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Cover Page Footnote

J.D. Candidate, 2009, Fordham University School of Law; B.S., 2006, Pennsylvania State University. I would like to thank Professor Caroline Gentile for her invaluable guidance and assistance.

THE UNREGULABLES? THE PERILOUS CONFLUENCE OF HEDGE FUNDS AND CREDIT DERIVATIVES

Noah L. Wynkoop*

This Note examines credit derivatives, hedge funds, and the increase in systemic risk that results from the combination of the two. The issues considered include what method of regulation—entity, transaction, or self-regulation—provides the form and amount of disclosure that best addresses the risk that the markets as a whole will be affected by a financial shock. Emphasizing the role of traders and efficient capital markets, this Note proposes that a system of disclosure for derivatives similar to the Trade Reporting and Compliance Engine, or TRACE, system for corporate bonds would prevent rapid repricings that have the potential to shock the financial system.

INTRODUCTION

What happens when a Las Vegas gambler “roll[s] the dice”¹ on a \$34.4 trillion² bet using a “time bomb[.]”³ as a craps table? The financial world does not yet know. While investors pour trillions of dollars into hedge funds and credit derivatives, these entities and transactions remain two of the least understood elements in today’s financial markets. Like any investment, the return on a hedge fund or credit derivative may be positive or negative. When an investor gains, the lack of understanding casts a positive mystique upon these tools. Yet, when an investor loses, and more

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1. Melissa Antoszewski, Note, *Las Vegas Style Investing: In the Absence of Regulation, Risky Hedge Fund Bets Can Win Big and Lose Even More*, 8 Transactions Tenn. J. Bus. L. 381, 381 (2007).

2. Int’l Swaps & Derivatives Ass’n (ISDA), 2006 Year-End Market Survey, <http://www.isda.org> (follow “Surveys & Market Statistics” hyperlink; then follow “Summaries of Market Survey Results” hyperlink) (last visited Mar. 10, 2008) [hereinafter 2006 Year-End Market Survey]. For comparison purposes, the United States’ gross domestic product in 2006 was about \$13.2 trillion. World Bank Group, United States Data Profile, <http://devdata.worldbank.org/external/CPProfile.asp?PTYPE=CP&CCODE=USA> (last visited Mar. 7, 2008).

3. Letter from Warren E. Buffet, Chairman of the Bd., Berkshire Hathaway Inc., to the Shareholders of Berkshire Hathaway Inc. 13 (Feb. 21, 2003), available at <http://www.berkshirehathaway.com/letters/2002pdf.pdf>.

importantly, when financial markets are disrupted, that mystique turns into a cry for regulation.

This Note analyzes several available methods of regulation and identifies the one that can best reduce the systemic risk caused by hedge funds' use of credit derivatives. Part I defines and explains credit derivatives, hedge funds, and the systemic risk created by hedge funds' use of credit derivatives. Part II discusses three possible methods of regulation: (1) entity regulation, (2) transaction regulation, and (3) self-regulation. Part III attempts to resolve the conflict over which regulatory method is best suited to reduce systemic risk and then applies the appropriate regulation to hedge funds' use of credit derivatives.

I. BACKGROUND

This part provides the building blocks for understanding how hedge funds' use of credit derivatives increases systemic risk. Part I.A explains basic credit derivatives, their benefits to the financial markets, and the current applicable regulation. Part I.B describes hedge funds, their contributions to the financial markets, and current applicable regulation. Then, Part I.C provides a working definition of systemic risk, explains how hedge funds' use of credit derivatives increases systemic risk, and presents a historical example of the potential effects of not taking regulatory action. Part I.D explains the efficient capital markets hypothesis as a crucial consideration in determining the most appropriate method of regulation. Finally, Part I.E provides a successful example of improved transparency through disclosure in a market comparable to hedge funds' use of credit derivatives.

A. *Credit Derivatives*

Credit risk is the risk that a borrower will not repay its obligation.⁴ For hedge funds (and other financial institutions), this is a significant risk to which they devote considerable resources to measure and manage.⁵ In 2006, the ten largest banks in the United States faced about \$600 billion of potential credit risk from their derivatives holdings.⁶ Traditional methods of managing counterparty credit risk include "margining and collateral practices, which are designed to reduce counterparty credit risk in leveraged

4. George Chacko et al., *Credit Derivatives: A Primer on Credit Risk, Modeling, and Instruments* 3–4 (2006) (defining credit risk and describing it as a disease that inevitably infects businesses acting as lenders and borrowers); *see also* Stephen A. Ross et al., *Corporate Finance* 788 (8th ed. 2008) (using the term default risk to refer to the same risk). *See generally* Richard A. Brealey et al., *Principles of Corporate Finance* 648–65 (8th ed. 2006) (providing an in-depth analysis of credit risk in corporate finance).

5. *See* John C. Hull, *Options, Futures, & Other Derivatives* 610 (5th ed. 2003).

6. Timothy F. Geithner, Fed. Reserve Bank of N.Y., Remarks at the Global Association of Risk Professionals 7th Annual Risk Management Convention & Exhibition: Risk Management Challenges in the U.S. Financial System 5 (2006), <http://www.garp.com/events/GARP2006PostConv/presentation/Geithner.pdf>.

trading by providing a buffer against increased exposure.”⁷ But in addition to investors managing this particular risk, just as they do with everything in today’s financial world,⁸ investors can use credit risk as the basis for investments: credit derivatives.

1. Overview

The term “credit derivative” encompasses an array of transactions whose value is determined by an underlying entity’s credit worthiness,⁹ the most common of which is the credit default swap.¹⁰ The most basic credit default swap is a contract between two parties in which one party aims to hedge a specified asset, the reference asset. That party is the protection buyer and pays a premium, usually over time, to the protection seller in return for a default payment.¹¹ The default payment is a payment contingent on the reference entity, the issuer of the reference asset, experiencing a credit event such as a default.¹² As such, the credit worthiness of the reference entity is the main driver of the price of the swap.¹³ If a credit event occurs, the contract is terminated and the default

7. John Kambhu et al., Fed. Reserve Bank of N.Y., *Hedge Funds, Financial Intermediation, and Systematic Risk* 4 (2007), available at http://www.newyorkfed.org/research/staff_reports/sr291.pdf.

8. See, e.g., Brett Nelson, *Final Four Tickets at 80% Off*, *Forbes*, Dec. 22, 2005, http://www.forbes.com/home/entrepreneurs/2005/12/21/yoonew-ticketmaster-tickets-cx_bn_1222yoonew.html (discussing the development of futures contracts to hedge exposure to sporting event ticket prices).

9. For an explanation of nonstandard credit default swaps, see Hull, *supra* note 5, at 642–43.

10. See Fin. Insts., Fitch Ratings, *Global Credit Derivatives Survey: Risk Dispersion Accelerates* 1 (2005), available at http://www.fitchratings.com/corporate/reports/report_frame.cfm?rpt_id=255748 (login required) (stating that single-name credit default swaps account for two-thirds of all gross positions sold). Additionally, credit default swaps are being used extensively as building blocks to create synthetic collateralized debt obligations, an increasingly popular credit derivative. See David Rule, Bank of Eng., *The Credit Derivatives Market: Its Development and Possible Implications for Financial Stability*, *Fin. Stability Rev.*, June 2001, at 117, 140.

11. Chacko et al., *supra* note 4, at 152–53. For an illustration of a plain vanilla credit default swap, see Janet M. Tavakoli, *Credit Derivatives & Synthetic Structures: A Guide to Instruments and Applications* 78 (2d ed. 2001).

12. Chacko et al., *supra* note 4, at 152–53; Tavakoli, *supra* note 11, at 77. Unlike some other credit derivatives, the protection buyer in a credit default swap does not take on price risk, i.e., the risk that the underlying asset’s price will fall. *Id.* at 73. Although it is the most commonly specified, a default is only one defined credit event that can trigger the payment in a credit default swap. See, e.g., *Eternity Global Master Fund Ltd. v. Morgan Guar. Trust Co. of N.Y.*, 375 F.3d 168, 178–79 (2d Cir. 2004) (discussing the applicable credit events in the credit default swap at issue, including failure to pay, obligation acceleration, repudiation/moratorium, and restructuring); Chacko et al., *supra* note 4, at 18 (discussing typical credit events in all financial contracts).

13. The following is an example of a plain vanilla credit default swap: Assume manufacturing company ABC issues \$100 million worth of bonds. A hedge fund believes the bonds are inexpensive as compared to their default risks and consequently purchases a very large quantity. Not wanting to be completely exposed to the investment though, the fund decides to purchase a credit default swap from a large investment bank. In this contract, the hedge fund is the protection buyer, the bank is the protection seller, and the

payment is usually paid in one of two ways as set forth in the contract.¹⁴ In a physical settlement, the protection buyer transfers the reference asset to the protection seller in exchange for the default payment.¹⁵ In a cash settlement, the protection buyer keeps the reference asset, but the protection seller's payment is the "difference between the face value of the reference asset and its recovery value."¹⁶

This Note focuses on the over-the-counter credit derivatives market.¹⁷ It is a noncentralized market composed of individualized, privately negotiated contracts.¹⁸ Credit default swaps are the most common credit derivative product.¹⁹ The total notional amount of credit default swaps in the market was about \$34.4 trillion at the end of 2006.²⁰ Furthermore, the annual size of this market has skyrocketed as the growth in notional amounts outstanding has been in excess of 100% for the past three years.²¹

The use of credit derivatives provides many benefits to the financial markets and the players within those markets. For investors, both individuals and firms, one benefit is the ability to achieve payoffs in excess of those that would otherwise be available from the same level of investment.²² This is due to the fact that the protection buyer does not need to own the reference asset in order to buy protection on it. Another benefit for investors is the ability to hedge risks associated with a particular

company is the reference entity. The hedge fund pays a premium—the value of which is tied to the company's credit worthiness—to the bank. If, and only if, the company defaults on the specific bonds listed in the credit default swap, then the bank will pay the hedge fund the net loss it suffered as a result of the company's default.

14. Chacko et al., *supra* note 4, at 153.

15. *Id.*

16. *Id.*

17. Until recently, investors only entered into credit derivatives on an over-the-counter basis. *See, e.g., The Monitor*, Banking & Fin. Services Pol'y Rep., Sept. 2007, at 8, 8 (noting that the Chicago Mercantile Exchange will allow trading of a credit derivative product).

18. *See* Norman Menachem Feder, *Deconstructing Over-the-Counter Derivatives*, 2002 Colum. Bus. L. Rev. 677, 678.

19. Ross Barrett & John Ewan, BBA Credit Derivatives Report 2006, at 6 (2006), *available at* http://www.bba.org.uk/content/1/c4/76/71/Credit_derivative_report_2006_exec_summary.pdf.

The basic credit default swap is also used extensively as a building block to create synthetic collateralized debt obligations (CDOs). Rule, *supra* note 10, at 140. CDOs are the third most commonly used credit derivative product, accounting for about sixteen percent of the market. *See* Barrett & Ewan, *supra*, at 6.

20. ISDA, ISDA Market Survey: Notional Amounts Outstanding at Year-End, All Surveyed Contracts, 1987–Present 1 (2007), *available at* <http://www.isda.org/statistics/pdf/ISDA-Market-Survey-annual-data.pdf>. The "notional amount" of a derivative refers to an agreed upon amount on which to calculate payments that is tied to the underlying obligation, not the value of the transaction itself. *See* JPMorgan Chase & Co. v. Comm'r, 458 F.3d 564, 566 (7th Cir. 2006).

21. 2006 Year-End Market Survey, *supra* note 2.

22. René M. Stulz, *Should We Fear Derivatives?*, 18 J. Econ. Persp. 173, 180 (2004).

company or group of companies.²³ Furthermore, an investor can combine credit derivatives to create almost any desired risk profile.²⁴

For the credit markets, one benefit is the overall distribution of risk throughout the global infrastructure as parties transfer those risks they are unwilling to hold.²⁵ As such, it has been argued that credit derivatives can act as a shock absorber during corporate crises, cushioning against the worst possible losses.²⁶ Another benefit for the markets is an increase in liquidity and access to capital because credit default swaps allow banks to pass on risk from making loans.²⁷ Thus, banks retain less credit risk on each loan than they otherwise would and are able to lend more money to more businesses.²⁸ Credit derivatives are advantageous to both investors and the markets as a whole. As such, the current benefits of and potential increased participation in credit derivatives should be stressed when considering regulation.

2. Current Regulation

Credit default swaps provide a good example of both the type and impact of regulatory efforts in the credit derivatives market. In 2000, Congress passed the Commodity Futures Modernization Act.²⁹ The Act clarified that “swap agreements,” including credit default swaps, are not securities under the federal securities laws.³⁰ A “swap agreement” is defined very broadly and includes an agreement, contract, or transaction that “provides for any purchase, sale, payment or delivery . . . that is dependent on the occurrence . . . of an event or contingency associated with a potential financial, economic, or commercial consequence.”³¹ Even though a credit derivative such as a credit default swap would most likely fit this definition without further clarification, Congress also specifically labels a “credit default swap” as a swap agreement.³² Accordingly, the products are not subject to federal securities law registration requirements.

23. Frank Partnoy & David A. Skeel, Jr., *The Promise and Perils of Credit Derivatives*, 75 U. Cin. L. Rev. 1019, 1023 (2007).

24. *Id.* at 1024. A risk profile refers to the combination of investments that create the level of risk at which an investor is willing to be exposed. See generally Brealey et al., *supra* note 4, at 147–73. Financial institutions, such as banks and broker-dealers, reported that the largest use of credit default swaps was to “trade credit risk as part of an overall risk management strategy.” Fin. Insts., Fitch Ratings, *supra* note 10, at 7.

25. See *Five Questions for Timothy Geithner on the Risk Watch at New York’s Fed*, Institutional Investor, Mar. 2007, at 14, 14.

26. See Partnoy & Skeel, *supra* note 23, at 1023–24; see also *Have We Got to the Crisis Nadir Yet?*, Bus. & Fin., Sept. 28, 2007, at 16, 16.

27. See Partnoy & Skeel, *supra* note 23, at 1024–25.

28. *Id.* at 1025.

29. Pub. L. No. 106-554, § 1(a)(5), 114 Stat. 2763, 2763A-365 (codified in scattered sections of 7, 11, 12, and 15 U.S.C.).

30. *Id.* § 302(a) (codified at 15 U.S.C. § 77b-1 (2000)); *id.* § 303(a) (codified at 15 U.S.C. § 78c-1).

31. *Id.* § 301(a) (codified at 15 U.S.C. § 78c note).

32. *Id.*

Although the Commodity Exchange Act³³ broadly regulates derivative products,³⁴ credit default swaps are excluded swap transactions. They are excluded because they are either (a) made between eligible contract participants, are subject to individual negotiation by the parties, and are executed over-the-counter³⁵ or (b) a credit risk, credit measure, or occurrence out of the parties' control that is associated with a financial consequence.³⁶

B. Hedge Funds

Credit derivatives can be used by any investor that can find a counterparty willing to take the opposite side of a particular entity's credit risk.³⁷ Systemic risk is increased, however, when one of the parties is capable of entering into massive numbers of these contracts without disclosing any information. Accordingly, hedge funds are generally the parties that present the greatest risk to the financial markets.

1. Overview

Hedge funds are private pools of capital that remain largely unregulated in the United States, often borrow to enhance returns, and have managers who are in large part compensated based on performance.³⁸ The global hedge fund industry currently has about \$1.4 trillion in assets under management,³⁹ and it has experienced tremendous growth, about 3000% in the last sixteen years.⁴⁰ There are no restrictions on the type of trading strategies and financial instruments hedge funds may use. Funds create and make use of a variety of strategies, such as equity long/short, equity market

33. 7 U.S.C. §§ 1–25 (2000).

34. *See id.* § 1a(4) (defining “[c]ommodity” to include “all services, rights, and interests in which contracts for future delivery are presently or in the future dealt in,” thus covering derivatives).

35. *Id.* § 2(g).

36. *Id.* § 1a(13).

37. *See supra* Part I.A.1.

38. *See* Kambhu et al., *supra* note 7, at 2–4; President's Working Group on Fin. Mkts., *Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management 1* (1999) [hereinafter *President's Working Group*], available at <http://www.treas.gov/press/releases/reports/hedgfund.pdf>; *Rolling in It: Why Investors Should Kick Up a Fuss About Hedge-Fund Fees*, *Economist*, Nov. 18, 2006, at 75, 75.

39. This can only be estimated due to, inter alia, the lack of hedge fund registration requirements. Estimates vary according to the calculation agent. *See, e.g.*, Kambhu et al., *supra* note 7, at 7 (estimating total assets under management at \$1.43 trillion); Marko Maslakovic, *Int'l Fin. Servs.*, London, *Hedge Funds 1* (2007), available at http://www.ifsl.org.uk/uploads/CBS_Hedge_Funds_2007.pdf (estimating total assets under management at \$1.5 trillion); Q1 2007 Hedgefund.net (HFN) Hedge Fund Administrator Study, http://www.hedgefund.net/reports/admin_survey/adminStudy.htm (last visited Mar. 11, 2008) (estimating total administered hedge fund assets at \$2.267 trillion).

40. Ben Maiden, *Why Fund Registration Could Miss Its Target*, *Int'l Fin. L. Rev.*, June 2006, at 16, 16.

neutral, event-driven, convertible arbitrage, and global macro.⁴¹ In addition, funds use a variety of financial instruments such as options,⁴² short selling,⁴³ and derivatives.⁴⁴ Using these tools to pursue their strategies, the more than 8000 hedge funds in the United States play a large role in the financial markets.⁴⁵ In the domestic market, they represent eighty-nine percent of the trading in convertible bonds, sixty-six percent in distressed debt, thirty-three percent in emerging market bonds, and thirty-eight percent in credit derivatives.⁴⁶

Hedge funds provide benefits to the economy by “mitigating price downturns, bearing risks that others will not, making securities more liquid, and ferreting out inefficiencies.”⁴⁷ The most significant benefits are providing liquidity and reducing the mispricing of assets. Simply by actively trading and consistently updating their investment positions,⁴⁸ hedge funds create liquidity by increasing the number of buyers and sellers in the markets. In a more complex way, hedge funds also “provide liquidity to markets because they buy and sell assets against prevailing market sentiment with the effect of mitigating temporary supply and demand imbalances.”⁴⁹ Basically, the hedge funds buy assets whose prices have been driven down relative to the price of other related assets and simultaneously sell relatively overvalued assets.⁵⁰ Hedge funds also

41. See, e.g., Sam Kirschner et al., *The Investor's Guide to Hedge Funds* (2006) (providing industry insiders' views and explanations of the most common hedge fund strategies); William Fung & David A. Hsieh, *A Primer on Hedge Funds*, 6 J. Empirical Fin. 309, 318–22 (1999) (providing summaries and general statistics on seven investment styles); René M. Stulz, *Hedge Funds: Past, Present, and Future*, 21 J. Econ. Persp. 175, 180–82 (2007) (focusing on hedge funds' use of arbitrage and providing summary definitions of several investment styles).

42. See Brealey et al., *supra* note 4, at 544; John Downes & Jordan Elliot Goodman, *Dictionary of Finance and Investment Terms* 483–84 (6th ed. 2003) (defining an “option” as the right to buy or sell within a specified period for a predetermined price and including puts and calls in that definition).

43. See Downes & Goodman, *supra* note 42, at 631–32. “Selling short” is defined as the sale of a futures contract the underlying asset of which the seller does not own. *Id.* The seller borrows the underlying assets, sells them, and buys the same assets in the market at a future date to pay back the lender. *Id.*

44. See *id.* at 173 (defining derivative generally as a contract whose value is based on the performance of an underlying asset); Ross et al., *supra* note 4, at 714.

45. Kirschner et al., *supra* note 41, at 1.

46. Henny Sender & Anita Raghavan, *Worry Amid Hedge Fund Boom: Privileged Access to Information*, Wall St. J., July 27, 2006, at A1. Interestingly, other researchers have found it difficult to estimate the hedge fund industry's role in the credit derivatives market. See Nomura Fixed Income Research, Nomura Sec. Int'l, Inc., *Credit Default Swap (CDS) Primer* 2 (2004), available at http://www.securitization.net/pdf/content/Nomura_CDS_Primer_12May04.pdf.

47. Housman B. Shadab, *The Challenge of Hedge Fund Regulation*, Regulation, Spring 2007, at 36, 36.

48. See President's Working Group, *supra* note 38, at D-5.

49. *Id.* at A-5; see also Mark Mitchell & Todd Pulvino, *Characteristics of Risk and Return in Risk Arbitrage*, 56 J. Fin. 2135, 2165, 2170–71 (2001) (demonstrating hedge funds' impact in merger arbitrage as creators of liquidity).

50. President's Working Group, *supra* note 38, at A-5.

“reduce the mispricing of financial assets that might occur across markets, making markets more efficient.”⁵¹ Due to their flexible investment strategies and ability to adapt to quickly changing market conditions,⁵² hedge funds can make investments based upon mispriced risk or assets,⁵³ thereby pushing those prices closer to their true values.

Hedge funds may benefit the credit derivatives market specifically as well. In fact, “[t]he [over-the-counter] market in credit derivatives is often cited as a case in point where hedge funds play a critical role in market liquidity. Indeed it is likely the case that market depth and bid-ask spreads are improved by the participation of hedge funds.”⁵⁴ Hedge funds play an important role in the economy, and the benefits they provide should be given prominence when contemplating further regulation.⁵⁵

2. Current Regulation

Federal regulation of the hedge fund industry, including the use of credit derivatives, is relatively light. Currently, only four federal statutes have the potential to regulate hedge fund activity. Additionally, many hedge funds as well as their managers take advantage of statutory exceptions to these regulations.

51. Roger W. Ferguson, Jr., Vice Chairman, Bd. of Governors of the Fed. Reserve Sys., Remarks to the Banco de Mexico International Conference (Nov. 15, 2005), <http://www.federalreserve.gov/boarddocs/speeches/2005/200511152/default.htm>.

52. *Id.*

53. If a hedge fund thinks an asset is priced higher than its true value, the fund can sell it short. See Downes & Goodman, *supra* note 42, at 631–32. If a hedge fund thinks it is priced lower than true value, the fund can buy it now and sell it when the price rises.

54. Randall Dodd, *On the Hedge Fund Question: A Program of Reckless Complacency*, Fin. Pol’y Forum, Oct. 2006, <http://www.financialpolicy.org/fpfsfb29.htm>.

55. Many economists, legal scholars, and financial analysts firmly hold the opposite view that regulation is required to limit hedge funds’ role in the markets. See Nathan J. Greene, *The SEC’s Latest Hedge Fund Rulemaking: More Than 600 Comment Letters Later*, Banking & Fin. Services Pol’y Rep., July 2007, at 4, 7 (suggesting that possibly the only thing certain about the debate over whether to regulate hedge funds is that the debate itself will continue). The justifications for regulation are numerous. See, e.g., Andrew M. Kulpa, *The Wolf in Shareholder’s Clothing: Hedge Fund Use of Cooperative Game Theory and Voting Structures to Exploit Corporate Control and Governance*, 6 U.C. Davis Bus. L.J. 4, 4 (2005), <http://blj.ucdavis.edu/article.asp?id=582> (calling for further regulation of hedge funds in the corporate governance context); Thomas C. Pearson & Julia Lin Pearson, *Protecting Global Financial Market Stability and Integrity: Strengthening SEC Regulation of Hedge Funds*, 33 N.C. J. Int’l L. & Com. Reg. 1, 19–20 (2007) (calling for limits on hedge funds’ use of leverage); Christopher Glynn, *German Minister: Regulatory Push ‘Vindicated,’* HedgeFund.net, Sept. 4, 2007, <http://www.hedgefund.net/publicnews/default.aspx?story=7754> (noting politicians’ view that the subprime mortgage crisis that slowed the U.S. economy in 2007 is further evidence of the need for hedge fund regulation). See generally Paul F. Roye, Dir., Div. of Inv. Mgmt., U.S. Sec. & Exch. Comm’n (SEC), Statement by SEC Staff at Open Commission Meeting Considering Registration Under the Advisers Act of Certain Hedge Fund Advisers (July 14, 2004), <http://www.sec.gov/news/speech/spch071404pfr.htm> (providing several justifications for hedge fund regulation).

The Securities Act of 1933⁵⁶ regulates domestic securities transactions with the aims of protecting investors and promoting efficiency, competition, and capital formation.⁵⁷ To accomplish these goals, the Securities Act requires issuers to register their securities so that there is full and fair disclosure.⁵⁸ Even though hedge funds offer investors various types of securities,⁵⁹ they often avoid the regulation requirements by offering their securities privately.⁶⁰ That is, they can offer securities to select, qualified investors instead of selling common stock to the public.⁶¹

The Securities Exchange Act of 1934⁶² requires, among other things, the registration of brokers and dealers⁶³ and the securities they sell on a national exchange⁶⁴ with the Securities and Exchange Commission (SEC).⁶⁵ The Exchange Act also requires issuers to register any class of outstanding equity security if the issuer of such securities has \$1 million of total assets and a class of equity securities with more than 500 holders of record.⁶⁶ A registrant is then subject to further regulation, such as required periodic reporting,⁶⁷ restrictions on proxy solicitation,⁶⁸ and prohibitions against insider trading.⁶⁹ Hedge funds are able to avoid the registration and consequent requirements simply by having fewer than 500 investors.⁷⁰

While a hedge fund can avoid registration, other provisions may impose regulation on some of a fund's activities. If a hedge fund acquires beneficial ownership of more than five percent of a class of registered equity securities, it must file a beneficial ownership statement with the SEC, the security's issuer, and any exchange on which the security is traded.⁷¹ If a hedge fund meets the threshold as it invests, it must then make the 13(d) or 13(g) filing. Additionally, a hedge fund will be required to file quarterly reports regarding any account over which it exercises investment discretion that holds registered equity securities and has an aggregate fair market value of \$100 million.⁷² Again, an unregistered fund may meet a regulatory threshold thereby requiring disclosure of information based on its investing activity.

56. Ch. 38, 48 Stat. 74 (codified as amended at 15 U.S.C. §§ 77a–77aa (2000)).

57. 15 U.S.C. § 77b(b).

58. *Id.* §§ 77e(c)–77f.

59. *See id.* § 77b(a)(1) (defining a broad range of issuances as securities).

60. *Id.* § 77d(2) (exempting transactions by an issuer not involving a public offering).

61. *Id.*; *see also* SEC, Implications of the Growth of Hedge Funds 14 (2003), available at <http://www.sec.gov/news/studies/hedgefunds0903.pdf>.

62. Ch. 404, 48 Stat. 881 (codified as amended at 15 U.S.C. §§ 78a–78nn (2000)).

63. *Id.* § 78o. For definitions of broker and dealer, see *id.* § 78c(a)(4)–(5).

64. *Id.* § 78l.

65. *Id.* § 78d.

66. *Id.* § 78l(g).

67. *Id.* § 78m.

68. *Id.* § 78n.

69. *Id.* § 78o(f).

70. SEC, *supra* note 61, at 18–19.

71. 15 U.S.C. § 78m(d) (requiring a statement at the time when five percent is attained); *id.* § 78m(g) (requiring a statement whenever the SEC prescribes).

72. *Id.* § 78m(f).

Congress enacted the Investment Company Act of 1940⁷³ to protect investors further.⁷⁴ It prohibits investment companies,⁷⁵ including hedge funds, from engaging in transactions unless they register with the SEC.⁷⁶ However, hedge funds often elude registration by relying on one of two exceptions to the definition of an investment company. If the hedge fund maintains less than 100 investors⁷⁷ or has only qualified investors that purchase interests through private offerings,⁷⁸ it is not subject to the regulation.

The Investment Advisers Act of 1940⁷⁹ also requires hedge fund managers, as investment advisers, to register with the SEC.⁸⁰ Yet a hedge fund manager can again avoid registration by relying on the exceptions to the definition of an investment adviser. As long as the manager has fewer than fifteen clients in any year and does not work for an investment company, the manager is not subject to the regulation.⁸¹ The critical point for hedge fund managers is that, for the purposes of counting, only an individual fund is a client and not the investors in the funds themselves.⁸² Even the largest of hedge fund managers do not usually run more than fifteen funds at once.⁸³

C. Systemic Risk

While systemic risk has no formal definition, it is generally understood as the risk that the financial system as a whole will collapse.⁸⁴ A necessary element of this risk is the potential of financial events to lead to substantial adverse consequences in the real, global economy.⁸⁵ Credit derivatives and hedge funds both contribute to systemic risk.

73. Ch. 686, 54 Stat. 789 (codified as amended at 15 U.S.C. §§ 80a-1 to -64 (2000)).

74. 15 U.S.C. § 80a-1(b).

75. *See id.* § 80a-3 (defining investment companies).

76. *Id.* § 80a-7 (prohibiting transactions in interstate commerce by unregistered investment companies).

77. *See id.* § 80a-3(c)(1).

78. *See id.* § 80a-3(c)(7).

79. Ch. 686, 54 Stat. 847 (codified as amended at 15 U.S.C. §§ 80b-1 to -21 (2000)).

80. *See* 15 U.S.C. § 80b-3.

81. *Id.* § 80b-3(b)(3).

82. *See* Goldstein v. SEC, 451 F.3d 873, 874, 884 (D.C. Cir. 2006) (vacating the hedge fund rule that equated “client” to “investor” as arbitrary). *See generally* Registration Under the Advisers Act of Certain Hedge Fund Advisers, 69 Fed. Reg. 72,054 (Dec. 10, 2004) (codified at 17 C.F.R. pts. 275, 279), *invalidated by* Goldstein, 451 F.3d 873 (attempting to improve the SEC’s ability to protect investors and securities markets by increasing the number of hedge funds required to register).

83. Goldstein, 451 F.3d at 876.

84. *See* Anthony W. Ryan, Assistant Sec’y for Fin. Mkts., U.S. Dep’t of the Treasury, Remarks Before the Managed Funds Association Conference (June 11, 2007), <http://www.ustreas.gov/press/releases/hp450.htm>. Systemic risk is not the same as systematic risk. Systematic risk is risk that is inherent in financial markets, which cannot be avoided through diversification. *See* Ross et al., *supra* note 4, at 299; *see also* Brealey et al., *supra* note 4, at 162 & n.27.

85. *See* Kambhu et al., *supra* note 7, at 8.

1. Overview

While there are numerous benefits to the widespread use of credit derivatives,⁸⁶ and particularly credit default swaps, one drawback is increased systemic risk. This increase comes mostly from the effect on liquidity not only in the derivatives market but also in the broader credit markets. While there are several definitions of liquidity, it can be understood as “the ability to trade continuously in markets made up of several competing dealers with reasonable two-sided bid-offer spreads offering conventional trading volumes.”⁸⁷ Due to the size of the credit derivatives market, the network of parties within it, and its sensitivity to liquidity shocks, it makes a substantial contribution to systemic risk. Practically speaking, “[t]here is grave concern that if a number of [reference entities] simultaneously experienced credit events, the [entire] system would grind to a halt.”⁸⁸

Several characteristics of the credit derivatives market constrain its liquidity and hinder its ability to respond to liquidity shocks. First, many derivatives are pay-as-you-go, such that credit losses are paid as they come due and not reserved for in advance.⁸⁹ This increases the likelihood of a default as funding might not be available when it is needed.⁹⁰ Numerous defaults in a short period would then constrain liquidity in the credit markets. Second, trading is concentrated in a small number of counterparties. The top ten counterparties represented eighty-six percent of the volume in credit derivatives trading in 2005⁹¹ and the majority of the trading is done by just four counterparties.⁹² If just one of these reduces the amount of liquidity it provides, then the whole market would feel the effects. Third, the inherent structure of credit derivatives further links financial entities as parties to the transactions—they are all protection buyers, protection sellers, and reference entities. Because all the players are taking on every role, there is an increased risk that “[b]ig losses in credit derivatives could set off a chain reaction.”⁹³ For example, assume a hedge fund buys a large amount of credit default swap protection from a bank. If the reference entity defaults with no recovery, the bank must pay the entire

86. See *supra* Part I.A.1.

87. Tim Weithers, *Credit Derivatives, Macro Risks, and Systemic Risks*, Fed. Res. Bank of Atlanta Econ. Rev., Fourth Quarter 2007, at 43, 64.

88. *Id.*

89. See Edward Chilcote, Levy Econ. Inst. of Bard Coll., *Credit Derivatives and Financial Fragility 2* (2006), available at http://www.levy.org/pubs/pn_1_06.pdf.

90. *Id.*

91. See Fin. Insts., Fitch Ratings, *Global Credit Derivatives Survey: Indices Dominate Growth as Banks' Risk Position Shifts 7* (2006), available at http://www.fitchratings.com/corporate/reports/report_frame.cfm?rpt_id=291182 (login required).

92. Weithers, *supra* note 87, at 64 (noting that the majority of the volume in credit derivatives trading is done by JP Morgan, Morgan Stanley, Deutschebank, and Goldman Sachs).

93. Mara Der Hovanesian et al., *Taking Risks to Extremes: Will Derivatives Cause a Major Blowup in the World's Credit Markets?*, Bus. Wk., May 23, 2005, at 96, 96.

amount of protection to the hedge fund. If the bank is unable to pay its debts as a result, parties to credit default swaps with the bank as the reference entity will come into play. The protection sellers of those derivatives may have even been another bank. As more and more players become involved, the likelihood of defaults increases. Furthermore, if a counterparty to one of these large institutions terminates its derivative contracts, there is a risk that a run will occur in which other counterparties to the institution react by limiting their exposure.⁹⁴ Thus, effect on liquidity may not end with one player's impact on the availability of credit.

Hedge funds also contribute to systemic risk.⁹⁵ Fund activity that impacts "the ability of financial intermediaries or financial markets to efficiently provide credit" creates risks to the entire financial system.⁹⁶ Again, the focus is on liquidity. If a highly leveraged entity such as a hedge fund is forced to liquidate, the market is forced to absorb the risks the fund had assumed but of which the market was unaware.⁹⁷ The resulting surprise price changes in the markets "can heighten uncertainty about credit risk and disrupt the intermediation of credit. These . . . effects, if not contained, could cause a contraction of credit and liquidity, and ultimately, heighten the risk of a contraction in real economic activity."⁹⁸

The numerous effects to systemic risk can be seen from the example of a hedge fund's decision to constrain liquidity by no longer taking contrarian positions in the market.

Large dealers would be affected through losses on the part of leveraged counterparties to which they have credit exposure and through losses on their own market risk exposures. Losses on these exposures in turn can lead to further risk aversion and liquidation of positions. Other participants will find the liquidity of their balance sheets reduced, which could lead to further fire sales or a reluctance to transact. Solvent but suddenly illiquid market participants may default on their obligations. If the disruption to markets lasts long enough, borrowing and lending for real investment could be curtailed.⁹⁹

This increase in systemic risk may actually be more significant as banks take on greater exposure to credit derivatives. For example, Goldman Sachs, a seemingly formidable company by any measure, has derivatives exposure of more than \$1 trillion in face value.¹⁰⁰

94. Franklin R. Edwards & Edward R. Morrison, *Derivatives and the Bankruptcy Code: Why the Special Treatment?*, 22 Yale J. on Reg. 91, 94 (2005).

95. European Cent. Bank, Financial Stability Review 12 (2006) ("A disruptive asset price adjustment could also be triggered by other financial sector shocks, such as the possibility of an idiosyncratic collapse of a key hedge fund or a cluster of smaller funds . . .").

96. Kambhu et al., *supra* note 7, at 11.

97. President's Working Group, *supra* note 38, at 23.

98. *Id.*

99. Fin. Stability Forum, Update of the FSF Report on Highly Leveraged Institutions 12 (2007), available at http://www.fsforum.org/publications/HLI_Update-finalwithoutembargo19May07.pdf.

100. *On Top of the World*, Economist, Apr. 29, 2006, at 11, 11.

Hedge funds further contribute to systemic risk because they are subject to contagion¹⁰¹: the phenomenon of significant economic changes to one entity spreading, producing similar changes in other entities.¹⁰² Applied to hedge funds, it is the risk that several hedge funds will default or suffer large losses at the same time. Thus, any effect a hedge fund has on liquidity may be multiplied by the number of other funds holding the same positions or using the same investment style.¹⁰³

Hedge funds' heavy use of credit derivatives further increases hedge funds' potential to affect the credit markets and exacerbates any actual influence. Because hedge funds do not need to own the underlying debt to buy credit insurance on it, the value of the derivative can greatly exceed the value of such debt.¹⁰⁴ Due to this leverage, a relatively small market change could trigger a crisis as a vast array of interconnected contracts creates serious liquidity problems.¹⁰⁵ In other words, leverage works in the negative direction just as quickly when the reference asset's value decreases.¹⁰⁶

2. Long-Term Capital Management

Though the notion that hedge funds' use of credit derivatives increases systemic risk may seem too hypothetical—possibly due to the lack of transparency in the practice—to be of real risk, the collapse of Long-Term Capital Management (LTCM) provides a manifestation of the systemic concerns.¹⁰⁷ The financial world feared that the collapse of LTCM, perhaps

101. See European Cent. Bank, *supra* note 95, at 142 (noting that the trend of hedge funds taking increasingly similar positions is a “major risk for financial stability which warrants close monitoring”); Nicole M. Boyson, Christof W. Stahel & René M. Stulz, Is There Hedge Fund Contagion? 31 (Mar. 13, 2007), <http://ssrn.com/abstract=884202> (providing statistical evidence that poor performance by a hedge fund using one investment strategy is likely to be associated with poor performance by all funds using that style as a whole).

102. See World Bank Group, Definitions and Causes of Contagion, <http://www1.worldbank.org/economicpolicy/managing%20volatility/contagion/definitions.html#broad> (last visited Mar. 11, 2008) (defining contagion in the context of country-to-country spillovers).

103. See Shadab, *supra* note 47, at 39.

104. *The Ballooning Credit Derivatives Market: Easing Risk or Making It Worse?*, Knowledge@Wharton, Nov. 2, 2005, <http://knowledge.wharton.upenn.edu/article.cfm?articleid=1303>.

105. Partnoy & Skeel, *supra* note 23, at 1040; see Philipp M. Hildebrand, *Hedge Funds and Prime Broker-Dealers: Steps Towards a “Best Practice Proposal,”* Fin. Stability Rev. (Special Issue on Hedge Funds), Apr. 2007, at 67, 72, available at http://www.banque-france.fr/gb/publications/telechar/rsf/2007/etud7_0407.pdf.

106. See Tavakoli, *supra* note 11, at 55–59 (describing the relationship between banks and hedge funds as counterparties in credit derivatives and the resulting uncertainties as to risk distribution).

107. *Id.* See generally Frank Partnoy, *Infectious Greed: How Deceit and Risk Corrupted the Financial Markets* 251–62 (2003). For a detailed and thorough story of what happened to Long-Term Capital Management, see Roger Lowenstein, *When Genius Failed: The Rise and Fall of Long-Term Capital Management* (2000).

the most cited hedge fund failure,¹⁰⁸ was great enough to disrupt the functioning of the capital markets as a whole.¹⁰⁹ The hedge fund engaged in a trading strategy that was highly leveraged and involved numerous derivatives.¹¹⁰

The LTCM Fund's size and leverage, as well as the trading strategies that it utilized, made it vulnerable to the extraordinary financial market conditions that emerged following Russia's devaluation of the ruble and declaration of a [default on its] debt. . . . Russia's actions sparked a "flight to quality" in which investors avoided risk and sought out liquidity. As a result, risk spreads and liquidity premiums rose sharply in markets around the world. The size, persistence, and pervasiveness of the widening of risk spreads confounded the risk management models employed by LTCM. . . . [LTCM . . . suffered losses in individual markets that greatly exceeded what conventional risk models, estimated during more stable periods, suggested were probable. Moreover, the simultaneous shocks to many markets confounded expectations of relatively low correlations between market prices and revealed that global trading portfolios like LTCM's were less well diversified than assumed. Finally, the "flight to quality" resulted in a substantial reduction in the liquidity of many markets, which, contrary to the assumptions implicit in

108. Other institutions besides hedge funds have also lost significant capital from the misuse of derivatives. See, e.g., Partnoy, *supra* note 107, at 388–91 (describing how American Express lost over \$826 million on CDOs); Rochael M. Soper, *Promoting Confidence and Stability in Financial Markets: Capitalizing on the Downfall of Barings*, 7 Duke J. Comp. & Int'l L. 651, 652–54 (1997) (describing how a single trader's misuse of derivatives bankrupted the oldest investment firm in England).

109. See *Hedge Fund Operations: Hearing Before the H. Comm. on Banking and Financial Servs.*, 105th Cong. 19 (1998) [hereinafter *Hedge Fund Operations*] (statement of William J. McDonough, President, Federal Reserve Bank of New York).

[T]here was a likelihood that a number of credit and interest rate markets would experience extreme price moves and probably cease to function for a period of one or more days and maybe longer. This would have caused a vicious cycle. A loss of investor confidence leading to a rush out of private credits, leading to a further widening of credit spreads, leading to further liquidations of positions, and so on. Most importantly, this would have led to further increases in the cost of capital to American businesses.

Id.

110. The following is an abbreviated overview of the strategy employed by LTCM: The fund believed that the premium an investor received for holding a risky position over a less risky one would decrease around the globe, in which case the price of more risky debt would rise while that of less risky debt would fall. To capitalize on this, LTCM took long positions in bonds that it perceived to have a yield higher than necessary to justify holding the risk. It hedged these positions against what it considered incredibly low interest rate risk with short positions in derivatives on governments' debt, including Russia's. When Russia defaulted, however, a "flight to quality," or flight to safety, ensued in which investors around the globe fled to less risky investments, thereby increasing the risk premium that LTCM had bet would decrease. Interest rates on treasuries fell, but the yields on the bonds on which LTCM had taken a long position did not fall as much, resulting in losses on its hedges not matched by the bonds. See Lowenstein, *supra* note 107, at 123–60; Troy A. Paredes, *On the Decision to Regulate Hedge Funds: The SEC's Regulatory Philosophy, Style, and Mission*, 2006 U. Ill. L. Rev. 975, 984; Stulz, *supra* note 22, at 189–90.

their models, made it difficult to reduce exposures quickly without incurring further losses.¹¹¹

The situation was so bad that the Federal Reserve organized a rescue of the fund because it feared the possible extent of the consequences on the world financial markets.¹¹² LTCM's partners convinced them that the meltdown was "potentially much worse than market participants imagined."¹¹³

The threat of another failure looms, and the losses may be larger. While LTCM borrowed about 100 times its raised capital to hold derivatives worth about 1000 times its raised capital,¹¹⁴ there is even "more borrowing by hedge funds in an untested, illiquid credit market than has historically been the case."¹¹⁵

D. Efficient Capital Markets

The efficient capital markets hypothesis is a notion that has been defined as the idea "that security prices accurately reflect available information and respond rapidly to new information as soon as it becomes available."¹¹⁶ In the courts, the theory most frequently arises in the context of securities fraud claims pursuant to section 10(b) of the Securities Exchange Act of 1934.¹¹⁷ To state a claim, the plaintiff must show, among other things, "that the plaintiff's reliance on the defendant's action caused injury to the plaintiff."¹¹⁸ The plaintiff does not need to show an individual transaction caused the alleged injury, though, if the defendant's alleged fraud is aimed at the market as a whole.¹¹⁹ This "fraud on the market" theory is "based on the hypothesis that, in an open and developed securities market, the price of a company's stock is determined by the available material information regarding the company and its business."¹²⁰ Hence, "misrepresentations defraud purchasers who rely on the price as an indication of the stock's [inherent] value."¹²¹

The foundation of "fraud on the market" must be efficient capital markets. The U.S. Supreme Court accepted the theory in *Basic Inc. v.*

111. President's Working Group, *supra* note 38, at 12.

112. Kevin Dowd, *Too Big to Fail?: Long-Term Capital Management and the Federal Reserve* 1, 4–5 (Cato Inst. Briefing Papers No. 52, 1999), available at <http://www.cato.org/pubs/briefs/bp52.pdf>.

113. *Id.* at 4.

114. See Hovanesian et al., *supra* note 93, at 96.

115. *Id.* (quoting Peter J. Petras of CreditSights Inc.).

116. Brealey et al., *supra* note 4, at 958. See generally Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. Fin. 383 (1970) (concluding that the efficient markets model stands up well to empirical testing).

117. 15 U.S.C. § 78j(b) (2000) ("It shall be unlawful for any person . . . [t]o use or employ, in connection with the purchase or sale of any security . . . any manipulative or deceptive device or contrivance in contravention of such rules and regulations as the [SEC] may prescribe . . .").

118. *Ganino v. Citizens Utils. Co.*, 228 F.3d 154, 161 (2d Cir. 2000).

119. See, e.g., *Fine v. Am. Solar King Corp.*, 919 F.2d 290, 298–99 (5th Cir. 1990).

120. *Peil v. Speiser*, 806 F.2d 1154, 1160 (3d Cir. 1986).

121. *Id.* at 1160–61.

Levinson.¹²² Basic was a publicly traded company that was the target of a merger with Combustion Engineering, Inc.¹²³ During the negotiation period, Basic's management made three public statements denying that it was party to any merger negotiations.¹²⁴ Former Basic shareholders who sold their stock after the first public statement and before the announcement of the merger brought a securities fraud claim under section 10(b) for an alleged violation of Rule 10b-5.¹²⁵ In holding that the plaintiffs benefited from the presumption of a reliance element, the Court stated that "the market price of shares traded on well-developed markets reflects all publicly available information."¹²⁶ This is a direct affirmation of the efficient capital markets theory.

Inherent in the connection between information being available and the price of the security reflecting such information is the role of traders in the market for the security. Without enough investors acting on the information, the price would remain unchanged. This critical process is driven by investors' desire to make money (or lose less money than they otherwise would). Traders looking to be the first to act on a change in an investment's price, such that they can later profit when such a change occurs, take the time and effort to become well-informed.¹²⁷ This allows them to speculate more accurately as to the change in price. Once these traders act, other less sophisticated investors attempt to identify the overall market trend and trade in response to it. For example, if a number of sophisticated traders learn enough information to predict that a company will suffer losses, they are likely to sell their shares in that company in order to avoid the fall in price. As a result, other traders are induced to sell as they notice the selling. The end result is that the increased supply coupled with the decreased demand for the shares causes the price of the stock to fall. The investors make the market efficient because their trading pushes the price of the stock to the point where it accurately reflects the information that the company was likely to suffer losses. As such, well-informed traders provide a crucial mechanism in efficient capital markets. The Court in *Basic* assumed this link existed in accepting the presumption of reliance for fraud on the market claims. It simply noted that "market professionals generally consider most publicly announced material

122. 485 U.S. 224 (1988).

123. *Id.* at 226-27.

124. *Id.* at 227. As late as two months prior to the announcement of the agreed-upon merger, a Basic shareholder report stated that "[w]ith regard to the stock market activity in the Company's shares we remain unaware of any present or pending developments which would account for the high volume of trading and price fluctuations in recent months." *Id.* at 228 n.4.

125. *Id.* at 228.

126. *Id.* at 246.

127. This practice is commonly referred to as "professionally informed trading." See Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 Va. L. Rev. 549, 569-72 (1984); see also Dennis S. Corgill, *Insider Trading, Price Signals, and Noisy Information*, 71 Ind. L.J. 355, 396 (1996) (noting that those with informational advantages can capture first-mover advantages in trading).

statements about companies, thereby affecting stock market prices.”¹²⁸ By actively trading, “the market is performing a substantial part of the valuation process.”¹²⁹

Applied to credit derivatives, the idea of efficient capital markets predicts that the price of a credit default swap accurately reflects and responds to any relevant information.¹³⁰ An inherent assumption is that there is information available to those parties entering into credit default swaps. But, “the market remains maddeningly opaque, even to insiders.”¹³¹ It has even been argued that the International Swaps and Derivatives Association (ISDA) has actively resisted making the market any more transparent.¹³² Given this lack of relevant information in the credit market, traders cannot properly perform their function to create an efficient market. Sophisticated traders are less informed than they could be because information exists to which they have no access. Less sophisticated traders are consequently following these decisions assuming they are informed, where they are in fact relatively uninformed. The combination is that credit derivatives are pushed to an inaccurate price.

It is the absence of quality information available to traders that constrains liquidity and therefore increases systemic risk. If financial shock occurs resulting in new information, the prices of credit default swaps could fall dramatically and quickly as traders rapidly move to respond to the previously absent information. This is very similar to the reaction in the LTCM scenario.¹³³ The flight to quality was spurred by traders pushing prices to reflect accurately the amount of risk in an investment. Applied here, liquidity in the credit market will suffer and the entire system is jeopardized as the financial markets lose access to credit. The absence of quality information regarding the financial strength of credit derivative trading partners is particularly concerning. The response to this previously absent information will create the greatest chain effect as credit derivatives market participants are often taking on several different roles at once.¹³⁴

128. *Basic*, 485 U.S. at 247 n.24.

129. *Id.* at 244 (quoting *In re LTV Sec. Litig.*, 88 F.R.D. 134, 143 (N.D. Tex. 1980)).

130. There are several models for pricing credit default swaps; however, pricing is beyond the scope of this Note. See generally Darrell Duffie, *Credit Swap Valuation*, *Fin. Analysts J.*, Jan./Feb. 1999, at 73; Patrick Houweling & Ton Vorst, *Pricing Default Swaps: Empirical Evidence*, 24 *J. Int'l Money & Fin.* 1200 (2005).

131. Frank Partnoy & David Skeel, *Credit Derivatives Play a Dangerous Game*, *Fin. Times*, July 17, 2006, at 17.

132. See Partnoy & Skeel, *supra* note 23, at 1036 (arguing that ISDA's resistance to providing access to credit derivatives documentation contributes to the “informational fog” in the market).

133. See *supra* Part I.C.2.

134. See *supra* Part I.C.1.

E. *Corporate Bond Market: An Example of the Interplay Among Disclosure, Efficient Capital Markets, and Liquidity*

Corporate bonds are generically defined as long-term debt instruments of a corporation.¹³⁵ Until recently, the secondary corporate bond market was similar to the current credit derivatives market. Much of this is due to the fact that both trade primarily over-the-counter.¹³⁶ Additionally, the corporate bond market was one of the least transparent markets, with neither pretrade nor posttrade disclosure requirements and no centralized mechanism to collect and disseminate executed trade information.¹³⁷ Similar to the current situation with credit derivatives, there was a cry for increased transparency through regulation. Arguments in support of transparency included lower transaction costs from increased competition,¹³⁸ a more level playing field for smaller players in comparison to institutional investors,¹³⁹ enhanced disclosure of emerging risks to the financial system,¹⁴⁰ and improved liquidity as the result of participation of new players and more regular trading of former players.¹⁴¹ Of course, there were counterarguments. One was the possible damage to liquidity from opportunistic traders taking advantage of market makers and increased costs of providing liquidity.¹⁴² Another counterargument was the alleged existence of better suited solutions such as improved documentation and investor education.¹⁴³

The National Association of Securities Dealers agreed with the transparency advocates and implemented the Trade Reporting and Compliance Engine, which is commonly referred to as TRACE.¹⁴⁴ TRACE intends to increase transparency in the corporate bond market by providing free, real-time prices on over-the-counter corporate bonds.¹⁴⁵ The system seeks to improve the secondary market in which these bonds are traded

135. See Stephen A. Ross et al., *supra* note 4, at 129.

136. Michael A. Goldstein et al., *Transparency and Liquidity: A Controlled Experiment on Corporate Bonds*, 20 Rev. Fin. Studies 235, 235 (2007); see *supra* note 18 and accompanying text.

137. Goldstein et al., *supra* note 136, at 235.

138. See Jean-Pierre Casey, European Capital Mkts. Inst., *Bond Market Transparency: To Regulate or Not to Regulate . . .* 3 (2006), available at http://shop.ceps.be/downfree.php?item_id=1420.

139. *Id.* at 4.

140. *Id.*

141. *Id.*

142. *Id.* at 5.

143. *Id.* at 5–6.

144. The National Association of Securities Dealers (NASD) has since consolidated with the member regulation, enforcement, and arbitration functions of the New York Stock Exchange to create the Financial Industry Regulatory Authority. See Order Approving Consolidation of the Member Firm Regulatory Functions of NASD and NYSE Regulation, Inc., Exchange Act Release No. 34-56145, 72 Fed. Reg. 42,169 (July 26, 2007), available at <http://www.sec.gov/rules/sro/nasd/2007/34-56145.pdf>.

145. NASD, TRACE Fact Book 2 (2006), available at http://www.finra.org/web/groups/reg_systems/documents/regulatory_systems/p018668.pdf.

through disclosure.¹⁴⁶ The National Association of Securities Dealers believes that, “[f]rom a regulatory standpoint, [increased] levels of transparency better enable regulators to monitor the market, pricing and execution quality.”¹⁴⁷ From investors’ standpoint, “[b]y distributing accurate and timely public transaction data, TRACE provides access to reliable corporate bond information, thereby enhancing the integrity of the market.”¹⁴⁸ By February 7, 2005, prices from about ninety-nine percent of all secondary market corporate bond trades, representing about ninety-five percent of the monetary value traded, were immediately disseminated to the public.¹⁴⁹

The advent of TRACE in the corporate bond market provided the opportunity to study the effects of increased disclosure on liquidity. There was no financial shock. To the contrary, evidence suggests that liquidity in the market actually increased because of lower transaction costs¹⁵⁰ without an accompanied systemic decrease in market quality.¹⁵¹ The reason for the lower transaction costs is not as clear. One possible explanation is that increased transparency “facilitate[s] better deterrence and detection of fraud and manipulation.”¹⁵² Another explanation may be that more information enables “improve[d] pricing efficiency and competition.”¹⁵³ The overall impact of increased disclosure in the corporate bond market has thus been increased liquidity without destroying traders’ businesses. As such, sophisticated traders are able to make informed decisions that perform the function of properly pricing corporate bonds to reflect the relevant information accurately. Parties to transactions can therefore rely on prices before entering the contract and are not surprised by a shock afterwards. Systemic risk is reduced as a dramatic shock is avoided because traders have the information.

A parallel system for credit derivatives is plausible. Currently, private research firms are working on methods to help mutual fund investors see mutual funds’ exposure to derivatives.¹⁵⁴ Private companies are also offering electronic warehouse services that allow for a centralized, secure infrastructure for processing posttrade obligations of over-the-counter

146. See generally Ross et al., *supra* note 4, at 16–17 (noting that secondary markets are very important to corporations today).

147. NASD, *supra* note 145, at 2.

148. *Id.*

149. *Id.* at 3; see also Amy K. Edwards et al., *Corporate Bond Market Transaction Costs and Transparency*, 62 J. Fin. 1421, 1422 (2007).

150. See Edwards et al., *supra* note 149, at 1450; Goldstein et al., *supra* note 136, at 237.

151. See Hendrik Bessembinder et al., *Market Transparency, Liquidity Externalities, and Institutional Trading Costs in Corporate Bonds*, 82 J. Fin. Econ. 251, 253 (2006) (providing statistical evidence that disclosure of corporate bond trades improved market quality).

152. See Edwards et al., *supra* note 149, at 1425.

153. *Id.*

154. See, e.g., Daisy Maxey, *Morningstar to Include Derivatives Data*, Wall St. J., Nov. 7, 2007, at C13.

derivatives, such as payments, adjustments, and notices.¹⁵⁵ Combining these services would provide a similar system of disclosure for credit derivatives as TRACE provides for the bond market.¹⁵⁶

II. CONFLICT: THREE APPROACHES ON HOW TO REGULATE

The credit derivatives market currently poses a large systemic threat. It is currently unclear what method of regulation, if any, is best suited to reduce that risk given the characteristics of hedge funds' use of credit derivatives. This part analyzes three approaches to regulation. Part II.A presents several arguments for and against directly regulating the hedge funds active in the credit derivatives market. Part II.B introduces some of the support and opposition of required disclosure of the credit derivative transactions. Part II.C discusses a number of the advantages and disadvantages of allowing the hedge funds that use credit derivatives to regulate themselves actively.

A. Entity Regulation

Used here, entity regulation refers to regulation that requires funds that are active in the credit derivatives market to disclose the unique information concerning their particular fund. Such disclosure may include the hedge funds' positions, exposure to credit derivatives, or exposure to reference entities.

1. The Advantages of Entity Regulation

The benefits of regulating the hedge funds themselves derive from the goal of providing more information concerning the funds to both regulators and investors. Information in the hands of the regulators may lead to several benefits. In 2003, the SEC published a staff report that provided a detailed study of hedge funds.¹⁵⁷ Citing the SEC's inability to detect fraud and other misconduct at early stages without disclosure of fund information,¹⁵⁸ the report suggested that mandatory registration would allow for periodic examination that would create a threat of investigation.¹⁵⁹ Disclosure would also allow the SEC to observe directly

155. See, e.g., Depository Trust & Clearing Corp., Trade Information Warehouse, http://www.dtcc.com/products/derivserv/suite/tradeinfo_warehouse.php (last visited Mar. 11, 2008) (offering a database for clients' executed trades that provides automatic "record keeping, payment calculations and settlement, notional adjustments and contract term changes" for the life of the derivative).

156. Of course, there are still operational issues that must be addressed before such a system could operate smoothly enough to reduce systemic risk effectively. See, e.g., Chris Kentouris, *Putting an 'E' in Reconciliation: Automation Hasn't Fixed All Exceptions, but the Urgency Persists*, Sec. Industry News, Apr. 30, 2007, at 15 (describing the operational issues still plaguing the electronic handling of over-the-counter derivatives).

157. SEC, *supra* note 61.

158. *Id.* at x, 76–79.

159. *Id.* at 92–93.

and comprehensively hedge funds' trading activity,¹⁶⁰ making it "easier to detect improper or illegal trading practices."¹⁶¹ That same information would allow regulators to monitor the leverage of funds to identify possible repeats of the LTCM collapse and take action to avoid them. Additionally, regulators such as the SEC would be in a better position to develop regulatory policy that is capable of adapting to the growing financial sector.¹⁶²

Additionally, information in the hands of investors may allow them to evaluate their investments more accurately.¹⁶³ In 1999, Representative Richard H. Baker introduced a bill in the House of Representatives seeking to achieve these benefits: the Hedge Fund Disclosure Act.¹⁶⁴ The bill would have required that unregulated hedge funds with \$3 billion under professional management provide nonproprietary information concerning a fund's assets, leverage ratios, derivatives positions, and measures of risk to the Board of Governors of the Federal Reserve System.¹⁶⁵ The premise of the bill was that the discipline that market participants provide is only effective if they have the necessary information.¹⁶⁶ As such, government regulation cannot impose discipline, but it can enhance the effectiveness of market discipline by insuring an environment of transparency.¹⁶⁷ By requiring the funds to disclose information about themselves, "market participants [can] make better, more informed judgments about market integrity and creditworthiness of borrowers and counterparties."¹⁶⁸

Additionally, trading by informed investors is a tenet of the efficient capital markets theory. Providing investors with information allows them to increase the efficiency of the market by pushing the price to a more intrinsic value through trading.¹⁶⁹ In entity regulation, the disclosure of fund information may allow traders to price the investments made by the funds more accurately. Informational shocks are therefore less likely and systemic risk is reduced.

Disclosure of information concerning hedge funds may actually benefit the funds themselves. Funds inherently need money to operate. Giving more information to investors that allows them to better understand their

160. *Id.* at 94–95.

161. *Id.* at 95.

162. See Registration Under the Advisers Act of Certain Hedge Fund Advisers, 69 Fed. Reg. 72,054 (Dec. 10, 2004) (codified at 17 C.F.R. pts. 275, 279), *invalidated by* Goldstein v. SEC, 451 F.3d 873 (D.C. Cir. 2006).

163. SEC, *supra* note 61, at 99–100.

164. Hedge Fund Disclosure Act, H.R. 2924, 106th Cong. (1999).

165. *Id.* §§ 3–4.

166. *H.R. 2924—The Hedge Fund Disclosure Act: Hearing on H.R. 2924 Before the Subcomm. on Capital Markets, Securities and Government Sponsored Enterprises of the Comm. on Banking and Financial Servs.*, 106th Cong. 10 (2000) [hereinafter *H.R. 2924—The HFDA*] (statement of Lewis A. Sachs, Assistant Secretary for Financial Markets, Department of the Treasury; Member, President's Working Group on Financial Markets).

167. *Id.*

168. *Id.* at 4 (statement of Rep. Paul E. Kanjorski).

169. See *supra* Part I.D.

investment¹⁷⁰ alleviates those investors' concerns that their money will be lost.¹⁷¹ This is especially pertinent to institutional investors "who are increasingly turning to hedge funds . . . [and] demand greater transparency than individual investors."¹⁷² Thus, though there are costs to disclosing such information, hedge funds may find the resulting transparency is a net benefit.¹⁷³

2. The Disadvantages of Entity Regulation

First, there will likely be numerous costs, monetary and otherwise, of the disclosure of information by hedge funds. The funds themselves will face increased administrative costs to meet any enacted requirements and therefore ensure they are operating legally. Any government body assigned the task of gathering and processing information will also face increased costs. For example, if the SEC were so charged, some fear the agency is too small and underfunded in its current state to monitor the industry effectively.¹⁷⁴ The cost of becoming capable has been viewed as "a significant and unnecessary burden on the SEC."¹⁷⁵ There are greater costs on the financial markets as a whole. The greatest cost may be the subsequent flight of funds to other jurisdictions with less regulation.¹⁷⁶ Fewer market participants may reduce the benefits to efficiency and liquidity resulting from hedge funds' presence in the market.¹⁷⁷ It may also increase systemic risk as regulators lose an opportunity to create transparency.¹⁷⁸ Alan Greenspan, former chairman of the Federal Reserve and noted economist, has questioned the effectiveness of entity regulation, stating that, "Any direct U.S. regulations restricting their flexibility will doubtless induce the more aggressive funds to emigrate from under our jurisdiction. . . . If the funds move abroad, our oversight will diminish."¹⁷⁹

A second drawback is that hedge funds may not be willing to disclose the type of information traders need to price investments accurately. In fact, hedge funds and their managers have the reputation of being "a secretive lot

170. See *supra* text accompanying notes 163–68.

171. See Shadab, *supra* note 47, at 41.

172. *Id.*

173. *Id.*

174. See Carol E. Curtis, *Hedge Fund Regulation Looms*, Sec. Industry News, Mar. 8, 2004, at 1.

175. McMillan Binch LLP, SEC Report on Hedge Funds—Staff Recommendations 2 (2003).

176. See Jacob Preisewicz, Note, *The New Regulatory Regime for Hedge Funds: Has the SEC Gone down the Wrong Path?*, 11 Fordham J. Corp. & Fin. L. 807, 842 (2006).

177. See *supra* Part I.B.1 (discussing how hedge fund activity increases liquidity and efficiency in the financial markets).

178. See Perrie Weiner & Gregg Zucker, *Hedge Fund Regulation: Enough Already*, Forbes, Apr. 13, 2007, http://www.forbes.com/opinions/2007/04/13/hedge-fund-regulation-op-ed-cx_pw_0413hedge.html.

179. *Hedge Fund Operations*, *supra* note 109, at 26 (statement of Alan Greenspan, Chairman, Board of Governors, Federal Reserve System).

who zealously guard even the most basic information.”¹⁸⁰ If the information is not made available, systemic risk is not reduced. Many hedge funds fear that entity regulation is actually a backdoor method of compelling funds to disclose their trading positions and portfolios.¹⁸¹ Given the significance of this information to the success of each individual hedge fund,¹⁸² it is likely that hedge funds will do their best to avoid any possible reverse engineering.¹⁸³ This may lead to hedge funds complying with regulation, but doing so in a manner that results in uniform disclosure across the industry. The risk is that all of the hedge funds disclose information, but the information that becomes available is so similar that it is of little use. Consequently, systemic risk may remain unaltered and the regulation is essentially ineffective.

The notion of an investor, such as a hedge fund, suffering financially from the disclosure of its position in a market was recognized by the U.S. Court of Appeals for the Second Circuit in *Caiola v. Citibank*.¹⁸⁴ In *Caiola*, an investor alleged that Citibank committed securities fraud.¹⁸⁵ Louis Caiola became one of Citibank’s largest customers by regularly trading hundreds of thousands of shares of Philip Morris Companies, Inc., valued at millions of dollars.¹⁸⁶ To hedge against losses from these trades, Caiola simultaneously entered into option contracts with Citibank corresponding to his stock positions.¹⁸⁷ As his trades increased in size, he and Citibank became concerned that the volume of options necessary to hedge effectively could disclose his positions in the stock.¹⁸⁸ The fear was a “footprint[.]” on the market created by the impact on the stock’s price.¹⁸⁹ Other investors could reverse engineer his positions to establish his trading strategy. They could then either copy the strategy or take the opposite strategy, both

180. Kara Scannell, *Making Hedge Funds Less Secret: SEC’s Registration Requirement Provides a New, Insider’s Look; That Old Underage-Driving Case*, Wall St. J., Feb. 3, 2006, at C1.

181. Dale A. Oesterle, *Regulating Hedge Funds*, 1 Entrepreneurial Bus. L.J. 1, 38 (2006).

182. See *supra* Part I.B.1.

183. See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 476 (1974) (defining reverse engineering as “starting with the known product and working backward to divine the process which aided in its development or manufacture”). See generally Pamela Samuelson & Suzanne Scotchmer, *The Law and Economics of Reverse Engineering*, 111 Yale L.J. 1575 (2002) (analyzing the accepted practice of reverse engineering products).

184. 295 F.3d 312 (2d Cir. 2002). As *Caiola v. Citibank* involved an appeal by the plaintiff of a motion to dismiss for failure to state a claim, the court accepted the facts as pled in plaintiff’s complaint. *Id.* at 315.

185. *Id.* at 319.

186. *Id.* at 315.

187. *Id.* Louis Caiola bought put options from Citibank. A put option is a contract where the buyer has the right, but not the obligation, to sell the underlying security in the future at a predetermined time and price. See Brealey et al., *supra* note 4, at 544. Used in this case, the put options had a strike price below the price at which Caiola bought the Philip Morris stock. If the price fell below the strike price, Caiola would be able to sell the stock thus limiting the amount of money he would lose to the difference between the strike price and price at which he bought the stock.

188. *Caiola*, 295 F.3d at 315.

189. *Id.*

effective techniques for the copier but detrimental for Caiola (and all large investors).¹⁹⁰ For hedge funds, the fear of entity regulation is similar; with some of a fund's information disclosed, others may be capable of discerning the fund's strategy.

B. *Transaction Regulation*

Used here, transaction regulation refers to regulation that requires disclosure of information regarding the specific credit derivative contracts into which hedge funds and other parties enter. Such disclosure would likely include at a minimum the price of the credit derivative, the reference entity, and the reference asset. Disclosure may also include the identities of the protection buyer and seller.

1. The Advantages of Transaction Regulation

Again, the benefits of transaction regulation derive from the disclosure of more information. The information produced, though, is different. Disclosure of the transactions themselves produces less information than disclosure of the entities. With information being provided by banks in the form of financial statements,¹⁹¹ Call Reports,¹⁹² and market surveys,¹⁹³ there may be no need for a large amount of information from hedge funds. Some suggest that new "disclosure requirements should take into account the endogenous production of information" already within the credit derivatives market so as to maximize the marginal benefit of legally required disclosure.¹⁹⁴ Regulating the transactions may provide regulators and investors with information they can use without overburdening the funds.

Another benefit of transaction regulation is the potential to shed light on the highly intertwined nature of hedge funds' use of derivatives.¹⁹⁵ By making available some of the characteristics of executed credit derivatives, third parties could gauge the market for the instruments as a whole. Required disclosure of the reference entity, reference obligation, fixed rate payer, and floating rate payer¹⁹⁶ could provide regulators with enough

190. All investors, including Caiola, intend to take advantage of price discrepancies in order to make a gain. See Stulz, *supra* note 41, at 180 (discussing arbitrage). Those who copy Caiola's strategy push the price closer to its true value, lessening the gain Caiola can make. Those who undertake the opposite strategy push the price further down, reducing the value of Caiola's position. Both effects are detrimental to Caiola.

191. See André Scheerer, *Credit Derivatives: An Overview of Regulatory Initiatives in the United States and Europe*, 5 Fordham J. Corp. & Fin. L. 149, 188-91 (2000).

192. *Id.* at 191-92.

193. See 2006 Year-End Market Survey, *supra* note 2.

194. See Stephen Brown et al., *Mandatory Disclosure and Operational Risk: Evidence from Hedge Fund Registration* (Int'l Ctr. for Fin. at Yale Sch. of Mgmt., Working Paper No. 06-15, 2007), available at <http://ssrn.com/abstract=918461>.

195. See *supra* Part I.C.1.

196. See ISDA, 2003 ISDA Credit Derivatives Definitions 6-11 (2003).

information to foresee the potential impact of a financial shock by displaying the connections among parties.¹⁹⁷

Transaction regulation can also be used to prevent surprise impacts or shocks in the financial markets by disclosing the large stakes that hedge funds may take in other entities. This may be done in a manner analogous to the beneficial ownership reporting requirements applicable to hedge funds.¹⁹⁸ If a credit derivative results in exposure to a reference entity that constitutes five percent or more of a hedge fund's total exposure, regulators and market participants would benefit from knowing the contract exists. While Congress intended the requirements under sections 13(d) and 13(g) to provide notice of stock accumulation to avoid surprise hostile takeovers,¹⁹⁹ similar requirements on credit derivative transactions would provide notice to regulators of the increased systemic risk.

More importantly, such requirements would provide notice to investors of the price of the reference obligation. "To the extent the pricing of credit default swaps is disclosed or available to the market, it provides an additional source of market-based information about a company's financial health."²⁰⁰ With this information, sophisticated traders would be able to push the reference entity's debt to its accurate price. This would prevent dramatic repricing and the resulting chain reaction, thereby reducing systemic risk.²⁰¹ Additionally, there are already potential outlets for disseminating this information into the market, such as national stock exchanges.²⁰²

2. The Disadvantages of Transaction Regulation

One drawback of transaction regulation is the fear that nonparties to the credit derivatives would be able to reverse engineer the contracts.²⁰³ While this can be mitigated by a central authority aggregating the information before publishing it, that takes time.²⁰⁴ Not only does time reduce the value of the information, it also reduces ability to address liquidity concerns in the

197. See *supra* notes 93–94 and accompanying text.

198. See 15 U.S.C. § 78m (2000); see also *supra* text accompanying note 71.

199. See H.R. Rep. No. 90-1711, at 2–6 (1968); see also S. Rep. No. 90-550, at 2–6 (1968).

200. Partnoy & Skeel, *supra* note 23, at 1026.

201. See *supra* Part I.D.

202. See Shane Kite, *Regulators Reach Out to NYSE; Credit Derivatives Transparency Project Possible: Participants Say Solution Should Come from Private Market*, Sec. Industry News, Feb. 4, 2008, at 1 (noting that the SEC and Treasury Department have discussed the possibility of posting quotes and trades of credit derivatives on the New York Stock Exchange). It should be noted that the general notion of managing systemic risk presented by the credit derivatives market through public disclosure of derivatives pricing, as presented here, is precisely the ultimate recommendation this Note intends to substantiate. See *infra* Part III.B.

203. See *supra* note 183.

204. See Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys., Address at the Federal Reserve Bank of Atlanta's 2006 Financial Markets Conference (May 16, 2006), <http://www.federalreserve.gov/newsevents/speech/bernanke20060516a.htm>.

market as new derivatives have been entered into and possible failures have occurred.²⁰⁵

Another drawback of requiring disclosure of the credit derivatives hedge funds use is the possibility of creating moral hazard. Moral hazard is the possibility that “those who are insured against certain risks have an incentive to use less than optimal care to avoid those risks.”²⁰⁶ Here, by requiring disclosure of transactions to regulators, hedge funds’ counterparties may reduce their vigilance of the funds’ risks and positions when they enter the credit default swap.²⁰⁷ The counterparties simply believe that the regulators are providing some form of insurance against hedge fund malfeasance; therefore, they can do less due diligence while taking on the same risk as if they had done a full investigation. This may in fact increase systemic risk as parties enter contracts they otherwise would not.

Transaction regulation may also be ineffective due to the decoupling of economic and voting ownership. In some derivatives, the ability to direct a vote arising from the reference asset is transferred between parties. Hedge funds commonly include this provision in their derivatives.²⁰⁸ Termed “hidden (morphable) ownership” by Professors Henry Hu and Bernard Black, hedge funds can use a derivative to gain indirect economic ownership of a reference asset and informal voting power.²⁰⁹ This unique ownership is acquired because the structure of the derivatives allows the hedge fund to avoid beneficial ownership disclosure requirements.²¹⁰ The fund is then capable of acquiring votes quickly, but such action would likely occur before regulators could respond to the increase in systemic risk.²¹¹ Therefore a financial shock may send ripples that regulators or investors could not predict.²¹² The concern is that transaction regulation may not capture all of the credit derivative exposure intended. It should be noted that this does not directly affect the accurate pricing of a credit derivative in the market.²¹³ With this caveat in mind, it is difficult to

205. *Id.*

206. Daniel Keating, *Pension Insurance, Bankruptcy and Moral Hazard*, 1991 Wis. L. Rev. 65, 67–68. See generally Tom Baker, *On the Genealogy of Moral Hazard*, 75 Tex. L. Rev. 237 (1996) (attempting to analyze the notion of moral hazard as ubiquitous in all areas of law).

207. Bermanke, *supra* note 204.

208. See Henry T.C. Hu & Bernard Black, *The New Vote Buying: Empty Voting and Hidden (Morphable) Ownership*, 79 S. Cal. L. Rev. 811, 815 (2006). See generally Anish Monga, Note, *Using Derivatives to Manipulate the Market for Corporate Control*, 12 Stan. J.L. Bus. & Fin. 186 (2006).

209. Hu & Black, *supra* note 208, at 816.

210. *Id.* at 819. See generally 15 U.S.C. § 78m (2000) (setting forth the five percent ownership threshold).

211. Hu & Black, *supra* note 208, at 818 (stating that the entire process often goes unseen by nonparties).

212. *Id.* at 819 (noting that the scale of hidden morphable ownership is unknown).

213. See *supra* notes 9–13 and accompanying text.

predict the effect of morphable ownership on liquidity in a system of transaction regulation.

C. Self-regulation

Used here, self-regulation refers to hedge funds that use credit derivatives providing non-governmental regulation of themselves. The determination of what actions are to be taken to reduce systemic risk would be left to the hedge funds themselves. This form of regulation would require collaborative action by hedge funds that has not yet been realized by their current efforts.²¹⁴

1. The Advantages of Self-regulation

One benefit of self-regulation is that players in the credit derivatives market can make preventative efforts. Some argue that required disclosure of funds' exposures, positions, or strategies is unnecessary because the hedge funds themselves are in the best position to make changes that will reduce systemic risk.²¹⁵ Thus, self-regulation allows the hedge funds to develop practices and strategies that are aimed at preventing financial shocks, not simply applying immediately necessary quick fixes.²¹⁶ Hedge funds best understand how they use credit derivatives; therefore they are in the best position to foresee potential issues.

Another benefit of self-regulation is that it is not limited to U.S. borders. "In the new international economy, regulation has to transcend national financial 'streets.' Unavoidably, it has vaulted to the macroeconomic plane."²¹⁷ Thanks to hedge fund activity and credit derivatives, "risk has been spread throughout the global financial infrastructure."²¹⁸ Regulation by the hedge funds themselves would not be limited to any single jurisdiction, but could have benefits in every jurisdiction in which the funds operate.²¹⁹

214. This is not to say that some hedge funds have not made any attempts at collaborative effort. See, e.g., Managed Funds Ass'n, *Sound Practices for Hedge Fund Managers* (2007), available at <http://www.managedfunds.org/downloads/Sound%20Practices%202007.pdf> (providing hedge funds with peer recommendations for internal policies, practices and controls).

215. See generally Onnig H. Dombalagian, *Self and Self-Regulation: Resolving the SRO Identity Crisis*, 1 *Brook. J. Corp. Fin. & Com. L.* 317, 319–23 (2007) (describing the benefits of "self-awareness" in self-regulation).

216. See John T. Lynch, *Credit Derivatives: Industry Initiative Supplants Need for Direct Regulatory Intervention: A Model for the Future of U.S. Regulation?*, 55 *Buff. L. Rev.* 1371 (2002).

217. John Eatwell & Lance Taylor, *Global Finance at Risk: The Case for International Regulation*, at xii (2000).

218. *Have We Got to the Crisis Nadir Yet?*, *supra* note 26, at 16.

219. See generally Int'l Fin. Servs., London, *Hedge Funds: City Business Series 1–3* (2007), available at http://www.ifsl.org.uk/uploads/CBS_Hedge_Funds_2007.pdf (describing the geographical distribution of hedge funds).

Self-regulation would also allow funds to decide who should be disclosing what information and when. Many argue that effective regulation does not require disclosure from every hedge fund, only the largest hedge funds.²²⁰ The most common support offered for this argument is that only the largest funds—as measured by total assets—legitimately increase systemic risk, because only their failure can substantially affect the broader system.²²¹ Self-regulation would allow hedge funds to decide if this objective fund trait—a minimum amount of assets under management—is the best determinant for which funds should disclose information or if other characteristics of hedge funds would create more suitable disclosure. Hedge funds are more likely to know their individual businesses and the credit markets in which they operate better than regulators; therefore the funds can more effectively choose what information should be disclosed to reduce systemic risk.

2. The Disadvantages of Self-regulation

One drawback of self-regulation is the likelihood of collective action problems. Hedge funds, like members of any group, make rational decisions as to how much effort to expend in order to achieve a given result. In response to trade assignment and confirmation backlog issues across the credit derivatives market in 2005, the Federal Bank of New York was required to step in to spur change by the market players.²²² Dealers of these transactions “recognized the current weaknesses of their methods and were desirous of change. However, no individual [player] could have unilaterally adopted procedures without the cooperation of the broader group.”²²³ The necessary changes to hedge funds’ use of credit derivatives to reduce systemic risk may not be achievable with self-regulation alone.

Another drawback is the fact that ISDA is currently in the best position to provide self-regulation, and it possesses a level of monopolistic power.²²⁴ A main mission of ISDA is “[p]romoting practices conducive to the

220. See Fin. Servs. Auth., *Hedge Funds: A Discussion of Risk and Regulatory Engagement* 40–41 (2005), available at http://www.fsa.gov.uk/pubs/discussion/dp05_04.pdf (arguing that since “only some hedge funds are having a significant market impact in isolation . . . it could be logical to . . . increase continuous supervisory oversight just in relation to those hedge fund managers whose funds and business model have a significant market impact”).

221. *H.R. 2924—The HFDA*, *supra* note 166, at 19 (statement of Lewis A. Sachs, Assistant Secretary for Financial Markets, Department of the Treasury; Member, President’s Working Group on Financial Markets).

222. See Press Release, Fed. Reserve Bank of N.Y., Statement Regarding Meeting on Credit Derivatives (Sept. 15, 2005), <http://www.newyorkfed.org/newsevents/news/markets/2005/an050915.html>.

223. Annette L. Nazareth, Comm’r, SEC, Remarks Before the Brooklyn Law School Symposium on the Structure of Securities Markets (Nov. 10, 2006), <http://sec.gov/news/speech/2006/spch111006aln.htm>.

224. ISDA represents over 800 participants in 55 countries in the over-the-counter derivatives industry. ISDA, About ISDA, <http://www.isda.org> (follow “About ISDA” hyperlink) (last visited Mar. 11, 2007).

efficient conduct of the business, including the development and maintenance of derivatives documentation.”²²⁵ Seemingly an impartial goal, the efforts to achieve it have caused concern. Some worry that ISDA’s standardized documentation and approaches benefit ISDA members at the expense of others through the redistribution of resources, informational asymmetries, or negative externalities.²²⁶ Others worry that ISDA has gained control of the creation of legal rules applicable to derivatives. For example, “[t]o reduce the uncertainty associated with government interpretations of the ISDA Master Agreement, [the most important ISDA documentation,] ISDA has sought from thirty-four nations supporting legislation and regulatory opinions confirming the enforceability of certain provisions.”²²⁷ This control over the legal rules may allow derivatives to be written to accommodate dealer-to-dealer transactions, leaving end users at a disadvantage.²²⁸

III. RESOLUTION

A. *Transaction Regulation Provides the Most Appropriate Disclosure*

Given the characteristics of each approach to regulation, the best choice in order to reduce the systemic risk generated by hedge funds’ use of credit derivatives is transaction regulation. In other words, the level of risk that a financial event will lead to a crippling of the real economy is best reduced through disclosure of the credit derivatives to which hedge funds are parties. Transaction regulation is the most appropriate method for three reasons. First, it provides information to those who need it, market participants, without providing an easy target for reverse engineering. Second, it is the quickest method of disseminating information in a rapidly moving market. Third, it avoids the drawbacks of self-regulation.

To reduce systemic risk, information regarding credit derivatives players and contracts must be available in the market. Only when traders have access to the information can they make markets more efficient.²²⁹ Without it, prices are inaccurate and the consequent risk of a financial shock looms. But, when that information is proprietary and significant to the success of the ones providing it,²³⁰ the amount and type of disclosure is fundamental to both compliance and the maintenance of the market. By disclosing the terms of the credit derivatives into which hedge funds enter, a third party can identify what types of obligations are being referenced, what

225. ISDA, ISDA Mission, <http://www.isda.org> (follow “About ISDA” hyperlink; then follow “Mission” hyperlink) (last visited Mar. 11, 2007).

226. Partnoy & Skeel, *supra* note 23, at 1037.

227. Frank Partnoy, *ISDA, NASD, CFMA, and SDNY: The Four Horsemen of Derivatives Regulation?*, in *Brookings-Wharton Papers on Financial Services* 213, 217 (Robert E. Litan & Richard Herring eds., 2002).

228. See Partnoy & Skeel, *supra* note 23, at 1039.

229. See *supra* Part I.D.

230. See *supra* notes 180–83 and accompanying text.

counterparties are connected and how, and what trends are emerging in various contract terms.²³¹ If that third party is a regulator, this information allows for the detection of potential crises without imposing a great burden on hedge funds. Funds' trading strategies remain confidential, as credit derivatives are only one aspect of their portfolios. More importantly, if that third party consists of investors interested in buying or selling credit default swaps, the disclosed information allows for efficient capital markets to operate. As such, market participants are able to push the price of the protection against a default of the reference entity to reflect the disclosed information more accurately.²³² Entity and self-regulation may provide information, but it is not of the type that concerns accurate pricing. The real risk is that a massive repricing will occur when new information hits the market. Knowing how exposed a fund is to a dramatic repricing only signifies how much will be lost; such knowledge does not prevent or mitigate the loss.

In addition to providing the most influential information, transaction regulation allows for the quickest dissemination of information. In a market where a majority of confirmations are now being executed electronically and some traders are nothing more than computers executing algorithms,²³³ the additional step of reproducing some of the terms in a public forum would not be difficult or time consuming. This immediate process makes the information more valuable to regulators attempting to stifle financial shocks before they can cause a chain reaction. Furthermore, other credit derivatives users and dealers are no longer exposed to long time periods in which the price of the contract is not equal to its value because information is not available to them. When information is made available quickly, the price of the credit derivative is prevented from drastically deviating from its inherent value.

While self-regulation has certain advantages, transaction regulation can provide essentially the same benefits without collective action problems or monopolistic actions on the part of hedge funds. First, the advantages are similar. As there would be only a small impact on the costs of complying with transaction regulation,²³⁴ funds would likely not benefit greatly from changing jurisdictions. In fact, cross-border disclosure may be increased more as counterparties throughout the world are exposed to the credit derivative information. In addition, transaction regulation—described above as fast and applying to limited information²³⁵—remains a viable method of preventing the market from becoming illiquid because it too is proactive, much like self-regulation.²³⁶ The core theory in monitoring only

231. See *supra* Part I.A.1.

232. See *supra* notes 122–26 and accompanying text.

233. See *supra* note 156 and accompanying text.

234. See, e.g., *supra* Part I.E.

235. See *supra* notes 229–33 and accompanying text.

236. See *supra* note 216 and accompanying text.

the largest, most active funds²³⁷ is present in transaction regulation as well. The largest funds would inevitably contribute the most information to the market. Thus, their activity becomes a main driver in accurately pricing credit derivatives.

Furthermore, the drawbacks of self-regulation can be avoided. Collective action is less of a problem with transaction regulation because it is beneficial for each party to act individually.²³⁸ The more contractual information available, the more accurate the price. A hedge fund that discloses information is actually helping itself by contributing to the pool of information on which everyone can price the credit derivative. The possibility that ISDA would take advantage of its prominent position in the market for credit derivatives,²³⁹ intentionally or unintentionally, is severely reduced because there would be no requirement for ISDA even to participate. The group may still impose on its members requirements associated with disclosing transaction specific information, but it is unlikely that the group could do enough to prevent efficient capital markets from operating.²⁴⁰

B. Recommendation

A system similar to TRACE ought to be created to disseminate credit derivative transactions data. Such data can be produced in a timely manner and with little burden on hedge funds, helping to fill in the current shortage of significant information. The increase in systemic risk by hedge funds' use of credit derivatives arises mostly from the informational shock to the financial markets; when previously unavailable information concerning a reference asset or reference entity hits the market, it has the potential to cause prices to fall drastically and quickly.

A system parallel to TRACE would prevent this type of shock because there would be no time period in which traders would be trading without information. In more concrete terms, the chances are reduced that a hedge fund that is party to large numbers of credit derivatives will lose a significant amount of money when an informational shock hits the financial markets. Quite simply, this is because no one would be the counterparty to such a contract with the hedge fund in the first place. No party would enter the contract because parties would be informed as to the accurate price due to other trading activity in the market. The markets are therefore more likely to remain liquid, the need for an active role for regulators is limited, and systemic risk is effectively reduced.

237. *See supra* notes 220–21 and accompanying text.

238. *See supra* notes 222–23 and accompanying text.

239. *See supra* notes 224–28 and accompanying text.

240. *See supra* Part I.D.

CONCLUSION

Individually, credit derivatives and hedge funds are incredibly valuable to the financial markets and will continue to be so. The confluence of the two, however, significantly increases the risk that the financial system as a whole will suffer a drastic setback from a single shock. In the rush to mitigate this enormous risk, perhaps regulators have overlooked the simplest solution. Transaction regulation provides the appropriate parties with the appropriate information. Knowing the terms of credit derivatives in the market, investors can properly price future credit derivatives and consequently prevent the setup of a financial shock. If the gap between the price and the value is minimized, there is a greatly decreased chance of a drastic repricing chain reaction.