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An Altered Derivatives Marketplace: Clearing Swaps Under Dodd-Frank

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Abstract

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KEYWORDS: derivatives, swaps, Dod-Frank

^{*}J.D. Fordham University School of Law, 2011; B.A., Economics and Politics, New York University, 2008. I would like to thank Joseph Tycon for encouraging me to pursue a course in Derivatives & Risk Management and Professor Alan Rechtschaffen for his enjoyable and knowledgeable instruction in the subject.



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INTRODUCTION

At the heart of the ongoing financial crisis lies one fundamental problem: credit.¹ This problem was created in large part through a mismatch between the actual credit of counterparties and their perceived credit.² Entities trading in at-risk markets were rated higher than their true creditworthiness and the products they transacted in were not rated to reflect their true risk, exacerbating and magnifying problems once the system began to falter.³ Rodgin Cohen, an attorney involved in the negotiations between the Federal Reserve and financial actors at the center of the crisis, succinctly stated the situation as "the absence of knowledge of how much risk is in the system, and where it was."⁴ The

2. See Arewa, supra note 1, at 404; Reza Dibadj, Four Key Elements to Successful Financial Regulatory Reform, 6 HASTINGS BUS. L.J. 377, 382 (2010) (discussing the problems with credit rating agencies and the need to reform them).

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^{1.} See Olufunmilayo B. Arewa, *Risky Business: The Credit Crisis and Failure* (*Part I*), 104 Nw. U. L. REV. 398, 404 (2010) ("Many structured finance instruments were actually far riskier than their ratings might have suggested. As a result, flaws in credit rating agency assessments of structured finance instruments often are considered a principal underlying cause of the credit crisis."). *See generally* ALAN N. RECHTSCHAFFEN, CAPITAL MARKETS, DERIVATIVES AND THE LAW 6 (2009) (discussing loss of faith in credit ratings and counterparty risk concerns created by dropping value of assets securing obligations); Alvin C. Harrell, *The Great Credit Contraction: Who, What, When, Where and Why*, 26 GA. ST. U. L. REV. 1209 (2010).

^{3.} *See* Arewa, *supra* note 1, at 404 (stating that uncertainty about the valuation of credit derivatives contributed to a liquidity crunch that exacerbated the impact of the crisis).

^{4.} Robert F. Weber, New Governance, Financial Regulation, and Challenges to Legitimacy: The Example of the Internal Models Approach to Capital Adequacy

crisis continues to manifest itself through a widespread unwillingness to lend.⁵ Many of the government's efforts to stimulate the economy have been targeted towards encouraging lending by pumping funds into the economy at practically no cost to the recipient financial institutions, lowering the target for the federal funds rate to a quarter of one percent, and making large-scale purchases of Treasury securities.⁶ The difficulty in successfully jumpstarting lending demonstrates the depth of the crisis.⁷

In response to the problems underlying the financial crisis, Congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Reform Act") in July 2010.⁸ This act significantly altered the mandates of the Commodity Futures Trading Commission ("CFTC"), the Securities and Exchange Commission ("SEC"), and other federal regulators. The Reform Act will also change the way the markets for securities and derivatives operate, as well as how participants in those markets interact.⁹ Specifically it focuses on expanding regulatory coverage to include swaps and forces market participants into clearing

Regulation, 62 ADMIN. L. REV. 783, 863 (2010) (quoting Henny Sender, *View From the Top, "Interview with Rodgin Cohen,"* FINANCIAL TIMES (Apr. 29, 2010), http://video.ft.com/v/82089413001/Apr-29-Rodgin-Cohen).

^{5.} See Richard B. Freeman, *Reforming the United States' Economic Model After the Failure of Unfettered Capitalism*, 85 CHI.-KENT L. REV. 685, 692-93 (2010) (discussing the freezing of credit and the Treasury's concern with getting credit markets moving).

^{6.} See Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys., Speech at the Sixth European Central Bank Central Banking Conference: Emerging from the Crisis: Where Do We Stand? (Nov. 19, 2010), available at http://www.federalreserve.gov/newsevents/speech/bernanke20101119b.htm. Chairman Bernanke details three steps taken by economic regulators: (1) "expand[ing] existing lending facilities and creat[ing] new facilities to provide liquidity to the financial sector," (2) easing "monetary policy through the conventional means of cuts in short-term policy rates, including a coordinated rate cut in October 2008 by the Federal Reserve, the ECB, and other leading central banks," and (3) "purchas[ing] longer-term Treasury securities." *Id.*

^{7.} *See* Harrell, *supra* note 1, at 1236-37 ("At the time of this writing we are well into the third year of the Great Credit Contraction, with no end in sight despite trillions of dollars of remedial 'stimulus' and bailout spending.").

^{8.} Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010).

^{9.} See infra Part II.

arrangements, where risks are minimized through the structure of the clearing mechanisms.¹⁰

This Note will focus on the changes in swap regulation under the Reform Act. It will seek to show that the Reform Act captures the safety mechanisms present in the extant futures market. In addition, it will show that the new regulatory scheme applied to swap transactions will address the fundamental problem exposed by the financial crisis: inaccurate credit risk forecasting. Finally, this Note will discuss a potential risk created by the way clearing organizations, given new importance in the Reform Act, are structured. Alternatively stated, an examination of the Reform Act reveals that swap markets have adopted appropriate features of futures markets in a successful effort to address the causes underlying the financial crisis. However, in doing so, the Reform Act opens the door to prospective market trouble in the form of systemically significant¹¹ swap-clearing firms.

The amounts of money involved in derivatives activities, of which swaps are the largest subset, are staggering. The Bank for International Settlements calculated the outstanding notional value of all over-the-counter ("OTC") derivatives worldwide at over \$600 trillion in December 2009.¹² However, this figure is separate from the market value of the derivative instruments. The notional value of a derivative is the "the sum[] underlying the derivatives contract[]."¹³ This can be the amount used to calculate interest payments¹⁴ or be the "value of the

^{10.} See id.

^{11.} For a discussion on the concept of systemically significant institutions, *see infra* Part III.B.

^{12.} Bank for Int'l Settlements, *Statistical Annex*, 2010 BIS Q. REV. A1, A121 tbl. 19.

^{13.} Mark Levy, Note, Japanese and U.S. Financial Derivatives Markets: Recommendations for Loosening Japan's Tightly Regulated Market, 18 FORDHAM INT'L L.J. 1970, 1998 n.192 (1995) ("The notional value represents the amount of principal that, although never actually changing hands, is the basis upon which the interest on a swap or related instrument is calculated. Because notional principle refers to the sums underlying the derivatives contracts, not the income streams that counterparties are bound to exchange, it is an inaccurate proxy for market value."); see also Jeannette Redmond, Note, State and Local Governmental Entities: In Search Of . . . Statutory Authority to Enter into Interest Rate Swap Agreements, 63 FORDHAM L. REV. 2177, 2178 ("The agreed-upon dollar value is referred to as the 'notional' value of the swap.").

^{14.} Levy, *supra* note 13, at 1998 n.192. See generally John D. Finnerty & Mark S. Brown, *An Overview of Derivatives Litigation*, 1994 to 2000, 7 FORDHAM J. CORP. &

derivative's underlying assets."¹⁵ Since the value of a derivative is linked to these underlying measures, but detached from the need for any party to possess or be otherwise influenced by them, the value of the derivatives associated with a particular physical market can surpass the value of all products in that market.¹⁶ In addition, swap transactions are typically highly leveraged, because they often require no or relatively little money up front.¹⁷ These characteristics of derivatives are partially what made them so destructive in the 2008 financial crisis.¹⁸

The definition of a derivative is understandably broad: it is a "financial product the value of which is derived" from an underlying asset or measure.¹⁹ The overall concept of derivatives covers extensive categories of financial instruments, including options, forwards, futures,

17. See infra note 23 and accompanying text.

18. See Colleen M. Baker, Regulating the Invisible: The Case of Over-the-Counter Derivatives, 85 NOTRE DAME L. REV. 1287, 1307 (2010) ("OTC derivatives can increase market volatility and the level of systemic risk due to a combination of excessive amounts of leverage and low capital requirements."); see also id. at 1306 ("Derivatives speculation in turn is linked with a variety of economic ills--including increased systemic risk when speculators go bust." (quoting Lynn A. Stout, How Deregulating Derivatives Led to Disaster, and Why Re-Regulating Them Can Prevent Another, LOMBARD ST., 4 (July 6, 2009), http://www.finreg21.com/files/finreg21-finreg21/Lombard%207.pdf.

19. ALASTAIR HUDSON, THE LAW ON FINANCIAL DERIVATIVES 12 (3d ed. 2002); SIMON JAMES, THE LAW OF DERIVATIVES 2-3 (1999) ("A derivatives transaction is . . . 'a bilateral contract or payments exchange whose value derives . . . from the value of an underlying asset or underlying rate or index.") (quoting GLOBAL DERIVATIVES STUDY GROUP OF THE GROUP OF THIRTY, DERIVATIVES: PRACTICES AND PRINCIPALS 28 (1993))); see also RECHTSCHAFFEN, supra note 1, at 159 (quoting a similar definition articulated in a federal case from the Southern District of Ohio).

FIN. L. 131, 138 n.18 (2001) ("The notional value of the swap is usually tied to a specific principal amount of the underlying bond.").

^{15.} *Notional Value*, INVESTORWORDS.COM, http://www.investorwords.com/5930/ notional_value.html (last visited Nov. 13, 2010).

^{16.} See RECHTSCHAFFEN, supra note 1, at 173 ("Because neither counterparty to these contracts needed to have any exposure to the underlying subject credit, AIG was able to 'write protection' for many times the value of the outstanding credit of the subject companies themselves."). Cf. Lecture, Panel Discussion: Subprime Mortgage Meltdown and the Global Financial Crisis, 14 FORDHAM J. CORP. & FIN. L. 1, 43 (2008) ("Think of the CDO market. You have \$45 trillion of notional value which only deals with \$5.9 trillion of debt. So somebody is trading in these derivatives that have no attachment to the debt.").

and swaps.²⁰ Before discussing regulatory changes in swap markets, it is important to understand what a swap is and how it relates to other types of derivatives.

The most basic derivative instrument is an option. Options give the bearer the right, in exchange for a relatively small upfront payment, to trigger either purchase or sale obligations related to an underlying asset.²¹ The holder of this right avoids any loss greater than the upfront payment if the contemplated transaction would not be profitable and therefore allows the right contained in the option to lapse. Combining two opposite options, one giving the right to purchase and the other giving the right to sell at a certain price, creates a forward.²² As there is typically no upfront payment associated with forwards, they can be infinitely leveraged, since the underlying asset is controlled by the purchasing party without putting up capital.²³

Unlike options, forwards allocate downside risk to both parties.²⁴ A traditional forward transaction is one in which two parties agree to exchange an underlying asset in the future for a payment to be made at a future date determined at the time the forward contract is concluded.²⁵ In response to the CFTC's regulatory jurisdiction, discussed below, forwards are, in practice, often cash settled, meaning that the difference in the value between the underlying asset on the closing date and the contracted-for price is exchanged, rather than the actual underlying asset.²⁶

^{20.} See HUDSON, supra note 19, at 12-13; JAMES, supra note 19, at 3.

^{21.} See HUDSON, *supra* note 19, at 14; *see also* 1 PHILIP MCBRIDE JOHNSON & THOMAS LEE HAZEN, DERIVATIVES REGULATION 94 (2004).

^{22.} See HUDSON, supra note 19, at 14, 42.

^{23.} Imagine the two up-front payments associated with the two component options canceling each other out. *See* Baker, *supra* note 18, at 1307; *cf.* HUDSON, *supra* note 16, at 22 (discussing the risky nature of derivative transactions due to the credit risk that the counterparty will be unable to pay); Christian O. Nagler, Note, *Derivatives Disclosure Requirements: Here We Go Again*, 6 CORNELL J.L. & PUB. POL'Y 441, 451 (1997) ("Futures, for instance, are highly leveraged derivatives requiring only a small purchase price as a percentage of their notional value.").

^{24.} See HUDSON, supra note 19, at 14.

^{25.} See JAMES, supra note 19, at 3; see also 1 JOHNSON & HAZEN, supra note 21, at § 1.02[8][B]; FED. RESERVE SYS., TRADING AND CAPITAL-MARKETS ACTIVITIES MANUAL § 4310.1 (1998).

^{26.} See 1 JOHNSON & HAZEN, supra note 21, at 67-69. See generally RECHTSCHAFFEN, supra note 1, at 200 (explaining that the CFTC has jurisdiction when a derivative contemplates actual future delivery of the underlying asset).

More complex than forwards, swaps can be viewed as a collection of forward transactions under the overall arrangement of the swap.²⁷ Swaps take the structure of "an exchange of cash flows" based on some notional amount from which the payments to be exchanged are calculated.²⁸ A plain vanilla swap exchanges a fixed payment for a payment that is variable based on some underlying measure, such as the London Inter Bank Offer Rate ("LIBOR"), the prime rate, or some other rate.²⁹ But a swap can take any form, including the exchange of two different variable rates, as long as the fundamental structure reflects an exchange of payments.³⁰ Payments can be exchanged as often or as little as the parties desire and contract for, each payment arrangement comprising one of the forward transactions constituting the swap.³¹

There are two fundamental reasons why parties enter into any derivative transaction. The first is to limit a party's risk and the second is to speculate on expected price movements.³² The hedging function of a derivative is realized by taking a position in the derivative instrument opposite that of the party's current risk—"constructing a derivative product which will increase in value if the underlying risk generates a loss."³³ This transfers risk from one party less willing or able to bear it to another party more willing or able to bear that risk.³⁴ The speculative

^{27.} See HUDSON, *supra* note 19, at 14 ("All swaps can be analysed as being a string of forward contracts in which both parties are contingently liable to fulfill their payment obligations depending on the performance of the underlying obligation on a series of payment dates."); JAMES, *supra* note 19, at 6 ("[S]waps entail a series of payments, and can be seen as a number of forward contracts stretching over time.").

^{28.} HUDSON, *supra* note 19, at 43; *see* JAMES, *supra* note 19, at 6; RECHTSCHAFFEN, *supra* note 1, at 175-77.

^{29.} See HUDSON, supra note 19, at 45-46; RECHTSCHAFFEN, supra note 1, at 175-77; see also FED. RESERVE SYS., supra note 25, § 4325.1.

^{30.} See RECHTSCHAFFEN, supra note 1, at 175; see also FED. RESERVE SYS., supra note 25, § 4325.1; HUDSON, supra note 19, at 43-46.

^{31.} See HUDSON, supra note 19, at 14; RECHTSCHAFFEN, supra note 1, at 175; supra note 27 and accompanying text.

^{32.} See 1 JOHNSON & HAZEN, supra note 21, at 120, 127; see also HUDSON, supra note 19, at 15-19; RECHTSCHAFFEN, supra note 1, at 160.

^{33.} HUDSON, *supra* note 19, at 18; *see* 1 JOHNSON & HAZEN, *supra* note 21, at 120 ("[A] hedging transaction . . . entails acquiring [derivatives] that create for the holder an obligation opposite to an obligation of that person in a commercial transaction.").

^{34.} RECHTSCHAFFEN, *supra* note 1, at 30-31 ("Hedgers trade to shift the risk of an unfavorable event to a counterparty that is better able or more willing to carry that risk.").

function of a derivative allows those wishing to take advantage of an expected market movement to do so without having to actually enter that specific market.³⁵ A speculator could purchase a derivative instrument whose value, the change in which the speculator is seeking to take advantage of, is based on some underlying asset or measure without ever having to actually purchase the asset. Derivatives make either hedging or speculative functions easy since, in a cash-settled transaction, the arrangement can be benchmarked to the value of an asset or measure without either party ever controlling it.³⁶

I. PRE-REFORM MARKETS

Although the swap regulations contemplated by the Reform Act are new to that market, they build off of derivative regulations pre-dating the Reform Act. For this reason, it is useful to examine the regulatory structure as it existed before the Reform Act. In general, pre-Reform Act derivative markets can be characterized as heavily regulating futures transactions, while leaving swaps relatively unregulated.

A. REGULATOR JURISDICTION

The Commodities Exchange Act, passed in 1936, established the first comprehensive federal government regulations over a wide range of different commodities futures.³⁷ However, the CFTC was created later, after Congress passed the Commodity Futures Trading Commission Act in 1974.³⁸ The most fundamental view of the CFTC's jurisdiction, as reformulated by the Commodity Futures Modernization Act of 2000, is

37. Commodity Exchange Act of 1936, 7 U.S.C. §§ 1-27f (2006).

^{35.} See HUDSON, supra note 19, at 16; see also JAMES, supra note 19, at 2-3. Opportunities for arbitrage, or taking advantage of price discrepancies between different markets, are included here as a form of speculative trading. See HUDSON, supra note 19, at 20 ("The use of derivative products makes it possible for market users to take advantage of mismatches in prices or market conditions by speculating on the underlying financial products without the need to undergo the formalities of conventional market trading.").

^{36.} See supra note 19 and accompanying text.

^{38.} See John D. Benson, Comment, Ending the Turf Wars: Support for a CFTC/SEC Consolidation, 36 VILL. L. REV. 1175, 1175 (1991); see also RECHTSCHAFFEN, supra note 1, at 192.

that the CFTC has jurisdiction over futures and futures exchanges.³⁹ More specifically, the Commodity Exchange Act, as amended by the Commodity Futures Modernization Act, provides that the CFTC has regulatory jurisdiction over "agreements . . . and transactions involving contracts of sale of a commodity for future delivery . . . traded or executed on a[n exchange]."⁴⁰ These contracts of sale for future delivery, or futures contracts, must be traded on organized exchanges approved by the CFTC.⁴¹ Under this mandate, the determinate for whether a transaction is a forward exempt from the CFTC's jurisdiction or a future subject to the CFTC's jurisdiction, is whether actual delivery of the underlying asset is contemplated.⁴²

However, an agreement's provision for future delivery does not end the inquiry into whether that agreement is a contract of sale for future delivery subject to CFTC regulation. A putative forward transaction contemplating delivery may meet the exemptive requirements for a cash forward, described as "[c]ash commodity contracts for deferred shipment or delivery."⁴³ *Commodity Futures Trading Commission v. Co Petro Marketing Group* is the foundational case examining this exemption for cash forward contracts.⁴⁴ The Ninth Circuit in this case examined all the circumstances surrounding the agreements at issue in

40. 7 U.S.C. § 2(a)(1)(A) (2006).

^{39.} See Benson, supra note 38, at 1180 ("The CFTC exercises its regulatory authority principally by overseeing the efforts of self-regulatory organizations such as the futures exchanges."); see also RECHTSCHAFFEN, supra note 1, at 195. See generally Baker, supra note 18, at 1310 (explaining that OTC derivatives are exempt from the regulatory scope of the CFTC). Between futures exchanges and unregulated OTC markets, there is an intermediary forum of derivative exchange regulated by the CFTC, although it is subject to fewer regulations than a full-blown futures exchange. See RECHTSCHAFFEN, supra note 1, at 195-96; see also 7 U.S.C. § 7a (2006) (providing for derivative transaction execution facilities, the term for the entities that exist in this intermediate category). What is referred to throughout as exchanges are technically "designated contract markets," since "designated contract markets" coincide closely with the traditional conception of an exchange. See infra note 135 and accompanying text.

^{41.} See In re Bybee, 945 F.2d 309, 312 (9th Cir. 1991); cf. RECHTSCHAFFEN, supra note 1, at 197-98 (explaining that since cash forwards are exempt from the definition of futures, they may be traded outside of an exchange).

^{42.} See RECHTSCHAFFEN, supra note 1, at 197-98, 200.

^{43.} Commodity Futures Trading Comm'n v. Co Petro Mktg. Grp., Inc., 680 F.2d 573, 576-77 (9th Cir. 1982).

^{44.} See id.

order to determine whether those agreements were futures contracts subject to the CFTC's jurisdiction, thus giving birth to a "totality of circumstances" test.⁴⁵ The *Co Petro* court ultimately found that the agreements were "contracts of sale of a commodity for future delivery" and not cash forward and therefore subject to regulation by the CFTC.⁴⁶

The totality of circumstances test was refined in *Nagel v. ADM Investor Services.*⁴⁷ The *Nagel* court noted that this test gives "controlling significance to a handful of circumstances . . . usually . . . ascertained just by reading the contract."⁴⁸ These circumstances are whether: (1) the terms of the agreement are so specific as to render it non-fungible; (2) the parties are participants in an industry related to the underlying asset and are therefore not speculators; and (3) delivery cannot be deferred forever, and therefore, the purchasing party must eventually take delivery.⁴⁹ Application of these factors addresses the stated goal of the CFTC of discouraging speculators from circumventing the exchange platform and its restrictions.⁵⁰

The Commodity Exchange Act also deals with swaps. The CFTC has broadly exempted swap agreements from any regulation with one caveat—the parties to the swap must be "eligible swap participants."⁵¹ Swap agreements are broadly defined and track the definition in the bankruptcy code, while the definition of "eligible swap participants,"

- 47. 217 F.3d 436 (7th Cir. 2000).
- 48. Id. at 441.
- 49. See id.

^{45.} See *id.* at 581 ("The transaction must be viewed as a whole with a critical eye toward its underlying purpose."). *But see* Commodity Futures Trading Comm'n v. Erskine, 512 F.3d 309 (6th Cir. 2008) (holding that the totality of the circumstances case is no longer the controlling precedent); Commodity Futures Trading Comm'n v. Zelener, 373 F.3d 861 (7th Cir. 2004) (doing away with the totality of circumstances and instead focusing exclusively on whether the contracts were fungible).

^{46.} *Co Petro*, 680 F.2d at 581 ("Addressing these circumstances in the light of the legislative history of the Act, we conclude that Co Petro's contracts are 'contracts of sale of a commodity for future delivery." (quoting 7 U.S.C. § 2 (1976))).

^{50.} *Co Petro*, 680 F.2d at 581 ("The contracts here represent speculative ventures in commodity futures which were marketed to those for whom delivery was not an expectation. Addressing these circumstances in the light of the legislative history of the Act, we conclude that Co Petro's contracts are 'contracts of sale of a commodity for future delivery." (quoting 7 U.S.C. § 2 (1976))).

^{51.} See 1 JOHNSON & HAZEN, supra note 21, at 64, 333; see also 17 C.F.R. § 35.2 (2011) ("A swap agreement is exempt from all provisions of the Act . . . provided . . . [t]he swap agreement is entered into solely between eligible swap participants at the time such persons enter into the swap agreement.").

which is very similar to that of "eligible contract participant" in the Commodity Exchange Act, is limited to large, sophisticated institutions.⁵² This regulatory exclusion combines with the statutory exclusion for swap transactions entered into between eligible contract participants to fully exempt any swap transactions from the regulatory jurisdiction of the CFTC.⁵³ As discussed in Part II, the CFTC's jurisdiction regarding swaps is greatly expanded by the Reform Act. In many ways, this expansion mirrors the CFTC's jurisdiction over futures and exchanges.

B. DERIVATIVES MARKETS GENERALLY

There are two overall types of markets in derivatives: virtually unregulated OTC markets and regulated exchange markets.⁵⁴ In pre-Reform Act markets, forwards and swaps were traded in the OTC markets, which are informal markets where large actors buy and sell these types of derivatives.⁵⁵ Unlike futures, OTC derivatives are not traded on organized exchanges.⁵⁶ As a result, they can be structured to include any terms that the parties to the agreement choose and contract for.⁵⁷ This allows OTC derivatives to be used for customized risk management since they can respond more perfectly to the needs of the

^{52.} Compare 17 C.F.R. § 35.1 (2011), with 7 U.S.C. § 1a(12) (2011).

^{53.} See 7 U.S.C. § 2(g) (2006); see also 1 JOHNSON & HAZEN, supra note 21, at 333.

^{54.} *See* Baker, *supra* note 18, at 1297 ("Derivatives are bought and sold in two distinct but related markets: exchange-traded markets and the OTC markets.").

^{55.} See FED. RESERVE SYS., supra note 25, §§ 4310.1, 4325.1; see also RECHTSCHAFFEN, supra note 1, at 166, 175; Baker, supra note 18, at 1301 ("In the United States, an essentially two-tiered banking system has evolved, consisting of a small group of large international banks and another tier of smaller more local/regional banks. It is the former that tend to deal in [OTC] derivatives."). That the market is informal does not mean that it is unstructured. See MARK YALLOP, WHITE PAPER: THE Future OF THE OTC MARKETS § 3.16 (2008),available at http://www.icap.com/Download.aspx?fileid=%7B2A233C27-8736-406C-BB4A-E3C 9EBFB1419%7D.

^{56.} See RECHTSCHAFFEN, supra note 1, at 166. See generally FED. RESERVE SYS., supra note 22, §§ 4310.1, 4325.1.

^{57.} See Baker, supra note 18, at 1300 ("OTC derivatives are often nonstandardized financial instruments."); see also FEDERAL RESERVE SYSTEM, supra note 25, § 4310.1 ("Because they are individually negotiated between counterparties, forwards can be customized to meet the specific needs of the contracting parties.").

contracting parties.⁵⁸ OTC markets also provide an outlet for the trading of derivatives with too low a demand for exchange trading.⁵⁹ This may be either because they are new or because they are a niche product, since low trading volume limits availability through exchanges.⁶⁰

A better understanding of the main risk generally associated with OTC-traded derivatives clarifies the implications of entering that market. One danger of an OTC market without responsive regulatory oversight is that large parties may take on excessively speculative positions, thereby jeopardizing their ability to survive unfavorable changes in their portfolios.⁶¹ As a relatively unregulated sphere of economic activity, actors within OTC markets have restricted access to information.⁶² Therefore, besides the potential perils associated with speculation, even those parties seeking to hedge in an OTC derivatives market may be taking on unrealized risks with the hedging transaction itself, since hedging parties may not be able to effectively factor in the complete range of their counterparty's other obligations.⁶³

The fundamental problem underlying these scenarios relates to the creditworthiness of the parties to the transaction. Since a derivative always involves some future obligation or payment, the ability of each party to perform in the future pursuant to the contract is essential to the ultimate consummation of the derivative transaction.⁶⁴ This is known as

- 59. See Baker, supra note 18, at 1305.
- 60. See id.
- 61. See id. at 1306, 1310.
- 62. See id. at 1306.
- 63. See id.

^{58.} See Baker, supra note 18, at 1303-04 ("Unlike the standardized derivatives traded on exchanges, OTC derivatives allow for customized risk management."). Cf. YALLOP, supra note 55, § 3.9 ("Since exchange contracts are standardised and 'real world' economic risk is normally non-standardised, traders who use exchanges for hedging purposes have to continue to live with the differential between their real underlying exposure and the payoff on their hedges. In short, exchange contracts very rarely provide a perfect hedge for actual economic risk.").

^{64.} See FED. RESERVE SYS., supra note 25, § 4310.1 ("[C]redit risk in forwards arises from the possibility that a contract has a positive replacement cost and the counterparty to the contract fails to perform its obligations."); HUDSON, supra note 19, at 68. See generally RECHTSCHAFFEN, supra note 1, at 162 ("Counterparty credit risk is the risk of economic loss from the failure of an obligor to perform according to the terms and conditions of a contract or agreement.").

counterparty risk, or credit risk.⁶⁵ As examined below, the Reform Act seeks to reduce counterparty risk. With this in mind, swaps will be moving to a mandatory clearing model in the post-Reform Act regulatory landscape, as discussed in Part II.

C. EXCHANGE OPERATION

1. Futures Exchanges

As previously mentioned, exchanges, as regulated by the CFTC, are the medium through which futures are traded.⁶⁶ Futures are standardized agreements for the future delivery of a specified underlying commodity on a specified date.⁶⁷ The specifications of the underlying commodity and the mechanics of the actual delivery can be very detailed in order to preserve the parties' expectations about the underlying commodity, and to leave no doubt as to the parties' obligations upon settlement of the futures contract.⁶⁸ Futures contracts with a high level of specificity leave only the price to be determined by the actors, who are either hedging or speculating through the exchange.⁶⁹ One of the advantages of engaging in futures transactions through an exchange, as opposed to using an OTC forward, is the elimination of the risk that the CFTC would find

^{65.} *Id.* at 162 ("Counterparty credit risk is the risk of economic loss from the failure of an obligor to perform according to the terms and conditions of a contract or agreement."); *see* FED. RESERVE SYS., *supra* note 25, § 4310.1 ("[C]redit risk in forwards arises from the possibility that a contract has a positive replacement cost and the counterparty to the contract fails to perform its obligations."); HUDSON, *supra* note 19, at 68.

^{66.} See supra notes 40-41 and accompanying text; see also FED. RESERVE SYS., supra note 25, § 4320.1; 1 JOHNSON & HAZEN, supra note 21, at 150-51 ("As indicated earlier, futures trading where the general public has access must generally take place on a[n exchange] . . . that has received designation as such by the CFTC."). Some options contracts are also traded on exchanges. See 1 JOHNSON & HAZEN, supra note 18, at 763.

^{67.} FED. RESERVE SYS., *supra* note 25, § 4320.1; *see also* RECHTSCHAFFEN, *supra* note 1, at 167.

^{68.} *See generally NYMEX Rulebook*, CME GRP., http://www.cmegroup.com/rule book/NYMEX/index.html (last visited Nov. 11, 2010) [hereinafter NYMEX] (listing the actual contracts traded on the New York Mercantile Exchange).

^{69.} See FED. RESERVE SYS., supra note 25, § 4320.1.

that the transactions meet the requirements for exchange-trading, potentially subjecting the parties to liability for evading exchanges.⁷⁰

A party holding a futures contract through the settlement date will have to either deliver or take delivery of the underlying commodity, or cash settle the contract, depending on the type of future.⁷¹ Prior to the settlement date, a party can avoid their delivery or cash settlement obligations under a futures contract by either selling the contract, or by entering into offsetting transactions on the exchange.⁷² For example, a party holding a long position consisting of one futures contract requiring it to take delivery of a commodity could offset by acquiring one short position contract requiring it to deliver the same commodity, thereby canceling out either obligation. The difference between the price the contract was originally bought for and the price the contract was sold for before the settlement date constitutes the trader's profit (or loss).⁷³

^{70.} See infra text accompanying note 75 (discussing "legal risk"). Cf. RECHTSCHAFFEN, supra note 1, at 258 ("Forward contracts must therefore be carefully drafted to avoid being categorized as futures agreements which are subject to CFTC regulation.").

^{71.} *Cf. id.* at 167 ("[F]utures trading 'generally involves mechanisms that permit the parties to avoid delivery, either by cash settlement or entering into an offsetting transaction." (quoting Commodity Futures Trading Comm'n v. Zelener, No. 03-C-4346, 2003 WL 22284295 (N.D. Ill. Oct. 3, 2003))). *Compare* NYMEX, *supra* note 68, ch. 220 ("The provisions of these rules shall apply to all natural gas bought and sold *for future delivery* on the Exchange with delivery at the Henry Hub." (emphasis added)), *with* NYMEX, *supra* note 68, ch. 251 ("The provisions of these rules shall apply to all contracts bought or sold on the Exchange *for cash settlement* based on the Floating Price." (emphasis added)).

^{72.} See Commodity Futures Trading Comm'n v. Erskine, 512 F.3d 309, 317 (6th Cir. 2008) ("Trading in futures seldom results in physical delivery of the subject commodity, since the obligations are often extinguished by offsetting transactions that produce a net profit or loss." (quoting Andersons, Inc. v. Horton Farms, Inc., 166 F.3d 308, 318 n.14 (6th Cir. 1998))); see also RECHTSCHAFFEN, supra note 1, at 167 ("[F]utures trading 'generally involves mechanisms that permit the parties to avoid delivery, either by cash settlement or entering into an offsetting transaction."" (quoting Commodity Futures Trading Comm'n v. Zelener, No. 03-C-4346, 2003 WL 22284295 (N.D. Ill. Oct. 3, 2003))).

^{73.} See Erskine, 512 F.3d at 317 ("Trading in futures seldom results in physical delivery of the subject commodity, since the obligations are often extinguished by offsetting transactions that produce a net profit or loss." (quoting Andersons, Inc. v. Horton Farms, Inc., 166 F.3d 308, 318 n. 14 (6th Cir. 1998))).

The exchanges that futures are traded on are self-regulatory organizations able to formulate and enforce their own rules.⁷⁴ They are structured to eliminate the risks associated with forwards trading-in particular, counterparty risk.⁷⁵ Futures exchanges accomplish this, partly, through three mechanisms: (1) recognition only of members of the exchange; (2) margin requirements; and (3) daily mark to market.⁷⁶ Vetting potential membership and only recognizing members as entities able to trade on the exchange are means of ensuring that exchange participants are qualified.⁷⁷ In order to certify that the parties to a futures contract are not reliant on credit, margin rules require members to post an additional margin deposit, typically a small fraction of the total value of the futures contracts held, on their positions in the exchange.⁷⁸ Finally, the values of futures contract positions are recalculated in the daily mark to market.⁷⁹ Any increase in value for a party is deposited into that party's margin account and taken from its counterparty's margin account, which must then be replenished in order to continue

^{74.} See 1 JOHNSON & HAZEN, supra note 21, at 174 (explaining the statutory mandate of exchange, or "contract markets," to formulate and enforce their own rules, subject to CFTC guidelines). However, these rules must be filed with the CFTC and may be disapproved of. See *id.* at 496-97.

^{75.} See FED. RESERVE SYS., supra note 25, § 4320.1 ("Unlike OTC derivative contracts, the credit risk associated with a futures contract is minimal."); see also 2 PHILIP MCBRIDE JOHNSON & THOMAS LEE HAZEN, DERIVATIVES REGULATION 763 (2004) ("[Exchanges] generally impose other financial requirements on their members, designed primarily to protect the integrity of their futures ... contracts by reducing the risk of default on obligations incurred by traders in the market."). Trading on an exchange also eliminates "legal risk," which is the risk that an OTC transaction will be determined by the CFTC to be a futures contract, thus subjecting the parties to liability and jeopardizing their transaction. See RECHTSCHAFFEN, supra note 1, at 169.

^{76.} See infra notes 77-82 and accompanying text. Exchanges also act as a counterparty to all transactions on the exchange, effectively guaranteeing every transaction from the perspective of members. See FED. RESERVE SYS., supra note 25, § 4320.1; see also infra text accompanying notes 91-92.

^{77.} See 1 JOHNSON & HAZEN, *supra* note21, at 153 ("The rules of the derivatives exchange set qualifications for membership that generally focus on matters of integrity and financial responsibility."); *see also* RECHTSCHAFFEN, *supra* note 1, at 211.

^{78.} See FED. RESERVE SYS., *supra* note 25, § 4320.1 (discussing margin requirements associated with futures); *see also* 1 JOHNSON & HAZEN, *supra* note 21, at 111 (discussing the origins and purpose of the margin requirement).

^{79.} See 2 JOHNSON & HAZEN, supra note 75, at 765.

satisfying the margin requirements of the exchange.⁸⁰ The gaining party can withdraw the excess funds from its own margin account to the extent that the margin account satisfies the exchange's margin requirements after the withdrawal.⁸¹ All these measures serve to reduce the risk that one party will be unable to perform at the settlement of the contract, or at least to catch a credit risk early in the event a party fails to replenish a diminished margin account.⁸²

These counterparty risk reducing mechanisms operating within exchanges structure both the interactions between exchange participants and those of non-members seeking to trade on the exchange. Futures commission merchants ("FCMs") are the primary means for outside customers to access the speculative or hedging functions of the exchange.⁸³ The Commodity Exchange Act defines a FCM as:

[A]n individual, association, partnership, corporation, or trust that (A) is engaged in soliciting or in accepting orders for the purchase or sale of any commodity for future delivery on or subject to the rules of any [exchange] . . .; and (B) in, or in connection with such solicitation or acceptance of orders, accepts any money, securities, or property (or extends credit in lieu thereof) to margin, guarantee, or secure any trades or contracts that result or may result therefrom.⁸⁴

This definition clarifies the function of FCMs. They act as the intermediary between their public customers and the exchange, executing trade orders on their customers' behalf and ensuring that margin and other requirements are satisfied on behalf of their customers.⁸⁵ This relationship takes the following structure: the

^{80.} See 1 JOHNSON & HAZEN, supra note 21, at 111-12.

^{81.} See id.

^{82.} See id. at 153, 763 ("[Exchanges] generally impose ... requirements on their members, designed primarily to protect the integrity of their futures ... contracts by reducing the risk of default on obligations incurred by traders in the market."); *see also* FED. RESERVE SYS., *supra* note 25, § 4320.1 (discussing how the mechanisms of a futures exchange reduce credit risk).

^{83.} *See id.* at 195 ("The lion's share of sales promotion, and all of the performance of direct customer services ..., are undertaken by futures commission merchants and their introducing brokers or associated persons." (emphasis omitted)); *see also* TIMOTHY J. SNIDER, REGULATION OF THE COMMODITIES FUTURES & OPTIONS MARKETS § 4.01 (2d ed. 1997).

^{84. 7} U.S.C. § 1a(20) (2006).

^{85.} See 1 JOHNSON & HAZEN, supra note 21, at 195-96; see also 1st Am. Disc. Corp. v. Commodity Futures Trading Comm'n, 222 F.3d 1008, 1010 (D.C. Cir. 2000)

customer makes a margin deposit with its FCM in an amount that at least meets the exchange's minimum margin requirements.⁸⁶ The FCM, in turn, makes its own margin deposit with a clearing organization associated with the exchange for trades to be cleared, which the FCM then presents to the clearing organization.⁸⁷

Every exchange has an overall clearing agency that clears all trades made on the exchange and ensures that they have been properly entered into.⁸⁸ Membership in the clearing agency is separate from membership in the exchange.⁸⁹ An FCM can present its own trades to the clearing agency to be cleared if it becomes a clearing member of the exchange it operates within; however, clearing membership subjects the FCM to a higher regulatory burden.⁹⁰ In the event that an FCM chooses not to become a clearing member, it must seek the services of an independent clearing member to present the FCM's trades on its behalf.⁹¹

Every entity involved with a transaction in a futures contract, from initial order to final clearance, guarantees that the transaction will be completed as contemplated.⁹² In a futures contract transaction on an

88. See id. at 189 ("Every [exchange] maintains a mechanism either within its own organization or through a separate entity for the daily clearance of all futures transactions."); SNIDER, *supra* note 83, § 2.01 ("Every commodity futures exchange in the United States has a clearing house and requires that futures contracts made on the exchange be submitted to that clearing house for clearance.").

89. See 1 JOHNSON & HAZEN, *supra* note 21, at 190 ("[M]embership in the clearing house is a separate status from membership in the [exchange].").

90. See SNIDER, supra note 83, § 4.05; see also 1 JOHNSON & HAZEN, supra note 21, at 490 (discussing the higher capital requirements for clearing firms since they must also guarantee the transactions they clear).

91. See 1 JOHNSON & HAZEN, *supra* note 21, at 190 ("Members of the [exchange] who are not also members of the clearing house accomplish clearance by tendering their trades to a clearing member, which then submits them to the clearing house.").

92. See *id.* at 451; see *also* SNIDER, supra note 83, § 2.09 ("The clearing house of a commodity futures exchange guarantees the payment of variation margin to clearing members with net gains on positions in their accounts at the clearing house even it if is

^{(&}quot;An FCM is the commodity market's equivalent of a securities brokerage house . . . ").

^{86.} See *id.* at 450 (explaining that although margin posted must be at least the minimum required by the exchange for the particular type of transaction, an FCM can set a higher margin requirement for its own interactions with customers).

^{87.} *See id.* ("The clearing margin is an amount that a FCM having membership in the clearing organization must deposit with the clearing agency on trades presented to the clearing agency for clearance and guarantee." (emphasis omitted)).

exchange "there may be as many as four guarantors . . . - the customer, the . . . FCM, the clearing member, and the clearing agency."⁹³ This is the strength of the exchange model. In this way, exchanges practically eliminate counterparty risk and give an incentive to exchange participants to examine the credit of those they interact with, whether an FCM taking on a customer or a clearing agency accepting a new member.

2. Structured Swaps Pre-Reform

Although swaps are classified as an OTC financial instrument, they have not been, in the pre-Reform Act period, necessarily arranged for in an anarchical market structure. Today, futures exchanges provide some clearing services for swap parties and even organize some of their futures to utilize swap transactions as their underlying measures. However, before the Reform Act, most swap transactions were conducted in the informal OTC market and were not cleared by a central party in any way.⁹⁴

The CME Group, which controls both the New York Mercantile Exchange ("NYMEX") and the Chicago Board of Trade ("CBOT"), provides an example of cleared OTC swaps. This group offers clearing services to parties that have contracted for a credit default swap.⁹⁵ Entities that wish to clear credit default swap transactions through the CME Group must be clearing members—members of the central clearing agency of the exchange—and meet more stringent requirements than clearing members seeking to clear only futures exchange-traded

unable to collect all the variation margin owed to it by clearing members with net losses on their positions.").

^{93. 1} JOHNSON & HAZEN, *supra* note 21, at 451.

^{94.} See Frank D'Souza et al., Illuminating the Need for Regulation in Dark Markets: Proposed Regulation of the OTC Derivatives Market, 12 U. PA. J. BUS. L. 473, 483 (2010) ("Because the vast majority of OTC transactions are settled bilaterally between the counterparties, rather than through clearing houses, there is no central counterparty similar to what exists for exchange-traded derivatives.").

^{95.} See Credit Products, CME GRP., http://www.cmegroup.com/trading/cds/index. Html (last visited Nov. 16, 2010). A credit default swap is created when a party, seeking to hedge the default risk associated with loans it has made to third parties, agrees to pay a certain sum to its counterparty. See Frank D'Souza et al., supra note 94, at 484. The counterparty's payment obligation is triggered if the loan goes bad. Id. The asset underlying the swap is the creditworthiness of the third-party borrower against whose default the lender is attempting to hedge. Id.

products.⁹⁶ In keeping with the goal of clearing to provide layers of safety to mitigate counterparty risk,⁹⁷ the requirements for clearing members wishing to clear credit default swaps are stringent: over \$500 million in capital and a thorough review of business operations, including any disciplinary history.⁹⁸ Even when clearing members meet these requirements, only credit default swaps meeting certain standards are eligible to be accepted for clearing by the CME Group.⁹⁹ Similar to customers in futures transactions, parties to such standardized cleared credit default swaps can conduct their transactions through FCMs which, if they are not themselves clearing members, in turn transact through clearing members.¹⁰⁰

Exchanges also have futures structured to reflect swap transactions. CBOT lists interest rate swap futures in five, seven, ten, and thirty-year time increments.¹⁰¹ As their underlying measure, these CBOT futures use average U.S. dollar swap rates, as reported by the International Swaps and Derivatives Association ("ISDA"), which are calculated using a notional value of \$100,000.¹⁰² The result is not as simple as applying the average rate to the future's notional value.¹⁰³ Instead, the value of the future is calculated by manipulating the average reported rate, and multiplying the result by the notional value of \$100,000.¹⁰⁴

^{96.} See CDS Clearing Member Requirements, CME GRP., http://www.cmegroup. com/trading/cds/cds-clearing-member-requirements.html (last visited Nov. 16, 2010).

^{97.} See About Central Counterparties, CME GRP., http://www.cmegroup.com/ clearing/cme-clearing-overview/about-central-counterparties.html (last visited Nov. 16, 2010) ("The presence of a central counterparty like CME Clearing is an important customer advantage compared to over-the-counter markets. CME Clearing's status as the central counterparty allows it to deliver operational and financial efficiencies to market participants, while reducing the risk inherent in trading activities.").

^{98.} CDS Clearing Member Requirements, CME GRP., supra note 96.

^{99.} See Cleared OTC CDS Buy-side Solution Frequently Asked Questions (FAQ), CME GRP., 4 (July 2010), http://www.cmegroup.com/trading/cds/files/cds-buyside-faq.pdf.

^{100.} See id. at 3.

^{101.} *See CBOT Rulebook*, CME GRP., http://www.cmegroup.com/rulebook/CBOT /index.html (last visited Nov. 16, 2010) (listing all interest rate products offered on the CBOT exchange).

^{102.} See id. ch. 23; ISDAFIX, ISDA, http://www.isda.org/fix/isdafix.html (last visited Nov. 16, 2010).

^{103.} See CBOT Rulebook, supra note 101.

^{104.} See id.

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II. POST-REFORM MARKETS

Before the Reform Act, the CFTC had jurisdiction over all futures and futures exchanges, which included forward transactions that should have been completed through a futures exchange.¹⁰⁵ Similarly, the CFTC's jurisdiction is expanded by the Reform Act to include all swaps.¹⁰⁶ The Reform Act simply amends the Commodity Exchange Act to insert the term "swaps" as being within the CFTC's regulatory jurisdiction.¹⁰⁷ The details of how the new swap markets are structured are fundamental to understanding how the Reform Act balances the need to improve the soundness of the swap market with the OTC, and therefore individually structured, nature of swaps.

A. NEW REGULATOR JURISDICTION

Section 722 of the Reform Act expands the jurisdictional mandate of the CFTC in order to allow it to regulate swaps and swap execution facilities in a framework that imitates the safety and soundness features of futures exchanges.¹⁰⁸ It further directs that no swap will be either considered as insurance or regulated by state insurance regulators.¹⁰⁹ Section 762 of the Reform Act repeals the sections of the Gramm-Leach-Bliley Act that prohibited the SEC from regulating security-based swap agreements.¹¹⁰ Corresponding changes were made to The Securities Act of 1933 and The Securities Exchange Act of 1934 in order to expand the SEC's regulatory jurisdiction over security-based swaps.¹¹¹

Section 712 of the Reform Act reviews the changes in the mandates of regulators.¹¹² Both the CFTC and the SEC are directed to coordinate and consult in formulating and implementing new rules with an aim to

^{105.} See supra notes 39, 43 and accompanying text.

^{106.} See Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203 § 722, 124 Stat. 1376 (2010).

^{107.} Id.

^{108.} *Id.* This section amends § 2 of the Commodity Exchange Act in order to effectuate these changes. *See id.*; 7 U.S.C. § 2(a), (c)(2)(A) (2006).

^{109.} Dodd-Frank Act § 722(b).

^{110.} Id. § 762.

^{111.} See id. § 762(c)-(d).

^{112.} See id. § 712.

consistency in regulations across their respective jurisdictions.¹¹³ The authority of the CFTC to promulgate rules and regulations regarding oversight of financial instruments is expanded to include swaps, swap dealers and major swap participants (and persons associated with either), swap data repositories, and derivative clearing organizations ("DCOs").¹¹⁴ Jurisdiction with respect to DCOs is extended to include "swaps, persons associated with a swap dealer or major swap participant, eligible [swap] contract participants, [and] swap execution facilities."¹¹⁵ The SEC has its authority similarly clarified to include security-based swaps and related elements, similar to those provided for swaps as now regulated by the CFTC.

Reviewing these concepts as they are defined is essential to understanding the scope of the legislation. But before examining their statutory definitions, it is important to remember that, under the Reform Act, the CFTC can promulgate rules altering the definitions of swap, swap dealer, major swap participant or eligible contract participant, in order to capture transactions designed to evade the restrictions of the Reform Act.¹¹⁶ A swap is extensively defined in Section 721 of the Reform Act. The fundamental distillation of the definition is that a swap is a transaction that exchanges payments based on the value of underlying measures or assets, and transfers the financial risk associated with a change in the value of the underlying measures or assets, but transfers neither any ownership in, nor liability that incorporates the financial risk of, an underlying asset.¹¹⁷ The definition also includes any transfer or agreement that comes to be commonly termed a swap.¹¹⁸ This definition is compatible with general non-statutory definitions of a swap.¹¹⁹ Security-based swaps and their associated concepts, similar to those for "regular" swaps now regulated by the CFTC, are defined in the

116. *Id.* § 721(c).

118. See id.

^{113.} *Id.* § 712(a)(1)-(2).

^{114.} See id. § 712(a)(1).

^{115.} *Id*.

^{117.} See id. § 721(a)(21). That is, a swap is a transaction that exchanges payments based on the value of the underlying measure or assets. But a swap agreement does not contemplate that any party will either take any ownership in an underlying asset or undertake any liability regarding an underlying asset (other than the payment obligations arising through the swap agreement).

^{119.} See supra notes 27-31 and accompanying text.

Securities Exchange Act of 1934. A security-based swap is fundamentally a swap that is based on a narrow security index or single loan or security.¹²⁰

The Reform Act creates new categories of actors within swap markets. Unless an insured depository institution enters into a swap with a customer in connection with giving that customer a loan, an actor is a swap dealer if it:

(i) [H]olds itself out as a dealer in swaps; (ii) makes a market in swaps; (iii) regularly enters into swaps with counterparties as an ordinary course of business for its own account; or (iv) engages in any activity causing the person to be commonly known in the trade as a dealer or market maker in swaps \dots ¹²¹

This definition also does not include those who enter into swaps for their own account, "but not as a part of a regular business," or those who only engage in a de minimis amount of trading.¹²²

A major swap participant is a person who is not a swap dealer, but maintains a substantial position for hedging, the standard for which is to be set by the CFTC, whose position is so big as to create counterparty risk that could threaten the stability of the U.S. financial markets, or who is a financial entity not subject to any federal banking regulator's capital requirements, but is highly leveraged.¹²³ Businesses that primarily engage in financing are excluded from this definition.¹²⁴ Likewise, major security-based swap participants, regulated by the SEC, must meet similar conditions.

Persons associated with either a swap dealer or a major swap participant are limited to employees, agents, or officers of either type who are involved in "solicitation or acceptance of swaps" or supervision of the same, unless that person's function is purely clerical.¹²⁵ A swap data repository is defined as "any person that collects and maintains information or records with respect to transactions or positions in, or the terms and conditions of, swaps entered into by third parties for the purpose of providing a centralized recordkeeping facility for swaps."¹²⁶

^{120.} See Dodd-Frank Act § 761(a)(6) (2010).

^{121.} Id. § 721(a)(21).

^{122.} *Id.*

^{123.} See id. § 721(a)(16).

^{124.} *Id.*

^{125.} See id. § 721(a)(2).

^{126.} *Id.* § 721(a)(21).

A DCO is particularly important in the scheme formulated by the Reform Act. The definition of a DCO is unchanged by the Reform Act. The Commodity Exchange Act defines a DCO as any organization that allows the parties to a transaction to substitute the credit of the DCO for the credit of the parties, provides settlement or netting of obligations, or otherwise arranges for services that transfer the risk arising out of the transaction.¹²⁷

Similarly, the definition of eligible contract participant is unaltered from its extant definition in the United States Code. An eligible contract participant can be a financial institution, insurance, or investment company.¹²⁸ Alternatively, it can be a corporation with at least \$10 million in assets, or only \$1 million if the purpose of the derivatives transaction is to hedge against a risk.¹²⁹ An individual can be an eligible contract participant if he or she has at least \$10 million in assets, or only \$5 million if the purpose of the transaction is to "manage the risk associated with an asset . . . or liability."¹³⁰ The conditions that certain other entities have to meet in order to be considered eligible contract participants are also listed in the section.¹³¹

Finally, the actual entities that organize some swap trades are defined. A swap execution facility is "a trading system or platform in which multiple participants have the ability to execute or trade swaps by accepting bids and offers made by multiple participants¹³² This definition includes any entity that "facilitates the execution of swaps between persons.¹³³ However, a swap execution "is not a designated contract market.¹³⁴ Instead, a designated contract market most closely resembles the traditional conception of a futures exchange.¹³⁵ Boards of trade may be designated as contract markets by the CFTC if they meet

135. See U.S. Commodity Futures Trading Comm'n, Designated Contract Markets (DCMS), CFTC, http://www.cftc.gov/IndustryOversight/TradingOrganizations/DCMs/ index.htm (last visited Nov. 17, 2010) ("DCMs are most like traditional futures exchanges, which may allow access to their facilities by all types of traders, including retail customers.").

^{127. 7} U.S.C. § 1(a)(9) (2006).

^{128.} Id. § 1a(12)

^{129.} *Id.*

^{130.} *Id.*

^{131.} See id.

^{132.} Dodd-Frank Act § 721(a)(21).

^{133.} *Id.*

^{134.} *Id*.

certain criteria; however, the requirements for a designated contract market are altered by the Reform Act.¹³⁶

B. NEW STRUCTURE FOR SWAPS

Moving forward, the CFTC will exercise significant control over the entities that operate within swap transactions. DCOs face a higher regulatory burden than under the old regulatory regime.¹³⁷ A DCO must register with the CFTC, or else using jurisdictional means¹³⁸ to further any swap transaction is unlawful.¹³⁹ Each DCO is further required to appoint an officer to oversee compliance with the Commodity Exchange Act, as modified by the Reform Act. The core principles guiding the operations of DCOs are also expanded, including (1) increasing the requisite DCO's financial resources; (2) publicly disclosing requirements for membership in the DCO; (3) more stringently managing and monitoring the risks associated with the swaps the DCO is clearing; and (4) holding member funds in such a way as to minimize risk of loss or delay in access by the DCO.¹⁴⁰

A swap execution facility that has registered with the CFTC may make any swap available for trading, as long as the swap product is not readily susceptible to manipulation, but it too must comply with certain safety requirements.¹⁴¹ The core principles of swap execution facilities must consider information gathering, reporting such information, and preventing manipulation or abuse of swap markets.¹⁴² Designated contract markets face similar obligations under the Reform Act.¹⁴³ Any swap made available for trading on either a swap execution facility or a board of trade designated as a contract market must be traded within such a forum. Otherwise parties are free to conclude a swap bilaterally and present it to a DCO for clearing, if required or desired.¹⁴⁴

^{136.} See 7 U.S.C. § 7 (2000); Dodd-Frank Act § 735.

^{137.} See Dodd-Frank Act § 725.

^{138.} Jurisdictional means are defined as making use of the mails or other instrumentality of interstate commerce. *See id.*

^{139.} See id.

^{140.} See id.

^{141.} See id. § 733.

^{142.} See id.

^{143.} See id. § 735.

^{144.} See id. § 723(a)(8).

Swap dealers and major swap participants are both required to register with the CFTC and meet CFTC-set margin requirements for uncleared swap transactions.¹⁴⁵ The CFTC can impose minimum capital requirements and rules governing activities on swap dealers and major swap participants, as long as they are not banks. Banks must comply with existing minimum capital requirements set by their banking regulator and the CFTC must consult with the relevant banking regulator in promulgating rules pertaining to such swap dealers or major swap participants.¹⁴⁶ They also face information-gathering and reporting requirements.¹⁴⁷

The new swap clearing model will mirror the risk-reducing features extant in futures exchanges: (1) clearing transactions; (2) reporting transaction data; (3) requiring margin accounts; and (4) imposing position limits.

1. Mandatory Clearing

Section 723 of the Reform Act provides that "[i]t shall be unlawful for any person to engage in a swap unless that person submits such swap for clearing to a [DCO]."¹⁴⁸ The only swaps exempt from this clearing requirement are swaps in which one of the parties is attempting to hedge against other risk, is not a financial entity, and reports to the CFTC "how it generally meets financial obligations related to swaps."¹⁴⁹ Even so, the swap may be cleared at the discretion of the hedging party.¹⁵⁰ A financial entity is defined as being, *inter alia*, a swap dealer, a security-based swap dealer, a major swap participant, or a major security-based swap participant, but the CFTC can choose to exempt banks with assets of \$10 billion or less.¹⁵¹ A DCO must consider swaps for acceptance regardless of whether they were concluded bilaterally or were executed on an unaffiliated swap execution facility or designated contract market.¹⁵²

^{145.} See id. § 731.

^{146.} See id.

^{147.} See id.

^{148.} See id. § 723(a)(3).

^{149.} See id.

^{150.} See id.

^{151.} See id.

^{152.} See id.

However, the ultimate determination of which swaps are required to be cleared rests with the CFTC. All swaps or categories of swaps that a DCO plans on accepting or lists for clearing are to be reviewed by the CFTC, which determines whether those swaps are required to be cleared.¹⁵³ The CFTC will consider a number of factors, including the effect of the proposed transaction on systemic risk and the risk of either counterparty or clearing organization defaulting on obligations.¹⁵⁴ Eventually, within one year of enactment, the CFTC will promulgate rules to guide DCOs in deciding which swaps must be cleared pursuant to the Reform Act, but all swaps will remain subject to such review by the CFTC.¹⁵⁵ However, the CFTC cannot force a DCO to clear a swap if it would threaten the financial integrity of the DCO.¹⁵⁶ Finally, all swaps of a type required to be cleared that are concluded between a swap dealer or a major swap participant and a counterparty that is neither a swap dealer nor a major swap participant, are to be cleared at a DCO of the counterparty's choosing.¹⁵⁷ If a swap not required to be cleared is concluded between a swap dealer or a major swap participant and a counterparty that is neither a swap dealer nor a major swap participant, that counterparty may insist that the swap be cleared at a DCO of its own choosing.158

2. Reporting Requirements

Information reporting requirements are thoroughly covered and imposed upon several entities in the Reform Act. Section 727 requires that every cleared swap, whether required to be cleared or not, be reported to the public in as close to real time as technologically possible.¹⁵⁹ This section also mandates that every swap, cleared or uncleared, be reported to a swap data repository.¹⁶⁰ Swap data

^{153.} See id.

^{154.} See id.

^{155.} See id.

^{156.} See id.

^{157.} See id.

^{158.} See id.

^{159.} See *id.* § 727. In the event the cleared swap was not required to be cleared, the public reporting should not disclose the market positions of any person. See *id.*; see also *id.* § 729 ("Each swap that is not accepted for clearing by any derivatives clearing organization shall be reported to a swap data repository.").

repositories, as provided for in Section 728, collect data sent to them, confirm receipt of the same, make data available to either the CFTC or the public (as directed by the CFTC), and protect the privacy of the parties about whom information is collected.¹⁶¹ Any swap traded on a swap execution facility or designated contract market must be reported by the trading forum.¹⁶² Even large participants in the swap market face reporting requirements. If a large trader exceeds either a daily limit or a position limit set by the CFTC, they may not trade in any swap determined by the CFTC to perform a significant price discovery function regarding the swap markets, unless they meet reporting and record-keeping requirements set by the CFTC.¹⁶³

3. Margin Requirements

Before the Reform Act, the CFTC was not authorized to impose margin levels on registered entities.¹⁶⁴ However, the Reform Act significantly expands the CFTC's authority in this area.¹⁶⁵ If a registered entity has failed to respond to a CFTC request to alter its own rules, the CFTC may impose such rule changes with regard to, *inter alia*, margin requirements. But such rules must (1) be limited to protecting the financial integrity of a DCO; (2) be focused on risk management purposes; and (3) not "set specific margin amounts."¹⁶⁶ The Reform Act also directs DCOs to utilize appropriately sized margin requirements to limit the risk associated with clearing certain trades.¹⁶⁷

4. Position Limits

Section 737 expands the position limit provisions in the Commodity Exchange Act to include "swaps that perform or affect a significant price discovery function with respect to registered

^{161.} See id. § 728.

^{162.} See supra note 136 and accompanying text.

^{163.} See Dodd-Frank Act § 730.

^{164.} See 7 U.S.C. § 12a(7)(C) (2000) ("Such rules, regulations, or orders may specify changes with respect to such matters as ... other trading requirements, excepting the setting of levels of margin.").

^{165.} See Dodd-Frank Act § 736.

^{166.} *Id.*

^{167.} See id. § 725(c).

entities."¹⁶⁸ The purpose of these position limits is to prevent excessive speculation that results in "sudden or unreasonable [price] fluctuations."¹⁶⁹ In determining whether a swap meets the significant price discovery requirement, the CFTC is directed to examine, *inter alia*: the risk that the swap contract could be used to arbitrage between markets, the possibility of the trading in the swap contract materially affecting another contract traded on a regulated market, and whether the price of the swap contract is used as a frequent and recurrent basis for determining the price of other contracts traded on an organized exchange.¹⁷⁰ The CFTC also has the authority to establish aggregate limits on the number of positions any person can hold "in contracts based upon the same underlying commodity."¹⁷¹ Genuine hedging transactions are exempt from the speculative position limits, but not from the limits on holding contracts with the same underlying commodity.¹⁷²

C. DIFFERENCES AND SIMILARITIES TO THE PRE-REFORM EXCHANGE MODEL

The new regulatory structure for swaps adapts the mechanism used by futures exchanges to the distinctive nature of swap markets. One of the great advantages of OTC swap transactions is that they allow the parties to structure their transaction and contract to precisely reflect their desired terms, allowing for highly customizable risk management.¹⁷³ The Reform Act forces swap market participants to trade swap products offered on a swap execution facility or designated contract market on such forums, and allows swap execution facilities and designated contract markets to choose which swap products to offer for trade.¹⁷⁴ This permits the market to determine which swap transactions can be

- 173. See supra notes 57-58 and accompanying text.
- 174. See supra notes 138, 141 and accompanying text.

^{168.} Id. § 737.

^{169.} See 7 U.S.C. § 6a(a) (2006) ("Excessive speculation in any commodity under contracts of sale of such commodity for future delivery made on or subject to the rules of contract markets or derivatives transaction execution facilities, . . . causing sudden or unreasonable fluctuations or unwarranted changes in the price of such commodity, is an undue and unnecessary burden on interstate commerce in such commodity.").

^{170.} See Dodd-Frank Act § 737.

^{171.} See id.

^{172.} See id.; see also 7 U.S.C. § 6a(c) (2006).

successfully standardized and moved to a more organized platform, while preserving the flexibility of the OTC markets for others. For example, a swap product for which there is a large enough market to make pricing mechanisms effective would be more attractive to formal execution platforms.¹⁷⁵

Other considerations are tied to this partial shift to formally organized swap markets. Swap transactions standardized in such a shift will have only the flexibility in terms as they are presented by different swap execution facilities. As a result of this lack of flexibility, the only meaningful metric that will fluctuate or be negotiated is the price of such products.¹⁷⁶ Finally, like trading futures on an exchange, executing a swap transaction through a swap execution facility or a designated contract market and clearing it through a DCO, reduces legal risk by providing certainty that the parties will not later be found to have entered into an inappropriate transaction.¹⁷⁷

The elemental similarity between futures exchanges and the new clearing model for swaps is that they both are structured to respond to and reduce counterparty risk. The most significant method by which they do this is by interposing a clearing organization—a DCO—for the credit of the parties and in order to ensure that transactions are completed as contemplated.¹⁷⁸ Under the Reform Act, DCOs clearing swaps import margin requirements from futures exchanges, but they are abandoning membership requirements.¹⁷⁹ DCOs clearing swaps must consider any swap for clearing, even if not executed on an affiliated swap execution facility or designated contract market.¹⁸⁰ This looser access to DCOs implies that there will be a limited role for a swapmarket analogue to FCMs. Instead, parties may access DCOs on their own in order to present trades for clearing. This is consistent with the

^{175.} See Andrew M. McKenzie et al., Unbiasedness and Market Efficiency Tests of the U.S. Rice Futures Market, 24 R. OF AGRIC. ECON. 474, 475 (2002) (discussing the idea that a thinly traded market will result in less perfect pricing mechanisms).

^{176.} See FED. RESERVE SYS., supra note 69 and accompanying text.

^{177.} See RECHTSCHAFFEN, *supra* note 70 and accompanying text. To a lesser extent, clearing a swap that parties believe is not traded on a swap execution facility or designated contract market provides similar legal certainty. See *id*.

^{178.} See 1 JOHNSON & HAZEN, supra notes 92-93 and accompanying text.

^{179.} See supra notes 161 and accompanying text; see also supra note 148 and accompanying text (explaining that any party to a non-exempt swap must present it for clearing).

^{180.} See supra note 152 and accompanying text.

nature of OTC swap markets, where a broad range of parties individually negotiate the terms of their transactions.

IV. MARKET IMPACT OF REFORMS

A. ADDRESSING PROBLEMS CAUSING THE CURRENT CRISIS

Partly underlying hesitancy to lend is the memory of the cause of the crisis—misperceptions about the creditworthiness of counterparties.¹⁸¹ The measures promulgated by the Reform Act target the counterparty risk inherent in swap transactions in an effort to prevent such a credit crisis from occurring again. In doing this, the Reform Act formulates a comprehensive two-prong attack on counterparty risk in order to make the swaps market more stable and safety oriented.

The first prong deals with information asymmetries in swap markets. Before the Reform Act, a party's portfolio of OTC positions was not institutionally reported, meaning that the extent and nature of their exposures were unavailable to potential swap counterparties.¹⁸² In general, markets function as information amalgamating mechanisms.¹⁸³ Markets incorporate information available to them and translate it into prices and other market indicators.¹⁸⁴ It follows that the more information a market has, the more its prices and conditions will accurately reflect the true "value" of the priced good or service.¹⁸⁵

^{181.} See supra notes 2-3 and accompanying text. Coupled with this concern is the realization by lenders that, given the very low interest rates prevalent in the market, they can obtain a better (risk-free) return by purchasing Treasury securities than by lending. See Quantitative Easing Explained, BANK OF ENGLAND, http://www.bank

ofengland.co.uk/monetarypolicy/pdf/qe-pamphlet.pdf. Therefore, the Federal Reserve's purchasing of Treasury securities is designed to increase prices of the Treasuries (by increasing demand), thus lowering yield and making lending more attractive to lenders. *See id.* It also serves to inject more money into the economy by putting money in the hands of those the Federal Reserve purchases the Treasuries from. *See id.*

^{182.} *See* Baker, *supra* note 18, at 1306-07 (discussing the lack of transparency of the pre-reform OTC derivatives markets).

^{183.} See Gadi Barlevy & Pietro Veronesi, Information Acquisition in Financial Markets, 67 THE REV. OF ECON. STUD. 79, 79 (2000) (discussing the impact of information on price and individual action in markets). See generally Charles R. Plott, Markets as Information Gathering Tools, 67 S. ECON. J. 1, 1-3 (2000).

^{184.} See Plott, supra note 183, at 1-3.

^{185.} Besides sheer volume of information, its accuracy or quality are important.

As previously discussed, the Reform Act requires extensive reporting of swap positions.¹⁸⁶ Virtually every swap and its parties must be reported. If cleared, the swap must be reported by the clearing organization in real-time; if uncleared, then the swap must be reported only to a swap data repository. In this way, Congress is forcing the participants in the market to make information about their individual activities and general movements in the swap markets available. Especially considering the (technically) sophisticated nature of eligible swap participants, this increase of information should allow participants in the swap market to make more informed and appropriate pricing and contract entry decisions. More importantly, the wide-reaching reporting requirements will assist clearing organizations and swap dealers in determining the default risk of potential counterparties.

The movement of certain swap products to swap execution facilities and designated contract markets is part of the increase of information available to the market. The facilities' reporting requirements add to the information mix available to the market.¹⁸⁷ Additionally, by standardizing swaps amenable to the process, trading forums give swap markets some normalized measure of the state of the markets, since the standardized contracts will fluctuate only on price.¹⁸⁸ In fact, the Reform Act specifies that the goal of trading swaps on swap execution facilities is to "promote pre-trade price transparency in the swaps market."¹⁸⁹ Monitoring for market manipulation by these trading forums should also aid swap markets to function properly.¹⁹⁰

This leads to the second prong of the solution to counterparty riskclearing. The Reform Act requires virtually all swaps to be available for clearing at one party's discretion, and requires clearing of what should ultimately prove to be a substantial majority of swaps.¹⁹¹ The guarantee provided by clearing services, especially considering new margin requirements associated with clearing, provides a strong response to counterparty risk.¹⁹² Even if a counterparty defaults, the intervening institutional swap market entities will complete the transaction from the

^{186.} See discussion supra Part II.B.2.

^{187.} See Dodd-Frank Act § 733.

^{188.} See FED. RESERVE SYS., supra note 176 and accompanying text.

^{189.} Dodd-Frank Act § 733(e).

^{190.} See id.

^{191.} See discussion supra Part II.B.1.

^{192.} See supra note 127 and accompanying text.

perspective of the non-defaulting party.¹⁹³ The Reform Act also mandates that all swaps concluded with a swap dealer or major swap participant, except those meeting the hedging exemption, be cleared, thus ensuring that large participants in the market will have their trades scrutinized and guaranteed by a DCO as a third party.¹⁹⁴ However, this arrangement pins the underlying soundness of swap markets onto the creditworthiness and financial management abilities of swap clearing organizations or DCOs.

Finally, the hedging exemption to mandatory swap clearing¹⁹⁵ may be susceptible to the same gray areas as the cash-forward contract exemption for forwards and futures in the pre-Reform Act period.¹⁹⁶ The result would be that swap markets would face similar difficulties as cash-forward markets do in interpreting the "totality of circumstances" test used to determine when forward contracts should have been concluded through a futures exchange.¹⁹⁷ But the possibility exists that the differences between the two regulatory structures will prevent such an outcome.

For example, by evading the determination that a contract is properly a future, a party to a forward contract evaded all regulation by the CFTC.¹⁹⁸ In contrast, avoiding the clearing requirements of the Reform Act by meeting the hedging exemption does not remove the transaction from examination by the CFTC. The CFTC is authorized to regulate all swap transactions, regardless of whether they are cleared or not.¹⁹⁹ Parties to a swap seeking the exemption must be genuinely attempting to hedge and, even so, must still report how they meet financial obligations to the CFTC and report the transaction to a swap data repository.²⁰⁰ Therefore, although a party to an exempt swap avoids the expenses associated with clearing the swap, the regulatory difference

^{193.} See id.; see also supra notes 75, 148-58 and accompanying text.

^{194.} See supra notes 148-58 and accompanying text.

^{195.} See supra note 149 and accompanying text.

^{196.} See supra note 43 and accompanying text.

^{197.} See supra notes 44-50 and accompanying text.

^{198.} See *id.*; see also RECHTSCHAFFEN, supra note 1, at 200; supra note 40 and accompanying text (explaining that the basis for CFTC jurisdiction is whether the contract contemplates future delivery).

^{199.} See supra note 107 and accompanying text.

^{200.} *See supra* note 160 and accompanying text (explaining that under the Reform Act, all swaps must be reported regardless of whether they are cleared or uncleared).

is not as stark as in the analogous forward and futures market situation. This may make parties less eager to avoid clearing requirements.

B. A NEW PROBLEM: SYSTEMICALLY SIGNIFICANT SWAP CLEARING ORGANIZATIONS

Even as the Reform Act is moving towards solutions for some of the causes of the financial crisis, the legislation potentially shifts a prereform problem: the potential for derivative clearing organizations in the newly structured swap markets to reach a systemically significant size. During the development of the financial crisis, it became clear that some financial firms were of such large influence that their collapse would have had a significant impact on the U.S. financial system.²⁰¹ In part, this situation arose because of the highly regulated nature of the finance industry. The myriad of regulations imposed on, and support received by, financial institutions, especially state insurance schemes like the Federal Deposit Insurance Corporation, reduced the incentive of creditors to scrutinize creditworthiness adequately.²⁰² The unique role and character of the financial industry means that the collapse of several systemically important-otherwise known as "too big to fail"institutions can freeze credit in the system, which strongly impacts all other sectors of the economy.²⁰³

The shock associated with the insolvency of a systemically important institution is well illustrated by the experience of AIG. AIG was a large counterparty in credit default swaps with systemically important financial institutions.²⁰⁴ The lack of capital behind AIG's positions ultimately required government intervention to prevent "massive losses" by AIG's financial institution counterparties.²⁰⁵ Initially, the government bailout of AIG cost \$85 billion, but later was

^{201.} See Alan W. Avery et al., *Dodd-Frank Attempts to Curtail Systemic Risk*, 127 BANKING L.J. 766 (2010).

^{202.} See Weber, supra note 4, at 790-91.

^{203.} See Weber, supra note 4, at 792 ("[U]nlike other industries where insufficiently capitalized businesses can be broken up into their constituent assets and put to more efficient uses, a rash of insolvencies (or a series of defaults) in the financial sector can threaten to spur a systemic contagion that can freeze up credit formation and, as a result, economic growth.").

^{204.} See id.

^{205.} See id.

estimated to have cost as much as \$150 billion.²⁰⁶ These highly leveraged positions are common in derivatives transactions.²⁰⁷ The outcome of the AIG fiasco is a good illustration of the ability of systemically significant institutions to externalize the risks of their activities through imposing costs on society at large, while still internalizing profits.²⁰⁸

The Reform Act provides two solutions to the problem of systemically important firms: (1) more stringent regulations for institutions determined to be systemically important; and (2) a new winding-up, or liquidation, process for insolvent systemically important firms.²⁰⁹ The Reform Act assigns the new Financial Stability Oversight Council ("FSOC") the responsibility of determining which "nonbank financial companies" are systemically significant, and thus subject to a higher regulatory burden.²¹⁰ However, the definition of a nonbank financial company specifically excludes derivative clearing organizations and swap execution facilities.²¹¹

The winding-up process for systemically important firms may only be applied to "financial companies."²¹² Financial companies are defined as bank holding companies, nonbank financial companies, or firms engaged in activities specified in the Bank Holding Company Act of 1956.²¹³ However, the Bank Holding Company Act does not list clearing as an activity which is financial in nature.²¹⁴ Therefore, it appears that the two mechanisms in the Reform Act designed to guard against the

^{206.} See Shelley Smith, Reforming the Law of Adhesion Contracts: A Judicial Response to the Subprime Mortgage Crisis, 14 LEWIS & CLARK L. REV. 1035, 1079 (2010) ("Losses experienced by the insurance giant AIG in credit default swaps led to an \$85 billion government bailout of the firm on September 15, 2008."); see also Harrell, supra note 1, at 1240 n.116 (discussing an increased estimate of the cost of the AIG bailout).

^{207.} See supra note 23 and accompanying text.

^{208.} See Dibadj, supra note 2, at 389-90 ("Large companies become so gargantuan that they become 'too-big-to-fail' ... [,] a brilliant way to internalize profits when things go well, and externalize costs when they do not.").

^{209.} See Avery et al., supra note 201; see also Avery et al., New Resolution Process Created for Systemically Significant Institutions, 127 BANKING L.J. 784 (2010).

^{210.} See Dodd-Frank Act § 113.

^{211.} See id. § 102(a)(4)(B).

^{212.} See id. § 203.

^{213.} See id. § 201(a)(11).

^{214.} See 12 U.S.C. § 1843(k) (2006).

destructive impact of the failure of a systemically important firm, do not apply to clearing organizations.

The Reform Act mandates the clearing of what should ultimately prove to be a substantial majority of swap transactions, and provides for permissive clearing of most of the rest.²¹⁵ In this framework, the final guarantor that a swap transaction will be completed as contemplated is the clearing agency. The core requirements that a DCO must consider when formulating its internal rules include managing the risk associated with cleared swaps and maintaining the financial resources necessary to ensure the continuance of clearing operations in the event of defaults.²¹⁶ However, such considerations are no absolute guarantee of a DCO always being able to meet its obligations. Unlike futures exchange transactions, in cleared swap transactions parties do not necessarily operate through an intermediary "clearing member." Only swaps that are intended to hedge by a non-financial entity party are exempt from mandatory clearing requirements.²¹⁷ And even these swaps may be cleared at the discretion of the hedging party.²¹⁸ The consequence of erring on the side of clearing swaps, though admirable from the perspective of preserving the expectations of the parties, is that DCOs will be forced to deal with a wide array of parties. In a futures exchange setting, only those FCMs that meet the requirements of the clearing agency are permitted to present futures transactions for clearing.²¹⁹ As a result, there are several levels of financial responsibility for a futures transaction—one for each tier in the transaction.²²⁰

In contrast, DCOs clearing swaps could potentially be the first and only guarantor of a cleared swap, if the defaulting party acts on its own without an intermediate representative. Rather than just dealing with and scrutinizing its own clearing members, a DCO must ensure that all the swaps cleared are concluded between eligible swap participants and that those parties have appropriate credit and resources to warrant the acceptance of the swap for clearing. Further, depending on the risk associated with clearing a particular swap, the DCO must set responsively sized margin requirements for the parties to that swap. The

^{215.} See supra note 148-158 and accompanying text.

^{216.} See supra note 140 and accompanying text.

^{217.} See supra note 149 and accompanying text.

^{218.} See supra note 150 and accompanying text.

^{219.} See supra notes 88-91 and accompanying text.

^{220.} See supra notes 92-93 and accompanying text.

market's increased access to information, as provided for by the Reform Act, however, should make it easier for DCOs to meet these obligations.²²¹

A DCO could reach a systemically important size by clearing swaps in such an amount that, should they fail to be cleared, it would jeopardize the soundness of the entire financial system.²²² There are no specific statutory limits on the size of a DCO. The antitrust clause in Section 725 of the Reform Act provides that DCOs shall not take any action resulting in an unreasonable restraint of trade or resulting in a material anticompetitive burden, unless necessary or appropriate to comply with the Reform Act.²²³ A DCO, however, need not restrain trade in order to obtain a systematically significant place.

Vast sums are involved in swap markets alone. The Bank for International Settlements estimated swap value at around \$400 trillion notional value in 2010.²²⁴ Even aggregating only the market values of swap transactions yields \$20 trillion in value.²²⁵ AIG's unfunded obligations ultimately needed \$150 billion from the government.²²⁶ Of the \$470 trillion notional value and \$13 trillion market value of swaps in June 2008,²²⁷ this AIG bailout figure represents only .032% or 1.1% of total value, respectively. Extrapolating from these numbers, a DCO clearing a relatively small portion of the total market could have the potential to destabilize the entire U.S. financial system. This logic is supported by the Reform Act's provisions dealing with bank holding companies. The Board of Governors of the Federal Reserve may set a minimum aggregate asset standard higher than \$50 billion for FSOC to use in determining which bank holding companies are systemically significant.²²⁸

With such preliminary and general information, it would be inappropriate to speculate on the odds that a DCO will be unable to successfully clear swaps for which it is responsible. But the number and complexity of obligations associated with examining a swap's parties and structuring its clearing affect the possibility that sufficient defaults

^{221.} See supra notes 159-167 and accompanying text.

^{222.} See supra note 201 and accompanying text.

^{223.} See Dodd-Frank Act § 725.

^{224.} See Bank of Int'l Settlements, supra note 12.

^{225.} See id.

^{226.} See supra note 206 and accompanying text.

^{227.} See Bank of Int'l Settlements, supra note 12.

^{228.} See Dodd-Frank Act § 115.

will render a DCO unable to meet its clearing obligations. The provisions in the Reform Act designed to reduce the future impact of the failure of systemically important firms do not apply to DCOs. As a result, there is a risk that a DCO will become systemically important, but will not be subject to the expectation by the marketplace that the government will decline to support their obligations in order to prevent systemic failure.

CONCLUSION

Before the Reform Act, derivative markets were decisively separated into largely unregulated OTC markets and regulated futures markets. Then the 2008 financial crisis shook finance and exposed serious, potentially system-shattering problems with the derivative markets. Extremely leveraged transactions, extremely high transaction values unlimited by any physical market, serious informational deficiencies, and other features of derivatives all contributed to the problems in 2008. Swap markets, in particular, were and remain the single largest type of OTC derivative.

In response, the Reform Act molds regulatory features predating the Act to the unique circumstances presented by swap markets. In doing so, the Reform Act addresses informational and credit issues present in swap markets, but substantially preserves the advantages of individualized contracting present in OTC markets. Substantial and thorough reporting requirements react to informational deficiencies by introducing large amounts of new information about trades being concluded into swap markets. The result is that potential parties to swaps can obtain a better idea of the risks they are taking on. Mandatory clearing of all speculative swaps, and requiring the clearing of all other swaps at a party's discretion, interpose a third-party guarantee into swap transactions. DCOs, which undertake these clearing functions, are responsible for completing a troubled cleared swap transaction from the perspective of the non-defaulting party. Clearing, particularly when paired with margin requirements, reduces the counterparty risk associated with uncleared swap transactions.

Although features of swap markets contributing to the 2008 financial crisis have been addressed in the Reform Act, the new regulations may create a new problem. With the large value of swaps

that are now required to be cleared, in the many trillions of dollars, DCOs may be transacting with and responsible for substantial amounts of money. DCOs must operate in such a way as to reduce the risk of their inability to meet their clearing obligations, but that is no guarantee that all DCOs will avoid such a circumstance. One aspect of the Reform Act provides new rules for systemically significant institutions and new ways to liquidate them when insolvent. However, these rules do not extend to DCOs. Therefore, should a situation arise where a DCO clearing a systemically relevant portion of the total swap market is unable to meet its obligations, the government may be forced to intercede, much as it did with AIG and other large institutions, in order to preserve the existence of the financial system.