-fencing can help to protect certain publicly beneficial activities performed by private-sector firms, as well as to mitigate systemic risk and the too-big-to-fail problem inherent in large financial institutions. If not structured carefully, however, ring-fencing can inadvertently undermine efficiency and externalize costs.

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“Ring-fencing” is often touted as a potential regulatory solution to problems in banking, finance, public utilities, and insurance.³ A prominent U.K. government report proposes ring-fencing banks by legally separating certain of their risky assets from their retail banking operations.⁴ Federal regulators in the United States are considering requiring the ring-fencing of systemically important financial institutions, including banks, to reduce systemic risk.⁵ They also are attempting to implement the so-called “Volcker Rule,” a form of ring-fencing.⁶ Congress has been considering enacting a ring-fencing scheme proposed in federal “covered bond” legislation,⁷ which would parallel

³ Ring-fencing (ring-fence) is also sometimes referred to as “ringfencing” (“ringfence”).

⁴ This is the principal recommendation of the Vickers Report. *See supra* note 2.

⁵ Federal Reserve Governor Daniel K. Tarullo has proposed ring-fencing the U.S. operations of large foreign banks and of systemically important financial institutions. *See* DANIEL K. TARULLO, REGULATION OF FOREIGN BANKING ORGANIZATIONS, YALE SCHOOL OF MANAGEMENT LEADERS FORUM, NEW HAVEN, CONNECTICUT (Nov. 28, 2012) available at <http://www.federalreserve.gov/newsevents/speech/tarullo20121128a.htm>; Jonathan Spicer, *Update 2-Fed’s Tarullo urges global action on regulating banks*, REUTERS, Feb. 22, 2013, available at <http://www.reuters.com/article/2013/02/23/usa-fed-tarullo-regulation-idUSL1N0BMDRM20130223>.

⁶ As of February 2013, the Volcker Rule has yet to be finalized for implementation. *See* Cheyenne Hopkins, *Dodd-Frank Implementation Defended by U.S. Regulators*, BLOOMBERG, Feb. 14, 2013, available at <http://www.bloomberg.com/news/2013-02-14/dodd-frank-implementation-defended-by-u-s-regulators.html>.

⁷ On March 18, 2010, Representative Scott Garrett (R-NJ) and co-sponsors Rep. Paul E. Kanjorski (D-PA) and Rep. Spencer Bachus (R-AL) introduced the “United States Covered Bond Act of 2010” (H.R. 4884, later renumbered as H.R. 5823, 111th Cong.). This bill has been recommended by the House Committee on Financial Services for consideration by the full U.S. House of Representatives. *H.R. 5823—111th Congress: United States Covered Bond Act of 2010.* www.GOVTRACK.US, Feb. 26, 2013, available at, <http://www.govtrack.us/congress/bills/111/hr>. The bill was reintroduced on March 8, 2011 by Representative Scott Garrett (R-NJ) and co-sponsor Carolyn Maloney (D-NJ) as the “United States Covered Bond Act of 2011” (H.R. 940, 112th Cong.). *H.R. 940—112th Congress: United States Covered Bond Act of 2011.* The House Financial

European ring-fencing of certain secured transactions.⁸ State regulators often require the ring-fencing of utility companies by legally separating their risky assets and operations from the public-utility function.⁹ And the leading insurance standard-setting and regulatory support organization in the U.S. is proposing the increased ring-fencing of insurance companies.¹⁰

Because it is proposed in different contexts as a solution to ostensibly different problems, ring-fencing is inconsistently defined; and even within a given context, it is often ill-defined. Part I of this article attempts to define ring-fencing by examining its functions. That examination shows that ring-fencing can best be understood as legally deconstructing a firm in order to more optimally reallocate and reduce risk. The deconstruction can occur in various ways: by separating risky assets from the firm; by preventing the firm itself from engaging in risky activities or investing in risky assets; or by protecting the firm from affiliate and bankruptcy risks.

This increased definitional clarity raises important normative questions about when, and how, ring-fencing should be used as an economic regulatory tool. Which firms, for example, should be subject to ring-fencing? Which “risky” assets should be separated from the firm, and how should that separation occur? Which “risky” activities

Services Committee vote 44-7 in favor of the bill, but it has not yet been enacted by the full U.S. House of Representatives. Jon Prior, *House Committee Clears Framework for Covered Bonds*, HOUSINGWIRE, June 22, 2011, available at <http://www.housingwire.com/news/2011/06/22/house-committee-clears-framework-covered-bonds>. For a discussion of covered bonds, see *infra* Part I.A.

⁸ Steven L. Schwarcz, *The Conundrum of Covered Bonds*, 66 BUS. LAW. 561, 566-68 (May 2011).

⁹ See, e.g., CHARLES E. PETERSON & ELIZABETH M. BRERETON, UTAH STATE DEP’T OF COMMERCE, REPORT ON RING-FENCING 35-39 (Sept. 2005), available at <http://www.psc.utah.gov/utilities/telecom/05docs/0505301/Dir%20Test%20C%20Peterson%20DPU%20Exhibit%2010.1.doc> (summarizing selected state laws that require the ring-fencing of public utility companies).

¹⁰ 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).

and asset investments should the firm not engage in, and how should that engagement be prevented? Which affiliate “risks” should the firm be protected from, and how should that protection be implemented?¹¹ Part II of the article attempts to answer these questions.¹²

Ring-fencing, however, can also impose costs, potentially undermining efficiency. Part III of the article critiques actual and proposed regulatory uses of ring-fencing in light of their potential costs and benefits.

I. DEFINING RING-FENCING

Any attempt to define ring-fencing faces a threshold question: How should a financial regulatory concept be defined?¹³ In answering this question, one confronts “the lack of an agreed upon methodology on how to . . . define legal concepts.”¹⁴

¹¹ Although the transferring of assets to offshore accounts to avoid liability is, for example, colloquially called ring-fencing (“Ring Fencing,” INVESTOPEDIA, *available at* <http://www.investopedia.com/terms/r/ringfence.asp#axzz2M3mADa00>), that may better be described as a form of judgment proofing. *Cf. infra* notes 94-97 and accompanying text (comparing ring-fencing and judgment proofing).

¹² In Part II, the article examines, for example, ring-fencing used to help protect certain publicly beneficial activities that are performed by private-sector firms, such as utility companies and banks. This is the purpose of ring-fencing used to protect essential public-utility services and, under the Vickers Report, proposed to protect retail banking services. *See infra* notes 39-48 & 59-81 and accompanying text. It is also one of the purposes of ring-fencing used in securitization and covered bond transactions. *See infra* note 207. The article also examines ring-fencing used to help mitigate systemic risk and the too-big-to-fail problem inherent in large banks and other financial institutions. This is the purpose of ring-fencing proposed under the Dodd-Frank Act for systemically important financial institutions. *See infra* notes 240-241 & 268-270 and accompanying text.

¹³ Ring-fencing is clearly a financial regulatory concept when used for banks and other financial institutions, the uses on which this article primarily focuses. Ring-fencing is less clearly a financial regulatory concept when used for public utility companies and insurance companies. This article only incidentally focuses on ring-fencing insurance companies. Although the article provides greater focus on ring-fencing utilities, it uses utility ring-fencing to draw an analogy between a utility company providing publicly beneficial utility services and a bank or other financial institution providing publicly beneficial financial services. In drawing that analogy, the article distinguishes differences between utility companies, on the one hand, and banks and other financial institutions, on the other hand, that could impair the analogy. *See, e.g., infra* notes 252-255 and

Financial regulation governs how law regulates financial players, such as banks and other financial institutions. It thus is not an abstraction; there are real economic consequences. Even a normative definition of a financial regulatory concept should therefore be rooted pragmatically, taking into account how, functionally, the concept is used in the real world.¹⁵ This functional approach would avoid the “misunderstanding and unwanted interpretations”¹⁶ that can result by defining a concept in a new way. This approach also acknowledges that “[i]f all concerned people understand concepts A, B and C in a specific way due to their foundation in . . . common practice, it is preferable to use them rather than the more abstract concept of D that contains A, B and C.”¹⁷

Being a financial regulatory concept, ring-fencing should likewise be defined functionally, taking into account its real-world use. Perhaps the most common function of ring-fencing is to protect a firm from becoming subject to liabilities and other risks associated with bankruptcy.¹⁸ This is usually called making the firm “bankruptcy remote.”¹⁹ Another function of ring-fencing is to help ensure that a firm is able to operate on a standalone basis even if its affiliated firms fail.²⁰ Yet another function of ring-fencing is to protect a firm from being taken advantage of by its affiliated firms—

accompanying text (explaining how differences in the ring-fencing of those entities result from differences in those entities’ characteristics).

¹⁴ Lorenz Kahler, *The Influence of Normative Reasons on the Formation of Legal Concepts*, in CONCEPTS IN LAW 81, 90 (Jaap C. Hage & Dietmar von der Pfordten eds., 2009) (citing D. Patterson, *Dworkin on the Semantics of Legal and Political Concepts*, 26 OXFORD J. LEG. STUDS. 552, 553 (2006)).

¹⁵ Indeed, a normative definition should strive to achieve an optimal regulatory or other clarifying purpose; otherwise, the definition is merely an academic exercise. Steven L. Schwarcz, *What is Securitization? And for What Purpose?*, 85 S. CAL. L. REV. 1283, 1289 (2012) (examining how, normatively, to define the financial concept of securitization).

¹⁶ Kahler, *supra* note 14, at 86.

¹⁷ *Id.*

¹⁸ *Cf. The Conundrum of Covered Bonds*, *supra* note 8, at 567 (discussing structured covered-bond regimes). *See infra* Part I.A (discussing this function of ring-fencing).

¹⁹ Steven L. Schwarcz, *Securitization and Structured Finance*, ELSEVIER’S ENCYCLOPEDIA OF FINANCIAL GLOBALIZATION 6 (2011).

²⁰ *See infra* Part I.B (discussing this function of ring-fencing).

essentially preserving the business and assets of the ring-fenced firm.²¹ And still another function of ring-fencing is to limit a firm's risky activities and investments.²²

The discussion below examines and provides examples of these functions. The examples focus on ring-fencing as a form of financial regulation. That use of ring-fencing should be—and at the end of Part I.D, is—distinguished from judgment proofing, a superficially related but diametrically opposed concept.²³

A. Ring-Fencing to Make a Firm Bankruptcy Remote

Ring-fencing can be, and often is, used to make a firm bankruptcy remote.²⁴ This use of ring-fencing is most common in securitization and covered bond transactions. It also is common for public utility companies, which are private-sector companies that generate or otherwise provide the public with power, clean water, communications, and other essential utilities.²⁵

In securitization and covered bond transactions, the ring-fenced firm is normally a special purpose entity (“SPE”) acting on behalf of an affiliated firm that wants to raise financing. Bankruptcy remoteness enhances the creditworthiness of the SPE, thereby enabling it to issue securities to investors at lower cost, and in a manner that more efficiently allocates risk, than if the affiliated firm issued the securities.²⁶ Ring-fencing is also commonly used to make utility companies bankruptcy remote. This use of ring-fencing is a response to holding company structures, in which the utility company is often a subsidiary of one or more operating companies that may engage in riskier transactions.

²¹ See *infra* Part I.C (discussing this function of ring-fencing).

²² See *infra* Part I.D (discussing this function of ring-fencing).

²³ See *infra* notes 94-97 and accompanying text (explaining that distinction).

²⁴ Cf. *supra* notes 18-19 and accompanying text (defining bankruptcy remoteness).

²⁵ References in this article to utilities or utility companies hereinafter will mean public utility companies.

²⁶ For an efficiency analysis of this risk allocation, see Steven L. Schwarcz, *Securitization Post-Enron*, 25 CARDOZO L. REV. 1539, 1553-69 (2004).

Bankruptcy remoteness helps to ensure that the utility company can continue providing essential utilities to the public, notwithstanding the bankruptcy of the parent company.²⁷

Ring-fencing can achieve bankruptcy remoteness contractually or, where appropriate legislation exists, by legislative fiat.²⁸ Securitization transactions typically are ring-fenced contractually to achieve bankruptcy remoteness.²⁹ This includes protecting the SPE from both voluntary and involuntary bankruptcy. The former is achieved through corporate governance techniques that limit the ability of the SPE's managers to file for bankruptcy.³⁰ The latter is achieved by limiting the SPE's ability to incur other-than-specified indebtedness.³¹ These steps also include protecting the SPE from equitable and other corporate veil-piercing threats, such as "substantive consolidation."³² That typically is achieved by requiring the SPE to maintain strict arm's length formalities with its affiliates.³³

Covered bond transactions are ring-fenced either legislatively, in jurisdictions that have enacted covered bond statutes, or contractually in other jurisdictions.³⁴ The steps needed to contractually ring-fence covered bond transactions can parallel the ring-fencing steps taken in securitization transactions,³⁵ although there are some notable differences.³⁶

²⁷ See *infra* notes 39-43 and accompanying text.

²⁸ *The Conundrum of Covered Bonds*, *supra* note 8, at 571.

²⁹ *Id.*

³⁰ STEVEN L. SCHWARCZ, *STRUCTURED FINANCE: A GUIDE TO THE PRINCIPLES OF ASSET SECURITIZATION* § 3:2.1 (3d ed. 2003 & Supps.) (hereinafter "STRUCTURED FINANCE"). For example, the SPE's organization documents will require one or more of its managers to be independent of affiliated companies. *Id.*

³¹ *Id.* § 3:3.

³² *Id.* § 3:4.

³³ *Id.*

³⁴ *The Conundrum of Covered Bonds*, *supra* note 8, at 571.

³⁵ *Id.*

³⁶ For example, securitization is non-recourse financing and covered bonds have full recourse to the issuer. *Id.* Additionally in a securitization transaction the transferred assets are treated as off the originators balance sheet, while in a covered bond transaction the assets typically remain on the issuer's balance sheet. *Id.*

In both cases, however, the goal is to make the covered bond transaction bankruptcy remote.³⁷

Utility companies are ring-fenced, to achieve bankruptcy remoteness, through a combination of contract and legislation.³⁸ Utilities are normally operated in the United States, for example, through a holding company structure, in which a parent company owns the shares of the utility subsidiary.³⁹ This structure provides greater flexibility because the parent is not necessarily regulated as a utility, thereby enabling the corporate group to raise capital on more favorable terms and to attract and cultivate a larger pool of engineering talent.⁴⁰ Nonetheless, as holding companies increasingly have diversified their investments to riskier (non-utility) assets, failures have increased.⁴¹ The resulting parent-company bankruptcies have exposed the utility-subidiaries to bankruptcy.⁴² To mitigate this risk, utilities typically are operated as bankruptcy-remote subsidiaries of their holding companies.⁴³ The terms of such bankruptcy remoteness, including the contractual means for achieving it, are usually mandated by the utility’s regulator—in the United States, state public utility commissions.⁴⁴

³⁷ *Id.*

³⁸ See PETERSON & BRERETON, *supra* note 9, 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).

³⁹ 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).

⁴⁰ *Id.*

⁴¹ Fred Grygiel & John Garvey, *Fencing in the Regulated Utilities*, PUBLIC UTILITIES FORTNIGHTLY 32 (Aug. 2004).

⁴² 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).

⁴³ Grygiel & Garvey, *supra* note 41, at 32.

⁴⁴ *Id.*

In 1997, for example, Enron acquired Portland General Electric (PGE), which was regulated by the Oregon Public Utility Commission (OPUC).⁴⁵ The merger between Enron and PGE was contingent upon terms stipulated by the OPUC,⁴⁶ which (among other things) mandated that PGE be held by Enron in a bankruptcy-remote structure.⁴⁷ When Enron eventually filed for bankruptcy, these ring-fencing measures protected PGE from bankruptcy.⁴⁸

The discussion above has illustrated how ring-fencing is commonly used to achieve bankruptcy remoteness for utilities and in securitization and covered bond transactions. Although it has other bankruptcy-remote applications, ring-fencing is not typically used to achieve bankruptcy remoteness in banking or insurance. The reason is path dependent: at least in the United States, banks and insurance companies have not historically been subject to bankruptcy law.⁴⁹

B. Ring-Fencing to Help a Firm Operate on a Standalone Basis

Ring-fencing can also be used to help ensure that the ring-fenced firm is able to operate on a standalone basis even if its affiliated firms fail. Such assurance would be needed if, for example, a utility company is dependent on its affiliates for goods and services, such as raw materials or administrative or operating services.⁵⁰ This form of

⁴⁵ PETERSON & BRERETON, *supra* note 9, 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).

⁴⁶ *Id.*

⁴⁷ *Id.* at 15.

⁴⁸ 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* <http://webapp.psc.state.md.us/Intranet/Reports/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).

⁴⁹ *See, e.g.*, 11 U.S.C. § 109 (excluding deposit-taking banks and domestic insurance companies from federal bankruptcy law).

⁵⁰ Rockland Electric Company and Pike County Light & Power Co., for example, each relies on its parent company, Orange & Rockland Utilities, Inc., to provide administrative services such as customer account management and customer service. *See* “O&R at a Glance,” ORANGE & ROCKLAND UTILITIES, INC., *available at*

ring-fencing thus would include putting into place back-up contracts with independent third parties to provide any such needed goods and services.

In the case of PGE's acquisition by Enron, for example,⁵¹ PGE was ring-fenced to ensure that it owned or leased the assets used in its business.⁵² And in the case of the acquisition of Baltimore Gas and Electric Company ("BGE") by Exelon Corporation, BGE was ring-fenced to ensure that it would be able to operate on a standalone basis even if its affiliated firms fail.⁵³

C. Ring-Fencing to Preserve a Firm's Business and Assets

Ring-fencing can also be used to protect the ring-fenced firm from being taken advantage of by affiliated firms. In a utility-company context, this may entail mandating that all transactions between the utility and its affiliates be arm's length. In the case of PGE's acquisition by Enron, for example, the merger terms stipulated by PGE's regulator⁵⁴ required, among other things, that PGE was "required to maintain books and records separate from Enron; to maintain separate accounts; to continue to hold all of its assets in its own name; and to enter into transactions with Enron only as permitted by federal and state regulators."⁵⁵ In the case of the acquisition of BGE by Exelon Corporation, the merger terms also imposed restrictions on the amount of dividend payments that BGE could pay to its new owner, limiting such payment unless BGE would retain a specified minimum net worth after paying the dividend.⁵⁶

<http://www.oru.com/aboutoru/oruataglance/index.html>. In another example, the utility National Fuel Gas Distribution Corporation, which provides natural gas to customers in New York and Pennsylvania, relies on subsidiaries of its parent company, National Fuel Gas Company, for its supply of natural gas. *See* National Fuel Gas Company, Annual Report (Form 10-K), at 6, 10 (Sept. 30, 2012).

⁵¹ *See supra* notes 45-48 and accompanying text.

⁵² MITCHELL, *supra* note 48, at 14.

⁵³ Rebuttal Testimony of Steven L. Schwarcz, In the Matter of the Merger of Exelon Corporation and Constellation Energy Group, Inc., Case No. 9271 before the Public Service Commission of Maryland (Oct. 12, 2011). Prior to the merger, BGE was owned by Constellation Energy Group, Inc.

⁵⁴ *See supra* note 46 and accompanying text (discussing that stipulation).

⁵⁵ PETERSON & BRERETON, *supra* note 9, at 14.

⁵⁶ Rebuttal Testimony of Schwarcz, *supra* note 53, at 5-6.

This form of ring-fencing is also commonly applicable to banks. Regulation may require, for example, that all transactions between a bank and its affiliates be arm's length.⁵⁷

D. Ring-Fencing to Limit a Firm's Risky Activities and Investments

Ring-fencing can also be used to limit a firm from engaging in risky activities and making risky investments. The ring-fencing of bank activities under the Vickers Report and the Glass-Steagall Act,⁵⁸ as well as the Volcker Rule, exemplify this approach.

(1) The Vickers Report

In June 2010, the United Kingdom created the Independent Commission on Banking (the "Commission") to consider structural and non-structural reforms to the UK banking sector with goal of promoting financial stability and competition.⁵⁹ Chaired by Sir John Vickers, the Commission published its final report (widely known as the Vickers Report) in September 2011.⁶⁰ The goals of the Commission were threefold: to "reduce the probability and impact of systemic financial crises"; to "maintain the efficient flow of credit to the real economy"; and to "preserve the function of the payments system and guaranteed capital certainty and liquidity for small savers."⁶¹ To meet these goals, the Vickers Report recommended a combination of structural reform and "enhanced loss-absorbing capacity."⁶²

⁵⁷ See Section 23A of the Federal Reserve Act, 12 U.S.C. § 371c (imposing that requirement).

⁵⁸ Ch. 89, 48 Stat. 162 (1933) (codified as amended in scattered sections of 12 U.S.C.). Glass-Steagall refers to sections 16, 20, 21, and 32 of the Banking Act of 1933. Section 16 was codified as 12 U.S.C. § 24 (Seventh). Section 20 was codified as 12 U.S.C. §377. Section 21 was codified as 12 U.S.C. §378(a)(1). Section 32 was codified as 12 U.S.C. § 78.

⁵⁹ See Vickers Report, *supra* note 2, at 19.

⁶⁰ *Id.* at 20. Vickers was then the Warden of All Souls College, University of Oxford.

⁶¹ *Id.*

⁶² *Id.*

The structural reform would require the ring-fencing of UK “retail” banking activities—defined as banking activities for individuals and small and medium-sized enterprises.⁶³ Banks would be required to take deposits from, and provide overdrafts to, those individuals and enterprises through separate subsidiaries that could not engage in activities that might expose them to loss, such as trading book activities, purchasing loans or securities, and derivatives trading.⁶⁴ That restriction on activities that could result in loss exemplifies ring-fencing to limit a firm’s risky activities and investments.

The Vickers Report also made recommendations about what it called the “height” of the ring-fence; these recommendations implicitly address aspects of ring-fencing’s other functions. Thus, the recommendation that each ring-fenced subsidiary should be a separate legal entity that adheres to strict arm’s length formalities⁶⁵ appears to provide a measure of bankruptcy remoteness.⁶⁶ The recommendation that each ring-fenced subsidiary should meet certain regulatory requirements for capital, liquidity, and funding⁶⁷ appears to enable such subsidiary to operate, if needed, on a standalone basis.⁶⁸ And the recommendations that each ring-fenced subsidiary should only engage in arm’s length transactions with affiliates and should have a majority of its directors, including the chair, be independent⁶⁹ should help to preserve the subsidiary’s business and assets.⁷⁰

(2) The Glass-Steagall Act

The Glass-Steagall Act was enacted in the United States as part of the Banking Act of 1933, responding to the Great Depression.⁷¹ The Glass-Steagall Act ring-fenced

⁶³ *Id.* at 10.

⁶⁴ *Id.* at 11. Activities related to the provision of payment services to customers in the European Economic Area (EEA) would also be permitted in the ring-fenced entity. *Id.* The Vickers Report also permits flexibility for a ring-fenced subsidiary to provide straightforward banking services to large domestic non-financial companies. *Id.* at 12.

⁶⁵ Vickers Report, *supra* note 2, at 66-72.

⁶⁶ *See* Part I.A, *supra*.

⁶⁷ Vickers Report, *supra* note 2, at 71.

⁶⁸ *See* Part I.B, *supra*.

⁶⁹ Vickers Report, *supra* note 2, at 72.

⁷⁰ *See supra* Part I.C.

⁷¹ *See supra* note 58.

deposit-taking banks by prohibiting them from engaging in the securities business, which was perceived as risky.⁷²

The Glass-Steagall Act's ring-fencing was repealed in November 12, 1999 by the passage of the Gramm-Leach-Bliley Act of 1999.⁷³ Under Gramm-Leach-Bliley, deposit-taking banks were allowed to affiliate in a holding company structure with investment banks and other securities firms.⁷⁴

(3) The Volcker Rule

In response to the recent financial crisis, former Federal Reserve Chairman Paul Volcker proposed that because bank deposits are federally guaranteed,⁷⁵ deposit-taking banks should be restricted from making risky investments.⁷⁶ This proposal became known as the "Volcker Rule."⁷⁷ The substance of the Volcker Rule was implemented by

⁷² WILLIAM D. JACKSON, CONG. RESEARCH SERV., GLASS-STEAGALL ACT: FACT SHEET (Aug. 3, 1999), *available at* [http://congressional.proquest.com.proxy.lib.duke.edu/congressional/result/pqpresultpage.gispdfhitspanel.pdflink/http%3A\\$2f\\$2fprod.cosmos.dc4.bowker-dmz.com\\$2fapp-bin\\$2fgis-congresearch\\$2f0\\$2fc\\$2fd\\$2fd\\$2fcrs-1999-gvf-0140_from_1_to_2.pdf/entitlementkeys=1234](http://congressional.proquest.com.proxy.lib.duke.edu/congressional/result/pqpresultpage.gispdfhitspanel.pdflink/http%3A$2f$2fprod.cosmos.dc4.bowker-dmz.com$2fapp-bin$2fgis-congresearch$2f0$2fc$2fd$2fd$2fcrs-1999-gvf-0140_from_1_to_2.pdf/entitlementkeys=1234). Thus, § 20 of the Glass-Steagall Act prohibited Federal Reserve member banks from affiliating with organizations "engaged principally in the issue, flotation, underwriting, public sale or distribution at wholesale or retail or through syndicate participation of stocks, bonds, debentures, notes, or other securities." *Id.* (citing 12 U.S.C. §377). Likewise, § 21 of the Glass-Steagall Act prohibited securities firms from engaging in "the business of receiving deposits." *Id.* (citing 12 U.S.C. §378).

⁷³ Gramm-Leach-Bliley Act, the Financial Services Modernization Act of 1999, (Pub. L. 106-102, 113 Stat. 1338, enacted Nov. 12, 1999), *available at* <http://www.gpo.gov/fdsys/pkg/PLAW-106publ102/html/PLAW-106publ102.htm>.

⁷⁴ See 12 U.S.C. § 1841(p) (defining a Financial Holding Company.) See also U.S. SENATE COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS, GRAMM-LEACH-BLILEY: SUMMARY OF PROVISIONS, *available at* <http://www.banking.senate.gov/conf/grmleach.htm>.

⁷⁵ Paul Volcker, Op-Ed: How to Reform Our Financial System, N.Y. TIMES, Jan. 30, 2010, *available at* <http://www.nytimes.com/2010/01/31/opinion/31volcker.html?pagewanted=all>.

⁷⁶ *Id.*

⁷⁷ David Cho & Binyamin Appelbaum, *Obama's 'Volcker Rule' Shifts Power Away from Geithner*, WASH. POST POLITICS, Jan. 22, 2010, *available at*

the Dodd-Frank Wall Street Reform and Consumer Protection Act,⁷⁸ enacted in July 2010.⁷⁹ In relevant part, that Act prohibits banks from “1) engaging in proprietary trading”⁸⁰ or “2) acquir[ing] or retain[ing] any equity, partnership, or other ownership interest in or sponsor[ing] a hedge fund or a private equity fund.”⁸¹ The regulatory implementation of the Volcker Rule, however, has been significantly weakened by numerous exceptions and variances.⁸²

<http://www.washingtonpost.com/wp-dyn/content/article/2010/01/21/AR2010012104935.html>.

⁷⁸ Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) of 2010, Pub. L. No. 111-203, 124 Stat. 1376 (hereinafter the “Dodd-Frank Act”).

⁷⁹ Skadden, Arps, Slate, Meagher & Flom, Financial Institutions Newsletter: “The Volcker Rule” 1 *available at*

http://www.skadden.com/newsletters/FSR_The_Volcker_Rule.pdf

⁸⁰ “Proprietary trading” is defined as “engaging as a principal for the trading account of the banking entity or [relevant] nonbank financial company . . . in any transaction to purchase or sell, or otherwise acquire or dispose of, any security, any derivative, any contract of sale of a commodity for future delivery, any option on any such security, derivative, or contract, or any other security or financial instrument that the appropriate Federal banking agencies, the Securities and Exchange Commission, and the Commodity Futures Trading Commission . . . determine [by rule].” 12 U.S.C. §1851(h)(4). Reference to a “trading account” is intended to primarily cover short-term trades, though federal regulators could expand that coverage. *See* 12 U.S.C. §1851(h)(6) (defining a trading account as “any account used for acquiring or taking positions in the securities and instruments [described in the definition of proprietary trading] principally for the purpose of selling in the near term (or otherwise with the intent to resell in order to profit from short-term price movements), and any such other accounts as the appropriate Federal banking agencies, the Securities and Exchange Commission, and the Commodity Futures Trading Commission . . . determine [by rule]”).

⁸¹ 12 U.S.C. §1851(a)(1). Notwithstanding these restrictions, trading is permitted “in connection with underwriting or market-making, to the extent that either does not exceed near term demands of clients, customers, or counterparties; on behalf of customers; or by an insurance business for the general account of the insurance company.” *See* Skadden, *supra* note 79, at 2.

⁸² Kimberly D. Krawiec, “Don’t ‘Screw Joe the Plumber’: The Sausage-Making of Financial Reform (2012 working paper on file with author). The Volcker rule has faced significant criticism in the United States. *See, e.g.*, JAMES R. BARTH AND APANARD PRAHBA, BREAKING (BANKS) UP IS HARD TO DO: NEW PERSPECTIVE ON ‘TOO BIG TO FAIL’ 24 (Milken Institute, Feb. 2013) , *available at*

<https://www.milkeninstitute.org/pdf/BreakingBanks.pdf> (discussing some of the criticisms to the Volcker Rule including the potential to reduce liquidity and increase transaction costs and the potential that the Volcker rule targets the wrong firms because

A European Commission-appointed panel of experts, chaired by Bank of Finland governor Erkki Liikanen, recently promulgated a report (the “Liikanen Report”⁸³) that has certain parallels to both the Volcker Rule and the Vickers Report. Although the Liikanen Report does not refer to ring-fencing, it recommends that banks separate certain of their risky activities from deposit-taking.⁸⁴ Subject to a materiality threshold, deposit-taking banks could engage in proprietary trading and the taking of asset or derivative positions in the process of market-making only through a separate “trading entity.”⁸⁵ Moreover, only that separate entity, and not a deposit-taking bank, could extend credit to hedge funds, structured investment vehicles, and private equity funds.⁸⁶ The Liikanen Report therefore effectively recommends ring-fencing to limit firms—in this case, deposit-taking banks—from engaging in risky activities and making risky investments, similar to the goals of the Volcker Rule and the Vickers Report.⁸⁷

E. Functional Definition

The foregoing discussion has shown that, functionally, ring-fencing has at least four uses: to protect a firm from becoming subject to liabilities and other risks associated with bankruptcy; to help ensure that a firm is able to operate on a standalone basis even if its affiliated firms fail; to protect a firm from being taken advantage of by affiliated firms, thereby preserving the firm’s business and assets; and to limit a firm from engaging in risky activities.⁸⁸ In each case, law, including contracting, is used to achieve the ring-

an analysis of the fifteen largest trading losses since 1990 reveals that the largest losses were at non-bank financial firms).

⁸³ Final Report of the High-level Expert Group on Reforming the Structure of the EU Banking Sector, chaired by Erkki Liikanen (Oct. 2, 2012).

⁸⁴ *Id.* at i.

⁸⁵ *Id.* at 101.

⁸⁶ *Id.*

⁸⁷ As this article was being finalized, France enacted legislation requiring limited ring-fencing of deposit-taking banks. *See* Davis Polk Client Memorandum, *France Ring-Fences Proprietary Trading Activities* (July 30, 2013) (summarizing the ring-fencing aspects of France’s Banking Reform of July 27, 2013).

⁸⁸ Ring-fencing can be viewed as also having additional uses. One commentator suggests, for example, that it has a fifth function: “making the job of the regulator easier by simplifying market structure at the micro-level of the firm to the macro-level of the entire

fencing. Drawing on these uses, this article will tentatively define ring-fencing as legally deconstructing a firm—viewing a “firm” broadly as a nexus of contracts⁸⁹—to reallocate and reduce risk more optimally,⁹⁰ such as by protecting the firm’s assets and operations and minimizing its internal and affiliate risks.

This definition still needs clarification because certain uses of ring-fencing, such as ring-fencing used in securitization transactions and in some covered bond

financial system. [T]he simpler the structure of the [firm,] the less time it takes to investigate and collect strong evidence to support enforcement action. Furthermore, the less hesitant the regulator will be to pursue enforcement. In the past regulators hesitated out of fear of the systemic implications of the enforcement action.” E-mail from Andromachi Georgosouli, Lecturer, Queen Mary, University of London, to the author (July 4, 2013). Ring-fencing can also be used, in a variant of subsidiarization (*see infra* notes 198-200 and accompanying text), to protect against cross-border risk by structuring a firm’s international operations through separately capitalized subsidiaries. Lawrence Baxter, *Size, Subsidiarization and Stability*, THEPARETOCOMMONS (Jan. 24, 2011), available at <http://www.theparetocommons.com/2011/01/size-subsidiarization-and-stability/>. That use of ring-fencing can be abused, however, if it is intended to allow, or has the effect of allowing, the foreign subsidiaries to operate without adequate capital. E-mail from Emilios Avgouleas, Chair in International Banking Law and Finance, University of Edinburgh, to the author (Apr. 8, 2013). *Cf.* Speech of Federal Reserve Governor Daniel K. Tarullo, “Regulation of Foreign Banking Organizations,” Yale School of Management Leaders Forum, New Haven, Connecticut (Nov. 28, 2012) available at <http://www.federalreserve.gov/newsevents/speech/tarullo20121128a.htm> (recommending that foreign banks operating in the United States through subsidiaries be required to establish a U.S. based intermediate holding company (IHC) to prevent those banks from avoiding U.S. consolidated capital regulations).

⁸⁹ According to the nexus-of-contracts theory of corporations, “the corporation [is] a bundle of market-driven actual and hypothetical bargains among shareholders, managers, and other firm participants, including outside third parties that deal with the firm. Neither corporations nor their shareholders are thought of as having external moral or social obligations independent of contract—the corporation because it is not a person, and the shareholders because they do not contract for broader responsibilities.” J. William Callison, *Rationalizing Limited Liability and Veil Piercing*, 58 BUS. LAW. 1063, 1065 (2003). *See also* Michael C. Jensen & William H. Meckling, *The Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure*, 2 J. FIN. ECON. 305 (1976) (generally discussing the nexus-of-contracts theory of corporations).

⁹⁰ By “more optimally,” this article means more socially optimally. Deconstructing a firm to reallocate and reduce risk solely from the firm’s standpoint, regardless of externalities, is a form of judgment proofing. *See infra* notes 94-97 and accompanying text.

transactions,⁹¹ are voluntarily undertaken by private parties, whereas other uses of ring-fencing are required by government regulation.⁹² Although the term ring-fencing can broadly refer to all these uses, this article focuses on “regulatory” uses of ring-fencing—that is, ring-fencing that is required by government regulation.⁹³

That focus also helps to distinguish ring-fencing from “judgment proofing.” The latter term refers to strategies taken by firms to externalize costs by separating their ownership of assets from the liabilities associated with operating those assets.⁹⁴ To that extent, both ring-fencing and judgment proofing involve a firm’s deconstruction. In contrast, however, to regulatory uses of ring-fencing⁹⁵ (and also in contrast to many ring-fencing transactions that are voluntarily undertaken by private parties⁹⁶), the goal of judgment proofing is to impose externalities on a firm’s creditors, preventing them from enforcing their claims against assets that otherwise should be available for payment.⁹⁷

II. NORMATIVE ANALYSIS

Why should ring-fencing be used as a regulatory tool? Being a form of financial regulation,⁹⁸ ring-fencing is a subset of economic regulation.⁹⁹ Economic regulation has

⁹¹ See *supra* notes 26-36 and accompanying text.

⁹² Most of the examples used in Part I, *supra*—including utility ring-fencing and the ring-fencing of banks under the Vickers Report and the Glass-Steagall Act—involve ring-fencing that is required by government regulation.

⁹³ Regulatory uses of ring-fencing can include ring-fencing that is required by government regulation but implemented contractually. See *supra* note 38 and accompanying text (observing that the regulatory ring-fencing of utility companies is implemented through a combination of contract and legislation).

⁹⁴ Steven L. Schwarcz, *The Inherent Irrationality of Judgment Proofing*, 52 STAN. L. REV. 1, 2 (1999) (citing Lynn M. LoPucki, *The Death of Liability*, 106 YALE L.J. 1,4 (1996)).

⁹⁵ This article assumes that regulatory uses of ring-fencing will not have the goal of imposing externalities.

⁹⁶ *The Inherent Irrationality of Judgment Proofing*, *supra* note 94, at 12-17 (distinguishing legitimate securitization transactions from judgment proofing).

⁹⁷ *Id.* at 4-10.

⁹⁸ Cf. *supra* notes 13-22 and accompanying text (examining ring-fencing as a financial regulatory concept).

two fundamental normative goals. Ordinarily, economic regulation is intended to help correct market failures within the financial system.¹⁰⁰ Absent such failures, financial markets should operate efficiently without any regulation.¹⁰¹ Economic regulation can also help to protect against risks *to* the financial system itself.¹⁰² These types of risks are referred to as “systemic,” and they “transcend[] economic efficiency per se.”¹⁰³

This article next examines ring-fencing in the context of market failures and efficiency.¹⁰⁴ Thereafter, it examines ring-fencing as a possible protection against systemic risk.¹⁰⁵

A. Ring-Fencing to Correct Market Failures

The market failures potentially relevant to economic regulation are (1) monopolies and other forms of non-competitive markets; (2) the public-goods problem;

⁹⁹ Cf. Vickers Report, *supra* note 2, at 35-78 (discussing ring-fencing as a type of economic regulation).

¹⁰⁰ See, e.g., DAVID GOWLAND, *THE REGULATION OF FINANCIAL MARKETS IN THE 1990S* 21 (1990). Welfare economists argue that regulation should also include the goal of maximizing social welfare. See, e.g., Charles Wolf, *A Theory of Nonmarket Failure: Framework for Implementation Analysis*, 22 J. L. & ECON. 107, 110–11 (1979). For a general discussion of the justifications for economic regulation, see STEPHEN BREYER, *REGULATION AND ITS REFORM* 15–35 (1982) (discussing that the justification for intervention arises out of an alleged inability of the marketplace to deal with particular structural problems.)

¹⁰¹ Cf. PAUL A. SAMUELSON & WILLIAM D. NORDHAUS, *ECONOMICS* 756 (15th ed. 1995) (defining market failure as “an imperfection in a price system that prevents an efficient allocation of resources”); IVAN PNG & DALE LEHMAN, *MANAGERIAL ECONOMICS* 414 (3d ed. 2007) (observing that government regulation enhances social welfare by correcting market failures). See also A DICTIONARY OF ECONOMICS, Definition of “Market Failure,” OXFORDREFERENCE.COM, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t19.e1927> (last visited June 7, 2012).

¹⁰² Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L. J. 193, 207 (2008)

¹⁰³ *Id.*

¹⁰⁴ See *infra* Part II.A.

¹⁰⁵ See *infra* Part II.B.

(3) information failure; (4) agency failure; and (5) externalities.¹⁰⁶ The analysis below examines ring-fencing in light of these market failures, subject to a clarification.

It is confusing to regard “externalities” as a separate category of market failure. One source of confusion is that externalities are consequences, not causes, of market failure.¹⁰⁷ Their only link to causation is to signal that a market failure has occurred.¹⁰⁸ Another source of confusion is that externalities cannot even be linked to a distinct category of market failure because all types of market failures can result in externalities.¹⁰⁹ To avoid these confusions, this article will refer to the final category of market failure not as “externalities” per se but, consistent with recent scholarship,¹¹⁰ as “responsibility failure”—meaning a firm’s ability to externalize all or a portion of the costs of taking an action.

(1) Monopolies and Other Forms of Non-Competitive Markets

A monopoly is a market condition where only one supplier or producer has exclusive control over the commercial market within a given region.¹¹¹ The traditional economic rationale for regulation of a monopolist is that an unregulated monopolist will restrain production to retain higher prices.¹¹² The result is unfair pricing and under-supply.¹¹³ Additional bases for regulation of a monopolist include price discrimination,

¹⁰⁶ See Richard O. Zerby Jr. & Howard E. McCurdy, *The Failure of Market Failure*, 18 J. POL’Y ANAL. & MGMT. 558, 561 (1999); Steven L. Schwarcz, *Regulating Shadows: Financial Disintermediation and Responsibility Failure*, 70 WASH. & LEE L. REV. (forthcoming issue no. 3, 2013) (hereinafter *Regulating Shadows*).

¹⁰⁷ *Regulating Shadows*, *supra* note 106, at [cite].

¹⁰⁸ *Id.* at [cite].

¹⁰⁹ *Id.* at [cite].

¹¹⁰ See *id.* at [cite] (arguing that “responsibility failure” should be a separate category of market failure, in lieu of “externalities”).

¹¹¹ See Black’s Law Dictionary (9th ed. 2009) (defining “monopoly” as “1. Control or advantage obtained by one supplier or producer over the commercial market within a given region. 2. The market condition existing when only one economic entity produces a particular product or provides a particular service.”).

¹¹² BREYER, *supra* note 100, at 15-16 (discussing the traditional economic rationale for regulation of a monopoly).

¹¹³ *Id.*

income transfer from users of the service to investors, fairness (more than just price discrimination), and power (specifically fear of concentration of power).¹¹⁴

Other forms of non-competitive markets include oligopolies. An oligopoly is a market controlled by a small group of firms.¹¹⁵ An oligopoly can occur when the pricing and output policies of firms are interdependent.¹¹⁶ Firms therefore are able to collude to maximize joint profits,¹¹⁷ such as by restricting outputs¹¹⁸ through quantity or price setting.¹¹⁹ The rationale for regulating an oligopoly is therefore similar to monopoly regulation: to avoid undersupply and unfair pricing.

Financial firms are not usually subject to this category of market failure, however. The market for financial firms, even insofar as it pertains to regulated banking activities, is in fact competitive.¹²⁰ Furthermore, even though ring-fencing is otherwise strongly associated with this category of market failure, that association is coincidental. Utility companies—which historically are the firms most subject to ring-fencing¹²¹—are monopolies. Nonetheless, ring-fencing’s application to utilities is relevant not to correcting unfair pricing but to addressing the risks associated with a holding company structure.¹²² Additionally, as discussed below,¹²³ ring-fencing addresses the other market failures that afflict financial firms.

¹¹⁴ *Id.* at 19-20.

¹¹⁵ See OECD, “Glossary of Statistical Terms: Oligopoly,” <http://stats.oecd.org/glossary/detail.asp?ID=3270>.

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ <http://home.uchicago.edu/~vlima/courses/econ201/pricetext/Oligopoly.pdf>

¹¹⁹ *Glossary of Statistical Terms, supra note 115.*

¹²⁰ 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 (discussing competition in America’s banking markets. While some banking markets may be less competitive than others, the banking market as a whole is a competitive market).

¹²¹ See *supra* Part I.

¹²² See *supra* notes 39-43 and accompanying text. Utility pricing is typically set by the utility’s applicable public service commission. See Douglas N. Jones, *Agency Transformation and State Public Utility Commissions*, 14 UTILITY POL’Y 8, 9-11 (discussing that state public utility commissions were created by legislatures to respond

(2) The Public-Goods Problem

The public-goods problem is a collective action supply problem, resulting in either over-supply or under-supply. The typical solution to the public-goods problem is government intervention—either providing the goods directly (and taxing their cost) or requiring the private sector to provide the goods (in each case, such government action is defined as “public provision” of the goods).

The public-goods problem can arise when “goods,” in the broadest sense of the word, have two characteristics: nonrivalry in consumption (use of the goods by one person or group does not distract from their use for other persons or groups) and nonexcludability (the benefits of the goods cannot be reserved for use by one person or group).¹²⁴

There are two forms of the public-goods problem: the free rider problem and the prisoner’s dilemma.¹²⁵ The free rider problem is the situation in which persons or groups lack incentive to, or are incentivized not to, contribute personal resources to common endeavors, free riding instead off others’ efforts.¹²⁶ The prisoner’s dilemma problem is the game theory problem where persons or groups lacking the ability to communicate make suboptimal decisions.¹²⁷

to excess prices by utility companies, and also discussing how state public utility commissions oversight of prices was relaxed in the 1990s).

¹²³ See *infra* Part II.A(2)-(5) (discussing the use of ring-fencing to address the public-goods problem, information failure, agency failure, and responsibility failure).

¹²⁴ INGE KAUL ET AL., *GLOBAL PUBLIC GOODS: INTERNATIONAL COOPERATION IN THE 21ST CENTURY* 3 (1999). An example of goods that meet both of these characteristics is a traffic light. *Id.* at 4. The use of the traffic light by a pedestrian to safely cross the street does not distract from the light’s utility to other pedestrians or drivers (nonrivalry in consumption). *Id.* And the benefit of the light cannot be reserved for use by only one person or group (nonexcludability). *Id.*

¹²⁵ *Id.* at 6.

¹²⁶ *Id.* at 6-7.

¹²⁷ *Id.* at 7-8. See also Black’s Law Dictionary (9th ed. 2009), available at Westlaw BLACKS (defining prisoner’s dilemma as “a logic problem—often used by law-and-economics scholars to illustrate the effect of cooperative behavior—involving two

The Public-Goods Problem and Ring-Fencing Financial Firms. How does the public-goods problem apply to banks and other financial firms, and can ring-fencing help to solve the problem? The most potentially relevant “goods” are banking functions deemed important to society that are normally provided by private-sector banks.¹²⁸ These functions include safeguarding deposits, operating secure payments systems, efficiently channeling savings to productive investments (making loans), and managing financial risk.¹²⁹

prisoners who are being separately questioned about their participation in a crime: (1) if both confess, they will each receive a 5–year sentence; (2) if neither confesses, they will each receive a 3–year sentence; and (3) if one confesses but the other does not, the confessing prisoner will receive a 1–year sentence while the silent prisoner will receive a 10–year sentence).

Returning to the traffic light example, suppose Resident A lives next to the intersection where the traffic light would be located and therefore would benefit significantly more than Resident B, who lives further away. If all residents on the street are asked to pay the same amount, Resident B may rationally decide to refuse (usually referred to in the literature as “defection”). Defection results from imperfect communication because the residents are unable to communicate to choose the outcome that is best for all of them. This defection would result in under-supply if it deprives the residents of sufficient funds to put up the light. Again, government provision of traffic lights would overcome this problem by providing traffic lights and taxing persons to pay for the lights.

Sometimes, the government intervenes to solve the public-goods problem other than through public provision of goods. A common approach, exemplified by the patent system, is to impose laws that take certain critical goods out of the public-goods realm. Consider, for example, microcomputer software. Randall G. Holcombe, *A Theory of the Theory of Public Goods*, 10 REV. AUSTRIAN ECONOMICS 1, 7 (1997). Microcomputers, sometimes called personal computers, are computers designed for use by individuals. Such software is nonrivalrous because additional users could utilize the software without impairing its use by existing users. *Id.* Absent the patent system, the software is also nonexcludable because it is costly to prevent such additional use. *Id.* Therefore, parties could free ride off the work of software producers, depriving those producers of optimal compensation, thereby resulting in under-supply of software. *Id.* Government normally solves this public-goods problem by enabling software producers to patent their innovations, thus making the software excludable unless additional users are willing to pay. *Id.* at 8.

¹²⁸ The banking function of acting as a “lender of last resort” does not normally raise a public-goods problem because that function is performed by government central banks.

¹²⁹ See Vickers Report, *supra* note 2, at 7. See also BIAGIO BOSSONE, WHAT MAKES BANKS SPECIAL? A STUDY OF BANKING 5-23 (World Bank eLibrary 1999) (discussing

Of these functions, only safeguarding deposits appears to suffer from a public-goods problem.¹³⁰ Safeguarding deposits is nonrivalrous because a bank's safeguarding such deposits for one person or group does not distract from the bank's ability to safeguard deposits for other persons or groups. Those other persons or groups could also safeguard their deposits with competing banks. Additionally, safeguarding deposits is nonexcludable. The benefits of safeguarding deposits cannot be reserved for use by one person or group because the market for banking, including taking and safeguarding deposits, is competitive.¹³¹

Safeguarding deposits therefore could be subject to a public-goods problem, and indeed it sometimes faces a prisoner's dilemma problem, causing suboptimal

banks' special role in the economy including running the economy's payments system, portfolio and risk management, supplying credit, and providing liquidity).

¹³⁰ Operating secure payments systems does not suffer from a public-goods problem because it is nonrivalrous: there is a limited amount of capital that can be used to operate the secure payments system. See *Federal Reserve Policy on Payment System Risk*, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM (Mar. 24, 2011), available at http://www.federalreserve.gov/paymentsystems/psr_policy.htm#capmeasure (explaining Federal Reserve Policy to limit payment system risk including capital limits). It also is not nonexcludable because individual financial firms can limit the benefits to only their customers. See e.g. *Transferring Funds FAQ*, BANK OF AMERICA, available at <https://www.bankofamerica.com/onlinebanking/electronic-funds-transfer-faqs.go> (explaining that its electronic funds transfer options are available only to customers of Bank of America and in-network accounts). Making loans does not suffer from a public-goods problem because it is not nonrivalrous. A bank that makes a loan to customer A will have less capital left to make a loan to customer B. See *Basel Regulatory Capital Framework*, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, available at <http://www.federalreserve.gov/bankinforeg/basel/default.htm> (discussing the capital that banks are required to hold to absorb losses and thus cannot be used to make loans). Making loans is also not nonexcludable. Banks exclude customers, for example, through credit checks. See e.g. *Mortgage Loans*, CHASE, available at <https://www.chase.com/online/Home-Lending/mortgages.htm> (disclaiming that "All loans subject to credit and property approval"). Managing financial risk likewise does not suffer from a public-goods problem. It is nonrivalrous because the benefits of managing customer A's risk does not distract from the benefits of managing customer B's risk. It is not nonexcludable because it is a service limited only to bank customers.

¹³¹ See discussion *supra* FINANCIAL FIRMS AND THE MONOPOLY AND NON-COMPETITIVE MARKETS PROBLEM.

safeguarding.¹³² Although banks can and do communicate and play a meaningful role in disciplining other banks, especially regarding risk management,¹³³ interbank discipline alone cannot optimize the safeguarding of deposits. Banks cannot perfectly monitor other banks, for example, about which they have imperfect information.¹³⁴ There therefore is a need for government intervention to improve the safeguarding of deposits. In the United States, the government does this through Federal Deposit Insurance Corporation (FDIC) deposit insurance.¹³⁵

The government could further safeguard deposits through ring-fencing. This could occur in various ways, such as by legally isolating deposit-taking banks from liabilities associated with riskier banking activities and from insolvency risks, or by giving depositor claims legal priority over the claims of other bank creditors.¹³⁶

(3) Information Failure

Information failure, a type of market failure that results from inadequate information, plagues financial firms.¹³⁷ One form of information failure is asymmetric information, which occurs when a party in a transaction has an information advantage over another party.¹³⁸ That can result in harm if the party with superior information uses

¹³² Recall that this problem can occur where persons or groups lacking the ability to communicate make suboptimal decisions. *See supra* note 127 and accompanying text.

¹³³ *See* Kathryn Judge, *Interbank Discipline* 60 UCLA L. REV (forthcoming 2013) (discussing how banks have taken on an expanding role in the discipline of other banks). Banks can discipline other banks, for example, by limiting economic exposure to those banks. *Id.* at 26.

¹³⁴ *Id.* at 31.

¹³⁵ *See* Dodd-Frank Act § 335 (permanently increasing deposit insurance to \$250,000).

¹³⁶ Deposit accounts are, technically, claims by depositors against the bank. *See Bank Liabilities*, AmosWEB, available at http://www.amosweb.com/cgi-bin/awb_nav.pl?s=wpd&c=dsp&k=bank%20liabilities (discussing customer deposits as the most important category of bank liability).

¹³⁷ *See* BREYER, *supra* note 100, at 26-28 (discussing inadequate information and the rationales for regulation). There is some overlap among market-failure categories. The prisoner's dilemma problem, for example, results in part from inadequate information in the form of inadequate communication. *See supra* note 127 and accompanying text.

¹³⁸ *See* Investopedia <http://www.investopedia.com/terms/a/asymmetricinformation.asp#axzz2Au3AspZm>.

the asymmetry to take advantage of the other party.¹³⁹ For example, issuers of securities have more information about the securities they issue than investors in those securities.¹⁴⁰ Without disclosing this information to investors, an issuer of securities could sell the securities for more than they are worth. To resolve this information failure and protect investors, securities law requires mandatory disclosures by issuers.¹⁴¹

Complexity exacerbates the disclosure problems of asymmetric information.¹⁴² Financial markets and transactions have become increasingly complex.¹⁴³ In some cases, the complexity undermines the ability of disclosure to achieve meaningful transparency.¹⁴⁴ For example, during the recent financial crisis most of the risks on complex mortgage-backed securities were disclosed.¹⁴⁵ Despite these disclosures, “investors—including the largest, most sophisticated firms—bought these securities without fully understanding them.”¹⁴⁶

One might ask why sophisticated firms cannot hire experts to help them understand complex financial products. Part of the reason is that, as complexity increases, a larger amount of information must be incorporated into risk analysis to “value the investment with a degree of certainty.”¹⁴⁷ This type of analysis requires additional resources of time and staff, which may “outweigh[] the uncertain gain.”¹⁴⁸

¹³⁹ *Id.*

¹⁴⁰ *Cf.* Frank H. Easterbrook & Daniel R. Fischel, *Mandatory Disclosure and the Protection of Investors*, 70 VA. L. REV. 669 (1984) (discussing information asymmetries between issuers and investors and arguing that disclosure is the principal justification for the federal securities laws).

¹⁴¹ *Id.*

¹⁴² *See* Steven L. Schwarcz, *Controlling Financial Chaos: The Power and Limits of Law*, 2012 WIS. L. REV. 815, 818-21 (2012).

¹⁴³ *Id.* at 818.

¹⁴⁴ *Id.* at 818-19.

¹⁴⁵ *Id.*

¹⁴⁶ *Id.* at 819.

¹⁴⁷ Steven L. Schwarcz, *Regulating Complexity in Financial Markets*, 87 WASH. U. L. REV. 211, 221 (2009).

¹⁴⁸ *Id.* at 221-22.

A solution to the problems posed by complexity includes standardization of investments.¹⁴⁹ Standardization, however, can backfire by stifling innovation and preventing parties from crafting financial products that are tailored to their particular needs and risk preferences.¹⁵⁰

Another form of information failure is the problem of “bounded rationality.”¹⁵¹ People are not wholly rational actors.¹⁵² We have difficulty, for example, appreciating unlikely events that, if they occur, could have devastating consequences.¹⁵³ This bounded rationality causes information failure: people misinterpreting, over-relying, or under-relying on information.¹⁵⁴ For example, due to familiarity with collateral, members of the financial community underestimated the likelihood and potential consequences of a drop in housing prices.¹⁵⁵ This drop in collateral value turned what was thought to be overcollateralized mortgage-backed securities into under-secured securities.¹⁵⁶

Information Failure and Ring-Fencing Financial Firms. Financial firms suffer from both forms of information failure: asymmetric information and bounded rationality. They suffer from asymmetric information when issuers of securities have more information about the underlying investment than investors in the securities.¹⁵⁷ Although securities law disclosure requirements seek to resolve this asymmetric information problem, the asymmetry can be exacerbated by complexity.¹⁵⁸ Ring-fencing can help to

¹⁴⁹ *Controlling Financial Chaos*, *supra* note 142, at 820.

¹⁵⁰ *Id.* at 820.

¹⁵¹ *See Regulating Shadows*, *supra* note 106.

¹⁵² *Controlling Financial Chaos*, *supra* note 142, at 821-22 & 825.

¹⁵³ Iman Anabtawi & Steven L. Schwarcz, *Regulating Systemic Risk: Towards an Analytical Framework*, 86 NOTRE DAME L. REV. 1349, 1366-68 (2011).

¹⁵⁴ *Cf. Controlling Financial Chaos*, *supra* note 142, at 821 (acknowledging that “[e]ven in financial markets, humans have bounded rationality—a type of information failure . . .”).

¹⁵⁵ *See id.* at 822.

¹⁵⁶ *Id.* The Dodd-Frank Act attempts to solve this bounded rationality problem by improving the quality of rating-agency ratings. *Id.*

¹⁵⁷ *See supra* notes 139-141 and accompanying text.

¹⁵⁸ *See, e.g.,* Steven L. Schwarcz, *Disclosure’s Failure in the Subprime Mortgage Crisis*, 2008 UTAH. L. REV. 1109.

address this type of information failure, such as by simplifying the investments that certain financial firms can make.¹⁵⁹

Financial firms also experience information failure in the form of bounded rationality. Bounded rationality can impact financial firms in the form of bank runs.¹⁶⁰ In a bank run, some depositors panic, converging on the bank in a “grab race” to withdraw their monies first. Because banks keep only a small fraction of their deposits on hand as cash reserves, other depositors may have to join the run in order to avoid losing the grab race.¹⁶¹ If there is insufficient cash to pay all withdrawal-demands, the bank will default.¹⁶² In effect, the bounded rationality of individuals fearing a bank run can create a self-fulfilling prophecy. Ring-fencing financial firms can address this problem of bounded rationality. Ring-fencing the essential banking functions of financial firms, specifically deposit taking, insulates deposits from the legal liabilities and insolvency risks caused by financial firms other riskier activities. Consequently, deposits will be more stable; less prone to suffering from instability caused by activities of the financial firm. This added stability should make depositors less likely to panic, thereby reducing the risk of bank runs.

(4) Agency Failure

¹⁵⁹ This is in part the intention of the Volcker Rule. *See* Letter from Paul A. Volcker to Timothy Geithner, Chairman, Fin. Stability Oversight Council (Oct. 29, 2010) (“The plain intent of Section 619 of the Dodd-Frank Act [12 U.S.C. §1851(a)(1), the Volcker Rule] is to restrict certain high risk, proprietary trading activities by banks and bank holding companies, institutions that receive government protection and support.”).

¹⁶⁰ *Cf.* Douglas W. Diamond & Philip H. Dybvig, *Bank Runs, Deposit Insurance, and Liquidity*, 91 J. POL. ECON. 401, 404 (1983) (using the Diamond-Dybvig model to explain bank runs as a form of undesirable equilibrium triggered by expectations based on incomplete information, in which depositors (sometimes irrationally) expect the bank to fail, thereby causing its failure). Information failures arguably are only part of the cause of bank runs as will be addressed in responsibility failure.

¹⁶¹ *See, e.g.*, Jonathan R. Macey & Geoffrey P. Miller, *Bank Failures, Risk Monitoring, and the Market for Bank Control*, 88 COLUM. L. REV. 1153, 1156 (1988) (linking bank runs and depositor collective action problems).

¹⁶² R.W. HAFER, *THE FEDERAL RESERVE SYSTEM* 145 (2005) (observing that a bank’s cash reserves are often less than five percent of its deposits).

Because it impacts the management of financial firms, agency failure is a type of market failure that is relevant to economic regulation. The following will analyze agency failure in that context, examining whether ring-fencing can help to correct the failure.

In general, agency failure can exist whenever there is a conflict of interest between principals and their agents.¹⁶³ The well-known principal-agent conflict in this article's context is between the owners, typically shareholders, and managers of a firm.¹⁶⁴ However, an additional, and conceivably more important, agency problem can arise intra-firm—between middle managers and the senior managers to which they report.¹⁶⁵ Middle managers are typically paid under short-term compensation schemes, in which they are entitled to keep their compensation for work performed in any individual year even if that work later results in significant losses for the firm.¹⁶⁶ This misaligns their interests with the long-term interests of the firm.¹⁶⁷ As a result, even firms with reputations for highly sophisticated risk management, such as JPMorgan, have proven susceptible to failures leading to significant losses.¹⁶⁸

¹⁶³ See, e.g., Lucian A. Bebchuk & Jesse M. Fried, *Pay Without Performance: Overview of the Issues*, 20 ACAD. MGMT. PERSP. 5 (2006) (discussing the classic principal-agent conflict).

¹⁶⁴ *Id.*

¹⁶⁵ Steven L. Schwarcz, *Conflicts and Financial Collapse: The Problem of Secondary-Management Agency Costs*, 26 YALE J. ON REG. 457 (2009).

¹⁶⁶ See, e.g., Steven M. Davidoff, *After \$2 Billion Loss, Will JP Morgan Move to Claw Back Pay?*, N.Y. TIMES DEALBOOK, May 14, 2012, <http://dealbook.nytimes.com/2012/05/14/after-2-billion-trading-loss-will-jpmorgan-claw-back-pay/> (discussing how, even after the recent institution of a clawback policy, traders asked to leave due to large losses may be able to keep previous compensation in the millions of dollars).

¹⁶⁷ *Conflicts and Financial Collapse*, *supra* note 165, at 462.

¹⁶⁸ Consider, for example, JPMorgan's recent \$5.8 billion trading loss. Christine Harper, *JPMorgan Loss Proves System Too Complex, China's Gao Says*, BLOOMBERG BUSINESSWEEK: GLOBAL ECONOMICS, Oct. 05, 2012, <http://www.businessweek.com/news/2012-10-05/jpmorgan-loss-proves-system-too-complex-china-s-gao-says>. The loss was due to allegedly insufficient oversight over a trader, tarnishing its reputation for being a "strong risk manager." Tom Braithwaite, *JPMorgan Shakes Up Risk Committee*, FIN. TIMES, May 26, 2012, at 10. See also Gregory Zuckerman & Dan Fitzpatrick, *'Whale' Swam in Choppy Waters*, WALL ST. J., Jun. 19, 2012, at C1 (\$2 billion loss "tarred reputation of James Dimon [JPMorgan's CEO] as Wall Street's savviest risk manager").

A number of solutions seek to address the problems of agency failure. These include regulations that prevent bank managers from taking risks that benefit them more than their banks.¹⁶⁹ Securities law and corporation law create fiduciary duties of managers to shareholders.¹⁷⁰ Commentators have also been proposing a more long-term realignment of managerial compensation with interests of the firm.¹⁷¹

Agency Failure and Ring-Fencing Financial Firms. There does not appear to be a significant role for ring-fencing in helping to correct agency failure. Ring-fencing does not purport to address, at least directly, questions of managerial compensation or conflicts of interest. Ring-fencing could be used indirectly, though, to address those questions; for example, by limiting the ability of managers of a financial firm to make risky investments,¹⁷² those managers could be limited from booking investments that pay them bonuses but have long-term risks to the firm.¹⁷³

(5) Responsibility Failure

Recall that this category of market failure references a firm's ability to externalize all or a portion of the costs of taking an action.¹⁷⁴ For example, because the managers of most firms have obligations under law solely to the firms' shareholders, a firm that engages in a risky project in order to increase shareholder profit opportunities may well

¹⁶⁹ See, e.g., Arthur E. Wilmarth, Jr., *The Transformation of the U.S. Financial Services Industry, 1975-2000: Competition, Consolidation, and Increased Risks*, 2002 U. ILL. L. REV. 215, 264 (2002).

¹⁷⁰ *Regulating Shadows*, *supra* note 106, at 8.

¹⁷¹ *Conflicts and Financial Collapse*, *supra* note 165, at 465-67. *Cf. Regulating Shadows*, *supra* note 106, at 6 (discussing improvements in corporate governance as tools to reduce conflicts of interest); Lucian A. Bebchuk & Jesse M. Fried, *Pay Without Performance: Overview of the Issues*, 20 ACAD. MGMT. PERSP. 5 (2006) (providing proposals for making executive pay, and its relationship to performance, more transparent).

¹⁷² *Cf. supra* note 76 and accompanying text (discussing ring-fencing to prevent risky investments, under the Volcker Rule).

¹⁷³ *Cf. supra* note 166 and accompanying text (discussing short-term compensation that allows managers to keep their compensation for work performed in any individual year even if that work later results in significant losses for the firm).

¹⁷⁴ See *supra* note 110 and accompanying text.

be acting responsibly as defined, indeed mandated, by law—even if the effect is to externalize costs.¹⁷⁵ The ability of a firm to so externalize costs is a market failure.¹⁷⁶

The merit of the term “responsibility failure” is that it shifts focus onto the party who should be fundamentally responsible for internalizing the externality. Focusing on externalities, one may well conclude that the firm itself in the preceding example should be considered solely responsible for causing the externalities. Focusing on responsibility failure, in contrast, would help shift attention back to the fundamental cause of the externalities: in this case, the government’s failure to impose laws that limit the ability of firms to externalize those costs.¹⁷⁷ This sharpened focus on causation is important because the traditional paradigm of market failure assumes away government action (or inaction) as a cause of failure.¹⁷⁸

Of the possible ways to address responsibility failure, the most direct would be to try to require firms to internalize their externalities. There is currently a debate, for example, whether government should mandate that financial firms, or at least financial firms that have the potential to generate large externalities (such as systemically important financial institutions (“SIFIs”)), contribute to a fund that would help to offset the externalities.¹⁷⁹ Although this should work in principle, it may be difficult to price

¹⁷⁵ *Regulating Shadows*, *supra* note 106, at [cite].

¹⁷⁶ *See id.* at [cite].

¹⁷⁷ *Cf.* Zerbe & McCurdy, *supra* note 106, at 571 (observing that certain “markets are inefficient not because of any inherent ‘failures,’ but because the government has neglected to provide the appropriate institutional framework”).

¹⁷⁸ *Regulating Shadows*, *supra* note 106, at [cite].

¹⁷⁹ *See Controlling Financial Chaos*, *supra* note 142, at 830 (discussing this debate). A variant on that approach, in line with the Pigouvian approach to externalities, would be to impose taxes to internalize the social costs of activities. *See* Jules L. Coleman, *Efficiency, Exchange, and Auction: Philosophic Aspects of the Economic Approach to Law*, 68 CALIF. L. REV. 221, 232 (1980). Such a tax might seek to eliminate wasteful short-term currency speculation and reduce market volatility by imposing a tax on individual financial trades. *See* TOBIN TAX, *in* THE PRINCETON ENCYCLOPEDIA OF THE WORLD ECONOMY 1093- 94 (KENNETH A REINHART ET AL. ED., PRINCETON UNIV. PRESS 2009); Steven M. Davidoff, *In Wall St. Tax, a Simple Idea but Unintended Consequences*, NYTIMES DEALBOOK, Feb. 26, 2013, *available at* <http://dealbook.nytimes.com/2013/02/26/in-wall-street-tax-a-simple-idea-with->

risk outside of actual markets, making the fund difficult to implement.¹⁸⁰ As explained below, ring-fencing could help to address the problem of responsibility failure.

Responsibility Failure and Ring-Fencing Financial Firms. The problem of responsibility failure could be addressed remedially, such as by requiring financial firms to try to internalize any externalized costs, discussed above.¹⁸¹ The problem could also be

unintended-consequences/. A financial transactions tax has been the subject of heated debate. Compare Davidoff, *supra* (articulating arguments against such a tax) with Thomas I. Palley, *The Economic Case for the Tobin Tax*, DEBATING THE TOBIN TAX, NEW RULES FOR GLOBAL FINANCE (Weaver ed. Washington D.C, 2003), available at http://www.thomaspalley.com/docs/articles/selected/Tobin%20Tax%20_%20New%20Rules.pdf (articulating arguments for such a tax). Eleven euro zone countries—Germany, France, Italy, Spain, Austria, Portugal, Belgium, Estonia, Greece, Slovakia, and Slovenia—are in the process of implementing this type of tax. See John O’Donnell and Robin Emmot, *EU States get Blessing for Financial Trading Tax*, REUTERS, Jan. 22, 2013, available at <http://www.reuters.com/article/2013/01/22/us-eu-transactionstax-idUSBRE90K0WX20130122>. They also are pressuring the United States to adopt such a tax. See, e.g., Carey L. Biron, *Europeans Urge US Action on Financial Transactions Tax*, INTER PRESS SERVICE NEWS AGENCY (Feb. 25, 2013), available at <http://www.ipsnews.net/2013/02/europeans-urge-u-s-action-on-financial-transaction-tax/>.

¹⁸⁰ See *Controlling Financial Chaos*, *supra* note 142, at 830 (discussing the potential obstacles to the creation of a systemic risk fund). Another way that regulators could attempt to address responsibility failure is by micromanaging firms, such as mandating leverage, liquidity, and investment requirements. The Dodd-Frank Act requires banks and other systemically important financial firms to adhere to a range of capital and similar requirements. *Id.* at 834. Although leverage requirements have the goal of enabling a firm to withstand economic shocks, there is no optimal across-the-board amount of leverage. *Id.* Additionally, the inability of the Basel capital requirements to prevent bank failures during the global financial crisis raises doubt that the Dodd-Frank capital requirements will be any more successful. *Id.* Cf. Arthur E. Wilmarth, Jr., *The Dodd-Frank Act: A Flawed and Inadequate Response to the Too-Big-to-Fail Problem*, 98 OREGON L. REV. 951, 1009-15 (2011) (discussing the problems with capital-based regulation, including that capital ratios are “lagging indicators” and that firms have demonstrated their ability to weaken the effectiveness of capital requirements by engaging in “regulatory capital arbitrage”).

¹⁸¹ See *supra* notes 179-180 and accompanying text. Another direct approach would be to simply make it illegal for a firm to externalize its costs, but it is difficult to conceive how that approach could be made workable. Cf. Brett M. Frischmann, *An Economic Theory of Infrastructure and Commons Management*, 89 MINN. L. REV. 917, 967 (2005) (“Neither the law nor economic efficiency require complete internalization; external benefits are a ubiquitous boon for society.”); Henry N. Butler & Jonathan R. Macey, *Externalities and the Matching Principle: The Case for Reallocating Environmental Regulatory Authority*,

addressed more directly, however, by limiting the firm’s ability to externalize costs in the first place. Ring-fencing could help implement that latter approach, such as by limiting a financial firm’s risky activities and investments.¹⁸² For example, the Volcker Rule is directed at limiting the ability of banks to make risky investments.¹⁸³ Avoiding those investments would help to deter bank failures, thereby reducing the risk that such failures would lead to a systemic collapse of the banking system.¹⁸⁴

B. Ring-Fencing to Protect Against Systemic Risk

Part II.A above has shown that financial firms are subject to a number of market failures, and that ring-fencing can be used to help correct some of those failures. This Part II.B, in contrast, examines ring-fencing as a protection against systemic risk. Ring-fencing can help in two ways to protect against systemic risk: by minimizing panics, and by creating modularity.

(1) Minimizing Panics

Panics are a common trigger of systemic risk.¹⁸⁵ Ring-fencing therefore could reduce systemic risk if it could minimize panics. In today’s disintermediated financial system—in which bank intermediation is no longer needed to source funds from capital markets to firms that use the funds to operate in (and thus contribute to) the real economy¹⁸⁶—market failures can easily be amplified to cause panics.¹⁸⁷ By correcting market failures, ring-fencing thus could help to minimize panics.¹⁸⁸

14 YALE L. & POL’Y REV. 23, 29-30 (1996) (noting in the context of pollution control—a negative externality—“it is important to recognize the combination of small externalities and nontrivial costs of government intervention suggests that many externalities cannot be internalized”); EMILIOS AVGOULEAS, GOVERNANCE OF GLOBAL FINANCIAL MARKETS Ch. 2 (2012) (same).

¹⁸² Cf. *supra* Part I.D (discussing that function of ring-fencing).

¹⁸³ See *supra* notes 80-81 and accompanying text.

¹⁸⁴ Chris Mundy, *The Nature of Systemic Risk: Trying to Achieve a Definition*, BALANCE SHEET, Oct. 24, 2004, at 29.

¹⁸⁵ *Systemic Risk*, *supra* note 102, at 214-18.

¹⁸⁶ See Steven L. Schwarcz, *Regulating Shadow Banking: Inaugural Address for the Inaugural Symposium of the review of Banking & Financial Law*, 31 REV. BANKING & FIN. L. 619 (2011-2012). The term “disintermediation” is, to some extent, a misnomer because there still may be non-bank intermediaries between financial markets and users

Recall that ring-fencing can help to correct market failures by reducing information asymmetry,¹⁸⁹ safeguarding deposit-taking functions of banks,¹⁹⁰ and limiting the ability of financial firms to engage in risky behavior or make risky investments.¹⁹¹ Correcting these failures not only would increase market efficiency; it also would prevent the failures from being amplified into panics, thereby protecting against systemic risk.

(2) Creating Modularity

Ring-fencing can also help to protect against systemic risk by creating modularity. The financial system is highly complex,¹⁹² and failures are almost inevitable in complex systems.¹⁹³ 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.¹⁹⁴ This can be accomplished by decoupling the

of funds. Those non-bank intermediaries include special-purpose entities and other entities that operate without access to central bank liquidity or public sector credit guarantees, including finance companies, hedge funds, money-market mutual funds, securities lenders, and investment banks. *Id.*

¹⁸⁷ See, e.g., 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 pervasive information asymmetries and expertise asymmetries). In an interconnected financial market, financial shocks can be transmitted faster than regulators are able to address them. The inability of regulators to effectively police financial markets, coupled with the ability for uncertainty to spread quickly, allows for market failures to be amplified into panics. Financial market complexity increases uncertainty, which increases the risk of a panic. *Id.*

¹⁸⁸ Cf. *supra* Part II.A (discussing ring-fencing’s role in helping to correct market failures).

¹⁸⁹ See *supra* note 159 and accompanying text.

¹⁹⁰ See *supra* note 136 and accompanying text.

¹⁹¹ See *supra* notes 182-184 and accompanying text.

¹⁹² *Regulating Complexity in Financial Markets*, *supra* note 147, at 248.

¹⁹³ *Id.*

¹⁹⁴ *Id.*

system through “modularity,” helping to reduce the chance that a failure in one part of the system will systemically trigger a failure in another part.¹⁹⁵

Ring-fencing could insert modularity into the financial system by using some or all of the tools discussed—including bankruptcy remoteness, ability to operate on a standalone basis, protection against affiliates, limitations on risky activities and investments, and protection against cross-border risks¹⁹⁶—to protect certain systemically important financial firms.¹⁹⁷ That would help to ensure that failures of those firms’ affiliates or counterparties would not necessarily cause the ring-fenced firms to fail. The Vickers Report¹⁹⁸ implicitly refers to this as the use of “subsidiarization,” meaning that ring-fencing retail banking operations¹⁹⁹ would help ensure that “if a large bank gets into trouble then the damage could be more easily contained and resolved, protecting depositors and taxpayers, and thereby preventing or inhibiting the kind of contagion that leads to widespread systemic instability and the kind of political pressure that leads to “too-big-to-fail” policies.”²⁰⁰

III. COSTS AND BENEFITS

The analysis so far has shown that ring-fencing can help to correct market failures, thereby increasing efficiency and protecting against systemic risk, by reducing information asymmetry, safeguarding deposit-taking functions of banks, and limiting the

¹⁹⁵ *Id.*

¹⁹⁶ *See supra* notes 24-82 and accompanying text.

¹⁹⁷ *Cf. supra* note 179 and accompanying text (referring to financial firms that have the potential to generate large externalities as SIFIs). The Dodd-Frank Act delegates to regulators the determination of which financial firms are systemically important. 12 U.S.C. §5325.

¹⁹⁸ Vickers Report, *supra* note 2.

¹⁹⁹ Recall that the Vickers Report defines retail banking as banking provided for individuals and small and medium-sized enterprises. *See supra* note 63 and accompanying text.

²⁰⁰ Lawrence Baxter, *Taking on the Juggernauts*, THE PARETO COMMONS, Apr. 11, 2011, <http://www.theparetocommons.com/2011/04/taking-on-the-juggernauts/>.

ability of firms to engage in risky behavior.²⁰¹ The analysis has also shown that ring-fencing can further protect against systemic risk by introducing modularity.²⁰²

Ring-fencing also has potential costs, however.²⁰³ Among other costs, it can increase the cost of financial services by eliminating the ability of banks to use low-cost deposits to fund other investments and services.²⁰⁴ It also can reduce a financial firm's diversification²⁰⁵ and economy-of-scope²⁰⁶ benefits.

This Part III critiques three types of actual and proposed regulatory uses of ring-fencing—bank ring-fencing, utility ring-fencing, and the ring-fencing of SIFIs—in light of their benefits and costs.

A. Bank Ring-Fencing

In the banking context, ring-fencing has been, and is proposed to be, used primarily to legally deconstruct banks to reallocate and reduce risk by limiting their ability to engage in risky activities.²⁰⁷ The Glass-Steagall Act²⁰⁸ represented an actual

²⁰¹ See *supra* notes 189-191 and accompanying text.

²⁰² See *supra* notes 192-200 and accompanying text.

²⁰³ Furthermore, no ring-fencing measure is perfect. For example, despite avoiding Enron's bankruptcy, PGE had difficulty accessing short-term capital markets after that bankruptcy. MITCHELL, *supra* note 48, at 14. Furthermore, even when appropriate ring-fencing measures are adopted, there are still transactional costs. *Cf. id.* (discussing how ratepayers bear part of the costs of utility ring-fencing).

²⁰⁴ HIGH-LEVEL EXPERT GROUP ON REFORMING THE STRUCTURE OF THE EU BANKING SECTOR, FINAL REPORT 99 (Brussels, 2 October 2012) [hereinafter EU BANK PANEL REPORT] (proposing ring-fencing banks by separating their commercial banking and trading functions).

²⁰⁵ A financial firm's business model is built on many dimensions including size, activities, income model, capital and funding structure, ownership, and corporate structure. See *id.* at 32-66 (although questioning whether there are benefits from diversification in banking).

²⁰⁶ See *infra* notes 221-222 and accompanying text. See also 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).

²⁰⁷ Securitization and covered bond transactions raise other ways in which ring-fencing has been, and is proposed to be, applied to banks. In these transactions, the ring-fencing

regulatory use of ring-fencing—and the Vickers Report²⁰⁹ represents a proposed regulatory use of ring-fencing—for these purposes.

(1) The Glass-Steagall Act

The ring-fencing represented by the Glass-Steagall Act, which legally deconstructed banks by separating their deposit-taking activities from their riskier investment banking activities,²¹⁰ could—and for some banks, may well—have helped to correct market failures.²¹¹ Safeguarding deposits is arguably beneficial to the public²¹² and may need regulatory protection because it appears to suffer from a public-goods problem.²¹³ By legally isolating deposit-taking banks from liabilities associated with riskier banking activities, the Glass-Steagall Act helped to safeguard deposits.

The ring-fencing represented by the Glass-Steagall Act could also have helped correct market failures in the form of information failure resulting from bounded rationality.²¹⁴ Bounded rationality can impact deposit-taking banks by causing bank runs,

(discussed *supra* notes 24-37 and accompanying text) is intended, among other things, to achieve the public benefit of enabling banks to more easily transform their existing inventory of loans into cash from which to make new loans. Steven L. Schwarcz, *The Future of Securitization*, 41 CONN. L. REV. 1313, 1315 (2009).

²⁰⁸ See *supra* notes 72-74 and accompanying text (describing the Glass-Steagall Act).

²⁰⁹ See *supra* notes 59-70 and accompanying text (describing the Vickers Report).

²¹⁰ See *supra* note 72 and accompanying text.

²¹¹ These market failures do not include non-competitive markets. Recall that banks are neither monopolies nor oligopolies, and the market for banking activities is competitive. See *supra* note 120 and accompanying text.

²¹² Former Federal Reserve Chairman Paul A. Volcker has observed, for example, that banks perform a critical role in the financial system and in the economy for several reasons, including as “custodians for the bulk of the liquid savings in the economy” STATEMENT BY PAUL A. VOLCKER, CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, BEFORE THE COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS, U.S. SENATE, APRIL 26, 1983, 69 FED. RES. BULL. 356, 359 (1983) (hereinafter “VOLCKER STATEMENT”).

²¹³ See *supra* note XX and accompanying text.

²¹⁴ Another failure, though not technically a “market failure,” occurs when banks get too big to manage efficiently. See Baxter, *supra* note 206, at 818-25. Former FDIC Chairperson Sheila Blair believes, for example, that the big banks are too big to manage centrally and regulate, and they do not effectively produce shareholder value. She argues that there are management inefficiencies in trying to centrally manage financial firms that

in which some depositors panic, causing a grab race that can cause the bank to default.²¹⁵ By making deposit-taking banks safer, Glass-Steagall's ring-fencing would have made depositors less likely to panic, thereby reducing the risk of bank runs.

Glass-Steagall's ring-fencing did not appear to have addressed market failures caused by either agency conflicts²¹⁶ or, except indirectly,²¹⁷ responsibility failure. The ring-fencing could have helped to protect against systemic risk, however, by making deposit-taking banks less risky. It is unclear, though, if that always represented a net benefit. The dilemma was that Glass-Steagall's ring-fencing made deposit-taking banks less risky by separating the riskier investment-banking activities into different legal entities; and lacking the stability of a traditional banking business, those different entities would themselves be more likely to fail and thus systemically risky.

Turning to a cost-benefit analysis, one benefit of Glass-Steagall's ring-fencing was that it was a relatively simple rule to implement.²¹⁸ More tangibly, Glass-Steagall's ring-fencing helped to correct several market failures, thereby safeguarding deposits and

operate so many different business lines, and that smaller, more specialized firms that focus on core businesses would have better efficiencies, fewer conflicts, and less taxpayer risk. Erin Kitzie, *CNBC Transcript: Former FDIC Chairman Sheila Blair Speaks with CNBC's Scott Wapner Today on "Fast Money Halftime Report"*, CNBC (July 25, 2012, 1:34 PM), <http://www.cnbc.com/id/48249787>. An incidental benefit of the Glass-Steagall Act is that it would reduce the size of banks that perform traditional banking activities. The too-big-to-manage problem is not, however, unique to banks. Peter Fox-Penner, *Too Big to Regulate? THE BASELINE SCENARIO*, Jan. 16, 2010, available at <http://baselinescenario.com/2010/01/16/too-big-to-regulate/> (comparing the too-big-to-regulate problem of utilities—such as the complexity of Enron faced by the U.S. Federal Energy Regulatory Commission—with that of banks).

²¹⁵ See *supra* notes 160-162 and accompanying text.

²¹⁶ The agency conflicts of banks do not appear to be significantly different from those of non-banks, nor does Glass-Steagall's ring-fencing appear to address agency conflicts.

²¹⁷ By reducing the risk of bank runs, the Glass-Steagall Act indirectly would have reduced the externalities resulting from such a run causing a default, which triggers a system-wide panic. [+ for Volcker Rule: Ring-fencing can resolve this responsibility failure by limiting the risky investments that a bank can make, thereby providing stability not only to individual banks, but also to the system as a whole by making all banks more stable.]

²¹⁸ See, e.g., Luigi Zingales, *Why I was Won Over by the Merits of Glass-Steagall*, FIN. TIMES, June 11, 2012, at 11 (arguing that Glass-Steagall was a simple rule that worked).

reducing the risk of bank runs.²¹⁹ The net value of those benefits is unclear, however. In the U.S., at least, government deposit insurance also safeguards deposits and prevents bank runs; therefore, ring-fencing for those purposes may well have been duplicative. Similarly, although Glass-Steagall's ring-fencing might have reduced systemic risk from traditional banking, it might inadvertently have increased systemic risk from investment banking.²²⁰

It thus is uncertain whether Glass-Steagall's ring-fencing provided net benefits. Furthermore, any net benefits would have to be offset by additional costs, including the possibility that such ring-fencing placed U.S. banks at a competitive disadvantage with foreign banks.²²¹ Part of this competitive disadvantage arguably resulted because Glass-Steagall's ring-fencing impaired U.S. banks' economies of scope: that "folding banking in with insurance, securities, and the like might produce lower costs in matching sources and uses of funds."²²²

²¹⁹ The safeguarding of deposits not only constitutes a benefit for depositors but also constitutes a benefit for banks by helping to avoid bank runs. See Gillian G. Garcia, *Protecting Bank Deposits* 9 INT'L MONETARY FUND: ECON. ISSUES 1, 2-3 available at <http://www.imf.org/external/pubs/ft/issues9/issue9.pdf>. The safeguarding of deposits can also mean preventing deposited monies from being used in risky investments. See Ronald Michie & Simon Mollan, *British and American Banking in Historical Perspectives: Beware of False Precedents*, HIST. & POL'Y., available at <http://www.historyandpolicy.org/papers/policy-paper-128.html>. From that perspective, government deposit insurance might incentivize a bank to use deposited monies in risky investments. See generally PATRICIA A. MCCOY, THE MORAL HAZARD IMPLICATIONS OF DEPOSIT INSURANCE: THEORY AND EVIDENCE, SEMINAR ON CURRENT DEVELOPMENTS IN MONETARY AND FINANCIAL LAW WASHINGTON, D.C., OCTOBER 23-27, 2006, available at <http://www.imf.org/external/np/seminars/eng/2006/mfl/pam.pdf> (arguing that deposit insurance can incentivize banks to take unnecessary risks).

²²⁰ See *supra* note 217 and accompanying text.

²²¹ See e.g. WILLIAM D. JACKSON, CONG. RESEARCH SERV., GLASS-STEAGALL ACT REFORM 3 (Apr. 7. 1995) (discussing the competitive disadvantage of U.S. banks under the Glass-Steagall Act); WILLIAM D. JACKSON, CONG. RESEARCH SERV., GLASS-STEAGALL ACT MODERNIZATION? 9 (Aug. 13. 1996) (same).

²²² WILLIAM D. JACKSON, CONG. RESEARCH SERV., FINANCIAL MODERNIZATION/GLASS-STEAGALL ACT ISSUES AND THE FINANCIAL SERVICES ACT OF 1998, H.R. 10 AS PASSED IN THE HOUSE 5 (Jun. 12. 1998). See also U.S. GENERAL ACCOUNTING OFFICE, REPORT TO THE HONORABLE EDWARD J. MARKEY, CHAIRMAN, SUBCOMMITTEE ON TELECOMMUNICATIONS AND FINANCE, COMMITTEE ON ENERGY AND COMMERCE, HOUSE

It also is unclear whether Glass-Steagall's ring-fencing, had it applied during the recent financial crisis, would even have provided net value. One commentator argues, for example, that "[t]he most telling argument against a return of Glass-Steagall is that, even if it had been fully in force in 2008, nothing would have been different."²²³ During the crisis, several major U.S. banks decided, after their own internal studies, not to separate their traditional (e.g., deposit-taking) and investment-banking operations.²²⁴ Furthermore, Citigroup commissioned a prominent management-consulting firm to conduct an independent study of whether it should be separated into ring-fenced traditional-banking

OF REPRESENTATIVES: BANK POWERS ISSUES RELATED TO REPEAL OF THE GLASS-STEAGALL ACT 25-27 (Jan 22, 1988) (examining economies of scope). Glass-Steagall's ring-fencing might have created other costs. Some argue, for example, that its mandated separation caused bankers and the financial arms of non-depository firms to become competitors. JACKSON GLASS-STEAGALL ACT REFORM, *supra* note 221, at 2. Research has also suggested that Glass-Steagall's ring-fencing increased the cost of external finance for corporate investment. *See* Carlos D. Ramirez, Did Glass-Steagall Increase the Cost of External Finance for Corporate Investment?: Evidence from Bank and Insurance Company Affiliations, 59 J. ECON. HIST. 372 (June 1999) available at <http://www.jstor.org/stable/2566556>.

²²³ Peter J. Wallison, *Glass-Steagall Would Have Made No Difference*, FIN. TIMES, June 14, 2012, at 8. Wallison explains that "the major US commercial banks and investment banks that got into trouble in the global financial crisis were completely independent of one another. They were unaffiliated before Glass-Steagall was modified and remained unaffiliated afterwards. So if Glass-Steagall had been fully in force in 2008 it would have changed nothing." *Id.* Wallison's assessment may not be fair, however, because Glass-Steagall's ring-fencing applied only to affiliated firms. *Cf.* Holman W. Jenkins, Jr., Op-Ed., *Sandy Weill Still Doesn't Have the Answer*, WALL ST. J., July 28, 2012, at A17, available at Factiva, Doc. No. J000000020120728e87s0001r (arguing that restoring the Glass-Steagall Act would change nothing because governments and banks are too intertwined because of the size of government debt); BARTH & PRAHBA., *supra* note 82 ("Nor is there clear evidence that separating commercial banking from investment banking would increase safety. Despite strong separation between the two businesses in the 1980s under the Glass-Steagall Act, several big banks nevertheless almost failed because of bad loans in Latin America. Likewise, legions of savings-and-loans failed due to real estate loans.").

²²⁴ *See* Lauren Tara LaCapra, et al., *Banks Bristle at Breakup Call from Sandy Weill*, REUTERS, July 27, 2012, available at <http://www.reuters.com/article/2012/07/27/banks-weill-idINL2E8IQF5120120727>.

and investment-banking entities.²²⁵ That study concluded that the separation would be inefficient.²²⁶

(2) The Vickers Report

The ring-fencing proposed in the Vickers Report—which (somewhat like the Glass-Steagall Act) would legally deconstruct banks by separating traditional retail banking activities (including deposit-taking) from their riskier investment banking activities²²⁷—could help to correct market failures. Safeguarding retail deposits is beneficial to the public but, because it (like all deposit taking²²⁸) appears to suffer from a public-goods problem, it may need regulatory protection. The Vickers Report focuses on the retail deposit-taking functions of banks.²²⁹ By legally separating retail deposit-taking banking from liabilities associated with riskier banking activities and from insolvency risks, the Vickers Report’s ring-fencing could help to safeguard retail deposits.

As with Glass-Steagall’s ring-fencing, the Vickers Report’s ring-fencing could also help correct information-failure market failures resulting from bounded rationality, thereby reducing the risk of bank runs.²³⁰ Unlike Glass-Steagall, however, this would constitute a clearer benefit because the U.K., unlike the U.S., lacks government deposit insurance to safeguard retail deposits and prevent bank runs.²³¹

²²⁵ See *id.* (discussing a study performed by Bain & Company at the request of Citigroup’s Chairman, Sandy Weill).

²²⁶ *Id.* That study is not necessarily dispositive, however, because it is not publicly available for scrutiny. *Id.* Citigroup might have had unique circumstances. Moreover, part of the study’s conclusion was apparently based on tax considerations (*id.*), whereas any adverse tax impact of ring-fencing presumably could be rendered neutral in a regulatory ring-fencing.

²²⁷ See *supra* note XX and accompanying text.

²²⁸ See *supra* notes 212-213 and accompanying text.

²²⁹ Vickers Report, *supra* note 2, at 36-38.

²³⁰ See *supra* notes 214-215 and accompanying text.

²³¹ Cf. ASLI DEMIRGÜÇ-KUNT, BAYBAR S KARACAOVALI & LUC LAEVEN, DEPOSIT INSURANCE AROUND THE WORLD: A COMPREHENSIVE DATABASE 75 (June 2005) available at <http://elibrary.worldbank.org/docserver/download/3628.pdf?expires=1362029826&id=id&accname=guest&checksum=F334419E6956B062B1F314234B77FE75> (discussing that in the U.K. the deposit insurance system is government legislated but privately

The Vickers Report’s ring-fencing could also help to protect against systemic risk by making banks performing traditional retail banking services less risky. As with Glass-Steagall’s ring-fencing, however, it is unclear if that will represent a net benefit: those banks would be made less risky by separating their riskier investment-banking activities into different legal entities that lack the stability of a traditional banking business; therefore, those different entities would themselves become more likely to fail and thus systemically risky.²³²

The Vickers Report’s ring-fencing also purports to protect the banking function of operating payments systems.²³³ Like safeguarding deposits, protecting the operation of payments systems is arguably beneficial to the public.²³⁴ It is unclear, though, if this function needs regulatory protection. Although operating payments systems is still largely a banking function, there are an increasing number of “nonbank” private payments systems. For example, Google Wallet, Square, and iTunes all operate forms of payments systems without being banks.²³⁵

The Vickers Report’s ring-fencing has additional costs and benefits not dissimilar to those of Glass-Steagall’s ring fencing. For example, “[l]arge banks mostly hate the idea [of modularity created by the Vickers Report] because it inhibits their ability to reorganize, restructure and fund operations at their will. They claim that the forced

administered and funded; and that there currently is no public funding for deposit insurance). A full cost-benefit analysis might also compare the cost of the U.K. implementing government deposit insurance.

²³² See *supra* notes 217-218 and accompanying text.

²³³ Vickers Report, *supra* note 2, at 35.

²³⁴ Chairman Volcker has observed not only that banks perform a critical role in the financial system and in the economy as “custodians for the bulk of the liquid savings in the economy” (*see supra* note 212) but also as “operators of the payments system” *Id.*

²³⁵ See *2011 Evolution of Payments Market Map*, FIRSTPARTNER, http://www.ibfsinc.com/downloads/2011_evolution_of_payments_market_map_evaluation.pdf (last visited Dec. 21, 2012); *History of Money and Payments Infographic*, INTUIT, <http://payments.intuit.com/history-of-money-and-payments/> (last visited Dec. 21, 2012).

structuring imposed by subsidiarization does not match the realities (for which read ‘convenience’) of daily business operations.”²³⁶

Unlike Glass-Steagall, however, the Vickers Report provides its analysis of the projected costs of implementing its ring-fencing. The Commission that promulgated that Report estimated that its implementation would directly cost the U.K. banking industry in the range of £4-7 (\$6.28-11) billion per year.²³⁷ Above that, it estimated that the cost of lower economic growth would likely be in the range of £1-3 (\$1.57-4.71) billion per year.²³⁸ U.K. banks independently have estimated their implementation costs to be as much as £10 (\$15.71) billion per year.²³⁹

These costs, however, should be seen in perspective. An alternative to ring-fencing, bailing out financial firms that are deemed too big to fail, also comes with an exorbitant cost—especially if those firms engage in morally hazardous behavior.²⁴⁰ Ring-fencing can help to mitigate the too-big-to-fail problem ring-fencing, bringing stability to financial markets. If ring-fencing is successful, a recent cost-benefit analysis conducted by The Financial Times in response to the Vickers Report has concluded that the benefits of ring-fencing should outweigh its costs. The Financial Times compared the highest official yearly estimate of implementing the Vickers Report, £7 (\$11) billion,²⁴¹ with its own estimate of £40 (\$62.84) billion as the yearly cost of enduring financial crises.²⁴²

²³⁶ Baxter, *supra* note 200 (arguing that, nonetheless, “there are a number of broader issues at stake here, not least of which is protecting the public from the costs of failed bank operations”).

²³⁷ Sharlene Goff, *Just the Facts: the Vickers Report*, FINANCIAL TIMES (Sep. 12, 2011), available at <http://www.ft.com/intl/cms/s/0/7321c692-dd16-11e0-b4f2-00144feabdc0.html#axzz1t1VC61lr>.

²³⁸ *Id.* These estimates do not include the costs of operational changes, such as establishing an independent board for the bank’s retail arm. *Id.*

²³⁹ *Id.*

²⁴⁰ Brendan Greeley, *The Price of Too Big to Fail*, BLOOMBERG BUSINESSWEEK: GLOBAL ECONOMICS, July 05, 2012, <http://www.businessweek.com/articles/2012-07-05/the-price-of-too-big-to-fail>. See also Judge, *supra* note 133, at 34 (discussing problem of firms being too-big-to-fail).

²⁴¹ See *supra* note 237 and accompanying text.

²⁴² Goff, *supra* note 237.

This cost-benefit analysis would therefore heavily weigh in favor of ring-fencing even if the cost of ring-fencing were as high as £10 (\$15.71) billion per year, the amount independently estimated by U.K. banks.²⁴³

The foregoing balancing assumes, of course, that ring-fencing is successful: “the costs [of ring-fencing under the Vickers Report] are clearly only worth paying if the proposals are successful in averting another crisis.”²⁴⁴ Many are skeptical of the ability of ring-fencing to totally prevent financial crises.²⁴⁵

This cost-benefit analysis do not necessarily include costs resulting from the difficulty of ring-fenced U.K. banks to compete internationally—a problem that parallels the problem that Glass-Steagall ring-fenced banks were arguably at a competitive disadvantage with foreign banks²⁴⁶—and the impact of that on the U.K. economy. As indicated, that cost has been estimated to be as high as £3 (\$4.71) billion per year.²⁴⁷ Moreover, there is an intangible cost if, as a result of the Vickers Report ring-fencing, London loses its attractiveness as a global financial center.²⁴⁸ Nor does the cost-benefit

²⁴³ See *supra* note 239 and accompanying text.

²⁴⁴ Goff, *supra* note 237.

²⁴⁵ See, e.g., Adam Levitin, *In Defense of Bailouts*, 99 GEO. L. J. 435, 467 (2011) (observing that “Short of completely restructuring the financial services marketplace, firewalls will offer incomplete protection at best.”). At the Fifth Annual Risk Conference of the Federal Reserve Bank of Chicago (March 12, 2012), http://www.chicagofed.org/webpages/events/2012/risk_conference.cfm#, Thomas Hoenig, Former President, Federal Reserve Bank of Kansas City and nominated to be Vice Chair of the FDIC, responded to the author’s comments on ring-fencing banks by noting, in his experience, the failure of firewalls.

²⁴⁶ See *supra* notes 221-222 and accompanying text.

²⁴⁷ See *supra* note 238 and accompanying text.

²⁴⁸ Louise Armistead, *George Osborne Reforms Will Devalue British Banks, Analysts Warn*, THE TELEGRAPH, Jan. 30, 2013, available at <http://www.telegraph.co.uk/finance/newsbysector/banksandfinance/9847459/George-Osborne-reforms-will-devalue-British-banks-analysts-warn.html>. Cf. Levitin, *supra* note 245, at 467 (observing that in “a world of competitive global capital markets, attempts to restructure the domestic financial services industry with an eye to risk compartmentalization could result in firms relocating to more regulatorily conducive (that is permissive) jurisdictions”). There also could be costs associated with enforcing ring-fencing. In a February 2013 speech, Chancellor of the Exchequer George Osborne

analysis compare the costs and benefits of partial ring-fencing measures, such as those recently proposed by the German Ministry of Finance,²⁴⁹ or the costs and benefits of less invasive alternatives to ring-fencing.²⁵⁰

B. Utility Ring-Fencing

From a cost-benefit standpoint, utility companies represent the easiest case for ring-fencing. Although utility companies are normally monopolies, their ring-fencing is not aimed at correcting unfair pricing due to a monopoly-power market failure.²⁵¹ Rather,

announced that the Bank of England will be empowered to break up banks that attempt to circumvent the ring-fencing implemented under the Vickers Report. Mark Scott, *Osborne Promises More Regulatory Power to Split Up British Banks*, N.Y. TIMES DEALBOOK, Feb. 04, 2013, available at <http://dealbook.nytimes.com/2013/02/04/osborne-promises-more-regulatory-power-to-split-up-big-banks/>. This enforcement mechanism has been called “electrifying” the ring-fence. Thomas Pascoe, *George Osborne misses the point – retail banks, not investment banks, caused this crisis*, THE TELEGRAPH, Feb. 04, 2013, <http://blogs.telegraph.co.uk/finance/thomaspascoe/100022647/george-osbornes-misses-the-point-retail-banks-not-investment-banks-caused-this-crisis/>. Although Osborne’s proposal to electrify the ring-fence has met with the criticism that it “could increase the overall costs of the reform for the [banking] industry,” others observe that, without disincentives, banks will try to game the rules. Armistead, *supra* note 248.

²⁴⁹ See “German Government approves draft bank-separation law and new criminal-law provisions for the financial sector,” GERMAN FEDERAL MINISTRY OF FINANCE, Feb. 6, 2013, available at

<http://www.bundesfinanzministerium.de/Content/EN/Pressemitteilungen/2013/2013-02-06-german-government-approves-draft-bank-separation-law.html>. The German proposal

is considered a partial ring-fencing measure. Although it limits some of the risk to banking activities by requiring many proprietary trading activities to be placed in a separately capitalized subsidiary, banks are allowed to continue certain of their risky activities, such as proprietary trading for the purpose of market making. Some commentators say this means that “European banks won’t have to ring-fence their risky activities after all.” George Hay & Dominic Elliott, *Living Dangerously Without Ring-Fencing*, N.Y. TIMES DEALBOOK, Jan. 30, 2013, available at <http://dealbook.nytimes.com/2013/01/30/living-dangerously-without-ring-fencing/>.

²⁵⁰ Cf. Alistair Darling, *A Crisis Needs a Firewall Not a Ring-fence*, FINANCIAL TIMES, Feb 4, 2013, available at http://www.ft.com/cms/s/0/3d164732-6ec7-11e2-9ded-00144feab49a.html?ftcamp=published_links%2Frss%2Fcompanies_uk%2Ffeed%2F%2Fproduct#axzz2KFdWvkrl (comparing ring-fencing with requiring higher bank-capital requirements).

²⁵¹ See *supra* notes 120-123 and accompanying text (explaining why, even though utility companies are monopolies, ring-fencing’s application to utilities is unrelated to monopoly problems).

utility companies are ring-fenced to protect them against internal and external risks, so they can be assured to be able to continue providing the public with essential utilities such as power, clean water, and communications.²⁵²

The very fact of a utility company being a monopoly effectively creates a structural mandate for ring-fencing: the utility company should be protected from risk because it is the only entity in its service area able to provide its essential services. The benefits of ring-fencing utility companies that are monopolies²⁵³ are therefore likely to exceed the costs.

Contrast monopoly utility companies with banks, which also provide important public services.²⁵⁴ Even assuming *arguendo* that some banking services, such as deposit-taking, are essential to the public, the need to ring-fence banks would not appear to be as strong as the need to ring-fence utility companies. That's because banks, unlike utility companies, are not monopolies; indeed, the market for banking services is competitive.²⁵⁵ Therefore, even if some banks become subject to risks that prevent them from providing their services, other banks would likely be able to provide those services. These differences help to explain why a cost-benefit analysis for ring-fencing banks needs to be more nuanced and fact-specific than for ring-fencing utilities.²⁵⁶

²⁵² The regulation of utilities by state public service commissions itself evidences the public-service nature of the services provided by these utilities. *See e.g. New York State Public Service Commission Mission Statement, available at <http://www3.dps.ny.gov/W/PSCWeb.nsf/ArticlesByTitle/39108B0E4BEBAB3785257687006F3A6F?OpenDocument>* (“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”).

²⁵³ This article does not purport to critique whether utility companies should be monopolies.

²⁵⁴ *Cf. supra* note 212 and accompanying text (discussing the public benefits of deposit-taking).

²⁵⁵ *See supra* note 120 and accompanying text.

²⁵⁶ *See supra* Part III.A.

C. Ring-Fencing of SIFIs

SIFIs—meaning systemically important financial institutions²⁵⁷—can include both banks and non-banks. Ring-fencing can apply to SIFIs in two ways: by protecting the publicly beneficial activities, if any, performed by SIFIs; and by protecting against the failure of SIFIs that are so large and contractually interconnected with other SIFIs (including banks) that their failure could trigger a systemic collapse.

(1) Protecting the Publicly Beneficial Activities Performed by SIFIs.

Part III.A already critiques whether ring-fencing should be used to protect the publicly beneficial activities performed by SIFIs that are banks. This Part III.C.1 therefore focuses on whether ring-fencing should be used to protect the publicly beneficial activities performed by SIFIs that are not banks. That inquiry raises a threshold question: What, if anything, is there about non-banking finance that is so beneficial to the public that it should be essential to protect, by regulation if necessary?

In answering this question, it should be noted that, as a result of disintermediation,²⁵⁸ non-bank SIFIs have begun to perform at least some services that previously were performed by banks.²⁵⁹ It does not appear, however, that any of those services are of the type that should justify bank ring-fencing. Non-bank SIFIs do not take deposits, and, at least in the U.S., they are legally restricted from doing so.²⁶⁰ Non-bank

²⁵⁷ See text accompanying note 179, *supra*.

²⁵⁸ *Regulating Shadow Banking*, *supra* note 186, at 626-27.

²⁵⁹ Cf. VOLCKER STATEMENT, *supra* note 212, at 360 (suggesting that, as other institutions “take over” the essential functions of banks, one option for government regulation is to include these institutions within the regulatory framework).

²⁶⁰ JONATHAN R. MACEY & GEOFFREY P. MILLER, *BANKING LAW AND REGULATION* 267-69 (2d ed. 1997). Deposit-taking institutions in the United States must receive a license, typically called a charter, which may be a national charter received from the U.S. Comptroller of the Currency or a state charter received by the relevant state banking authority. See Kenneth E. Scott, *In Quest of Reason: The Licensing Decisions of the Federal Banking Agencies*, 42 U. CHI. L. REV. 235 (1975) (discussing the history and decision making of Federal banking agencies); OFFICE OF THE COMPTROLLER OF THE CURRENCY, *COMPTROLLER’S LICENSING MANUAL: CHARTERS* (2009), available at <http://www.occ.gov/publications/publications-by-type/licensing-manuals/charters.pdf> (detailing the licensing requirements for a national bank charter).

SIFIs do not operate payments systems.²⁶¹ The only traditional banking activity that non-bank SIFIs are performing is the intermediation of credit, by providing financing to business.²⁶² Although this activity is beneficial to the public,²⁶³ there is no evidence suggesting that ring-fencing regulation is needed to protect it. A wide range of non-bank firms engage in disintermediated financing,²⁶⁴ and those that find aspects of ring-fencing desirable as a business matter are already able to contractually ring-fence themselves.²⁶⁵

(2) Protecting Against the Systemic Failure of SIFIs.

Another possible use of ring-fencing would be to protect against the failure of SIFIs that are so large and contractually interconnected with other SIFIs that their failure could trigger a systemic collapse.²⁶⁶ SIFIs would thus be required to be ring-fenced not because they perform vital banking or other activities but, instead, because they pose counterparty risk of systemic magnitude.

The competing costs and benefits of using ring-fencing to protect against the systemic failure of SIFIs are highly complex. In the first instance, such costs and benefits will depend on the ways in which the ring-fencing is structured.²⁶⁷ The costs of using ring-fencing may also be somewhat duplicative because ring-fencing is not the only regulatory solution to this problem; a government could decide, for example, to bail out failing SIFIs, as needed.

²⁶¹ See *supra* notes 233-235 and accompanying text.

²⁶² *Regulating Shadow Banking*, *supra* note 186, at 621, 626-27.

²⁶³ Cf. VOLCKER STATEMENT, *supra* note 212, at 360 (observing that banks perform a critical role in the financial system and in the economy by efficiently channeling savings to productive investments—i.e., making loans).

²⁶⁴ *Regulating Shadow Banking*, *supra* note 186, at 626-27.

²⁶⁵ See *supra* note 29 and accompanying text (discussing contractual ring fencing of SPEs in securitization transactions). Securitization transactions represent the most dominant form of disintermediated financing. *Regulating Shadow Banking*, *supra* note 186, at 622.

²⁶⁶ See *supra* notes 192-200 and accompanying text.

²⁶⁷ Cf. *supra* notes 196-197 (observing that ring-fencing could insert modularity into the financial system by using some or all of the tools discussed, including bankruptcy remoteness, ability to operate on a standalone basis, protection against affiliates, and limitations on risky activities and investments).

Nonetheless, even if its costs are partially duplicative, ring-fencing might be justified because the cost of a bailout can be exorbitant—not only the direct bailout cost but also encouraging SIFIs that view themselves as too big to fail to engage in morally hazardous behavior.²⁶⁸ An indirect benefit of ring-fencing is that it could help mitigate this too-big-to-fail problem by protecting against the failure of otherwise too-big-to-fail SIFIs. On the other hand, some or all of the direct bailout cost might be able to be privatized, such as through the establishment of a systemic risk fund.²⁶⁹ But on the other hand still, a privatized systemic risk fund could be difficult to implement.²⁷⁰

In short, using ring-fencing to protect against the systemic failure of SIFIs is a complicated subject that requires further study.

IV. CONCLUSIONS

Ring-fencing has been advanced in the United States and abroad as a regulatory solution to a wide range of financial and business problems. The term, however, is inconsistently defined and, even within a given regulatory context, often ill-defined.

Arguing that any definition of a financial regulatory concept should be rooted pragmatically, this article begins by analyzing the various real-world functions of ring-fencing. That analysis shows that when used as a form of financial regulation, ring-fencing can best be understood as legally deconstructing a firm in order to more optimally reallocate and reduce risk. The deconstruction could occur in various ways. For example, the firm could be made more internally viable, such as by separating risky assets from the firm, preventing the firm from engaging in risky activities or investing in risky assets, and ensuring that the firm is able to operate on a standalone basis even if its affiliates fail. The firm could also be protected from external risks, such as third-party claims, involuntary bankruptcy, and affiliate abuse.

²⁶⁸ See *supra* note 240 and accompanying text.

²⁶⁹ See *supra* notes 179-180 and accompanying text.

²⁷⁰ See *id.*

Ring-fencing's reallocation of risk raises important normative questions about when, and how, it should be used as an economic regulatory tool. The article examines and attempts to answer these questions, taking into account ring-fencing's potential costs and benefits.

For example, ring-fencing is often considered to help protect certain publicly beneficial activities that are performed by private-sector firms, such as utility companies²⁷¹ and banks.²⁷² From a cost-benefit standpoint, ring-fencing is highly likely to be appropriate to help protect the publicly beneficial activities performed by utility companies, such as providing power, clean water, and communications. Not only are those services essential but the utility company, normally being a monopoly, is the only entity able to provide the services. Ring-fencing the utility company against risk helps assure the continuity of those services.

It is less certain, though, that ring-fencing should be used to help protect other publicly beneficial activities. For example, even if the public services provided by banks were as important as those provided by public utilities,²⁷³ the need to ring-fence banks would not be as strong as the need to ring-fence public utilities. That's because the market for banking services is competitive. If some risky banks become unable to provide services, other banks should be able to provide substitute services. It therefore is uncertain whether the benefits of ring-fencing banks would exceed its costs.

Ring-fencing could also be used to help protect the financial system itself, by mitigating systemic risk and the related too-big-to-fail problem of large banks and other

²⁷¹ This is the purpose of ring-fencing used to protect essential public-utility services.

²⁷² This is the purpose of ring-fencing used under the Glass-Steagall Act and proposed in the Vickers Report.

²⁷³ This article uses the above example solely as an illustration. The article does not suggest that the public services provided by banks are as important as those provided by public utilities.

financial institutions.²⁷⁴ The competing costs and benefits of using ring-fencing for those purposes, however, would be highly complex. Not only would they depend, among other things, on the ways in which the ring-fencing is structured; they also would have to be compared to the costs and benefits of other regulatory approaches to mitigating systemic risk.

²⁷⁴ This is the purpose of ring-fencing proposed for systemically important financial institutions under the Dodd-Frank Act.