

ILLUMINATING THE NEED FOR REGULATION IN DARK MARKETS: PROPOSED REGULATION OF THE OTC DERIVATIVES MARKET

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INTRODUCTION

Alan Greenspan described the growth and development of financial derivatives as “[b]y far the most significant event in finance during the past decade.”¹ It has been asserted that credit derivatives act as “shock absorber[s]” that cushion against widespread loss in the case of corporate crises.² The credit derivatives market has been likened to a “new continent with boundless opportunity.”³ On the other hand, derivatives have been

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1. Alan Greenspan, Chairman, Fed. Reserve Sys. Bd. of Governors, Financial Derivatives: Remarks Before the Futures Industry Association (Mar. 19, 1999), <http://federalreserve.gov/boarddocs/speeches/1999/19990319.htm>. Greenspan credited the growth of derivatives with being one of several “key factors underpinning the greater resilience of our largest financial institutions.” Risk Transfer and Financial Stability: Remarks to the Federal Reserve Bank of Chicago’s Forty-First Annual Conference on Bank Structure (May 5, 2005), <http://www.federalreserve.gov/Boarddocs/Speeches/2005/20050505/default.htm>.

Derivatives have been called “indispensable tools for hedging risks and managing balance sheets.” J. Christopher Kojima, *Product-Based Solutions to Financial Innovation: The Promise and Danger of Applying the Federal Securities Laws to OTC Derivatives*, 33 AM. BUS. L.J. 259, 260 (1995) (“Engineered by sophisticated mathematicians and physicists in major financial institutions, derivative instruments have provided the opportunity to harness volatility and control uncertainty in securities and commodities markets, interest rates, and exchange rates.”).

2. Noah L. Wynkoop, *The Unregulables? The Perilous Confluence of Hedge Funds and Credit Derivatives*, 76 FORDHAM L. REV. 3095, 3099 (2008).

3. Jongho Kim, *From Vanilla Swaps to Exotic Credit Derivatives: How to Approach the Interpretation of Credit Events*, 13 FORDHAM J. CORP. & FIN. L. 705, 706 (2008) (“Financial institutions, as well as individual investors, are mobilizing all of their resources

termed the “the risk that still won’t go away,”⁴ called the “11-letter dirty word,”⁵ referred to as “financial weapons of mass destruction,”⁶ likened to “the middle age practice of alchemy, by which practitioners attempted to convert lead into gold,”⁷ and credited with contributing to the creation of the current global financial crisis (“GFC”).

Derivatives are financial instruments for which value is “derived” from underlying assets, such as mortgages, stocks, bonds or other commodities. Some derivatives are traded on an exchange, but most are over-the-counter (“OTC”) derivatives, or privately negotiated transactions between two counterparties. They are essential to the functioning of global financial markets and the economy because they are invaluable tools to help manage risk.⁸ They can be used as a hedge against potential losses from unpredictable changes in commodity and financial markets. As such, if used properly, derivatives are a good way of transferring risk. Moreover, because credit derivatives allow banks to pass on the risk of making loans, they can increase liquidity and access to capital.⁹ However, when they are

as they jump into this frontier head-on.”).

4. Carol J. Loomis, *Derivatives: The Risk that Still Won’t Go Away*, FORTUNE, July 6, 2009, at 54.

5. Desmond Eppel, Note, *Risky Business: Responding to OTC Derivative Crises*, 40 COLUM. J. TRANSNAT’L L. 677, 692 (2002).

6. As early as 2002, Warren Buffett spoke out against the expanding use of derivatives. His warnings now seem prophetic:

[T]he macro picture is dangerous and getting more so. Large amounts of risk, particularly credit risk, have become concentrated in the hands of relatively few derivatives dealers, who in addition trade extensively with one other. The troubles of one could quickly infect the others. On top of that, these dealers are owed huge amounts by non-dealer counterparties. Some of these counterparties, as I’ve mentioned, are linked in ways that could cause them to contemporaneously run into a problem because of a single event (such as the implosion of the telecom industry or the precipitous decline in the value of merchant power projects). Linkage, when it suddenly surfaces, can trigger serious systemic problems.

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

7. Kim, *supra* note 3, at 706.

8. Darrell Duffie & Henry T.C. Hu, *Competing for a Share of Global Derivatives Markets: Trends and Policy Choices for the United States* 3 (Stanford Univ., Working Paper Series No. 50, 2008). Until recently, academic literature has ignored derivatives. Frank Partnoy & David A. Skeel, Jr., *The Promise and Perils of Credit Derivatives*, 75 U. CIN. L. REV. 1019, 1021 (2007).

9. Wynkoop, *supra* note 2, at 3099; see also Norman Menachem Feder, *Deconstructing Over-The-Counter Derivatives*, 2002 COLUM. BUS. L. REV. 677, 687-691 (2002) (discussing the fact that derivatives can be used to reallocate market and credit risks).

not used correctly, they magnify losses and spread risk.¹⁰ In that case, instead of distributing risk, it is concentrated in “opaque and complex ways.”¹¹

From the year 2000 to mid-2008, the worldwide notional value¹² of

10. See generally Brooksley Born, *International Regulatory Responses to Derivative Crises: The Role of the U.S. Commodity Futures Trading Commission*, 21 NW. J. INT'L L. & BUS. 607, 608 (2001) (analyzing the response to three different derivatives crises). Lily Tijoe argues that credit derivatives present liquidity, short squeeze, settlement, concentration, document, trade confirmation, and assignment risks. *Credit Derivatives: Regulatory Challenges in an Exploding Industry*, 26 ANN. REV. BANKING & FIN. L. 387, 399-413 (2007). See also, Kojima, *supra* note 1, at 272-75 (discussing market risk, credit risk and systemic risk); Lydie Nadia Cabrera Pierre-Louis, *Controlling a Financial Jurassic Park: Obtaining Jurisdiction Over Derivatives by Regulating Illegal Foreign Currency Boiler Rooms*, 8 U.C. DAVIS BUS. L.J. 35, 48 (2007) (discussing the four types of risks associated with derivatives: 1) market risk, 2) credit risk, 3) operational risk, and 4) legal risk). See *infra* notes 135-40 and accompanying text (discussing that regulation, to be effective, must attempt to minimize these risks without hampering the benefits of derivatives).

Derivatives can also be used to speculate on price changes. When used to speculate, use of derivatives actually increases risk. See, e.g., Kim, *supra* note 3, at 708 (“In becoming a medium for speculative transactions, credit derivatives increased, rather than alleviated, risk.”); John T. Lynch, Comment, *Credit Derivatives: Industry Initiative Supplants Need for Direct Regulatory Intervention—A Model for the Future of U.S. Regulation?*, 55 BUFF. L. REV. 1371, 1374 (2008) (“Derivatives allow a speculator to take a position based on how he thinks a market will move, but without having to purchase outright the instruments or assets that make up that market.”). Some have criticized that the derivative market can be used for speculation. See, e.g., Lynn A. Stout, *Why the Law Hates Speculators: Regulation and Private Ordering in the Market for OTC Derivatives*, 48 DUKE L.J. 701, 713 (1999). Stout argues:

The net result is a legal system that works with surprising consistency to channel our nation’s economic energy toward the actual production and distribution of goods and services, and away from the pursuit of short-term trading profits. . . . These rules suggest a pattern of legal antipathy toward speculators that springs from the longstanding belief that speculation wrecks economic harm because it is nonproductive, distorts market prices, and impoverishes speculators themselves.

Id. On the other hand, others have argued that speculators “play a key role in derivatives markets because they are presumed to provide liquidity.” Feder, *supra* note 9, at 719.

11. DEPARTMENT OF THE TREASURY, FINANCIAL REGULATORY REFORM, A NEW FOUNDATION: REBUILDING FINANCIAL SUPERVISION AND REGULATION 43 (2009) [hereinafter *White Paper*], available at http://www.financialstability.gov/docs/regs/FinalReport_web.pdf.

12. The notional value is the market value of the assets or debt balance upon which payments are made. Henry T.C. Hu, *Misunderstood Derivatives: The Causes of Informational Failure and the Promise of Regulatory Incrementalism*, 102 YALE L.J. 1457, 1459 n.6 (1993). However, when the derivative is cash-settled, the notional amount is “hypothetical because it is not exchanged between the parties.” Feder, *supra* note 9, at 684. Moreover, the notional amount is not used to account for derivatives on financial statements. *Id.* at 686 (“Because notional amounts exaggerate exposure, treating such amounts as principal in cash instruments would overstate assets or liabilities.”).

derivatives grew from \$95 trillion to \$684 trillion.¹³ Despite the enormous amounts of money involved,¹⁴ and the calls for reform in both academic circles¹⁵ and in the popular press,¹⁶ there has been little regulation of the OTC derivatives market.¹⁷ The calls for reform have intensified in light of the current GFC and the role that derivatives played in that crisis. The severity of the GFC cannot be overstated¹⁸ nor can the role that derivatives

13. Loomis, *supra* note 4. The Bank for International Settlements estimated that OTC derivatives had a notional value of around \$94 trillion in 2000 and that exchange traded derivatives had an estimated notional value of approximately \$13.9 trillion. Born, *supra* note 10, at 608. By 2005, the notation value of derivatives was \$454.4 trillion, which was more than ten times the global gross domestic product and three times the size of all financial assets combined. Aaron Unterman, *Innovative Destruction—Structured Finance and Credit Market Reform in the Bubble Era*, 5 HASTINGS BUS. L.J. 53, 57 (2009). Moreover, the global market value of OTC derivative contracts was \$415 trillion by the end of 2007. LYNTON JONES, CITY OF NEW LONDON, CURRENT ISSUES AFFECTING THE OTC DERIVATIVES MARKET AND ITS IMPORTANCE TO LONDON 5 (2009), available at <http://217.154.230.218/NR/rdonlyres/252E99A2-7329-4C3A-B923-A3E7060A0AC2/0/OTCDerivativesReportv2.pdf>.

14. Eamonn K. Moran, *Wall Street Meets Main Street: Understanding the Financial Crisis*, 13 N.C. BANKING INST. 5, 42 (2009) (“As of late 2008, there remained \$55 trillion in credit-default swaps outstanding, an amount more than the gross domestic product of all the world nations combined.”).

15. See, e.g., Christopher L. Culp & Robert J. Mackay, *Regulating Derivatives: The Current System and Proposed Changes*, 17 REG. 38 (1994) (presenting and evaluating appeals for regulation of derivatives); Eppel, *supra* note 5, at 702 (“[M]arket forces should be allowed to govern which products and services are offered and purchased.”); Willa E. Gibson, *Are Swap Agreements Securities or Futures?: The Inadequacies of Applying the Traditional Regulatory Approach to OTC Derivatives Transactions*, 24 J. CORP. L. 379, 381 (1999) (“[E]xisting securities or commodities laws would stymie product development and prevent OTC derivatives dealers from competing effectively with foreign OTC derivatives dealers who are subject to less restrictive regulation.”); Merton H. Miller, *Do We Really Need More Regulation of Financial Derivatives?* (Univ. of Chi., Selected Paper No. 75, 1994) (arguing against increased regulation). But see, e.g., Thomas Lee Hazen, *Filling a Regulatory Gap: It is Time to Regulate Over-the-Counter Derivatives*, 13 N.C. BANKING INST. 123 (2009) (arguing for increased regulation); G. Naresh, *Views of the Market Participants on Trading Regulations in the Derivatives Market* 11 (Indian Institute of Capital Markets 9th Capital Markets Conference Paper, 2006), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=876877 (“[R]egulatory framework is required to meet the needs of ensuring market integrity, financial integrity and investor protection.”); Tijoe, *supra* note 10, at 414 (“[T]he credit derivatives industry needs a carefully designed infrastructure to ensure that the market’s known risks are actively monitored.”).

16. See, e.g., Loomis, *supra* note 4; Carol J. Loomis, *The Risk that Won’t Go Away*, FORTUNE, Mar. 7, 1994, at 40 (arguing for increased regulation); Susan M. Mangiero, *Anyone up for OTC Derivatives Regulation?*, AFP PULSE, May 2002, at 2 (arguing against increased regulation and stating that “[m]andatory regulation comes with a hefty price tag”).

17. See Greenspan 2005, *supra* note 1, at 6 (“[P]rivate regulation generally has proved far better at constraining excessive risk-taking than has government regulation.”).

18. See generally Moran, *supra* note 14, at 9 (“Between July 2007, when the credit crisis began, and mid-October 2008, the country’s nine largest banks and financial institutions marked down their valuations on loans and other troubled assets by a combined

played in converting a housing crisis into a banking crisis.¹⁹ For example, some scholars argue that the near demise of AIG was due to its exposure to risky derivatives.²⁰ Others argue that the lack of meaningful regulatory oversight of derivatives was a central cause of the GFC.²¹

At the beginning of the crisis, President George W. Bush recognized that our “21st century global economy remains regulated largely by outdated 20th century laws.”²² Financial markets are regulated by a “patchwork” regulatory scheme including five federal financial institution regulators, state banking supervision, bifurcated securities and futures regulation, and state insurance regulation.²³ President Obama has proposed

\$323 billion.”). *See also id.* at 10-11 (discussing the ripple effects of the global financial meltdown).

19. *See id.* at 32 (“The factor that levered a serious housing market bubble and collapse into a threat to the United States financial markets and, indeed, the world financial system, was the financial innovations that developed on Wall Street as a result of securitization.”). The innovative instruments Moran spoke of included mortgage-backed securities as well as derivatives. Loomis acknowledges that derivatives were not the “central villain” in the GFC drama, but asserts that they “elevated the stakes.” Loomis, *supra* note 4. Others have described the event as a “crisis rooted fundamentally in the successes of financial innovation and an unprecedented complexity of financial products, which resulted from such innovation.” Saule T. Omarova, *The New Crisis for the New Century: Some Observations on the “Big-Picture” Lessons of the Global Financial Crisis of 2008*, 13 N.C. BANKING INST. 157, 157 (2009). The Obama Administration terms derivatives “a major source of contagion through the financial sector during the crisis.” White Paper, *supra* note 11, at 6. *See also infra* notes 68-79 and accompanying text (discussing the role that derivatives played in the GFC in more depth).

20. Moran outlines how AIG was forced to give the Federal Reserve a 79.9% interest in AIG in return for an \$85 billion emergency credit line. As Moran explains, this was made necessary when holders of credit-default swaps that AIG had issued demanded more collateral because of downgrades in credit ratings. Moran, *supra* note 14, at 66-67.

21. *See, e.g., id.* at 45 (“The absence of significant regulatory controls on how mortgages were repackaged into larger and more complex securities served as a central cause of the current financial crisis.”); Damon Silvers & Heather Slavkin, *The Legacy of Deregulation and the Financial Crisis—Linkages Between Deregulation in Labor Markets, Housing Finance Markets, and the Broader Financial Markets*, 4 J. BUS. & TECH. L. 301, 302 (2009) ([The financial crisis] “was the all too foreseeable consequence of a series of policy decisions made over decades that weakened a carefully constructed economic regulatory structure designed in part to guard the U.S. economy against the consequences of radical instability in the financial markets.”); Unterman, *supra* note 13, at 55 (arguing that “a lack of or misguided regulation perpetuated the crisis”).

22. Address to the Nation on the National Economy, 44 WEEKLY COMP. PRES. DOC. 1251, 1254 (Sept. 24, 2008). Others have asserted that U.S. financial institutions are “regulated no more stringently than, say, demolition derby drivers.” Loomis, *supra* note 4.

23. *See infra* notes 85-111 and accompanying text (discussing this regulatory scheme) and notes 185-90 and accompanying text (proposing a more unified regulatory scheme). *See also* Eppel, *supra* note 5, at 692 (calling the regulatory scheme “fractured and frequently inconsistent”); Bernard J. Karol, *An Overview of Derivatives as Risk Management Tools*, 1 STAN. J.L. BUS. & FIN. 195, 207 (1995) (“Derivatives are regulated by a patchwork system based on the legal categorization of the product and the type of financial intermediary offering it, rather than according to a more logical economic analysis.”); Frank Partnoy, *The*

a major overhaul of financial market regulation including regulation of the OTC derivatives market.²⁴ The purpose of this article is to examine the need for regulation of OTC derivatives markets and the current proposal.

Specifically, in Part I, we will define derivatives, including OTC derivatives, and discuss how the use of derivatives contributed to the current global financial crisis. In Part II, we will discuss the existing regulation of derivatives. This section will compare regulation of exchange-traded derivatives with OTC derivatives and outline the holes in existing oversight by the Securities and Exchange Commission (“SEC”) and the Commodity Futures Trading Commission (“CFTC”). Part III will discuss the regulations proposed by the Obama Administration. These proposals would impose capital and transparency requirements and attempt to reduce systemic risk²⁵ caused by derivatives. In Part IV, we will analyze the proposals and argue in support of standardization, capital requirements, increased disclosure, and a central clearinghouse. Here, we will rely on finance literature to demonstrate how regulation of derivatives must balance the difficult tasks of managing risk from derivatives without stifling innovation. The proposals recognize the inherent benefits of the myriad of derivatives and leave untouched even the most exotic among them. We support this aspect of the proposal. However, the proposed regulations also continue the existing bifurcated regulatory scheme with the SEC and CFTC sharing regulatory authority over the derivatives market.

For these reasons, we will argue in Part V that the proposed regulations, while a laudable first step, are insufficient to adequately regulate derivatives trading. We will conclude by arguing for one regulatory body, a merged SEC and CFTC. The rationale for two separate

Shifting Contours of Global Derivatives Regulation, 22 U. PA. J. INT’L ECON. L. 421, 429 (2001) (“Statutory coverage is piecemeal, byzantine, and has led market participants to opt out of the statutory framework when dealing in the OTC markets.”). See generally Moran, *supra* note 14, at 95-96 (discussing how the current “patchwork” regulatory scheme was not built to address our modern financial system).

24. See White Paper, *supra* note 11, at 4 (discussing “substantive reforms of the authorities and practices of regulation and supervision” as well as “a significant restructuring of our regulatory system”). We will limit our discussion in this article to proposals related to derivatives regulation. Perhaps the most controversial element of the Obama Proposal is the creation of a consumer regulatory body. Discussion of the merits of such a proposal is, however, outside the scope of this article.

25. Although alternative definitions of systemic risk have been offered, systemic risk can be defined as:

[T]he risk that (i) an economic shock such as market or institutional failure triggers (through panic or otherwise) either (X) the failure of a chain of markets or institutions or (Y) a chain of significant losses to financial institutions, (ii) resulting in increases in the cost of capital or decreases in its availability, often evidenced by substantial financial-market price volatility.

Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193, 204 (2008).

regulatory bodies, which made sense when the two bodies were created, no longer makes sense in today's world. The differences between the two regulatory bodies are blurred. This confusing regulatory landscape contributed to the GFC. Moreover, dividing regulatory authority between two agencies is inefficient and too often leads to ineffective or non-existent regulation.

I. WHAT ARE DERIVATIVES AND WHY DO WE CARE?

A. *Derivatives are . . .*

Before we can understand the role that derivatives played in the GFC and how the lack of meaningful regulatory oversight contributed to the GFC, we need to understand the various types of derivatives. Derivatives are financial contracts that *derive* their value from the value of an underlying asset, termed the "reference asset."²⁶ There are many different types of derivatives, including options, futures, forwards, swaps, and variations of these.²⁷ Examples of underlying assets are stocks, bonds, indexes, commodities, interest rates, and currency exchange rates.²⁸ Credit derivatives are, simply put, financial instruments whose payoffs are linked to changes in the credit quality of an issuer.²⁹

One of the simplest examples of a derivative contract is a put option.³⁰

26. John D. Finnerty and Mark S. Brown, *An Overview of Derivatives Litigation, 1994 to 2000*, 7 FORDHAM J. CORP. & FIN. L. 131, 131 (2001); Kai Kramer, *Aren't We Still in the "Garden of the Forking Paths"?: A Comment on Consolidation of the SEC and CFTC*, 4 HOUS. BUS. & TAX. L.J. 410, 417 (2004); Moran, *supra* note 14, at 40; Pierre-Louis, *supra* note 10, at 43; Tijoe, *supra* note 10, at 388. While "[t]raditionally, a derivative contract is one that creates a right or an obligation for one party to buy or sell an asset to another at some future time[.]" the secondary market in derivatives means that the underlying asset is rarely exchanged between the original counterparties. Eppel, *supra* note 5, at 679.

27. Forwards, futures, swaps, and options are off-balance sheet instruments, and have been collectively "analogized to 'LEGO's' building blocks for children, because the investor can 'build instruments from one another' or 'combine the instruments into larger creations that appear . . . altogether 'new.''" Kramer, *supra* note 26, at 418 (quoting CLIFFORD SMITH, CHARLES SMITHSON & D. SYKES WILFORD, *Managing Financial Risk*, Chapter 23, THE REVOLUTION IN CORPORATE FINANCE 351, 351 (Joel M. Stern & Donald H. Chew, Jr. eds., Blackwell Publ'g 2003) (1982)).

28. See *infra* notes 85-86 and accompanying text (explaining that the nature of the underlying asset is important for determining the relevant regulator, if any).

29. Partnoy & Skeel, *supra* note 8, at 1021. "Credit derivatives allow a party to 'unbundle' credit risk from the other risks that an investment carries." Lynch, *supra* note 10, at 1382. They include credit default swaps and collateralized debt obligations. See *infra* notes 43-59 and accompanying text (explaining these types of derivatives).

30.

Options are contracts where one party, A, has the right to buy (or sell) a

When used properly, a put option can be used to effectively mitigate an investor's risk. Assume that an investor has a large portion of his portfolio in the common stock of a given firm. Although the investor is confident about the firm's long-term prospects, he is concerned that the volatility of the market might adversely impact stock prices. To protect his investment from that risk, he can buy a put option for a fraction of the cost of his portfolio. The put option in this case operates much like insurance.³¹ If the

reference asset from a counterparty, B, at or before a predetermined deadline ("maturity date") and at a predetermined price ("strike price"). For this right, A pays B a fee (or "premium"). If the strike price is lower than the market price, the option becomes more valuable to A because A can buy the reference asset from B at a lower price than if A buys it in the open market. The value of an option, therefore, moves in correlation with the value of the reference asset.

Tijoe, *supra* note 10, at 389. A forward contract is similar to an option except that in the case of a forward contract, the party (Party A in the above example) is obligated to deliver the reference asset to the counterparty at the maturity date. *Id.* Call options are the opposite of put options and give "the owner the right to buy an asset at a specified future date and price, which is agreed upon the day of purchase . . ." Kramer, *supra* note 26, at 421. *See also* Feder, *supra* note 9, at 692 ("If the option is to buy, it is a *call* option; if the option is to sell, it is a *put* option.").

More complex derivative products are merely combinations and modifications of options and forward contracts. *See* Eppel, *supra* note 5, at 680 ("[T]hese two basic trades form the building blocks of all other derivative products. By modifying and combining options and forward contracts creatively, financial innovators have developed a variety of derivatives products, including futures, swaps, mortgage, and other credit derivatives."); Kojima, *supra* note 1, at 264 ("From these basic building blocks, financial innovation has produced a multitude of derivative products, with labels ranging from the common-place and unusual—options, futures, forwards, and swaps—to the exotic and daunting—inverse floaters, swaptions, captions, floortions, and 'heaven & hell bonds.'"). *See also* Feder, *supra* note 9, at 691 (discussing the "basic building blocks" that are used to create OTC derivative products).

31. Both derivatives and insurance provide a way to shift risk. *See* Hazen, *supra* note 15, at 124-25 ("Individuals and businesses who have exposure to risk can either hedge against that risk with a derivatives contract or seek insurance against the losses that could occur if the contingencies created by the risk materialize.").

Derivatives were created to soften—or in the argot of Wall Street, 'hedge'—investment losses. For example, some of the contracts protect debt holders against losses on mortgage securities. (Their name comes from the fact that their value 'derives' from underlying assets like stocks, bonds and commodities.) Many individuals own a common derivative: the insurance contract on their homes.

On a grander scale, such contracts allow financial services firms and corporations to take more complex risks that they might otherwise avoid—for example, issuing more mortgages or corporate debt. And the contracts can be traded, further limiting risk but also increasing the number of parties exposed if problems occur.

Peter S. Goodman, *The Reckoning-Taking Hard New Look at a Greenspan Legacy*, N.Y. TIMES, Oct. 9, 2008, at A1, available at <http://www.bearly.com/pdfFiles/Goodman9102008.pdf>. The difference between hedging,

price of the stock drops, the put option would gain in value, thus offsetting the loss and protecting the value of the investment.

The put option could, alternatively, be used speculatively by investors who are willing to bet on stock prices falling. Such speculators are lured by the possibility of a large gain if they are able to predict the direction and magnitude of the stock price movement correctly. If, however, they predict incorrectly and the stock price moves in the opposite direction, these put options would expire as worthless and the speculative investors would lose all their investment.

B. *The Derivatives Market*

Derivatives can be classified as exchange-traded derivatives or over-the-counter (“OTC”) derivatives.³² The put option described above is an example of an exchange-traded derivative. For exchange-traded derivatives, regulated exchanges, such as the Chicago Mercantile Exchange, the Chicago Board of Trade, or the Chicago Board Options Exchange, act as intermediaries between the parties to the contract and provide orderly trading, efficiency, and transparency.³³ Settlement is guaranteed through clearinghouses like the Options Clearing Corporation. With exchange-traded derivatives, the risk of a party defaulting on its commitment is limited due to margin requirements imposed on participants.³⁴ The market for exchange-traded derivatives has grown

insurance and gambling was explained by the Supreme Court of Tennessee:

Hedging . . . is in the nature of price insurance. The real difference between hedging and gambling is that the hedger has a legitimate interest to protect apart from the hedging transactions, while the gambler has no interest except in the transactions depending on the rise and fall of the market. An insurance contract becomes a wager when the insured has no legitimate interest to be protected against the happening of the event insured against.

Boillin-Harrison Co. v. Lewis & Co., 187 S.W.2d 17, 24 (1945). *See infra* note 92 (comparing derivatives to gambling and explaining that derivatives are not subject to regulation outlawing gambling).

32. Carolyn H. Jackson, *Have you Hedged Today? The Inevitable Advent of Consumer Derivatives*, 67 FORDHAM L. REV. 3205, 3211 (1999); Lynch, *supra* note 10, at 1375. The distinction between exchange-traded and OTC derivatives is important because the classification determines which regulatory scheme, if any, will be applied to the transaction. *See infra* notes 85-111 and accompanying text (discussing regulation).

33. *See* George Tsetsekos & Panos Varangis, *Lessons in Structuring Derivatives Exchanges*, 15 WORLD BANK RES. OBSERVER 85, 86 (2000) (“The primary function of a derivatives exchange is to facilitate the transfer of risk among economic agents by offering mechanisms for liquidity and price discovery.”).

34. In an exchange-traded future contract, both participants make a deposit (the “initial margin”), typically a percentage of the face value of the contract. As the contract either loses or gains value, the participants pay or receive additional amounts to maintain the cushion of the original deposit. Feder, *supra* note 9, at 733; Thomas Lee Hazen, *Disparate*

considerably over the past decade, from a notional value of about \$14.8 trillion in 1998, to a high of \$95 trillion in 2007, to the current level of \$55.8 trillion.³⁵

Regular options and futures are more likely to be traded over regulated exchanges, while exotic options, forwards, and swaps³⁶ are typically traded OTC. OTC transactions exclude the exchange and are conducted privately between two parties, called counterparties.³⁷ Because OTC transactions are not conducted through regulated exchanges, they are not subject to the same reporting, standardization, and margin requirements as exchange-traded derivatives.³⁸ This seems to enhance their popularity with investors

Regulatory Schemes for Parallel Activities: Securities Regulation, Derivatives Regulation, Gambling, and Insurance, 24 ANN. REV. BANKING & FIN. L. 375, 428 (2005); Karol, *supra* note 23, at 199; Tsetsekos & Varangis, *supra* note 33, at 93. For exchange-traded derivatives, the margin and the position are measured regularly. See Feder, *supra* note 9, at 734 (“Margin accounts for exchange-traded derivatives will usually be *marked-to-market*—which involves valuating relevant assets at prevailing market values—daily.”).

In addition, with exchange-traded derivatives, the exchange assumes the default risk and acts as the counterparty on each derivative. Moreover, the exchange also regulates each contract agreement and imposes standardization. *Id.* at 731 (discussing the “high degree of standardization” of exchange-traded derivatives); Karol, *supra* note 23, at 198-199 (noting that it is in the best interest of the exchange to regulate such contracts because the exchange acts as the counterparty).

35. BANK FOR INT’L SETTLEMENTS, QUARTERLY REVIEW, A108 tbl.23A (June 2009), available at <http://www.bis.org/statistics/extderiv.htm>.

36. Swaps are derivative instruments in “which parties agree to exchange a series of payments over time.” Eppel, *supra* note 5, at 680. Interest rate and currency swaps are common examples of swaps, which can be further sub-divided into what are termed “plain-vanilla” or more exotic swaps. Karol, *supra* note 23, at 199-200. See *infra* notes 43-49 and accompanying text (discussing credit default swaps).

37. Counterparties can be classified as either dealers or end users. Dealers act as intermediaries to provide derivatives to end users. Common dealers are commercial banks, large corporations and hedge funds. End users are typically corporations, institutional investors and financial institutions. Eppel, *supra* note 5, at 682; Kojima, *supra* note 1, at 266.

38. See Hazen, *supra* note 34, at 429 (“On the other hand, the over-the-counter derivatives markets do not impose margin requirements.”); Karol, *supra* note 23, at 199 (discussing how OTC products are not subject to position limits, initial or variation margins). Moreover, OTC transactions are undisclosed beyond the participants.

Unlike the more standardized exchange-traded derivatives, derivatives traded in the OTC market can be easily tailored to the individual needs of the market participants. See Julie Baumgarten, *Who Patrols the Money? The Regulation of Off-Exchange Foreign Currency Options: Dunn v. Commodity Futures Trading Commission*, 21 HOUST. J. INT’L L. 151, 157 (1998) (“Unlike organized exchanges, OTC markets enable investors to make customized agreements subject to individual negotiation.”); Feder, *supra* note 9, at 735 (“[P]arties to OTC transactions can tailor individual derivatives to specific exposures or for specific risk postures.”); Lynch, *supra* note 10, at 1375-76 (“The OTC market for derivatives consists of parties entering into contracts directly with each other, where they have the ability to formulate transactions that are exactly tailored to their respective needs. This allows for much more innovation and variation, because the parties can negotiate the specific details of the deal directly with each other.”). See also Wynkoop, *supra* note 2, at 3098 (noting that

and hedge funds.³⁹ Hence, the OTC market is about thirty-times larger than the exchange-traded derivatives market in terms of notional value. In fact, the market for OTC derivatives grew from \$72.13 trillion in 1998, peaked at \$683.37 trillion in 2008, and as of last estimates (December 2008), currently stands at \$591.96 trillion.⁴⁰ Because the vast majority of OTC transactions are settled bilaterally between the counterparties, rather than through clearing houses,⁴¹ there is no central counterparty similar to what exists for exchange-traded derivatives. Therefore, OTC derivatives are subject to significant counterparty (default) risk. Upon the expiration of the contract, the counterparties to the contract must be able to fulfill their obligations in order for the transaction to be completed.⁴²

An example of an OTC derivative is the credit default swap (“CDS”).⁴³ A CDS is a contract conducted between two parties, where the underlying asset is the credit or creditworthiness of a borrower (debt issuer).⁴⁴ If a credit event⁴⁵ occurs, the protection buyer will be

the OTC derivatives market “is a noncentralized market composed of individualized, privately negotiated contracts”). Hence, their “complexities depend upon the wishes of the parties.” Karol, *supra* note 23, at 199.

39. See Lynch, *supra* note 10, at 1379 (“[T]he lack of regulation allowed the OTC market to develop quickly through innovation while the exchange-traded market was stifled by persistent adherence to custom and remained rooted in traditional derivative instruments.”).

40. BANK FOR INT’L SETTLEMENTS, QUARTERLY REVIEW, A103 tbl.19 (June 2009), available at <http://www.bis.org/statistics/derstats.htm>. To put these numbers in perspective, the U.S. gross domestic product grew from 8.8 trillion in 1998 to 14.3 trillion in 2008. BUREAU OF ECON. ANALYSIS, U.S. DEP’T OF COMMERCE, NATIONAL INCOME AND PRODUCT ACCOUNTS TABLE, TABLE 1.1.5, GROSS DOMESTIC PRODUCT, available at <http://www.bea.gov/national/nipaweb/TableView.asp?SelectedTable=5&ViewSeries=NO&Java=no&Request3Place=N&3Place=N&FromView=YES&Freq=Year&FirstYear=1998&LastYear=2009&3Place=N&Update=Update&JavaBox=no#Mid>.

41. BANK FOR INT’L SETTLEMENTS, *Report on OTC Derivatives: Settlement Procedures and Counterparty Risk Management*, CGFS Publications No. 8 (September 1998), available at <http://www.bis.org/publ/ecsc08.htm>.

42. See Kojima, *supra* note 1, at 266 (“The absence of a central market also means there is no clearinghouse—the ability of buyer or seller to fulfill the terms of their contract therefore becomes more important for the OTC market participants.”). See also Feder, *supra* note 9, at 735 (“Moreover, in off-exchange transactions the credit risks generally are not absorbed by an exchange. . . . [A]n OTC derivatives contract party must pay relatively close attention to the possibility that the counterparty will fail to make good on obligations.”). The protection seller’s credit risk is the risk that the agreement will not be performed. This is termed “counterparty risk.” Kim, *supra* note 3, at 730-31.

43. See FRANK J. FABOZZI, *BOND MARKETS, ANALYSIS, AND STRATEGIES* 727-32 (6th ed. 2006) (discussing the mechanics of a credit default swap).

44. A swap is a “complex way of stringing together a series of forward contracts” or a “side agreement based on the value of the underlying asset.” Kramer, *supra* note 26, at 420. A credit default swap is a “bilateral financial contract in which a protection buyer makes periodic payments to . . . the protection seller, in return for a contingent payment if a predefined credit event occurs in the reference credit” *Eternity Global Master Fund Ltd. v. Morgan Guaranty Trust Co. of N.Y.*, 375 F.3d 168, 172 (2d Cir. 2004) (internal

compensated by the protection seller. In other words, the protection seller will assume the loan from the protection buyer at face value.⁴⁶ For example, if Bank X makes a large loan to a corporation, the bank may decide to reduce its risk exposure by syndicating the loan and including other banks. This, however, would reduce Bank X's balance sheet and its profits. If the terms of the loan are especially attractive, the bank may instead decide not to share the risk/reward with other banks. It could instead transfer the default risk by entering into a CDS agreement with a third party. The CDS is similar to an insurance contract: X bank will make premium payments⁴⁷ to the third party (protection seller), and in the event that the borrower defaults on the loan, the protection seller will reimburse the bank for the amount of the loss. The advantages of the CDS are that it allows the protection buyer to reduce its risk exposure and at the same time get access to credit markets that might be restricted or off-limits because of regulation.⁴⁸ This has led to an exponential growth in the CDS market over the past five years. The market has increased from a notional value of \$6.4 trillion (2004) to a high of \$57.9 trillion (2007). The market is currently estimated at \$41.9 trillion (2008).⁴⁹

quotations omitted). The primary buyers of CDSs are commercial lenders and corporate bond holders; the primary sellers are insurance companies and large financial institutions. Lynch, *supra* note 10, at 1384.

Partnoy and Skeel define a credit default swap as a "private contract in which private parties bet on a debt issuer's bankruptcy, default, or restructuring." (emphasis added). Partnoy & Skeel, *supra* note 8, at 1021. The use of the word "bet" conjures up visions of gambling. See *infra* note 92 (discussing the comparison between derivative use and gambling).

45. The credit event is the event that triggers performance of the contract terms. See Kim, *supra* note 3, at 754 ("The 'credit event' becomes the standard for triggering the performance of the contract terms previously agreed upon by the parties."). The International Swaps and Derivative Association ("ISDA") defines credit events to include bankruptcy, failure to pay, obligation default, obligation acceleration, repudiation/moratorium, and restructuring. *Derivatives Consulting Group Glossary*, INT'L SWAPS AND DERIVATIVES ASS'N, http://www.isda.org/c_and_a/oper_commit-dcg-glossary.html. The triggering credit events can be specified in the contract. See Kim, *supra* note 3 (discussing issues related to credit events).

46. The face value is the notional principal in this example.

47. The default protection buyer makes quarterly payments to the protection seller. This "spread" is quoted in terms of basis points. On a 5-year CDS with a notional principal of \$10 million, 120 basis points per year would amount to \$120,000. The notional principal is the face value of the loan or bonds for which protection is being purchased. See Dominic O'Kane & Stuart Turnbull, *Valuation of Credit Default Swaps*, FIXED INCOME QUANTITATIVE CREDIT RESEARCH (Lehman Bros.), Apr. 2003 (discussing the valuation of credit default swaps). See also JOHN C. HULL, *OPTIONS, FUTURES, AND OTHER DERIVATIVES* (7th ed. 2008) (providing an expansive discussion of credit default swaps).

48. Tjoe, *supra* note 10, at 392.

49. BANK FOR INT'L SETTLEMENTS, *QUARTERLY REVIEW*, A103 tbl.19 (June 2009), available at <http://www.bis.org/statistics/derstats.htm>. In 2004, the CDS market represented two-thirds of the entire credit derivatives market. Robert F. Schwartz, *Risk Distribution in the Capital Markets: Credit Default Swaps, Insurance and a Theory of Demarcation*, 12

To understand the GFC and the role that derivatives played in creating the crisis, we need to understand another category of credit derivatives, the collateralized debt obligation (“CDO”).⁵⁰ Collateralized debt obligations fall under the umbrella of structured asset-backed securities.⁵¹ Asset-backed securities derive their value from a portfolio of underlying assets, such as mortgages, corporate bonds, credit card debt, or auto loans. These are housed within a special purpose vehicle/entity (“SPV”), which is a trust that slices up the debt into smaller pieces and issues securities. These securities receive the cash flows from the underlying assets, which pass through to the SPV.⁵² The assets serve as collateral to back up the securities. The securities are often issued in “tranches,” with the first (equity) tranche bearing the most risk and subsequently receiving the most compensation. The second (mezzanine) tranche⁵³ is typically rated BBB and the third (senior) tranche is the most insulated from risk of default (typically rated AAA) and, hence, receives the lowest return.⁵⁴

FORDHAM J. CORP. & FIN. L. 167, 169 (2007). It has been called the “fastest-growing financial market there is.” Jenny Anderson, *Calm Before and During a Storm; Derivatives May Put the New York Fed Chief Through a Stress Test*, N.Y. TIMES, Feb. 9, 2007, at C1.

50. See FABOZZI, *supra* 43, at 348.

51. Aaron Unterman uses a story of an apple farm to explain the concept of asset securitization. Unterman, *supra* note 13, at 58-60. In this story, the residents of Appleville have enjoyed five years of perfect summers, with their apple production increasing each year. Believing that “the sun would never stop shining,” IB Farms offers the farmers of Appleville money today for the right to apples from future crops. *Id.* at 59. The farmers use this money to buy more land and machinery. IB Farms sells these apples and rights to future apples to supermarkets worldwide. As Unterman tells us, “[a]ny doubts about reliability . . . could be quickly allayed by the team of local weathermen who were only to [sic] happy to evaluate crops and make assurances to their reliability (for a small fee of course).” *Id.* In this story, the apple trees are the wealth-producing assets and the future apples are the source of wealth for sale. As Unterman describes it, the benefit of this type of arrangement is that the farmers have access to immediate cash and the risk of a crop failure is borne largely by IB Farms and, more commonly, the supermarkets worldwide that agree to assume the risk. *Id.* In spite of the fact that the supermarkets bore the risk for crop failure, they did nothing to monitor the apple farms. Instead, they entered into agreements with third parties who agreed to compensate for any shortfalls in apple production. These third parties are monoline bond insurers who, unlike typical insurance companies, are not required by law to keep capital reserves. *Id.* at 62-63. Because the farmers were virtually assured of the sale of their apples, they began to disregard sound farming practices, using lower quality seeds and cutting corners. *Id.* at 64.

52. Partnoy & Skeel, *supra* note 8, at 1022 (“[A] collateralized debt obligation (CDO) is a pool of debt contracts housed within a special purpose entity (SPE) whose capital structure is sliced and resold based on differences in credit quality.”).

53. The mezzanine tranche “formed the backbone of the CDO market.” Unterman, *supra* note 13, at 61.

54. Investors in this tranche are the first to receive principal and interest payments and are insulated from loss by the tranches below them. Unterman, *supra* note 13, at 61. See also, Silvers & Slavkin, *supra* note 21, at 336-37 (discussing the use of “multi-tiered capital structures so that investors that owned interests in different tiers of the structure had different rights to cash flows generated by the pool. In most circumstances, this meant that

CDOs vary depending upon the type of security that is the underlying asset. If corporate bonds are the underlying asset, the CDO is called a collateralized bond obligation (“CBO”). By contrast, a collateralized loan obligation (“CLO”) is backed by loans and a collateralized mortgage obligation (“CMO”) is backed by mortgage-backed securities.⁵⁵ When CDOs are backed by a combination of underlying assets they are called multi-sector CDOs. There are also classes of CDOs, called CDO-squared (“CDO²”), which are CDOs backed by other CDO tranches.⁵⁶ These allow the purchasers of CDO securities to resell the risk that they have assumed.

CDOs that are backed by a portfolio of debt instruments, like CLOs and CBOs, are called *cash* CDOs.⁵⁷ In these cases, the SPV actually owns the portfolio of outstanding debt and it passes along the payments that it receives to its investors. In a different class of CDOs, where the SPV does not hold actual loans or bonds, the collateral consists of a portfolio of a series of short positions in CDOs into which the SPV has entered. The credit risks and payments received from protection buyers are passed on to the investors in each of the tranches according to the risk that they bear. These classes of CDOs are called *synthetic* CDOs.⁵⁸ In a synthetic CDO, the value of each tranche is determined based upon complex financial models. This creates greater uncertainty because the effect of a default is unclear and it is not clear whether the tranche is priced accurately.⁵⁹

Thus, the complexity of the various types of derivatives is apparent. This complexity contributed to the GFC because it increased the difficulty

the highest level or tranche had the senior-most interest in the pool and was paid the lowest interest rate and the junior-most interest holder was paid the highest interest rate.”); Lynch, *supra* note 10, at 1386 (discussing how “[t]his allows the CDO to reap a competitive return on its investments that far exceeds the return of the senior tranche, and while this return may be equal to or even lower than the return on the equity tranche, it is calculated on a much higher notional amount, thereby outpacing the return due to the lower tranches.”).

55. Mortgage-backed securities (“MBS”) are asset-backed securities where mortgage loans comprise the underlying asset. FABOZZI, *supra* note 43, at 246.

56. There also exist CDO-cubed (CDO³), which are basically CDO² tranches repackaged in a new CDO, and CDOⁿ that show the depth into which these securities can be repackaged.

57. Tijoe, *supra* note 10, at 393.

58. See Partnoy & Skeel, *supra* note 8, at 1022 (“In a ‘synthetic’ CDO, the SPE does not purchase actual bonds, but instead typically enters into several credit default swaps with a third party or parties to create synthetic exposure to the outstanding debt issued by a range of companies. The SPE then issues financial instruments, which are backed by credit default swaps rather than any actual bonds.”); Tijoe, *supra* note 10, at 392-93 (“In synthetic CDO’s, the underlying debt instruments are credit default swaps.”).

59. Tijoe, *supra* note 10, at 393. See also Karol, *supra* note 23, at 198 (explaining that creation of the Black-Scholes formula for pricing options was a major factor in the explosion of derivative innovation and trading); Partnoy & Skeel, *supra* note 8, at 1040-46 (discussing the uncertainty created by the mathematical models used to price the CDO tranches).

with which even sophisticated investors could properly assess their risks.⁶⁰ In addition, the CDOs were typically held by banks as off-balance-sheet assets. This also made it difficult for even sophisticated investors to effectively assess their risks, especially given the fact that they were often considered by the rating agencies to be AAA quality.⁶¹

C. *The Current Financial Crisis*

As we have seen, derivatives are essential to the economy and specifically, the functioning of financial markets because they are invaluable tools to help manage risk. They can be used as a hedge against potential losses from unpredictable changes in commodity and financial markets. If used properly, derivatives can effectively transfer risk.⁶² They allow banks to transfer credit exposure to counterparties and off of their own balance sheets, which allows banks to lend more money.⁶³ However, when derivatives are used improperly, they magnify losses and spread risk.⁶⁴ That is essentially what happened in today's financial crisis.

60. See, e.g., Silvers & Slavkin, *supra* note 21, at 337 (discussing the fact that buying in tranches "made it difficult, if not impossible, for even the most sophisticated investors to perform proper due diligence"). In fact, even Warren Buffett acknowledged difficulty in understanding derivatives. He stated, "[w]hen Charlie and I finish reading the long footnotes detailing the derivatives activities of major banks, the only thing we understand is that we *don't* understand how much risk the institution is running." 2002 Berkshire Hathaway Annual Report, *supra* note 6, at 15. Buffett further noted that derivatives were getting increasingly difficult to monitor and control. *Id.*

The derivatives genie is now well out of the bottle, and these instruments will almost certainly multiply in variety and number until some event makes their toxicity clear. Knowledge of how dangerous they are has already permeated the electricity and gas businesses, in which the eruption of major troubles caused the use of derivatives to diminish dramatically. Elsewhere, however, the derivatives business continues to expand unchecked. Central banks and governments have so far found no effective way to control, or even monitor, the risks posed by these contracts.

Id.

61. Jones, *supra* note 13, at 21. See *infra* note 115 and accompanying text (discussing the impact of credit rating agencies on the GFC).

62. Partnoy & Skeel, *supra* note 8, at 1023 (discussing the various benefits of credit derivatives, including the benefit of hedging as well as "several additional benefits, including increased liquidity in the credit markets, contractual standardization, and the valuable signals provided by credit derivatives for other market participants"). See also, Kramer, *supra* note 26, at 423-25 (identifying the benefits of derivatives as avoiding risk, hedging, and reducing transaction costs); Pierre-Louis, *supra* note 10, at 47-48 ("Ironically, derivatives, when properly employed, do not present any greater risk than other financial instruments.").

63. Tijoe, *supra* note 10, at 394.

64. It has been argued, in addition, that credit default swaps reduce the incentives and need for banks to monitor borrowers. Feder, *supra* note 9, at 690 ("Traditionally, an

To some extent, the current financial crisis began as a housing crisis. There was tremendous growth in the real estate market from 2000 to 2006. In 2004, Federal Reserve chairman, Alan Greenspan, urged borrowers to enter the housing market, and strongly advocated the use of adjustable rate mortgages.⁶⁵ He argued that “homeowners might have saved tens of thousands of dollars had they held adjustable-rate mortgages⁶⁶ rather than fixed-rate mortgages during the past decade.”⁶⁷ A homebuyer may use an adjustable rate mortgage to acquire a more expensive home than he or she may have been able to afford using a fixed rate mortgage, because the rate for the initial years is set to artificially low levels (known as “teaser rates”).

This set the stage for appreciation in housing prices. The median sale price of homes in the U.S. increased from \$169,000 in 2000 to \$246,500 in the year 2006, a 45.85% increase.⁶⁸ The speed of the upward movement in house prices was unprecedented.⁶⁹ Borrowing rates were low and credit was easy to obtain. Most importantly for the purpose of this article, the securitization of mortgages (and other debt obligations) ensured that banks and mortgage banks could decouple the origination and servicing aspects of

expectant firm minimizes its credit risk by monitoring the credit health of its debtors and tailoring the amount of unsecured credit it would extend to such debtors. . . . Credit derivatives now offer an alternative.”); Partnoy & Skeel, *supra* note 8, at 1033 (“And since banks are often particularly well-positioned to monitor—due, among other things, to their sophistication and the access they have to the details of a debtor’s finances—the use of credit default swaps can neutralize a very good monitor . . . Overall this situation suggests that credit default swaps may reduce monitoring oversight, and their use can lead to moral hazard on the part of borrowers who are subject to less financial discipline from their lenders.”). Perversely, some argue that in certain cases a lender that purchased credit default swaps and who will benefit more if a borrowing company defaults than if it does not, might actually use its monitoring power to encourage default. Partnoy and Skeel term this type of lender a “Darth Vader monitor.” *Id.* at 1035. See *supra* text accompanying note 10 (discussing the risks of derivatives).

65. Alan Greenspan, Chairman, Fed. Reserve Bd., Remarks at the Credit Union National Association 2004 Governmental Affairs Conference, Washington, D.C. (Feb. 23, 2004), <http://www.federalreserve.gov/boarddocs/speeches/2004/20040223/default.htm>.

66. Adjustable rate mortgages are typically cheaper than fixed rate mortgages because the borrower is exposed to an upward movement in interest rates. An increase in interest rates would send the borrower’s payments higher.

67. Greenspan, *supra* note 65.

68. Median and Average Sales Prices of New Homes Sold in United States, U.S. Census Bureau, <http://www.census.gov/const/uspriceann.pdf> (last visited Oct. 29, 2009).

69. The speed of the appreciation can be gauged by the fact that it took double that amount of time for prices to increase by that percentage, prior to the year 2000. The median sale price of homes in the U.S. was \$112,500 in 1988 and increased to \$169,000 in the year 2000. *Id.* It is also clear that the increase in house prices was not due to a corresponding increase in household income. Median annual household incomes increased from \$50,732 in 2000 to \$58,407 in the year 2006, an increase of only 15.12%. Table F-5, Race and Hispanic Origin of Householder—Families by Median and Mean Income: 1947 to 2007, Historical Income Tables—Families, U.S. Census Bureau, <http://www.census.gov/hhes/www/income/histinc/f05.html> (last visited Oct. 29, 2009).

mortgages. In other words, after the mortgage was originated, the bank or mortgage bank could sell the mortgage into a pool of mortgage-backed securities and obtain capital to originate additional mortgages. Hence, the banks and mortgage banks did not have to bear the credit risk of the mortgages that they issued. The originated mortgages were sold as MBSs (or CDOs in the form of CMOs) and housed in SPVs that then issued securities with the mortgages as collateral.⁷⁰ The senior tranche was typically given the highest credit rating⁷¹ and the mezzanine tranches were typically rated between BBB and B. The conventional wisdom was that “all housing is local”⁷² and, thus, just like any other diversified portfolio, the pool of MBS securities or CDO securities would be resilient to a housing downturn in one or a few parts of the country. CDOs comprised of the riskiest tranches were created and re-bundled in a way that still allowed the upper 80% of the structure to be rated AAA. This disguised the fact that the underlying assets were largely subprime.⁷³

Once housing prices began to rise, there was added pressure on mortgage originators to get contracts signed and have the mortgages securitized via CDOs that were sold into SPVs.⁷⁴ The earlier prudent practice of having a borrower put down 20% towards the purchase of the

70. CDOs on asset-backed securities were sold to many banks via SPVs. These CDOs were held by banks as off-balance sheet assets. Adrian Blundell-Wignall, *Structured Products: Implications for Financial Markets*, 93 FIN. MARKET TRENDS 27, 33 (2007); Jones, *supra* note 13, at 7.

71. An AAA rating by Standard & Poors indicated that these investments were as safe as U.S. Treasury bonds. As Unterman explains, “[t]he essential question which underlies the credit crisis is how loans to individuals with poor credit histories (which often originated without credit checks or down-payments) were transformed into investments that the market trusted as being as reliable as government securities.” Unterman, *supra* note 13, at 58.

72. Nat’l Ass’n of Home Builders, http://www.nahb.org/NAHB_History/ba_working.html (last visited Oct. 29, 2009).

73. Unterman, *supra* note 13, at 69 (“This magical transformation was achieved in spite of the fact that the underlying securities belonged largely to the lowest rated tranches of the original subprime securitizations.”).

74. See Silvers & Slavkin, *supra* note 21, at 328-29 (discussing the way this pressure led to creation of innovative financial products to grow the mortgage market). “This long-term decline in the regulation of the mortgage industry, and in particular, the boom in unregulated non-GSE financed lending after 2001, set the stage for an explosion of high cost, exotic mortgage products offered to subprime borrowers.” *Id.* at 328. Credit derivatives were used to solve the “credit paradox” or the “clash between the interests of the bank’s loan officer, who is interested in creating new loans, and the credit risk manager, who seeks to manage the credit risk portfolio” Kim, *supra* note 3, at 719-20. In many ways, this was the classic “bubble” that “cause[s] credit standards to ease as lenders become less concerned about the ability of the borrowers to repay loans and instead rely on further appreciation of the asset to shield themselves from losses.” Unterman, *supra* note 13, at 54 (quoting Frederic S. Mishkin, Governor, Fed. Reserve Bd., *How Should We Respond to Asset Price Bubbles?* (May 15, 2008), <http://www.federalreserve.gov/newsevents/speech/mishkin20080515a.htm>).

house was for the most part ignored. NINJA (No Income No Job or Asset) loans or “liar loans,” where borrowers were not asked to provide proof of their capacity to repay the loan, were offered. Subprime lending became the norm.⁷⁵ Interest-only mortgages, such as balloon payment mortgages, were also issued. Besides the cash flow CDOs being traded, synthetic CDOs were also created and sold to investors. The investors in these securities were from all over the world. The general feeling at that time was that the housing market would continue its upward trend or that it had reached a permanently high plateau. Of course, as we now know, the trend would reverse.

This “bubble” finally ended in 2007, and as housing prices began to plunge, many of the subprime borrowers could not make their payments and defaulted on their loans. This caused a ripple effect, resulting in holders of asset-backed securities losing their payments and their investments.⁷⁶ Many mortgage lenders were forced to close immediately as the MBS market stalled.⁷⁷ The CDO and CDS markets, which had grown tremendously over the past six years, were now hard hit by the downturn in housing. As borrowers defaulted, the protection buyers demanded compensation from their counterparties. However, the protection sellers were not all adequately capitalized and were unable to make such large payments. Furthermore, as investors moved their investments away from housing based investments and into safer investments,⁷⁸ it became

75. Silvers & Slavkin, *supra* note 21, at 328 (“In 2001, subprime lending represented 7.2% of mortgage originations but exploded over the next five years until they reached 20% of mortgage originations in 2006.”). In addition, subprime mortgages without documentation of the borrower’s income, assets or employment grew to 44% of the subprime market by 2005. *Id.* at 329.

76. The housing crisis became a credit crisis amplifying the overall crisis. SEC Chairman Cox recognized this connection in his testimony before Congress, stating:

The packaging of risky mortgages into complex structured securities with AAA ratings spread the risks into the securities markets, and what significantly amplified this crisis around the globe was the parallel market in credit default swaps, which is completely unregulated. Credit default swaps multiplied the risk of the failure of bad mortgages by orders of magnitude. And they ensured that when housing prices collapsed, the effects cascaded throughout the financial system.

The Financial Crisis and the Role of Federal Regulators: Hearing Before the H. Comm. on Oversight & Gov’t Reform, 110th Cong. 22 (2008) (statement of Christopher Cox, Chairman, Sec. & Exch. Comm’n).

77. Since the latter part of 2006, 371 major U.S. lending operations have closed. Mortgage Lender Implode-O-Meter, <http://ml-implode.com> (last visited Nov. 15, 2009).

78. Finance literature refers to this as the *flight to quality*. Flight to quality, or the contagion effect, is used to describe the actions of investors in a market that is beset with uncertainty. Investors will sell risky holdings and move their money to safer securities like Treasuries. See generally Ben Bernanke, Mark Gertler & Simon Gilchrist, *The Financial Accelerator and the Flight to Quality*, 78 REV. ECON. & STAT. 1 (1996) (demonstrating that

extremely difficult to raise fresh capital from investors. The CDO market was effectively decimated. By October 2007, 186 CDOs with over \$200 billion in assets had failed.⁷⁹ Some of the most prominent firms had traded in asset-backed securities, credit default swaps and other derivatives, and were the hardest hit by the subprime crisis. For example, Bear Stearns was eventually taken over by J.P. Morgan Chase; Lehmann Brothers filed for bankruptcy; and AIG was bailed out by the Federal Reserve. Large losses from CDOs were implicated in both the AIG and Lehmann Brothers failures. In fact, the CDO losses represented 94% of AIG's total loss.⁸⁰

The potential for a global financial meltdown is exactly the type of "systemic risk" that has been recognized as a potential risk in derivative use.⁸¹ A bank's failure to meet its obligations could leave its counterparty unable to make payments, thus leading to a domino effect as defaults are transferred from one institution to another. The fact that derivatives transactions are concentrated in a small number of interconnected institutions renders the fears of systemic risk more serious.⁸² Some feared a "derivatives tsunami" that would lead to a series of bank failures and a worldwide credit crisis.⁸³

flight to quality also occurs in credit markets).

79. Unterman, *supra* note 13, at 71.

80. Jones, *supra* 13, at 9. Losses associated with CDSs paled in comparison. For example, in AIG's case, the firm had CDSs with a notional value of 180 billion pounds and the actual losses from the CDSs were under 2 billion pounds. *Id.* The CDS losses were approximately 6% of the total losses for the firm. By contrast, AIG had a \$196 billion notional value of CDOs on ABSs with actual losses of over \$31 billion. *Id.*

81. Feder, *supra* note 9, at 730 ("For those who fear systemic risk, OTC derivatives are ironic; the purpose of derivatives is to manage risk at a micro level, but their effect is to increase risk at a macro level."); Omarova, *supra* note 19, at 162 ("The financial crisis also drew attention to a hidden paradox: while this virtually limitless 'slicing and dicing' of financial risk may decrease risk exposure for individual market players, it tends to increase the overall riskiness and vulnerability of the financial system."); Silver & Slavkin, *supra* note 21, at 338 ("The CDS markets became the unseen glue that linked the world's financial institutions to one another and, according to some reports it was Bear Stearns' activities in the CDS markets that led regulators to believe it was too interconnected to fail."); Wynkoop, *supra* note 2, at 3105 ("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.").

82. See Eppel, *supra* note 5, at 688-689 (discussing the dangers of systemic risk). See also Feder, *supra* note 9, at 729. ("Thus, active derivatives trading generates a web of transactions and credit exposures, as party after party seeks to pass off some of the market or credit risk it has obtained under a derivatives transaction via another derivatives transaction, until a complex network of financial inter-dependencies arises among many financial institutions."); Omarova, *supra* note 19 (emphasizing the dangers stemming from the high degree of interconnectedness).

83. See Mara Der Hovanesian, *Taking Risk to the Extremes: Will Derivatives Cause a Major Blowup in the World's Credit Markets?*, BUS. WK., May 23, 2005, at 96.

II. HOW ARE DERIVATIVES CURRENTLY REGULATED?

A. *Current Regulation Scheme*

As outlined above,⁸⁴ there are many types of derivatives, thus making the discussion of their regulation challenging. Some types of derivatives are regulated by the CFTC;⁸⁵ some types of derivatives are regulated by the SEC.⁸⁶ However, the bulk of derivatives remain unregulated.⁸⁷ This lack of oversight was intentional.⁸⁸ In 2000, Congress

84. See *supra* notes 27-59 and accompanying text (outlining the different kinds of derivatives).

85. The CFTC was created in 1974 by the Commodity Futures Trading Commission Act under amendment to the Commodities Exchange Act. Kramer, *supra* note 26, at 427. It has authority to regulate “all transactions involving contractual agreements providing for the sale of a commodity for future delivery.” Gibson, *supra* note 15, at 389. National futures and commodity exchanges, as well as futures and options on futures, are within its regulatory purview. Culp & MacKay, *supra* note 15; Eppel, *supra* note 5, at 689 (“futures are subject to the control of the CFTC”); Hazen, *supra* note 15, at 124 (“Derivative (futures and option) contracts are publicly traded on the various commodity exchanges subject to federal regulation by the Commodity Futures Trading Commission (CFTC).”). Moreover, the Chicago Board of Options Trading and the Chicago Mercantile Exchange exercise significant control, as self-regulatory organizations, over the trading in the futures market. Kramer, *supra* note 26, at 423.

86. The SEC has the power to regulate trade in securities and the securities exchanges. The SEC, thus, has the power to regulate derivatives where the underlying asset is a security. For example, the SEC has the authority to regulate currency options, stock options, and options on stock indexes. Culp & Mackay, *supra* note 15; Hazen, *supra* note 15, at 124 (“Derivatives based on securities and related financial instruments are publicly traded on the securities exchanges which are regulated by the Securities and Exchange Commission (SEC).”).

87. The law can regulate behavior either by statute or by private causes of action. This article focuses on statutory regulation. Although outside the scope of this article, in the advent of the GFC, a number of lawsuits have been initiated alleging either negligence or fraud in the management and purchase of derivatives. See, e.g., Unterman, *supra* note 13, at 79-81 (discussing the various lawsuits). See generally Finnerty & Brown, *supra* note 26 (discussing the various bases upon which derivative based lawsuits can be brought: including securities fraud, negligent misrepresentation, and breach of fiduciary duty); Partnoy, *supra* note 23, at 446-78 (outlining the judicial treatment of derivatives disputes). Lawsuits concerning derivatives have, in fact, been rare. It has been asserted that they are “virtually unsullied by the foul touch of litigation.” Schwartz, *supra* note 49, at 173 (quoting Robert D. Aicher et al., *Credit Enhancement: Letters of Credit, Guaranties, Insurance and Swaps (The Clash of Cultures)*, 59 BUS. LAW. 897, 898 (2004)).

88. See, e.g., Tijoe, *supra* note 10, at 394-98 (discussing the history of derivative regulation). See also Jake Keaveny, *In Defense of Market Self-Regulation: An Analysis of the History of Futures Regulation and the Trend Toward Demutualization*, 70 BROOK. L. REV. 1419, 1422-38 (2005) (outlining the legislative history of futures regulation); Zachary T. Knepper, *Examining the Merits of Dual Regulation for Single-Stock Futures: How the Divergent Insider Trading Regimes for Federal Futures and Securities Markets Demonstrate the Necessity for (And Virtual Inevitability of) Dual CFTC-SEC Regulation for*

enacted the Commodity Futures Modernization Act (“CFMA”)⁸⁹ which explicitly exempted OTC derivatives from regulation by the CFTC⁹⁰ and limited their regulation by the SEC.⁹¹ The CFMA also preempted state and

Single-Stock Futures, 3 PIERCE L. REV. 33 (2004) (discussing how jurisdiction disputes between the SEC and CFTC were resolved by the Shad-Johnson Accord which trifurcated securities and futures regulation); Partnoy, *supra* note 23, at 435-46 (discussing what he terms the “complex history” of OTC derivatives regulation).

89. Pub. L. No. 106-554, § 1(a)(5), 114 Stat. 2763, 2763A0365 (codified in various sections of 7, 11, 12 and 15 U.S.C.). The CFMA was designed:

(6) to promote innovation for futures and derivatives and to reduce systemic risk by enhancing legal certainty in the markets for certain futures and derivatives transactions;

(7) to reduce systemic risk and provide greater stability to markets during times of market disorder by allowing the clearing of transactions in over-the-counter derivatives through appropriately regulated clearing organizations; and

(8) to enhance the competitive position of the United States financial institutions and financial markets.

CFMA, § 2 (Purposes). See William J. Brodsky, *New Legislation Permitting Stock Futures: The Long and Winding Road*, 21 NW. J. INT'L L. & BUS. 573, 574-77 (2001); Lynch, *supra* note 10, at 1376; Pierre-Louis, *supra* note 10, (analyzing the legislative histories of the Commodity Exchange Act and the CFMA); see also Baumgarten, *supra* note 38 (discussing the confusion with respect to regulatory authority that existed prior to the enactment of the CFMA). The CFMA has been described as “the culmination of three years of congressional effort.” Eppel, *supra* note 5, at 700.

The subject of derivative regulation has been debated in Congress for decades. In 1994 regulation was proposed. Congress considered the Derivatives Safety and Soundness Supervision Act, the Derivative Limitation Act, the Derivatives Supervision Act, and a GAO Report recommending regulation. See generally Culp & MacKay, *supra* note 15 (noting the provisions of those proposals).

90. The CFMA exempts OTC derivative transactions as long as the parties are “eligible contract participants” that are negotiating contracts for excluded or exempt commodities. Eligible contract participants are wealthy investors or sophisticated institutional investors. Interest rates, exchange rates, currencies, securities, security indices, and credit risks are examples of excluded commodities. Lynch, *supra* note 10, at 1378-79. Prior to enactment of the CFMA, the various commodity contract markets approved the economic integrity of each contract that was traded. Hazen, *supra* note 15, at 129. After passage of the CFMA, the CFTC no longer had the responsibility for reviewing the economics underlying each publically traded derivative. *Id.*

91. White Paper, *supra* note 11, at 47; Moran, *supra* note 14, at 42. The CFMA provided that “swap agreements,” including credit-default swaps, were not securities within the meaning of federal securities laws. See Pub. L. No. 106-554, §§ 302(a), 303(a) (codified at 15 U.S.C. §§ 77b-1, 78c-1). See Securities Act of 1933 § 2A, 15 U.S.C. § 77b-1(a) (2006) (providing that “[t]he definition of ‘security’ in section 77b(a)(1) of this title does not include any non-security based swap agreement . . .”). Security-based agreements, while not securities either, are subject to the anti-fraud provisions of the securities acts. Hazen, *supra* note 15, at 123 n.2.

Arguably, credit derivatives fail the four-prong *Howey* test set forth by the Supreme Court in *SEC v. Howey Co.*, 328 U.S. 293, 298-99 (1946). See generally Gibson, *supra* note 15, at 393-400 (applying the *Howey* test to swaps); Kojima, *supra* note 1, at 298-305 (applying the *Howey* test to OTC derivatives); Pierre-Louis, *supra* note 10 (applying the *Howey* test to

local laws regarding gambling⁹² and bucket shops⁹³ from being enforced in respect to these derivatives.⁹⁴ Moreover, although the nature of the OTC derivative is similar to insurance, they are not regulated by state insurance laws.⁹⁵ As a result, most of the types of derivatives that were involved in the GFC are unregulated. For example, the credit-default and CDO markets are wholly unregulated. They operate in what has been termed a dark market,⁹⁶ without public disclosure requirements, without reserve or

foreign currency options); Tijoe, *supra* note 10, at 396-97 (applying the *Howey* test to credit derivatives).

92. See generally Hazen, *supra* note 15, at 126 (comparing illegal gambling to derivatives). Hazen writes:

The parallel between illegal gambling and permissible derivatives is demonstrated by the following example. Consider two inveterate gamblers who make a wager on whether it will rain the next day. This contract would be illegal under the law of most states. Compare this gamble with a farmer who is concerned about a predicted drought and wants to hedge against the loss of crops by entering into a derivatives contract based on corn. This is legal as a forward or futures contract and will be enforced. Alternatively, the farmer could make the hedge specifically against damage due to drought and enter into a derivatives contract based on the weather. This more closely resembles the illegal weather wager, but would be a legitimate and hence enforceable derivatives contract. The same farmer has the alternative of seeking crop insurance or drought insurance. In all of the above situations, one party (the farmer) is allocating to the other (the counterparty) the risk of a drought. The rain wager is illegal, but the futures, forward and derivatives contract, as well as insurance, are legitimate commercial transactions.

Id. See also Hazen, *supra* note 34, at 375 (equating CDS to “legalized gambling”). Unterman likens the derivative industry to a casino “which allows market participants to speculate on the probability of default of corporations, securitization transactions, or any other entity which could default on obligations.” Unterman, *supra* note 13, at 66.

93. “Bucket shop” is a derogatory term for a business that offers opportunities to wager on prices without delivering the stock or commodity at issue. Stout, *supra* note 10, at n.77. Bucket shops were off-exchange shops that allowed speculators to “bet on commodities prices.” Keaveny, *supra* note 88, at 1423. Typically, the bucket shop offered loans to small investors to allow them to buy a derivative interest in stock and bond shares. No stock was actually bought. Instead, the transaction just went “in the bucket” and was not executed on any exchange. The investor was instead making a “long” or “short” stock bet, betting either with or against the bucket shop. There was the potential for a small speculator to make a big gain. Bucket shops were outlawed in many states in the early 1900’s. See *Dickson v. Uhlmann Grain Co.*, 288 U.S. 188, 197 n.3 (1933) (listing state anti-bucketshop statutes).

94. This ensured that “naked” credit default swaps (where the purchaser of the swap did not own the underlying bond and hence was not exposed to the risk), were deemed legal and not subject to the “insurable interest” requirement of state insurance law. See Stout, *supra* note 10, at 724-27 (discussing applicability of the insurable interest requirement as a way to curb speculation).

95. Certain derivatives, such as CDSs, are similar to insurance in that they are risk shifting contracts. Unlike insurance, however, CDSs are not subject to state insurance regulation. Hazen, *supra* note 15, at 123. See generally Schwartz, *supra* note 49 (discussing the question of whether CDSs should be subject to regulation as insurance).

96. Unterman refers to a “shadow economy” created by the transfer of repayment risk

margin requirements, and without regulatory supervision.⁹⁷

Although OTC derivatives are not regulated, they are subject to private legal rules developed primarily by the International Swaps and Dealers Association (“ISDA”).⁹⁸ The ISDA offers, for example, form agreements that dominate the derivatives market.⁹⁹ Most derivative market participants use the ISDA Master Agreement.¹⁰⁰ The documents that comprise the Master Agreement specify the obligations of each party and the relevant events of default. It also defines the market conventions to be followed.¹⁰¹ Once the Master Agreement is executed, the parties reach an oral agreement based upon a written term sheet and sign a confirmation

to off-balance sheet special purchase vehicles “which was opaque to regulators and investors.” Unterman, *supra* note 13, at 60. *See also* Silver & Slavkin, *supra* note 21, at 332-341 (discussing how deregulation in financial markets led to the “emergence of the shadow financial system”).

97. Moran, *supra* note 14, at 42 (“[T]he credit-default swaps market has essentially operated in secrecy, with neither public disclosure nor any legal requirement for these contracts to be reported to the U.S. Securities and Exchange Commission (SEC) or any other agency.”). *See also* Schwartz, *supra* note 49, at 171-72 (discussing the CDS exemption from regulation by either the SEC or the CFTC); Silver & Slavkin, *supra* note 21, at 338 (“All of these factors have contributed to the creation of a huge system of lending, borrowing, securities underwriting, and insurance underwriting that exists completely outside the purview of regulators.”).

98. Frank Partnoy, *ISDA, NASD, CFMA, and SDNY: the Four Horsemen of Derivative Regulation?* (U. of San Diego, Working Paper No. 39, 2002). Although the OTC derivatives markets are largely unregulated, the ISDA represents the interests of participants in the privately negotiated derivatives industry. It is headquartered in New York and is a trade association comprised of over 670 leading market participants in the OTC derivative industry. Primary membership is restricted to derivatives dealers. *Id.* at 5; Schwartz, *supra* note 49, at 178.

99. *Id.*

100.

Since its inception, ISDA has pioneered efforts to identify and reduce the sources of risk in the derivatives and risk management business. Among its most notable accomplishments are: developing the ISDA Master Agreement; publishing a wide range of related documentation materials and instruments covering a variety of transaction types; producing legal opinions on the enforceability of netting and collateral arrangements (available only to ISDA members); securing recognition of the risk-reducing effects of netting in determining capital requirements; promoting sound risk management practices, and advancing the understanding and treatment of derivatives and risk management from public policy and regulatory capital perspectives.

About ISDA, <http://www.ISDA.org>. The Master Agreement has been effective in allocating risk and increasing legal certainty. Eppel, *supra* note 5, at 698; Kim, *supra* note 3, at 752 (“ISDA contributed greatly to preventing disputes and reducing transaction costs by standardizing the swap agreement.”).

101. Kim, *supra* note 3, at 753; Schwartz, *supra* note 49, at 178 (“The Master Agreements set forth standardized, market-driven terms regulating general obligations of the parties, events of default, netting, early termination, transfer, currency provisions, and definitions.”).

evidencing the terms for their specific transaction. This confirmation, along with the Master Agreement, creates the private law that will govern the transaction.¹⁰² The agreements outlined by the ISDA documents have been judicially enforced¹⁰³ although they are not typically given absolute deference.¹⁰⁴ While use of ISDA forms has provided some consistency, some concerns have been raised. Most importantly, the ISDA is controlled by a small number of major dealers. Hence, it is feared that the form agreements either are written with dealer-to-dealer contracts in mind, or favor dealers in a dealer-to-end-user situation.¹⁰⁵

Moreover, because a significant number of participants¹⁰⁶ in the credit derivatives market are banks, the Federal Reserve and the Office of the Comptroller of the Currency establish guidelines and encourage banks to identify and manage the risks created by credit derivatives.¹⁰⁷ For example, the Federal Reserve monitors derivative trading to assure that the transactions are properly documented and that best practices are observed. This, however, provides general guidelines rather than detailed

102. Partnoy, *supra* note 98, at 6.

103. *See generally* Partnoy, *supra* note 98, at 6-9 (discussing how ISDA documents play an important role in judicial decisions). For example, the court upheld the obligations set forth in the ISDA documents and found federal securities laws inapplicable based on representations set forth in those documents. *Caiola v. Citibank*, 137 F. Supp. 2d 362, 364 (S.D.N.Y. 2001).

104. *See* Partnoy, *supra* note 98, at 9 (discussing the “extensive body of law that refuses to treat contracts of adhesion or standard form contracts like other negotiated contracts”). As with other contracts of adhesion, the central question is one of relative bargaining power of the parties. One way to avoid judicial disruption of the ISDA agreements would be to choose arbitration. Oddly enough, ISDA documents do not typically provide for arbitration. *Id.* at 11 (“The 1992 ISDA Master Agreement does not contain an arbitration clause. Instead, Section 11(b) of that agreement provides that each party submits irrevocably to the jurisdiction of the appropriate courts.”).

105. Partnoy, *supra* note 98, at 10.

106. Although the transactions are not regulated, arguably the participants in the OTC derivatives market are regulated. *See* Lynch, *supra* note 10, at 1380 (“Although the OTC credit derivatives products themselves are not regulated, certain market participants are.” (quoting U.S. GOV’T ACCOUNTABILITY OFFICE, *Credit Derivatives: Confirmation Backlogs Increased Dealers’ Operational Risk, but Were Successfully Addressed After Joint Regulatory Action*, 10-11 (June 2007))). *See infra* note 135 (distinguishing between entity and transaction regulation in the financial market).

107. Tjioe, *supra* note 10, at 397. Rather than establishing mandatory rules, the Federal Reserve and the OCC have taken an “oversight approach.” For example, the OCC established guidelines on the risks inherent in credit derivatives and urged institutions to analyze those risks and to adopt sound risk management policies and procedures. The focus here is typically upon risk management procedures at the relevant institutions. Banking regulators indirectly regulate the use of derivatives by examinations, reporting requirements, and capital requirements. Eppel, *supra* note 5, at 680-89. Moreover, banks are required to reveal the total notional value of their OTC derivative contracts and their total aggregated credit exposure from such transactions. Kojima, *supra* note 1, at 283.

regulation.¹⁰⁸ The Basel Committee on Banking Supervision and Payment and Settlement Systems (“Basel Committee”)¹⁰⁹ also recognizes the risks presented by credit derivatives and has urged banking supervisors to take into account the related credit exposure.¹¹⁰ Similarly, securities firms are subject to oversight by the SEC which requires the maintenance of records and periodic disclosure filings.¹¹¹

B. How the Failure to Adequately Regulate Contributed to the Current Crisis

In 2000, when Congress chose not to regulate derivatives, the decision was based on the belief that the OTC derivatives market was too small to create any systemic risk. Moreover, people believed that investors would act to minimize their own risk, which would protect the broader financial system.¹¹² It is clear, as outlined above, that these beliefs were flawed. The lack of regulation allowed credit-default swaps and CDOs to exist without required reserves. In addition, there were no assurances that the sellers could meet their contractual obligations. Purchasers of credit derivatives were able to circumvent margin requirements on their purchases.¹¹³ Moreover, government regulators lacked the power to assess systemic risk and could not judge whether the valuations were accurate.¹¹⁴

108. Schwartz, *supra* note 49, at 172-73 (“Federal Banking Regulators and their work do not stand to fundamentally regulate the substance of CDS trading going into the future.”).

109. The Basel Committee is an international organization committed to providing “common standards for prudent management of credit risk by banks.” Andre Scheerer, *Credit Derivatives: An Overview of Regulatory Initiatives in the US and Europe*, 5 *FORDHAM J. CORP. & FIN. L.* 149, 164-65 (2000).

110. Tjoe, *supra* note 10, at 398.

111. Kojima, *supra* note 1, at 284-86. Kojima describes, however, how “[i]n practice . . . actual oversight of securities firms’ OTC derivatives activities is relatively slight.” *Id.* at 285. He explains that this is because many of the provisions that mandate disclosure and protect against fraud are triggered by the purchase and sale of “securities” and, thus, do not apply to OTC derivatives.

112. Moran, *supra* note 14, at 42 (“In 2000, Congress specifically chose not to regulate credit-default swaps, as the consensus was that the market was still very small and no systemic risk would exist since investors’ inclinations to minimize their risks would protect the broader financial system.”). Alan Greenspan argued against regulation in 2005, while he was Chairman of the Federal Reserve. He asserted that “prudential regulation is supplied by the market through counterparty evaluation and monitoring rather than by authorities. See Greenspan, 2005, *supra* note 1 (“[P]rivate regulation has generally proved far better at constraining excessive risk-taking than has government regulation.”).

113. Evan N. Turgeon, *Boom and Bust for Whom?: The Economic Philosophy Behind the 2008 Financial Crisis*, 4 *VA. L. & BUS. REV.* 139, 161 (2009) (“Trading financial derivatives over the counter allows investors to circumvent margin requirements on stock purchases.”).

114. See White Paper, *supra* note 11, at 47 (“Lacking authority to regulate the OTC derivatives market, regulators were unable to identify or mitigate the enormous systemic

We know now that buyers and sellers of credit-default swaps and CDOs relied too heavily on financial markets. They failed to predict the housing crisis and placed too much trust in the credit ratings of the firms selling the swaps. These ratings significantly overvalued those firms and underestimated the risks involved.¹¹⁵

III. PROPOSALS FOR REFORM

Following a crisis, it is common for officials to seek regulatory reform.¹¹⁶ On June 17, 2009, the Obama Administration offered a proposal (the “Obama Proposal”), which was meant to address weaknesses in regulatory oversight that arguably contributed to the GFC.¹¹⁷ The Obama Proposal addresses perceived regulatory weaknesses across a number of areas within the United States financial markets including regulation of OTC derivatives. Taken in its entirety, the Obama Proposal is intended to meet five key objectives: 1) to promote robust supervision and regulation of financial firms, 2) to establish comprehensive supervision and regulation of financial markets, 3) to protect consumers and investors from financial abuse, 4) to improve tools for managing financial crises, and 5) to raise international regulatory standards and improve international cooperation.¹¹⁸

Within the Obama Proposal, there are numerous proposals for

threat that had developed.”); Moran, *supra* note 14, at 42 (noting that “government regulators lacked any means to assess the amount of risk in the system”).

115. While a more detailed discussion of the role that credit reporting agencies (“CRAs”) played in allowing the GFC to develop is beyond the scope of this paper, some scholars argue that the optimistic ratings assigned to CDOs by CRAs were the real culprit in creating the GFC. Although many of the underlying assets were subprime mortgages, the ratings agencies’ models suggested minimal chances of loss. Thus, the majority of CDOs were assigned investment grade ratings of AAA. Neither the bank risk managers nor the regulators questioned the high number of optimistic ratings for CDOs. Hence, Jones, *supra* note 13, at 8, argues that the OTC derivatives themselves were not the problem. Rather the real issue stemmed from the fact that regulators failed to question the banks’ large investments in CDOs.

It is clear that the CRAs failed to effectively assess the risks associated with this system. In fact, “[t]wo themes of the credit crisis which have emerged clearly are that CRAs were overwhelming failures when it came to evaluating SF risks and that the market relied far too much on these erroneous ratings.” Unterman, *supra* note 13, at 66. *See also id.* at 70 (“What is now common knowledge is that the ratings assigned to CDOs failed to take into account all the risks involved. The methodologies relied on by the CRAs to rate CDOs resulted in these tranches being valued more than the cost of the underlying assets.”).

116. *See generally* Born, *supra* note 10 (noting that three international derivatives crises over the last two decades resulted in strong efforts to create international regulations to prevent similar future crises); Eppel, *supra* note 5, at 677-78 (discussing the risks of derivatives trading and the efforts taken by national and international regulators to minimize those risks).

117. White Paper, *supra* note 11, at 43.

118. *Id.* at 3-4.

regulatory reforms related specifically to OTC derivatives. The objectives of the regulatory reforms targeted toward OTC derivatives are fourfold: 1) to reduce the systemic risk that OTC derivatives may pose to the financial system, 2) to increase the efficiency and transparency of the OTC derivatives markets, 3) to prevent manipulation, fraud, and other abuses, and 4) to prevent OTC derivatives from being sold to unsophisticated investors.¹¹⁹

A. *Standardization and Transparency*

It is important to note that the Obama Proposal does not contain initiatives to limit or eliminate OTC derivatives. OTC derivatives, themselves, are only affected by the Proposal's call for standardization. The Obama Proposal accomplishes this by encouraging both the SEC and national authorities to act to increase standardization and transparency of credit derivatives.¹²⁰ No specifics are set forth in the Proposal.

Aside from calling for the standardization of OTC derivative instruments, the proposed regulatory reforms encompass two broad areas. The first reform involves market participants, while the second focuses on the harmonization of regulatory agencies. These specific proposals are outlined in the following sections.

B. *Regulation of OTC derivative market participants*

The Obama Proposal recommends regulation directed toward purchasers and originators of derivatives, banks and bank holding companies that engage in derivative transactions, and the process by which derivatives are cleared. Taken together, these proposals are designed to reduce systemic risk.

First, the Obama Proposal calls upon federal banking regulators to promulgate regulations that require the originator of a securitized credit exposure to retain an economic interest in a material portion of the risk of that credit exposure.¹²¹

Second, because banks and bank holding companies are frequent counterparties in OTC derivatives transactions, there is concern about the increased risk undertaken by banks engaged in OTC derivatives deals. As a step toward increasing the safety of the banking system, the Obama Proposal advocates imposing conservative capital requirements on banks and bank holding companies participating in the OTC derivatives market.¹²²

119. *Id.* at 46-47.

120. *Id.* at 45.

121. *Id.* at 44.

122. *Id.* at 48.

Even higher capital requirements are associated with OTC derivatives that are not centrally cleared.¹²³

Third, the Obama Proposal calls for several amendments to the Commodities Exchange Act (“CEA”). Most importantly, it proposes the establishment of central counterparties (“CCP”) to clear standardized OTC derivative instruments.¹²⁴ This aspect of the proposed reform is intended to increase market efficiency and price transparency among market participants and to help curtail counterparty losses. Moreover, the Obama Proposal calls for the CCPs to be regulated, although no specific regulator is identified for the task.¹²⁵ In addition, the CCPs are required to establish margin requirements to be applied to derivatives purchases.¹²⁶

Last, under the Obama Proposal, only sophisticated purchasers are permitted to purchase OTC derivatives.¹²⁷ This limits the involvement of unsophisticated investors, who cannot understand the risks associated with derivatives transactions, and those who cannot afford the potential losses.

C. *Harmonization of regulatory agencies*

Under the Obama Proposal, the SEC and the CFTC would continue to share regulatory responsibility for the derivatives market, including regulation of OTC derivatives.¹²⁸ The proposal acknowledges the discrepancies that exist between the SEC’s rules-based approach and the principles-based approach of the CFTC with respect to policing the OTC derivatives market.¹²⁹ This has resulted in vastly differing regulatory

123. *Id.*

124. White Paper, *supra* note 11, at 47. Note that under the current system, centralized counterparties exist for the clearing of OTC derivative instruments. However, there is no requirement that OTC derivative instruments be cleared through a CCP. Hence, currently, parties to an OTC derivative instrument can choose not to conduct their transactions through a CCP.

125. This has the potential to create turf wars. See *supra* note 87 and accompanying text (discussing the turf wars between the SEC and the CFTC). See also *infra* note 142 and accompanying text (proposing the combination of the two agencies to eliminate such intra-agency infighting).

126. See *supra* note 34 (explaining that exchange-traded derivatives are already subject to such margin requirements).

127. White Paper, *supra* note 11, at 47.

128. *Id.* at 49.

129. Theoretically, there are several competing paradigms of securities regulation. Commentators have discussed “principles-based” regulation, “rules-based” regulation, and “institution-based” financial regulation. The distinction between the principles-based approach and the rules-based approach is best understood as a continuum. At one end of the spectrum is the principles-based approach, where the regulatory agency articulates principles and allows the firm to determine how best to meet the outcome required by the principle. At the other end of the spectrum, under the rules-based approach, the regulator sets forth specific rules dictating how the outcome sought should be achieved. The

schemes based on which agency has authority.¹³⁰ To reduce the inconsistencies between the SEC and CFTC, the proposal requires that both agencies review the “rules” and “principles” and reconcile their differences to achieve consistent regulation of the OTC derivatives market. Under the Obama Proposal, the CFTC would retain enforcement responsibility over the commodity pool operators (i.e., hedge funds), while the SEC would take on additional responsibility with regard to commodity pool operators.¹³¹ Both agencies would impose recordkeeping and reporting requirements, including an audit trail, for all OTC derivatives.

Harmonization between the SEC and the CFTC is intended to facilitate competition among markets and exchanges.¹³² Currently, financial instruments with similar characteristics can trade on different exchanges and therefore are subject to different regulatory requirements. By harmonizing the SEC and the CFTC, the proposal envisions that a larger variety of instruments would be traded on a wider range of exchanges and would be subject to identical regulatory requirements. This should increase competition among exchanges and arguably benefit market participants with lower transactions costs and increased market efficiency.

IV. ANALYSIS OF THE OBAMA PROPOSAL

Regulation of financial markets is important to achieve several public policy objectives. For example, regulation is important to the extent

principles-based approach is the common approach adopted internationally. Yesenia Cervantes, “*Fin-Rah!*” . . . *A Welcome Change: Why the Merger was Necessary to Preserve U.S. Market Integrity*, 13 *FORDHAM J. CORP. & FIN. L.* 829, 858 (2008). This approach sets standards based on firms’ behaviors and expectations, rather than by adopting strict rules. *See generally* Cristie L. Ford, *New Governance, Compliance, and Principles-Based Securities Regulation*, 45 *AM. BUS. L. J.* 1, 60 (2008) (arguing that the principles-based approach is a “rational, systematic alternative” to the less flexible rules-based approach); James J. Park, *The Competing Paradigms of Securities Regulation*, 57 *DUKE L.J.* 625 (2007) (comparing the principles-based approach to the rules-based approach and proposing guidelines to aid in choosing between the two regimes). Other scholars reject both of these approaches. *See* John H. Walsh, *Institution-Based Financial Regulation: A Third Paradigm*, 49 *HARV. INT’L L.J.* 381, 382 (2008) (arguing for “institution-based” regulation, under which the government or SRO requires entities to create internal institutions).

130. Under the current regulatory regime, the SEC has regulatory purview over the options traded on a given security, while the futures contracts on the same underlying security are jointly regulated by the CFTC and the SEC. *See generally* Duffie & Hu, *supra* note 8, at 24-31 (discussing the differences between CFTC and SEC regulations and comparing the rules-based approach to the principles-based approach employed in the U.K.).

131. White Paper, *supra* note 11, at 50-51.

132. *Id.* at 49-50.

that it promotes economic efficiency.¹³³ Moreover, regulation minimizes systemic risk.¹³⁴ However, scholars recognize the inherent difficulties in promulgating rules to regulate financial derivatives.¹³⁵ The public policy goals of derivatives regulation are further hampered by the conflicting results of derivative use. To the extent that derivatives provide an effective way to distribute and, thus, minimize risk, they should be promoted.¹³⁶ By contrast, to the extent that they increase risk and spread risk, their use should be discouraged. Effective regulation must confront the risks inherent in derivatives use, including risks from counterparty losses (default risk), market liquidity risk and systemic risk, while retaining the benefits of derivatives' use.¹³⁷ Moreover, any regulation of the derivative markets must recognize the complexity of derivatives and the high rate of their innovation. In other words, any regulation must take into account the fact that the derivative instrument that will be the subject of regulation

133. Schwartz, *supra* note 49, at 205 (“[T]he primary, if not sole, justification for regulating financial risk is maximizing economic efficiency”); Stout, *supra* note 10, at 709 (arguing for “legal rules that protect beneficial forms of trading while discouraging inefficient transactions”).

134. See, e.g., Schwartz, *supra* note 49, at 205-06 (discussing the tragedy of the commons and the notion that without regulation, no single firm has the incentive to limit its risk sufficiently to prevent systemic failure).

135. Derivatives regulation can be entity based, transaction based, or self-regulatory. Entity based regulation imposes disclosure requirements on participants in derivative markets. For example, an entity based regulation might require a participant to disclose its exposure from credit derivatives. Wynkoop, *supra* note 2, at 3114. By contrast, transaction based regulation requires disclosures regarding the specific credit derivative contracts into which parties enter. Such disclosure could include the price of the credit derivative, or the reference asset. *Id.* at 3118. Finally, the self-regulatory model leaves participants in the credit derivatives market to impose non-governmental regulation upon themselves. *Id.* at 3121. Compare Kojima, *supra* note 1 (discussing the difference between what he terms institution-based and product-based regulation and concluding product-based regulation is the most appropriate), and Wynkoop, *supra* note 2, at 3113-25 (discussing the advantages and disadvantages of each model and concluding that the transaction based regulation is the most effective), with Gibson, *supra* note 15, at 414-16 (discussing each model and concluding that the entity based model is the most appropriate for derivatives market regulation). Note that the Obama Proposal incorporates aspects of both transaction based and entity based regulation.

136. Recall that derivatives are effective at distributing and minimizing risks when used correctly. Moreover, the use of derivatives achieves other objectives, such as increased liquidity. See *supra* notes 8-9 and accompanying text (discussing some of the advantages of derivatives, including reallocating market and credit risks). Regulation of derivatives must strive to minimize the risks of derivatives without interfering with their benefits. Regulations that seek to prescribe risk limits, for example, should be avoided because such action would reduce liquidity in the market and increase volatility in asset prices. Eppel, *supra* note 5, at 693.

137. Gibson, *supra* note 15, at 411 (“The major policy concerns specific to the OTC derivatives market are the promotion of financial innovation and fair competition and the prevention of counterparty losses.”).

tomorrow has not been devised today.¹³⁸

In addition, it has been suggested that unless carefully crafted, such legal rules might actually create “incentives for inefficient regulatory arbitrage, regulatory competition, and regulatory licenses.”¹³⁹ This may be the case for a number of reasons. First, regulations impose regulatory costs.¹⁴⁰ If those costs are imposed only on a subset of transactions, where there is an unregulated, economically equivalent choice, parties will switch from the regulated to the unregulated choice.¹⁴¹ Second, regulatory competition frequently results in suboptimal regulation, typically resulting in a “race-to-the-bottom” regulatory scheme.¹⁴² Finally, when regulatory authority is delegated to private parties, incentives are created that potentially further distort financial markets.

This section will attempt to analyze the Obama Proposal through the lens discussed above. We will consider the specific guidelines outlined in the proposal and look more broadly at the objectives of derivatives market regulation. We offer a number of specific suggestions within the following sections.

138. See, e.g., Eppel, *supra* note 5, at 680 (“Definitions are all-important in derivatives regulation, as the high rate of innovation means that new financial products are often not clearly subject to either direct or indirect regulations, setting up turf wars between rival regulators or allowing a new product to be bought and sold without any effective regulation.”); Omarova, *supra* note 19, at 162-63 (“[T]he focus on regulating specific financial products or activities, such as credit default swaps or mortgage-backed securities, which were directly implicated in triggering or magnifying the effects of the current crisis, is fundamentally misplaced. The next systemic shock is most likely to originate in a different pocket of the financial market. As the markets for some financial products are evaporating . . . the brightest and the most ambitious of the Wall Street wizards looking for the ‘next big thing’ are creating new, even more complicated and opaque, financial instruments with high potential to generate profit—and accordingly, risk.”).

139. Partnoy, *supra* note 98, at 15.

140. This includes direct and indirect regulatory costs, which are imposed on participants in the system as well as governmental regulatory costs. Schwarcz, *supra* note 25, at 208.

141. Partnoy, *supra* note 98, at 15.

142. *Id.* at 16. The current proposals suffer from this potential problem as the SEC and CFTC vie for regulatory authority. The CFTC and the SEC have engaged in turf wars in the past which have arguably allowed regulation of credit derivatives to slip between the regulatory cracks. See Gibson, *supra* note 15, at 388 (“The jurisdictional dispute between the SEC and CFTC regarding derivative transactions has existed since the inception of the CFTC.”); Kramer, *supra* note 26, at 434-37 (discussing the competition between the SEC and CFTC); Partnoy, *supra* note 23, at 432 (“[C]ompetition has led to a nasty and inefficient ‘turf battle’ and costly uncertainty.”); see also Tjioe, *supra* note 10, at 395 (“Currently, turf wars between the SEC and the CFTC have created a loophole where credit derivatives are not fully managed by either agency in the United States.”). See *infra* notes 185-90 and accompanying text (advocating for a single regulatory body with control over derivative regulation to avoid confusion and turf battles).

A. *Standardization and Transparency*

1. Standardization of OTC Derivatives

Under the Obama Proposal, OTC derivatives would become standardized. This is not the first time that we have heard cries for standardization.¹⁴³ There are benefits to standardization, and the ISDA forms have provided such benefits.¹⁴⁴ In reality, however, most OTC derivatives are highly customized or, at best, only semi-standardized. In fact, the appeal of OTC derivatives is the ability to customize the product to meet the risk management needs of both parties involved in the transaction. OTC derivatives are often created precisely because there is no standardized derivative product available for the risk management needs of the parties involved. Hence, because of the customization involved, it may be very difficult to impose standardization requirements on OTC derivatives. Moreover, any such standardized language and terms will be difficult to fashion because of the complexity and variety of derivatives.¹⁴⁵

In addition, the standardization requirement is, in many ways, a move toward making OTC derivatives exchange-traded.¹⁴⁶ This is problematic for a number of reasons. First, it is highly unlikely that all OTC derivatives could become exchange-traded. Hence, the standardization requirement could effectively eliminate the ability to use some types of OTC derivatives and also curtail innovations leading to the development of new OTC derivative products. Second, innovation could well work to avoid any such regulation entirely. In other words, unless carefully crafted, any standardization guidelines could be circumvented by the creation of new

143. See, e.g., ALASTAIR HUDSON, *THE LAW ON FINANCIAL DERIVATIVES* 352-58 (2d ed. 1998) (proposing to standardize documentation for derivatives products).

144. See Feder, *supra* note 9, at 736 (“Eventually, standardization of terms and documents came to be understood as a way to allow parties to conduct derivatives transactions efficiently because it clarifies basics with relatively minimal time and resources.”). ISDA forms “dominate the OTC derivatives markets . . .” *Id.* at 738.

145. See *id.* at 741 (“There are . . . limits to standardization . . . [M]arket participants never quite agree among themselves what terms should be standard . . .”).

146. Such standardization will allow for trading through the proposed central clearing parties. See *supra* note 124 (explaining that currently, parties to an OTC derivative instrument can choose whether to conduct their transactions through a CCP). Arguably, there are benefits to making OTC derivatives exchange-traded. For example, it would allow for better price transparency, and would make it easier for regulators to track whether or not participants are fulfilling their obligations. Also, it is worth noting that the Federation of European Securities Exchanges has argued that if OTC derivatives had been exchange-traded, the magnitude of the problems presumably caused by them would have been dramatically less, or even nonexistent. See Jones, *supra* note 13, at 1 (noting the Federation’s suggestion that if these instruments had been traded on a public exchange, the problems associated with them may not have arisen).

derivatives products.¹⁴⁷

2. Transparency and Mandated Disclosures

Federal securities law regulation is based on the premise of disclosure as the primary regulatory mechanism.¹⁴⁸ The lack of transparency in today's derivatives markets has been cited as a contributing factor to the GFC. It is argued that the lack of transparency, along with the complexity of the instruments used, led to a level of opaqueness that "created huge information asymmetries and failures"¹⁴⁹ and prevented the market from being able to effectively price and monitor derivatives.¹⁵⁰ Therefore, it has been argued that increased transparency is essential, specifically with respect to credit derivatives.¹⁵¹

The Obama Proposal includes calls for increased transparency within the OTC derivatives market.¹⁵² We support increased disclosures. One of the problems with the Obama Proposal with respect to increased transparency, however, is that it is unclear as to which disclosures should be mandated. While it is understandable that the specifics of disclosures should be left within Congressional purview, the specifics do matter. Some

147. Cf. Feder, *supra* note 9, at 741 ("[S]tandardization must balance a goal of universal applicability with the need to address a parade of business practice and legal issues.").

148. See Hazen, *supra* note 34, at 383 ("Disclosure rather than a merit approach remains the regulatory philosophy of the federal securities laws today."). The theory is that if risks are made "transparent to all", investors would properly "price-in" all risks. Schwarcz, *supra* note 25, at 218.

149. Unterman, *supra* note 13, at 87. See also Partnoy & Skeel, *supra* note 8, at 1036 (discussing the fact that the market for credit default swaps is "opaque," meaning that the details of particular swaps are undisclosed, and that the ISDA has resisted calls for disclosure of credit default swap documentation).

150. See Wynkoop, *supra* note 2, at 3111 ("Given this lack of relevant information in the credit market, traders cannot properly perform their function to create an efficient market."). See also Silvers & Slavkin, *supra* note 21, at 338 ("Neither regulators nor the public have access to sufficient information to assess the risk within these assets or counterparty exposure arising from participating in these opaque markets.").

151. At least one commentator has noted the disparity between the increased disclosure requirements of the Sarbanes-Oxley Act of 2002 and the massive deregulation of the CFMA. See Hazen, *supra* note 34, at 382 (discussing the divergence of recent regulatory developments). At least one commentator believes that whether or not such increased transparency is statutorily mandated or voluntary is irrelevant. See generally Partnoy & Skeel, *supra* note 8, at 1046-47 ("We believe disclosure with respect to both credit default swaps and CDOs should improve, although we are agnostic as to whether improved disclosure requires government intervention."). Similar disclosure issues have been discussed relating to hedge funds. See, e.g., Jennifer Ralph Oppold, *The Changing Landscape of Hedge Fund Regulation: Current Concerns and a Principle-Based Approach*, 10 U. PA. J. BUS. & EMP. L. 833 (2008) (examining disclosure requirements in the hedge fund industry).

152. White Paper, *supra* note 11, at 45.

have argued that mandating disclosure in the derivatives market will be ineffective because “[n]obody has yet figured out what it makes sense to disclose!”¹⁵³ Others have recognized dangers in reforms that attempt to increase transparency without providing adequate incentives to internalize risk,¹⁵⁴ and have argued that disclosure requirements that are too stringent might prove counterproductive and work to reduce market liquidity.¹⁵⁵

One of the primary purposes of any mandated disclosures should be to allow the transparency needed for proper valuation and risk assessment. We believe that the following disclosures should be required.

First, market participants should be required to register credit derivative transactions and publish their documentation.¹⁵⁶ This would allow regulators to better track the risk exposures of individual parties involved in OTC derivative transactions and to be able to address potential problems before they become massive and spread throughout the financial system.

Second, “companies that are already reporting companies should be required to include . . . [a discussion about] the effect of credit derivatives transactions on their risk exposure” in disclosure documents.¹⁵⁷ In other words, counterparties to derivative contracts should be required to report the potential risks as part of standard SEC reporting. One commentator has argued in favor of a disclosure scheme modeled on the Trade Reporting and Compliance Engine (“TRACE”) system for corporate bonds.¹⁵⁸ Disclosing risk exposure would be a more palatable alternative than imposing risk limits on financial institutions.¹⁵⁹

Third, end-users need to know the pricing mechanism and inputs employed for valuation of the derivative.¹⁶⁰ Without knowing the pricing

153. Miller, *supra* note 15. “A derivative is not like a piece of real estate you put on your books and appraise from time to time. The dealer’s book and risk exposure changes from minute to minute.” *Id.*

154. See, e.g., Turgeon, *supra* note 113, at 170 (noting that “such measures actually tend to exacerbate future financial crises” and that disclosures mandated under such schemes actually “worsened these problems”).

155. See Schwarcz, *supra* note 25, at 219 (discussing limits on the efficacy of disclosure).

156. See Partnoy & Skeel, *supra* note 8, at 1047 (“[M]arket participants should be required to register credit derivatives transactions by publishing the documentation for their transactions through a service such as the Securities and Exchange Commission’s (SEC) Edgar service.”).

157. *Id.*

158. See Wynkoop, *supra* note 2, at 3112 (noting that the TRACE system works to “increase transparency in the corporate bond market by providing free, real-time prices on over-the-counter corporate bonds.”).

159. See Schwarcz, *supra* note 25, at 222-23 (arguing against imposition of financial exposure limits as a way to mitigate systemic risk).

160. See Kojima, *supra* note 1, at 324 (discussing the types of information sought by end-users of OTC derivatives).

mechanisms adopted and the inputs employed, the purchaser has no way to adequately value or assess the risks involved in the derivative.

B. Regulation of Derivatives Market Participants

The Obama Proposal offers a number of recommendations targeted at market participants as a way to reduce systemic risk. First, the proposal would require that the originator of the derivative retain an economic interest in the derivative. Second, it would impose conservative capital requirements on banks. Third, it would create a central clearing party (“CCP”). Last, it would limit purchases to sophisticated investors.

1. Retention of Credit Risk

The Obama Proposal requires that the originator of a securitized credit exposure retain an economic interest in the credit exposure.¹⁶¹ While forcing originators to retain a portion of the securitized assets reduces some of the originators’ available liquidity and means that the overall available capital within the financial system is reduced, we support this proposal. Such a requirement would prevent the originator from shifting all of the credit risk to other investors, and would provide an incentive for the originator to carefully and correctly assess the risk associated with assets that are to be securitized. To the extent that the GFC was precipitated by unsupervised and unwise lending practices, this proposal is a good idea. It would encourage meaningful monitoring of borrower behavior.¹⁶²

2. Capital Requirements for Banks

The Obama Proposal advocates imposing conservative capital requirements on banks and bank holding companies participating in the OTC derivatives market. Higher capital requirements would be associated with OTC derivatives that are not centrally cleared.¹⁶³ Consumers’ and investors’ concerns about the solvency of banks played a critical role in

161. White Paper, *supra* note 11, at 44.

162. For example, mortgage banks would have an incentive to more accurately assess the creditworthiness of borrowers, since they stand to lose if borrowers associated with mortgages in the securitized pool default. Historically, mortgage banks have been able to transfer 100% of the credit risk to the securitized pool. Steven L. Schwarcz, *Protecting Financial Markets: Lessons from the Subprime Mortgage Meltdown*, 93 MINN. L. REV. 373, 384 (2008). In addition, this proposal would minimize the perverse disincentives where the counterparties benefit upon default (the “Darth Vader monitor”). See Partnoy & Skeel, *supra* note 8, at 1035 (referring to a lender that benefits more if there is a default than if default is averted as a “Darth Vader monitor”).

163. White Paper, *supra* note 11, at 48.

hastening the financial meltdown that occurred in the fall of 2008 as part of the GFC. Most of the concerns arose as a result of uncertainty surrounding banks' exposure to subprime mortgages and OTC derivatives activities. An attempt to increase the capital requirements for banks participating in risky OTC derivatives transactions would lead to increased confidence in the U.S. banking system, thereby reducing investor and consumer confidence concerns.

However, while the imposition of capital requirements may be a good idea, the Obama Proposal fails to specify precise numerical guidelines for the increased capital requirements. The numerical guidelines chosen must balance the advantages of reducing system risk against the possibility of decreasing liquidity. There is a trade-off for banks, as an increase in capital reserves means a lower return on equity ("ROE").¹⁶⁴ This situation might result in difficulty attracting needed capital if a bank's ROE is not in the range that would be considered within the industry as "high performing."¹⁶⁵ Therefore, the specific numerical guidelines must be carefully chosen to balance these interests.

Moreover, derivative transactions are currently reported by banks as off-balance sheet items and are subject to risk-based capital requirements by bank regulators.¹⁶⁶ Any attempt to increase the capital requirements for banks engaged in OTC derivative transactions must be contingent upon the ability to assess the value of the derivatives' positions and evaluate the riskiness of these positions. The proposed increases in capital requirements for banks hinge upon improved price transparency within this market.¹⁶⁷

In addition to increased capital requirements, banks and bank holding companies should be subject to increased deposit insurance premiums when they are engaged in risky OTC derivatives activities. This would be an additional measure that would further promote the safety and soundness of the banking system, and would increase the reserves available to the FDIC to handle insolvent banks.

164. TIMOTHY W. KOCH AND S. SCOTT MACDONALD, *BANK MANAGEMENT* 231 (7th ed. 2010).

165. For example, ROE is a profitability measure that represents the return received by shareholders (or stockholders). For a bank, capital is primarily comprised of stock (or equity). Hence, if ROE is low, it will be difficult to attract new capital in the form of equity. For further discussion, *see* KOCH AND MACDONALD, *supra* note 164, at 231.

166. U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-07-253, *RISK-BASED CAPITAL: BANK REGULATORS NEED TO IMPROVE TRANSPARENCY AND OVERCOME IMPEDIMENTS TO FINALIZING THE PROPOSED BASEL II FRAMEWORK* 17 (2007).

167. *See supra* notes 148-160 and accompanying text (discussing transparency in the OTC derivatives market).

3. Unsophisticated Investors Banned from OTC Derivatives

The Obama Proposal seeks to prevent the sale of OTC derivatives to unsophisticated investors.¹⁶⁸ Typically, unsophisticated investors are those investors with the ability to take a large financial position in a particular financial instrument. Additionally, investors are classified as either wholesale or retail investors, with wholesale being synonymous with sophisticated. Historically, the OTC derivatives market has been comprised of wholesale investors, typically institutional investors in need of OTC derivative products for risk management purposes. The notional value of OTC derivatives products generally precludes most retail investors (e.g., unsophisticated investors) from participating in the OTC derivatives market. In addition, most retail investors would not be involved directly in OTC derivatives positions due to the high transaction costs associated with OTC derivatives. As such, mutual funds, incorporating the use of OTC derivatives into their portfolio management strategies, are the primary ways that retail investors encounter OTC derivatives.¹⁶⁹ Therefore, this provision of the Proposal would apply to few derivatives purchasers. However, if OTC derivatives become more standardized and moved toward electronic trading platforms, we can envision smaller notional value OTC derivative products being made available to retail investors.

Because of the uncertainty as to how the OTC derivatives market may evolve following regulation, the prevention of unsophisticated investors from participating in the market is prudent. In the wake of the GFC, even sophisticated investors found OTC derivatives very complex and difficult to understand. Moreover, until the current problems within the OTC derivatives market are adequately addressed by regulatory reform, we believe it is best not to expand the availability of OTC derivative products to retail investors and perhaps exacerbate the economic woes of individuals.

4. Clearing on Regulated CCPs

The Obama Proposal urges national authorities to promote the clearing of OTC derivative transactions by regulated CCPs.¹⁷⁰ The CCP would serve as an intermediary to determine the value of the position of each party involved at any given point in time. Moreover, the CCP would ensure that each party to the transaction fulfills its obligation. Requiring that derivatives clear through a regulated CCP would work toward

168. White Paper, *supra* note 11, at 47.

169. PAUL STILLABOWER, *THE ECONOMICS OF OTC DERIVATIVES PROCESSING*, THE TRADE NEWS, Feb. 17, 2007, <http://www.thetradenews.com/expert-opinion/530>.

170. White Paper, *supra* note 11, at 47.

improving price transparency within this market and would make it easier to gauge the risk exposure of each party involved in an OTC derivatives transaction. This requirement would also allow parties to unwind positions and recognize losses before they become extremely large.¹⁷¹

Because the Obama Proposal does not state which agency would regulate the CCPs, we are concerned that a turf war could arise between the CFTC and the Federal Reserve as to which agency should regulate the CCPs. The regulatory turf war may arise because the Chicago Mercantile Exchange (regulated by the CFTC) and ICE Trust (regulated by the New York Federal Reserve) are already serving as clearing houses for OTC derivatives transactions, but are regulated by different entities. We think the CFTC¹⁷² should assume responsibility for the regulation of the CCPs because this agency has specialized knowledge of derivatives exchanges and markets. The CFTC is likely in the best regulatory position to determine the type of regulation that should be imposed on the CCPs.

The Obama Proposal recognizes that international cooperation is needed to strengthen the regulatory system of global financial markets and urges national authorities to promote the clearing of OTC derivatives transactions through regulated CCPs.¹⁷³ The OTC derivatives market is truly a global market. A full 43% of worldwide OTC derivatives transactions occur in London, with only 24% of the transactions occurring in the United States (primarily New York).¹⁷⁴ Moreover, London is responsible for 47% of all cross-border OTC derivative transactions. As such, any regulation of the OTC derivatives market needs to be a concerted effort among nations in which OTC derivatives are of significant importance to their financial markets.¹⁷⁵ Otherwise, if one country imposes

171. Parties can unwind their positions by liquidating or taking the opposite position. For example, if a party has purchased a contract, they can sell the contract to eliminate their position. Conversely, if a party has sold a contract, they can purchase a contract to eliminate their position. Jones, *supra* note 13, at 9.

172. Specifically, we are referring to the CFTC arm of the SEC as proposed below. See *infra* notes 185-90 and accompanying text (recommending merging the SEC and CFTC into a single regulatory body).

173. See White Paper, *supra* note 11, at 5-8 (describing ways to improve international regulatory standards).

174. France, Germany and Japan represent a combined 15% of the remaining worldwide OTC derivatives transactions. Jones, *supra* note 13, at 6. See also Duffie & Hu, *supra* note 8, at 10 (discussing the U.S. market share of derivatives worldwide and stating: "In terms of OTC derivatives, from 1998 to 2007 the U.S. has maintained its worldwide market share of trading in traditional OTC derivatives The U.S. share of the total worldwide credit derivatives market has been roughly constant in the period 2002 to 2006, while the U.K. share has declined significantly.")

175. The European Union Commission is already discussing regulation of OTC derivatives. Thus far, there is a sense that OTC derivatives will be required to be cleared through a regulated CCP that is based in the Eurozone, which does not include the United Kingdom. Given that London represents the largest volume of OTC derivative transactions

stringent regulations on OTC derivatives, there will be a tendency for participants in the OTC derivatives market to conduct their transactions in a country with less stringent regulations.¹⁷⁶ Because of the global nature of the OTC derivatives market, there is limited ability of any single country to effectively police the market. There must be global regulatory cooperation to address the problems stemming from the OTC derivatives market. Beyond the first step of global regulatory cooperation, we believe a second step in regulating this global market is identifying one or more global CCPs. Ideally, the CCPs should be experienced with clearing transactions from a number of countries.

C. *Harmonization of the SEC and the CFTC*

The Obama Proposal requires the CFTC and SEC to make recommendations to Congress for changes to harmonize regulation of futures and securities.¹⁷⁷ This recognizes the inherent difficulty in regulation that has existed with regulation of futures falling under CFTC jurisdiction and regulation of securities falling under SEC jurisdiction.¹⁷⁸ It does not, however, sufficiently resolve problems that have resulted from the current fragmented regulatory scheme,¹⁷⁹ such as confusion and delay in imposing regulations pending outcomes of turf battles between the SEC and the CFTC.¹⁸⁰ A more sane approach would be to make that distinction unnecessary by merging the CFTC and SEC and creating one regulatory

in the world, the push for a CCP in the Eurozone is of concern in the United Kingdom. Additionally, there is concern in the United Kingdom that the United States is pushing to establish the regulatory bar for CDS transactions. *See Jones, supra* note 13, at 15-16 (describing regulatory initiatives in the United States and Europe).

176. Just as we are concerned about U.S. firms going to other countries to conduct OTC derivative transactions, other countries are concerned about their firms going to the United States to do the same. *See Jones, supra* note 13, at 25-26 (discussing CCPs in relation to the U.K. market). *See generally* Duffie & Hu, *supra* note 8 (discussing the role that regulation plays in the decision of where a provider of derivatives services locates and where derivatives trading occurs).

177. White Paper, *supra* note 11, at 14.

178. *See, e.g.,* Gibson, *supra* note 15, at 381 (“[c]lassifying swap agreements as futures or securities is inappropriate, given that they possess features that distinguish them from both securities and futures. . .”). *See generally* David B. Esau, *Joint Regulation of Single Stock Futures: Cause or Result of Regulatory Arbitrage and Interagency Turf Wars?*, 51 CATH. U. L. REV. 917 (2002) (discussing the “inherent tension” between the SEC and CFTC around derivatives regulation); Partnoy, *supra* note 23, at 430 (discussing the conflicts between the SEC and the CFTC and concluding that “such a bifurcated regime is problematic”).

179. Duffie & Hu, *supra* note 8, at 24 (“[F]ragmentation of U.S. regulation borders on the comical.”). *See supra* note 23 (discussing a criticism of the piecemeal, fragmented system of regulation).

180. *See, e.g.,* Duffie & Hu, *supra* note 8, at 25 (discussing the delay in introducing new products, attributed to turf battles).

body with jurisdiction over both.

Despite our concerns with the proposal as outlined above, we are in favor of a regulated derivatives industry. The current system of self-regulation has failed.¹⁸¹ We recognize that the complexity of derivative

181. There are inherent flaws with self-regulation. *See generally* Nan S. Ellis, Lisa M. Fairchild & Harold D. Fletcher, *The NYSE Response to Specialist Misconduct: An Example of the Failure of Self-Regulation*, BERKELEY BUS. L. J. (forthcoming) (discussing problems with NYSE self-regulation). *See generally* Sergio G. Lazzarini & Pedro Carvalho de Mello, *Governmental Versus Self-Regulation of Derivatives Markets: Examining the U.S. and Brazilian Experience*, 53 J. ECON. & BUS. 185 (2001) (comparing governmental regulation and self-regulation in terms of competencies and flaws).

Some commentators have argued for elimination of the self-regulatory model. *See generally* Ernest E. Badway & Jonathan M. Busch, *Ending Securities Industry Self Regulation as we Know it*, 57 RUTGERS L. REV. 1351, 1358 (2005) (“[R]ecent events indicate that the system of self-regulation may no longer fit the mold of our modern securities markets.”); Cally Jordan & Pamela Hughes, *Which Way for Market Institutions: The Fundamental Question of Self-Regulation*, 4 BERKELEY BUS. L. J. 205, 208 (2007) (“[T]he prevalent self-regulatory model of exchange governance in the United States has been susceptible to abuses and scandals for decades.”); Robert Kuttner, *The Big Board: Crying Out for Regulation*, BUS. WK., Oct. 13, 2003, at 26 (quoting former Chairman Donaldson: “In the SOA era, the question has become: how much longer can we reasonably function under the current system of self-regulation? Is it becoming obvious that SROs are not capable of policing anything more than the occasional ‘small-time’ larceny?”). Others have recognized the benefits of self-regulation. *See generally* Badway & Busch, *supra*, at 1662-63 (discussing the arguments in favor of self-regulation); Onnig H. Dombalagian, *Self and Self-Regulation: Resolving the SRO Identify Crisis*, 1 BROOK. J. CORP. FIN. & COM. L. 317, 317 (2007) (“With all its shortcomings, however, self-regulation is inherently a sound – and perhaps somewhat underutilized—means of regulating securities market conduct.”); Keaveny, *supra* note 88, at 1450 (“It seems unlikely that the government could operate more efficiently as a sole regulator.”); Kojima, *supra* note 1, at 275-82 (discussing market responses to OTC derivative risks); Lynch, *supra* note 10, at 1405 (discussing how the industry participants in the credit derivatives market, through their “collective effort,” were “able to make remarkable improvements in the infrastructure of the credit derivatives market”).

In fact, commentators offer several perceived benefits of self-regulation. First, self-regulation may avoid the slowness of bureaucracies, MICHAEL CROZIER, *THE BUREAUCRATIC PHENOMENON* 3 (1964), and the danger of rigid rules, Steven M.H. Wallman, *Competition, Innovation, and Regulation in the Securities Markets*, 53 BUS. LAW. 341, 356 (1998). Second, SROs may understand the securities industry better than governmental regulators. Dombalagian, *supra*, at 318 (“SROs are also best positioned to debate and promulgate ethical norms that govern the industry.”); Charles H. Koch, Jr., *Control and Governance of Transmission Organizations in the Restructured Electricity Industry*, 27 FLA. ST. U.L. REV. 569, 602 (2000); Kojima, *supra* note 1, at 291 (“Unable to compete for the quantitative wizards and rocket scientists at the heart of financial innovation, regulators may lack the expertise to respond in a dynamic fashion. Certainly, the government’s track record of managing risk in the financial markets should not make OTC derivatives dealers concerned that their expertise will be surpassed by that of the public regulators.”); Paul G. Mahoney, *The Exchange as Regulator*, 83 VA. L. REV. 1453, 1455 (1997) (“[E]xchanges should be the primary writers and enforcers of rules relating to disclosure by listed companies, standards of conduct for member broker-dealers, and market structure.”). Professor Mahoney argues that a governmental regulator “starts from a substantial disadvantage in information,

products makes it challenging to provide regulation that effectively manages risk without stifling innovation.¹⁸²

V. CONCLUSION: A CALL FOR A DIFFERENT TYPE OF REGULATION

The arguments against regulation of the OTC derivatives market are based on a belief that derivatives manage risk. Some of the arguments against regulation are also based on beliefs that OTC derivatives were not really the culprit in the GFC, but rather the GFC resulted from a belief in the ratings agencies' assessment of the creditworthiness of OTC derivative products and poor judgment on the part of bank risk managers and regulators who did not question the analysis of the credit rating agencies. Others, however, have recognized that "financial markets not subject to restrictive regulation produce national economic crises."¹⁸³ It has been argued that derivatives don't manage risk. Instead, they "create a kind of mirage" that merely transfers risk to the counterparty.¹⁸⁴

The current regulatory system has exempted credit derivatives from direct regulation and has fragmented indirect oversight between banking regulators, the Federal Reserve, the CFTC and the SEC. Moreover, "[s]ince no single regulator or clearinghouse oversees credit derivatives, market-wide information is fragmented, making it difficult for market participants to have a complete picture of the risks involved."¹⁸⁵ This fragmentation stems in part from the fact that there is disagreement over which body is the most appropriate regulatory body.¹⁸⁶ The Obama

experience, and incentives compared to an exchange." *Id.* at 1462. Similarly, some have asserted that SRO technical expertise allows them to better respond to some regulatory problems. See Keaveny, *supra* note 88, at 1451 ("The SRO system is preferable to a pure government regulatory scheme because it defrays much of the costs onto the market users, and makes efficient use of the expertise at the exchanges."); Jonathan R. Macey, *Options for Future Regulation of Financial Planners, Part II*, 15 J. FIN. PLAN. 90 (2002). Others argue that they may operate more fiscally efficiently. Sam Scott Miller, *Self-Regulation of the Securities Markets: A Critical Examination*, 42 WASH. & LEE. L. REV. 853, 855 (1985). Third, self-regulation avoids the governmental costs of SEC oversight. Dombalagian, *supra*, at 318 ("[T]here are many SROs that provide the critical infrastructure needed to ensure fair and efficient markets while sparing the SEC and the public the cost of securities oversight.").

182. Kojima, *supra* note 1, at 323 ("[T]he complexity of many OTC derivatives would surely pose an administrative challenge to those charged with enforcing and interpreting the securities laws."); Tijoe, *supra* note 10, at 388.

183. Turgeon, *supra* note 113, at 141.

184. Loomis, *supra* note 4.

185. Tijoe, *supra* note 10, at 399. See also Lynch, *supra* note 10, at 1415-16 (discussing how fragmentation also leads to redundancy, increased costs, and reduced efficiency, and concluding that the fragmented regulatory scheme is "dysfunctional").

186. See Tijoe, *supra* note 10, at 415 (arguing that the CFTC is the proper agency to be charged with regulation of credit derivatives). *But see* Kramer, *supra* note 26, at 413

Proposal fails to adequately address the problems created by this fragmentation. Unfortunately, any regulation will be ineffective without an effective enforcer.

Therefore, we conclude that the power to regulate OTC derivatives should be vested in a combined SEC and CFTC. We are not the first scholars to suggest a single regulatory body with authority to regulate credit derivatives.¹⁸⁷ Also, we are not the first scholars to believe that a different regulatory framework is necessary.¹⁸⁸ Historically, regulation of credit derivatives depended upon whether the specific instrument was best categorized as a security (SEC) or as a future or commodity (CFTC). The problem is that today's complex financial derivatives do not fit neatly into one of the above categories.¹⁸⁹

There are many arguments in favor of merging the SEC with the CFTC into a single regulatory body. Most importantly, such an agency would be more efficient and a single regulator would provide unified

(concluding that the "SEC, with jurisdiction over the entire scope of derivatives, would be more efficient").

187. See, e.g., Brodsky, *supra* note 89, at 573 ("[T]he division of the equity and equity derivatives markets into legal categories of securities and futures, each with different laws and different regulators, is an antiquated, inadequate, and burdensome means of overseeing these markets as they face challenges from new technological and international competitors."); Esau, *supra* note 178, at 918 ("[J]oint regulation compounds the problems rather than solves them."); Kramer, *supra* note 26, at 412 ("Unless the two agencies eventually merge they will become rooted in the 'garden of the forking paths' of divergent policies and ideology despite their outward appearance of working together"); Knepper, *supra* note 88, at 38 ("It clearly would be much simpler if there were only regulator, and single agency regulation would be preferable if at all possible."); Tijoe, *supra* note 10, at 415 ("Consequently, one agency with statutory powers to regulate should lead the infrastructure development for the credit derivatives market. This agency should have complete jurisdiction to compel all market participants to build an internal infrastructure to trade in credit derivatives, establish Chinese walls on their credit derivatives' trading floors, and pay close attention to their contract drafting procedures to avoid ambiguity and enforcement conflicts."). See *id.* at 415 (arguing that the CFTC is the proper agency to be charged with regulation of credit derivatives).

188. See Unterman, *supra* note 13, at 82 (calling for a stronger regulatory framework and a "paradigm shift within the financial industry" forsaking the "mantra of 'greed is good'"); Omarova, *supra* note 19, at 163 (calling for a "paradigmatic change in the way we approach the process of financial innovation" that will allow us to understand, monitor and measure the distribution of risk in the global financial system as a whole).

189. See Kramer, *supra* note 26, at 426 ("Justice Easterbrook of the Seventh Circuit Court of Appeals has correctly analogized the categorization dilemma as trying to decide 'whether tetrahedrons belong in square or round holes.'" (quoting *Chicago Mercantile Exch. v. SEC*, 883 F.2d 537, 539 (7th Cir. 1989))). See also, Karol, *supra* note 23, at 206 ("The U.S. regulatory system continues to be based on the obsolete premise that most financial products can be neatly categorized as being either (i) 'securities' or (ii) futures or options on 'commodities'"); Lynch, *supra* note 10, at 1416 (questioning whether "this artificial compartmentalization of industries create[s] a regulatory framework that is best suited for the way that markets actually function").

oversight.¹⁹⁰ The regulatory costs of administering derivatives regulation would be reduced as redundancies and duplicative oversight is eliminated. There would be fewer problems with statutory ambiguities. A combined agency would make sense given the fact that the markets covered by the SEC and CFTC are virtually interconnected.

We advocate that the CFTC become a regulatory arm of the SEC with full enforcement powers of its rules. In addition, it is important that the SEC be given adequate resources to be able to regulate the OTC derivatives markets in addition to its other existing regulatory responsibilities.

The Obama Proposal also fails to adequately recognize the global nature of the OTC derivatives market. We advocate that the United States coordinate its regulatory efforts for this market with the regulatory agencies in other countries that have significant OTC derivative markets. We are concerned that any regulatory action taken by the United States will not be effective unless the action is part of a cooperative effort among financial regulators in other countries.¹⁹¹

We also support the Obama Proposal's requirement that OTC derivative transactions be cleared by a regulated CCP. There is already a sense in the OTC derivatives marketplace that something has to be done. As a result, several CCPs have emerged as likely prospects for facilitating the clearing of transactions. Participants in the OTC derivatives market will likely welcome the increased oversight and price transparency provided by CCPs. We think the requirement that transactions be cleared by a regulated CCP will improve the OTC derivatives market, especially if regulators from the various countries can cooperate and agree on the type

190. Just after enactment of the CFMA, scholars predicted that the bifurcated regulatory scheme, which placed derivatives market regulation into the hands of both the CFTC and the SEC, would result in overlapping, duplicative, and burdensome overregulation. *See, e.g.,* Brodsky, *supra* note 89, at 583 ("It is important to recognize that . . . the rule review process for securities-based stock futures exchanges will be far more burdensome than for commodities-based stock futures exchanges"). Instead, what resulted was an absence of regulation.

191. Major CCPs are already anticipating regulation and are vying for prominence in the event that there is regulatory cooperation on a global basis. For example, IntercontinentalExchange Inc. began clearing credit-derivatives trades in Europe in July, 2009 as a response to regulators' call to reduce risk in the \$26.5 trillion market. CME Group Inc., Eurex and NYSE Euronext also are targeting the European credit-derivatives market with their own clearing ventures. Dealer banks have moved proactively to clear credit-derivatives trades, staying ahead of U.S. authorities' push to mandate clearinghouses for the complex financial instruments. Jacob Bunge, *ICE Starts Clearinghouse for Derivatives in Europe*, WALL ST. J., July 30, 2009, at C2. Moreover, Eurex Clearing, Europe's largest clearinghouse, has partnered with Calypso Technology to support the firm's new central clearing service, Eurex Credit Clear, for OTC credit default swaps. Press Release, Calypso, Eurex Clearing Partners with Calypso for OTC Derivatives Central Clearing (July 24, 2009), http://www.calypso.com/news/pr-2009/072409_Eurex-Clearing-Partners-with-Calypso-for-OTC-Derivatives-Central-Clearing.php.

of regulations that need to be imposed on the CCPs.

Ultimately, we hope that OTC derivatives are correctly viewed in a positive manner because they are useful tools for managing risk. Aside from OTC derivatives, there are many guilty parties with respect to the cause of the GFC. It is encouraging to see that the Obama Proposal approaches financial market regulation in a comprehensive manner, rather than singling out a few entities that have received the greatest public criticism. With improvements within the regulatory environment, a catastrophic financial crisis can hopefully be avoided in the future.