

April 2016

Collateral Damage: The Legal and Regulatory Protections for Customer Margin in the U.S. Derivatives Markets

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COLLATERAL DAMAGE: THE LEGAL AND REGULATORY PROTECTIONS FOR CUSTOMER MARGIN IN THE U.S. DERIVATIVES MARKETS

CHRISTIAN CHAMORRO-COURTLAND*

ABSTRACT

This Article provides a detailed analysis of the laws and regulations that apply to margin posted by customers entering into futures and cleared swaps contracts in the United States. It describes the types of margin accounts used by Futures Commission Merchants (“FCM”) and Central Counterparties (“CCPs”). It analyzes the rights of customers upon the insolvency of their FCM.

First, this Article explains why futures customers currently receive a lower level of protection under the Commodity Exchange Act than that received by cleared swaps customers under the Dodd-Frank Act. On the one hand, futures customers currently share risk as co-owners for margin that they post (the “Futures Model”), which exposes them to “fellow customer risk.” On the other hand, the Dodd-Frank Act protects cleared swaps customers from fellow customer risk by prohibiting CCPs from using the margin of non-defaulting customers of an insolvent FCM (the Legal Segregation and Operationally Commingled Model, or the “LSOC Model”).

This Article argues that the different level of protection received by futures customers and cleared swaps customers is unjustified because the statutory language suggests that they should receive the same treatment in an insolvency situation. There are also many benefits to adopting the LSOC Model in the futures markets; therefore, the LSOC Model should replace the Futures Model in the futures industry in order to eliminate fellow customer risk for

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futures customers. It also considers the ramifications of this change and recommends how to implement this new approach.

Second, it recommends that mandatory insurance should be used to protect futures and cleared swaps customers against losses resulting from fraud and other operational risks. This would increase the level of customer protection and confidence in the U.S. derivatives markets. These changes should enhance legal certainty during the next financial crisis and allow regulators and the courts to speedily allocate losses and transfer or return margin to customers. Finally, it compares the U.S. approach for protecting customer margin with the approach in the U.S. securities markets and other jurisdictions that have large derivatives markets.

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INTRODUCTION

The recent insolvencies of three¹ major Futures Commission Merchants (“FCMs”)² in the United States has raised the issue of the level of protection³ that the law provides to the margin⁴ deposits of customers that have their contracts cleared through a Central Counterparty (“CCP”).⁵ Futures customers who deposit margin with a U.S. clearing member (“CM”)⁶ currently receive a lower level of protection than cleared swaps customers because two different segregation models are used.⁷

¹ Lehman Brothers filed for Chapter 11 bankruptcy under the U.S. Bankruptcy Code on September 15, 2008, MF Global filed on October 31, 2011, and Peregrine Financial Group filed on July 10, 2012. *Cash In The Peril At The CCPS*, COOCONNECT PEER GRP. NETWORK (2013), <http://cooconnect.com/online-magazine/cash-peril-ccps> [<https://perma.cc/SFY3-SJA4>] [hereinafter COOCONNECT].

² “An FCM is the analogue in the futures industry to broker-dealers in the securities industry.” Jerry W. Markham, *Custodial Requirements for Customer Funds*, 8 BROOK. J. CORP. FIN. & COM. L. 92, 93 (2013).

³ “The truth is that, until MF Global exposed the inadequacy of existing protections, clients assumed that their collateral was protected by the CCP, and that they had no exposure to clearing brokers.... [W]hat happens to cash and securities belonging to customers when a clearing broker or CCP, or even a trading counterparty of a clearing broker or CCP, defaults?” COOCONNECT, *supra* note 1.

⁴ This term is used interchangeably with “collateral.”

⁵ “A CCP clearing system is a sui generis financial risk management institution that operates by interposing itself between a group of merchants, known as clearing members, who have contractually entered into the CCP scheme in order to clear financial transactions they had previously initiated. The clearing process gives rise to rights and obligations between the clearing members and the CCP.” Christian Chamorro-Courtland, *The Trillion Dollar Question: Can a Central Bank Bail Out a Central Counterparty Clearing House which is ‘Too Big To Fail?’*, 6 BROOK. J. CORP. FIN. & COM. L. 433, 435 (2012) [hereinafter Chamorro-Courtland, *The Trillion Dollar Question*]. The clearing arrangement affects the rights of customers that use a CM to access the CCP. *Id.*

⁶ An FCM can be a direct or an indirect clearing member of a CCP. See Chamorro-Courtland, *The Trillion Dollar Question*, *supra* note 5, at 459. This Article assumes that FCMs are direct clearing members and therefore uses the terms “FCM” and “CM” interchangeably.

⁷ “Segregation” is defined as “a method of protecting customers collateral and contractual positions by holding and accounting for them separately from those of their clearing member and fellow customer of their clearing member.” CANADIAN SECURITIES ADMINISTRATORS, DERIVATIVES: SEGREGATION

This Article focuses on the main segregation models used to protect the margin deposits of futures and cleared swaps customers (collectively known as “derivative”⁸ or “commodity” contracts).⁹ These customers currently receive different treatment under U.S. law. There is legal uncertainty because the laws for protecting customer margin and the practices of CCPs have developed in a piecemeal fashion.

Futures customers who clear their contracts with a CCP in the United States receive a lower level of protection under the Futures Model for segregating customer margin than is intended by the Commodity Exchange Act (CEA).¹⁰ These customers are exposed to fellow customer risk in a double default situation.

A “double default” occurs where one or more customers default on their obligations to the CM, and the losses are so large that it causes the CM to default on its obligations to the CCP.¹¹ This could

AND PORTABILITY IN OTC DERIVATIVES CLEARING CANADIAN SECURITIES ADMINISTRATORS COMMITTEE, CSA CONSULTATION PAPER 91-404 3 (Feb. 10, 2012) [hereinafter CSA CONSULTATION PAPER].

⁸ Derivatives “are financial products that derive their value from the value of assets traded in other markets.” 3 JAN DALHUISEN, DALHUISEN ON TRANSNATIONAL COMPARATIVE, COMMERCIAL, FINANCIAL AND TRADE LAW 256 (5th ed. 2013). They are contracts that allow the efficient management and transference of risk to another party in exchange for a premium. ANDREW M. CHISHOLM, DERIVATIVES DEMYSTIFIED: A STEP-BY-STEP GUIDE TO FORWARDS, FUTURES, SWAPS AND OPTIONS 5–6 (2d ed. 2010). Contracts are mere *personal rights* that confer rights, carry obligations, and award damages if breached.

⁹ Section 724(b) of the Dodd-Frank Act clarifies that cleared swaps are “commodity contracts” within the meaning of § 761(4)(F) of the Bankruptcy Code. Customer collateral is protected by subchapter IV of Chapter 7 of the Bankruptcy Code and Commission Regulation Part 190. COMMODITIES FUTURES TRADING COMM’N, Q & A—PROTECTION OF CLEARED SWAPS CUSTOMER CONTRACTS AND COLLATERAL, http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/sb_qa.pdf [<https://perma.cc/8UJP-SJRY>].

¹⁰ Commodity Exchange Act, 7 U.S.C. § 1 (2015); Christian Chamorro-Courtland, *Collateral Damage: Adopting the LSOC Model and Insurance in the US Futures Markets*, COLUM. L. SCH. BLOG ON CORPS. & CAPITAL MKTS. (Oct. 2, 2015), <http://clsbluesky.law.columbia.edu/2015/10/02/collateral-damage-adopting-the-lsoc-model-and-insurance-in-the-us-futures-markets/> [<https://perma.cc/J4KY-GDST>] [hereinafter Chamorro-Courtland, *Collateral Damage*].

¹¹ COMMODITIES FUTURES TRADING COMM’N, Q & A—FINAL RULES ENHANCING PROTECTIONS AFFORDED CUSTOMERS AND CUSTOMER FUNDS HELD BY FUTURES COMMISSION MERCHANTS AND DERIVATIVES CLEARING ORGANIZATIONS,

lead to “fellow customer risk,” which occurs if the CCP uses the margin of the non-defaulting customers of an insolvent CM to cover the obligations of the defaulting customers.¹²

The Commodity Futures Trading Commission (CFTC) has noted that

[u]nder the current rules applicable to futures clearing, a [Derivatives Clearing Organization (“DCO”)]¹³ is permitted to *use* all of the collateral in the Clearing Member’s customer account to meet a loss in that account, without regard to which customer(s) in fact supplied that collateral. Thus, in this case, the non-defaulting customers of the defaulting FCM clearing member would be exposed to loss due to “Fellow-Customer Risk.”¹⁴

Consequently, the Futures Model “exposes non-defaulting customers of [an] FCM in the same customer account class as the defaulting customer to a pro rata portion of any deficiency in that account class.”¹⁵

http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/custprot_qa_final.pdf [<https://perma.cc/XXK4-9S2E>].

¹² See LINKLATERS, CFTC ADOPTS “LSOC” MODEL FOR PROTECTION OF CLEARED SWAPS CUSTOMERS’ MARGIN, MARKING A SIGNIFICANT DEPARTURE FROM THE TRADITIONAL U.S. FUTURES MODEL 1 (Jan. 2012), <http://www.linklaters.com/pdfs/mkt/newyork/A14488988.pdf>.

¹³ A CCP that clears futures and cleared swaps contracts is referred to as a Derivatives Clearing Organization under U.S. law. This Article uses the terms “DCO” and “CCP” interchangeably. See Chamorro-Courtland, *The Trillion Dollar Question*, *supra* note 5, at 462.

¹⁴ Protection of Cleared Swaps Customer Contracts and Collateral; Conforming Amendments to the Commodity Broker Bankruptcy Provisions, 77 Fed. Reg., 6336, 6339 (Feb. 7, 2012) (to be codified at 17 C.F.R. pts. 22, 190) [hereinafter CFTC REPORT] (emphasis added). See also COMMODITIES FUTURES TRADING COMM’N, *supra* note 9. This market practice has been expressed in CME’s rulebook: “If a default occurs in a customer futures account, the Clearing House has the right to liquidate and apply toward the default *all* open positions and customer *performance bond deposits* in the futures account class of the defaulting clearing member. Accordingly, *positions and performance bonds deposited by customers not causing the default are at risk* if there is a default in the futures account class of their clearing member.” CME GRP., NYMEX RULEBOOK: RULE 802.G.1 (current as of June 1, 2015), <https://www.cmegroup.com/rulebook/NYMEX/1/8.pdf> [<https://perma.cc/H7Y2-G56P>] [hereinafter CME RULEBOOK] (emphasis added).

¹⁵ LINKLATERS, *supra* note 12, at 1.

Under the Futures Model of segregation, CCPs hold futures customer margin in an omnibus account¹⁶ on a “collective basis” and deliberately ignore the “identity” of individual customer margin deposits.¹⁷ This practice has allowed CCPs to take advantage of a loophole in the Bankruptcy Code and escape from the requirements of the CEA: first, it allows CCPs to access the margin of non-defaulting customers as a part of the “default waterfall”;¹⁸ second, it requires futures customers to share any losses in the collective account on a pro rata basis.¹⁹

In response to this practice, Congress passed the Dodd-Frank Act (DFA)²⁰ after the 2008 financial crisis. It amended the CEA, inter alia, to provide cleared swaps²¹ customers with protection from fellow customer risk. The CFTC has adopted the “Legal Segregation and Operationally Commingled” (“LSOC”) Model of segregation, which prohibits the CCP and the CM from using the margin of non-defaulting customers to cover the losses of any defaulting customers.²²

Linklaters has noted that

[t]he LSOC Model differs from the traditional futures approach ... in how it handles Double Defaults.... Under the LSOC model, a DCO facing a Double Default cannot apply the property of non-defaulting swap customers of the defaulting FCM to satisfy such a deficiency, but rather must look only to the property of the defaulting customer and other available financial resources (e.g., assets of the defaulting FCM, its own equity, the guaranty fund or unfunded assessments). Conversely, under the current futures model, if a Double Default were to occur, the DCO would have recourse to the property of any

¹⁶ An “omnibus account” is a single account where the margin of multiple customers is commingled and held at an FCM, a CCP, or at a depository. See Chamorro-Courtland, *Collateral Damage*, *supra* note 10.

¹⁷ *Id.*

¹⁸ The default waterfall is the list of available resources that a CCP has to cure a default by the CM. See *id.*

¹⁹ *Id.*

²⁰ Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 376 (2010).

²¹ The market for non-cleared swaps is outside the scope of this Article.

²² LINKLATERS, *supra* note 12, at 1.

customers of the FCM in the same account class, including non-defaulting customers.²³

The new law requires CCPs to record and “identify” individual swaps customer margin deposits on a daily basis.²⁴ In these situations, the non-defaulting customers will not be affected in a double default situation, because the Bankruptcy Code requires the CCP to transfer or return any “identifiable” margin to the non-defaulting customers.²⁵

This Article will clarify the purpose of derivative markets legislation in the United States, which has not been adequately addressed in the legal literature. The debate revolves around allocating a finite amount of resources in an emergency situation, i.e., protecting customer margin versus the CCP’s default waterfall.

Whereas the Futures Model places the margin of non-defaulting futures customers of an insolvent FCM at the top of the CCP’s default waterfall, the LSOC Model removes the margin of cleared swaps customers from the CCP default waterfall altogether. In sum, “the basic difference between the [LSOC] Model and the Futures Model thus relates to a difference in the allocation of loss arising out of a double default of both a customer and the customer’s FCM.”²⁶

It is unjust that customers receive a different level of protection, since the CEA and DFA expressly prohibit CCPs and FCMs from “using” the margin of one customer to cover the contractual obligations of another customer that holds margin in the same omnibus account.²⁷

This Article will demonstrate that the CEA contains language suggesting that futures customers should also receive protection under the LSOC Model. As a result, the LSOC Model should be adopted in the U.S. futures markets. This would provide futures customers with enhanced protection to match the level of protection provided to cleared swaps customers. Additionally, this Article recommends introducing mandatory insurance to protect

²³ *Id.* at 3.

²⁴ Chamorro-Courtland, *Collateral Damage*, *supra* note 10.

²⁵ *Id.*

²⁶ CFTC REPORT, *supra* note 14, at 6364.

²⁷ *Id.* at 6367.

both futures and cleared swaps customers from fraud and other operational risks.

A. Scope and Legal Issues

The scope of this Article is limited to margin posted by futures and cleared swaps customers.²⁸ It focuses exclusively on the Futures Model and the LSOC Model for segregating customer margin.²⁹ It examines the legal theory and clarifies areas of ambiguity.

Moreover, it attempts to provide answers to the following legal issues: What is the best model for holding customer margin? Who does the margin belong to in an insolvency situation? What happens if there is shortfall in margin? What rights does the CCP have against the customer margin in a double default situation under its default waterfall? What are the legal characteristics of an omnibus account? Why is there a different level of protection being provided to futures and cleared swaps customers despite the similar statutory language?

B. Futures and Cleared Swaps

A futures contract “is an agreement to buy or sell an asset at an agreed future moment for a fixed price, often the present market price (or relevant index).”³⁰ These contracts are purchased and sold on organized futures exchanges. They are used by market participants as “risk-shifting mechanisms that deal in rights and promises independent of the underlying asset.”³¹ Most participants will close out their positions before the maturity date in order to avoid taking delivery of the underlying asset.³²

²⁸ This Article does not focus on the margin that is posted by a CM to support its own proprietary positions.

²⁹ Although the CFTC considered various other models for protecting customer margin, such as “Legal Segregation with Recourse Model,” the “Full Physical Segregation Model,” and the “Optional Model,” it determined after a cost-benefit analysis that none of the models provided customers with a better level of protection than LSOC; therefore, these models are not discussed further in this Article. CFTC REPORT, *supra* note 14, at 6339, 6345.

³⁰ DALHUISEN, *supra* note 8, at 256.

³¹ MAREK DUBOVEC, *THE LAW OF SECURITIES, COMMODITIES AND BANK ACCOUNTS: THE RIGHTS OF ACCOUNT HOLDERS* 160 (2014).

³² *Id.* at 160–61.

A swap contract “does not in itself denote any particular legal structure except some kind of exchange. In modern finance, it is common to find an exchange of accruing cash flows, normally resulting from different interest rate (fixed or floating) structures.”³³ These contracts, which include interest rate swaps, currency swaps, and credit default swaps, were mainly traded over-the-counter (“OTC”) before the 2008 financial crisis.³⁴ The DFA has imposed a mandatory clearing requirement on standardized swaps (cleared swaps), as will be discussed below.

C. Literature Review

Various articles and reports have considered the current legal regime for the protection of customer margin in the derivatives markets.³⁵ First, this Article updates and expands on research conducted by the Supervisors of the Major OTC Derivatives Dealers, which published a detailed report on margin segregation in 2009.³⁶ Their report provided a detailed comparative analysis on the treatment of customer initial margin upon the insolvency of a CM in five different jurisdictions.

Second, this Article elaborates on issues discussed in the CFTC’s report on the “Protection of Cleared Swaps Customer Contracts and Collateral” (“CFTC Report”).³⁷ Although the report confirms that futures customers receive a weaker level of protection than cleared swaps customers, it does not provide a convincing justification for this distinction.

Third, the discussion expands on some of the legal issues discussed by Professor Jerry W. Markham in his article *Custodial Requirements for Customer Funds*.³⁸ He argued, *inter alia*, that

³³ DALHUISEN, *supra* note 8, at 257.

³⁴ *Id.* at 252–53, 277.

³⁵ See generally Markham, *supra* note 2; Chamorro-Courtland, *The Trillion Dollar Question*, *supra* note 5.

³⁶ ALLIANCEBERNSTEIN ET AL., REPORT TO THE SUPERVISORS OF THE MAJOR OTC DERIVATIVES DEALERS ON THE PROPOSALS OF CENTRALIZED CDS CLEARING SOLUTIONS FOR THE SEGREGATION AND PORTABILITY OF CUSTOMER CDS POSITIONS AND RELATED MARGIN (June 30, 2009) [hereinafter REPORT ON MARGIN SEGREGATION].

³⁷ CFTC REPORT, *supra* note 14.

³⁸ Markham, *supra* note 2.

there is a “flaw”³⁹ in the Futures Model; however, his discussion was limited.

Markham is also correct in noting that the legislative reforms “are all piecemeal attempts to patch a system that has outlived its usefulness.... A uniform approach to the protection of customer custody requirements is needed [C]ustomer funds [should] be treated individually at all levels”;⁴⁰ however, he does not mention which segregation model should be adopted.

Fourth, this Article answers an important question raised by Professor Ronald Filler:

Another issue which needs to be addressed and which depends on future CFTC rulemaking involves how customer assets held by a defaulting FCM that is also a clearing member firm of a central clearinghouse (CCP) should or should not be fully protected if such a default results in a shortfall in the customer segregated account held at the CCP on behalf of the defaulting FCM.⁴¹

Fifth, the literature does not discuss the advantages of adopting the LSOC Model in the futures industry.⁴²

In sum, these reports and articles do not provide a convincing justification for the different legal treatment of cleared swaps customers and futures customers. This Article argues that there are advantages to introducing the LSOC Model to the futures industry, as this will increase the level of protection provided to futures customers. It will explain the legal basis for this radical change.

I. THE ROLE OF MARGIN

The role of “margin” depends on the type of transaction it is used for.⁴³ In the derivative markets, “the purpose of the margin is

³⁹ *Id.* at 124.

⁴⁰ *Id.* at 131–32.

⁴¹ Ronald H. Filler, *Consumer Protection: How U.K. Client Money Rules Differ From U.S. Customer Segregated Rules When a Custodian Fails to Treat Customer Property Properly*, 24 J. TAX’N & REG. FIN. INSTS. 25, 10 (2011).

⁴² Although Linklaters confirms that “[t]he CFTC is considering whether to adopt the LSOC Model for the futures market,” they have not commented on whether the CFTC should adopt this change. LINKLATERS, *supra* note 12, at 4.

⁴³ In the securities markets, margin is used as a “deposit” to purchase a security in the form of a share or bond. CHISHOLM, *supra* note 8, at 6. This

to serve as a guarantee of performance”;⁴⁴ in other words, it operates as a “performance deposit”⁴⁵ that is returned upon the settlement of a transaction if the participants fulfill their obligations.

A. *The Economic Purpose of Margin*

Generally, a customer will have a margin account with a broker, the broker will have a margin account with a CM, and the CM will have a margin account with the CCP. Therefore, customers have an “indirect” clearing relationship with the CCP.

CCPs demand margin from their CMs⁴⁶ in the form of cash or securities to protect themselves against a CM default. CMs will also demand margin from their customers so that the CM can protect itself from the insolvency of a customer.

Customers and CMs post margin to operate as a collateral safety net for ensuring that exposures do not build up; margin is the CCP’s “first line of defense against default risk.”⁴⁷ The CCP can use the collateral in the margin account to cover the obligations of a defaulting counterparty.⁴⁸

CCP clearing arrangements in effect convert the CCP and their CMs into a form of “super-priority creditor.”⁴⁹ The CCP and its CMs will have the right to sell off their full claims and assume the losses out of the defaulter’s margin account prior to the defaulter’s general creditors.⁵⁰ CCPs require their members to post two types of margin: initial margin and variation margin.⁵¹

Article does not focus on the securities markets, although some consideration will be given below.

⁴⁴ Ray L. Ross, *Financial Consequences of Trading Commodity Futures Contracts*, 15.2 ILL. AGRIC. ECON. 27, 27 (1975).

⁴⁵ CHISHOLM, *supra* note 8, at 39–40.

⁴⁶ The CM must be a registered FCM in the United States.

⁴⁷ David S. Bates & Roger Caine, *Valuing the Futures Market Clearinghouse’s Default Exposure During the 1987 Crash*, 31.2 J. MONEY, CREDIT & BANKING 248, 248 (1999).

⁴⁸ This could be either a CM or a CM’s customer.

⁴⁹ Super-priority creditors “are a special class of creditor who are paid before all the other creditors of the insolvent counterparty.” Christian Chamorro-Courtland, *The Legal Aspects of Non-Financial Market Central Counterparties*, 27.4 BANKING & FIN. L. REV. 553, 555 (2012).

⁵⁰ *Id.* at 575.

⁵¹ These two types of margin are examined below.

1. *Initial Margin*

A market participant must post initial margin to enter into an initial transaction.⁵² This type of margin is designed to ensure that the CCP has sufficient funds to cover potential losses due to a default in normal market conditions. This is provided in the form of cash and/or securities.⁵³

2. *Variation Margin*

In the case of futures and swaps contracts, the values of these contracts fluctuate⁵⁴ throughout the day. Variation margin⁵⁵ is the minimum level at which CMs and customers must maintain their margin over time. It is calculated by using a risk management tool known as “marking-to-market,” which requires subtracting a contract’s current market value from the previous day’s market value.⁵⁶

Variation margin is collected from participants whose positions have suffered a loss and paid to the participants whose positions have made a profit at the end of the day. Consequently, profits and losses are credited to, or debited from, the margin accounts of the relevant CMs and customers. It operates as a daily settlement of a market participant’s outstanding positions by resetting the daily value of the underlying contract. It is provided in the form of cash.⁵⁷

This system reduces the buildup of financial exposures over time in open futures and swaps contracts, which typically have long clearing cycles.⁵⁸ A proper functioning margin system and

⁵² CHISHOLM, *supra* note 8, at 40.

⁵³ I.e., shares or bonds.

⁵⁴ Fluctuations arise from changing demand and supply of a particular commodity, carry costs, interest rates, storage costs, and speculative trading.

⁵⁵ Also known as “maintenance margin.”

⁵⁶ The calculation proceeds as follows:

Variation margin = (today’s closing price – yesterday’s closing price) x number of contracts x contract size.

⁵⁷ BNY MELLON, *CLEARED SWAP HANDBOOK*, https://www.bnymellon.com/_global-assets/pdf/solutions-index/cleared-swap-handbook.pdf [https://perma.cc/5R3E-8U6D].

⁵⁸ Futures and swaps contracts typically remain open for a prolonged period of time, i.e., for months or years. Therefore, the underlying price on which the derivatives contract is based will fluctuate over time.

methodology⁵⁹ allows CCPs to realize trading profits and losses on a daily or intra-daily basis⁶⁰ in order to reduce loss-making positions at the first sign of extreme negative changes⁶¹ in market positions.⁶²

The CCP monitors the positions of CMs intraday, and a failure to meet a margin call is a counterparty default that will result in a closeout of open positions.⁶³ Therefore, the maximum that a CM or the CCP can ever lose is the defaulted amount within one trading day. If a CM and its customer default before posting the variation margin they owe, the CCP will have to assume the loss from its default waterfall.

3. *Excess Margin*

“Excess margin” may accumulate in a customer’s account for various reasons. First, it is typical for CMs to require their customers to post a larger amount of initial margin⁶⁴ than is requested by the CCP.⁶⁵ This acts as a buffer in case customers default on their obligations to the CM.

⁵⁹ CCPs will typically calculate the amount of margin required by using a formula that calculates the risk of all positions entered into by CMs and their customers. It is noted that most CCPs use the Standard Portfolio Analysis of Risk (“SPAN”) portfolio margining system. This Article does not examine the various methodologies used by CCPs for calculating margin. *See generally* DIV. OF TRADING & MKTS, COMMODITIES FUTURES TRADING COMM’N, REPORT ON LESSONS LEARNED FROM THE FAILURE OF KLEIN & CO. FUTURES, INC. 3 (July 2001), http://www.cftc.gov/files/tm/tmklein_report071101.pdf [<https://perma.cc/SVV7-MA9S>] [hereinafter CFTC REPORT ON KLEIN & CO.].

⁶⁰ As opposed to settling their entire losses on the contractual settlement date.

⁶¹ Jerry W. Markham, *Federal Regulation of Margin in the Commodity Futures Industry—History and Theory*, 64 TEMP. L. REV. 59, 65 (1991). For example, variation margin payments at CME averaged \$2.2 billion per day through June 30, 2010, and reached an historical record of \$18.5 billion on October 13, 2008.

⁶² CHISHOLM, *supra* note 8, at 40. *See generally* TINA P. HASENPUSCH, CLEARING SERVICES FOR GLOBAL MARKETS 30–31 (2009).

⁶³ The positions are terminated by the CCP with closeout netting.

⁶⁴ BASEL COMM. ON BANKING SUPERVISION, BANK FOR INT’L SETTLEMENTS, CAPITAL REQUIREMENTS FOR BANK EXPOSURES TO CENT. COUNTERPARTIES 4 (Apr. 2014) [hereinafter BIS, CAPITAL REQUIREMENTS].

⁶⁵ “While an FCM is not permitted to place lower margin requirements upon its customers, the FCM is free to require any or all customers to post

Second, some jurisdictions permit the practice of posting gross margin to the CM and net margin to the CCP.⁶⁶ This leaves the CM in possession of the customer's excess margin. Third, the customer may have excess funds in the account after closing out an open position. Fourth, a customer may receive variation margin after marking-to-market from the CM if its positions are profitable.

The risk exists that CMs will use customer excess margin for their own purposes. Therefore, this excess margin will be exposed to significant losses if it is not adequately protected by the law.

a. Examples of Margin

On June 1, Bill instructs his FCM, TradeStation Securities Inc. ("TradeStation"), to purchase one September E-mini S&P 500⁶⁷ futures contract on the CME Globex Platform (the futures exchange) when the contract is trading at 1050.00 points. The contract has a value of \$52,500, which is determined by multiplying \$50 by the S&P 500 Stock Index.⁶⁸

CME Group (the CCP) requires TradeStation to post initial margin of \$4,000 in the form of securities or cash with the CCP on behalf of its customers for this futures contract. Bill must post initial margin of \$4,500 in the form of securities or cash in its margin account managed by TradeStation, which includes an excess margin requirement of \$500.

Bill must maintain a maintenance margin of \$3,700 during the period the futures contract remains executory. This means that

higher levels of margin." CFTC REPORT ON KLEIN & CO., *supra* note 59, at 3. CMs are not allowed to collect from their customers less than 100 percent of the initial margin requirements that are requested by the CCP. 17 C.F.R. § 39.13(g)(8)(ii) (2012).

⁶⁶ See REPORT ON MARGIN SEGREGATION, *supra* note 36, at 26.

⁶⁷ "A stock index is a statistic that reflects the composite value of a selected group of stocks. The S&P 500, for example, is an index comprised of 500 stocks chosen for market size, liquidity and industry grouping Stock index futures allow traders to buy and sell the strength of an entire cash index without having to own every individual stock, making them a practical trading instrument. Each stock index future trades on a multiple of the underlying cash index, and because they are not based on a tangible commodity, they are settled in cash." Jean Folger, *Beginner's Guide to E-Mini Futures Contracts: What are the E-Minis?*, INVESTOPEDIA, <http://www.investopedia.com/university/how-to-trade-e-mini-futures-contracts/what-are-the-eminis.asp> [<https://perma.cc/NR7G-5HLE>].

⁶⁸ $50 \times 1050.00 = 52,500$.

Bill will have to post additional margin with TradeStation to bring the margin account back up to \$4,500 if price fluctuations of the contract bring the balance in the account under \$3,700. Therefore, variation margin will result in either a debit or a credit to Bill's margin account at the end of the day.

On June 2, the index goes down by 10 points and the contract value decreases by \$500,⁶⁹ which means that TradeStation will debit Bill's margin account by \$500 and post the margin with the CCP. Bill will have \$4,000 in his margin account.

On June 3, the index goes up by 6 points and the contract value increases by \$300,⁷⁰ which means that TradeStation will credit Bill's margin account by \$300 with margin that it has received from the CCP. Bill will have \$4,300 in his margin account.

On June 4, the index goes down by 16 points and the contract value decreases by \$800, which means that TradeStation will debit Bill's margin account by \$800 and post the margin with the CCP. Bill will have \$3,500 in his margin account, which means that the level will fall below the maintenance margin requirement of \$3,700.

TradeStation will place a margin call on Bill to post an additional \$1,000 in the margin account and bring the level back to \$4,500 before it will allow Bill to continue trading the next day. TradeStation will close out Bill's positions and consider him to be in default if he does not pay the maintenance margin.

4. Gross Margin Versus Net Margin

CMs will post margin on either a "gross"⁷¹ or "net"⁷² basis to the CCP. The Canadian Securities Administrators Derivatives Committee (CSA) has noted that

[c]ollecting margin on a *gross basis*⁷³ means that each individual customer's margin is collected and then advanced to the CCP.

⁶⁹ $50 \times 1040.00 = 52,000$.

⁷⁰ $50 \times 1046.00 = 52,300$.

⁷¹ This requires separate margin to be posted for every position.

⁷² The long positions are netted against short positions and margin is required against the aggregate position. LCH.Clearnet calculates margin in this fashion.

⁷³ See *infra* Diagram 1.

Collecting margin on a *net basis*⁷⁴ means that the different positions of a clearing member's customers are offset and only margin for the remaining exposure is advanced to the CCP.⁷⁵

Diagram 1: Gross Margin

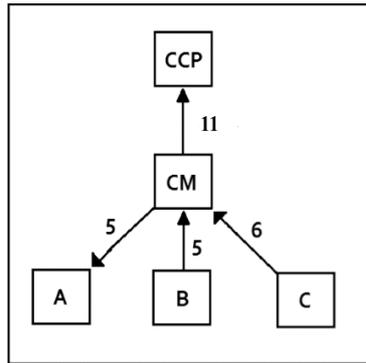
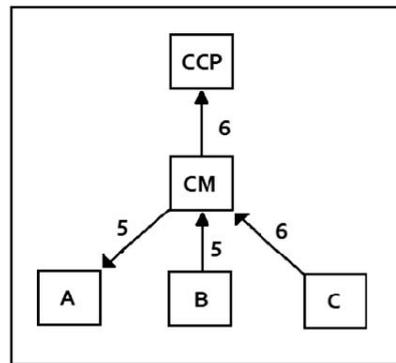


Diagram 2: Net Margin



Knott and Mills have noted that CCPs in England collect initial margin on a net basis from their CMs, as gross margining reduces the earnings of CMs on client margin funds.⁷⁶ For example, LCH.Clearnet Ltd. calculates margin on a net basis.⁷⁷ They have argued that gross margining “makes clearing members more vulnerable to bankruptcy, and more likely to raise clearing fees”⁷⁸ for their customers. CMs may even have to use customer excess margin to cover the obligations they owe to their customers.

The CSA has recommended, nevertheless, that customer *initial margin* should be required to be provided to a CCP on a “gross basis”⁷⁹ because this “should ensure that all customer positions of a [CM] are adequately collateralized. Margin calculated on a gross basis affords no netting efficiency, but generally prevents customer positions from being under-margined, facilitating the porting of customer positions.”⁸⁰

⁷⁴ See *infra* Diagram 2.

⁷⁵ CSA CONSULTATION PAPER, *supra* note 7, at 18 (emphasis added).

⁷⁶ Raymond Knott & Alastair Mills, *Modeling Risk in Central Counterparty Clearing Houses: A Review*, 13 FIN. STABILITY REV. 163, 163 (Dec. 2002).

⁷⁷ REPORT ON MARGIN SEGREGATION, *supra* note 36, at 112.

⁷⁸ Knott & Mills, *supra* note 76, at 163 n.3.

⁷⁹ CSA CONSULTATION PAPER, *supra* note 7, at 18.

⁸⁰ *Id.* “The term under-margined refers to a situation in which there is less than sufficient collateral within an omnibus account to support the collateral

CME requires its customers to post the “gross” amount of margin, even if a CM’s customer positions are exactly offsetting in the aggregate.⁸¹ The CFTC changed its regulations to make sure that all CCPs in the United States collect initial margin on a gross basis from their CMs.⁸² CCPs may, however, collect initial margin on a net basis for the proprietary accounts of their CMs.⁸³

II. SEGREGATION AND PORTABILITY

In response to the global financial crisis, the Technical Committee of the International Organization of Securities Commissions of the Committee on Payment and Settlement Systems (“CPSS-IOSCO”) created a report, *Principles for Financial Market Infrastructures*,⁸⁴ in order to highlight, inter alia, the international best practices for the protection of margin. It recommends that all CCPs harmonize their rules and procedures to support the segregation and portability⁸⁵ of customer margin.

It further recommends that customer margin be segregated in order to protect customer assets in the event of the CM’s

requirements of each customer position.” *Id.* at 18 n.44. The CSA Consultation Paper does not consider whether variation margin should also be posted on a gross basis.

⁸¹ REPORT ON MARGIN SEGREGATION, *supra* note 36, at 53.

⁸² 17 C.F.R. §§ 39.13(g)(8)(i)(A), (D) (2012). The CFTC Regulations do not mention whether variation margin should be collected on a gross basis.

⁸³ 17 C.F.R. § 39.13(g)(8)(i)(E).

⁸⁴ COMM. ON PAYMENT AND SETTLEMENT SYS. & TECHNICAL COMM. INT’L ORG. SEC. COMM’NS, BANK FOR INT’L SETTLEMENTS, PRINCIPLES FOR FINANCIAL MARKET INFRASTRUCTURES 66 (Mar. 2011).

⁸⁵ CSA CONSULTATION PAPER, *supra* note 7, at 3. Porting is a key mechanism to ensure that in the event of a clearing member default or insolvency, customer positions are not terminated and customer positions and collateral can be transferred to one or more non-defaulting clearing members without having to liquidate and re-establish the positions In order for such transfer to be achieved the customer collateral and positions must be immediately *identifiable*, transferable and unencumbered. If customer collateral cannot be distinguished from the proprietary assets of the insolvent or defaulting clearing member, such collateral may not be available to secure the obligation for which the collateral was provided or there may be delays in accessing such collateral.

Id. at 4, 12 (emphasis added).

insolvency. However, it does not endorse a particular segregation model.⁸⁶ Segregation should allow customers to easily “identify” and “recover” or “transfer” their collateral in the event that their CM becomes insolvent.⁸⁷

The CM is required to hold the margin of its customers in an account (the client account) that is separate from its own assets (the proprietary account).⁸⁸ Additionally, the segregated margin must be free from liens and rights of set off, except for situations where the CCP and CM are securing for the contractual trades of the customer.⁸⁹ Segregation, however, can take various forms in the legal sense, as discussed below.

“Porting” has also been recognized as an important tool for protecting customers. It allows the non-defaulting customers to immediately transfer (by novation) their margin and contractual positions to a solvent CM and avoid replacement cost risk.⁹⁰

In theory, the proper segregation of margin should facilitate the portability of customer margin upon the insolvency of a CM, provided that customer margin can be immediately identified by the CCP.⁹¹ In practice, not all segregation models require the CCP to keep records that clearly identify the margin deposits of customers (e.g., the Futures Model).

III. THE CLEARING ARRANGEMENT

In order to enter into futures and swaps transactions, customers must maintain a clearing relationship with a CM, which

⁸⁶ *Id.* at 25.

⁸⁷ *Id.* at 4.

⁸⁸ *Id.* at 14–15.

⁸⁹ REPORT ON MARGIN SEGREGATION, *supra* note 36, at 53.

⁹⁰ Replacement cost risk is “[t]he risk that a counterparty to an outstanding transaction for completion at a future date will fail to perform on the settlement date. This failure may leave the solvent party with an un-hedged or open market position or deny the solvent party unrealized gains on the position. The resulting exposure is the cost of replacing, at current market prices, the original transaction.” *Definition of Replacement Risk*, GLOBALCUSTODY.NET, http://www.globalcustody.net/Replacement_cost_risk/ [<https://perma.cc/Y2LK-FXJ9>].

⁹¹ “CME implies that a successful porting of customer accounts requires information that is ‘100% accurate’ Recent experience demonstrates, however, that transfers can occur despite less than perfect information [T]he key issue will be to *identify* the collateral attributable to the defaulting customer.” CFTC REPORT, *supra* note 14, at 6348 (emphasis added).

will “serve as their agent and guarantor”⁹² with respect to transactions cleared at the CCP. The customers and CMs will be contractually bound by the clearing rules contained in the CCP clearing arrangement.

Under the clearing arrangement, the CM is liable to the CCP for all the obligations of its customers.⁹³ The CM will have to cover the obligations of any defaulting customers from its shareholder equity.⁹⁴ A CCP “guarantees” the trades of a defaulting CM through the process of counterparty substitution.⁹⁵ The clearing rules contain a set of default procedures (the default waterfall), which determine “the order in which funds are made available to cure a clearing member default.”⁹⁶

A. Default Resources

Section 39.11(b) of the CFTC Regulations lists the financial resources that a CCP has at its disposal as part of its default waterfall when a CM becomes insolvent.⁹⁷ The CCP can decide the “sequence in which the funds and assets of the defaulting clearing member and its customers ... would be applied in the event of a default.”⁹⁸ A CCP will typically use the available resources in the following order⁹⁹:

- (1) The *defaulting clearing member’s* margin (including variation margin and initial margin);
- (2) The *defaulting clearing member’s* guaranty fund¹⁰⁰ contributions;

⁹² REPORT ON MARGIN SEGREGATION, *supra* note 36, at 51–52.

⁹³ COOCONNECT, *supra* note 1.

⁹⁴ *Id.*

⁹⁵ *See* CME RULEBOOK, *supra* note 14, Rule 804.

⁹⁶ CSA CONSULTATION PAPER, *supra* note 7, at 15 n.28.

⁹⁷ 17 C.F.R. § 39.11(b) (2012).

⁹⁸ 17 C.F.R. § 39.16(c)(iv).

⁹⁹ *See generally* Chamorro-Courtland, *The Trillion Dollar Question*, *supra* note 5.

¹⁰⁰ CFTC REPORT, *supra* note 14, at 6365 n.254:

A guaranty fund is a fund created by a DCO to which the clearing members contribute, in proportion generally set by DCO rule The assets in the fund are then available to cover losses resulting from defaults by one or more clearing members, whether in their proprietary capacity or due to customer

- (a) The margin of *futures customers* (including defaulting and non-defaulting customers);
- (3) The *CCP's own equity* and financial resources;
- (4) The guaranty fund contributions of *solvent clearing members*;
- (5) Voluntary contributions by *solvent clearing members*;
- (6) Additional resources, e.g., CCP assessment powers, emergency lines of credit, and insurance.

The CCP has access to more resources in a double default situation under the Futures Model. A CCP can access the margin (including initial, variation, and excess margin) of the defaulting and non-defaulting futures customers in an omnibus account after all of the resources of the defaulting CM have been exhausted (i.e., at stage 2.a).¹⁰¹ The CCP may exhaust the margin of the non-defaulting customers until it has fully covered the obligations of the defaulting customers.

In contrast, the CCP is not permitted to access the margin of non-defaulting cleared swaps customers in a double default situation under the LSOC Model.¹⁰² The CCP may only access the margin of defaulting customers up to the amount of their individual obligations.¹⁰³

IV. FUTURES COMMISSION MERCHANT INSOLVENCIES

The CFTC Report has noted that FCM insolvencies present different legal challenges for the bankruptcy trustee in different situations:

When discussing the issues surrounding an FCM bankruptcy under the Bankruptcy Code, analytically there are several scenarios to consider: (1) [t]he bankruptcy is unrelated to the

accounts, to the extent those losses are not covered by available collateral provided by the defaulting Clearing Member (limited to proprietary collateral for a default in the clearing member's proprietary account, or including customer collateral for a customer default).

¹⁰¹ *Id.* at 634–65.

¹⁰² *Id.*

¹⁰³ Stage 2.a is not included in the default waterfall of a CCP that clears for cleared swaps customers. *Id.* at 6340.

loss of customer funds, and there is no such loss; (2) [t]he bankruptcy involves shortfalls in customer funds due to operational risks; (3) [t]he bankruptcy involves losses due to customer risk (*i.e.*, a customer incurs a loss in excess of the FCM's financial ability to cover); or (4) the bankruptcy involves shortfalls in customer funds due to operational risk and losses due to customer risk.¹⁰⁴

The first scenario deals with situations where the FCM defaults, but none of the customers have defaulted. This situation does not generally provide any legal complications under the Futures Model or LSOC Model, as there should not be any shortfalls in customer margin. The bankruptcy trustee should be able to port or return to customers 100 percent of their margin in accordance with Part 190 of the CFTC Regulations.¹⁰⁵

The second scenario deals with situations where the FCM defaults due to operational risks, which can arise from negligence, fraud, human error, or computer systems malfunctioning. This situation may require the trustee to distribute customer margin on a pro rata basis, even if margin is held under the LSOC Model. The customers will have to share in the shortfall if the bankruptcy trustee is unable to allocate these losses to specific customers due to corrupted or lost records.

The third scenario deals with situations where there has been a double default. The Futures Model will allocate losses resulting from fellow customer risk on a pro rata basis. The LSOC Model protects customers from fellow customer risk, and these customers should have 100 percent of their margin returned or ported.

The fourth scenario deals with situations where the FCM defaults due to a combination of operational risk and one or more customers defaulting on their obligations (*i.e.*, a double default). In this situation, it is likely that the bankruptcy trustee will have to distribute margin on a pro rata basis, including for customers holding under the LSOC Model.

This Article notes that futures customers would receive protection from fellow customer risk in the third scenario if the LSOC Model were adopted. The current law does not protect futures and cleared swaps customers from ratably sharing losses resulting

¹⁰⁴ *Id.* at 6340.

¹⁰⁵ See generally Filler, *supra* note 41, at 5.

from the FCM's fraud or other operational risks under scenarios two and four. It is therefore necessary to introduce insurance in the derivatives markets.

V. THE U.S. LAWS ON MARGIN SEGREGATION

The current margin segregation laws in the United States require simplification, as they are located in multiple sources.¹⁰⁶ The CEA contains the laws applying to futures customers. The DFA amended the CEA, which now also contains the laws for cleared swaps customers. These statutes have been codified under the United States Code.¹⁰⁷ Additionally, the Bankruptcy Code applies if the FCM defaults.

The CEA established the CFTC as the main regulator for the futures and cleared swaps markets.¹⁰⁸ This statute provides the CFTC with the authority to publish regulations in Title 17 of the Code of Federal Regulations (C.F.R. or "CFTC Regulation").¹⁰⁹ The United States Code takes precedence over the C.F.R. if there are any contradictory provisions.¹¹⁰

A. *The Segregation Requirement in the Futures Markets*

Section 4d(a) of the CEA¹¹¹ introduced a "segregation requirement" to enhance the protection of margin posted by futures customers to their FCMs. It provides that an FCM shall

¹⁰⁶ The CFTC notes that "[t]he CEA section numbers do not always correspond directly to the section in the U.S. Code where the CEA is codified." *Commodity Futures Trading Commission*, J. REG., <http://thejournalofregulation.com/en/article/us-commodity-futures-trading-commission-cftc/> [<https://perma.cc/6EGJ-DUDJ>].

¹⁰⁷ This is the codification of the laws made by Congress. See 7 U.S.C. § 1 (2015).

¹⁰⁸ U.S. COMMODITY FUTURES TRADING COMM'N, LAW AND REGULATION, <http://www.cftc.gov/LawRegulation/index.htm> [<https://perma.cc/MC7R-HBRA>].

¹⁰⁹ See 7 U.S.C. § 1 (2015). This is the codification of the regulations created by U.S. federal regulatory agencies, including the SEC and CFTC.

¹¹⁰ The courts, however, may show deference to a specialized regulatory agency's (e.g., the CFTC's) interpretation of a particular law.

¹¹¹ This section has been codified as 7 U.S.C. § 6d(a)(2) (2015) and 17 C.F.R. § 1.20(f)(1) (2015). U.S. COMMODITY FUTURES TRADING COMM'N, COMMODITY EXCHANGE ACT, <http://www.cftc.gov/lawregulation/commodityexchangeact/index.htm> [<https://perma.cc/F6TA-5H4J>].

treat and deal with all money, securities, and property received by such person to margin, guarantee, or secure the trades or contracts of any customer of such person, or accruing to such customer as the result of such trades or contracts, *as belonging to such customer*. Such money, securities, and property *shall be separately accounted for and shall not be commingled* with the funds of such commission merchant *or be used to margin or guarantee the trades or contracts, or to secure or extend the credit, of any customer or person other than the one for whom the same are held.*¹¹²

Professor Markham has noted that the segregation requirement was “intended to require that customer funds be held in a trust account.”¹¹³ This was intended to provide FCM customers with proprietary rights in the margin that they deposited with their FCM (the trustee).

Upon an FCM’s insolvency, this section provides futures customers with priority to recover their margin deposits before the FCM’s other general creditors.¹¹⁴ This section was originally created to prevent a common practice of FCMs having unlimited use of customer excess margin for their own purposes.¹¹⁵

B. The Segregation Requirement for Cleared Swaps

In response to the 2008 global financial crisis, Congress passed the DFA to address the potential threat of systemic risk that could be caused by systemically important financial institutions¹¹⁶

¹¹² 7 U.S.C. § 6d(a)(2) (emphasis added). This section is repeated in 17 C.F.R. § 1.20(f)(1), which uses similar language.

¹¹³ Markham, *supra* note 2, at 94 (citing H.R. REP. NO. 73-1637, at 6 (1934)).

¹¹⁴ 80 CONG. REC. 7858 (1936) (statement of Sen. Murray). Senator James Murray stated that § 4d(a) “merely provides that the public’s money put up for margin shall in fact be treated as belonging to the customer, and held in trust.” *Id.*

¹¹⁵ See Markham, *supra* note 2, at 94 n.19 (citing *Dorn v. Shearson Hayden Stone*, CFTC No. R 77-167, 1981 WL 26035 (Oct. 6, 1981)).

¹¹⁶ The DFA contains the following definition:

The terms “systemically important” and “systemic importance” mean a situation where the failure of or a disruption to the functioning of a financial market utility or the conduct of a payment, clearing, or settlement activity could create, or increase, the risk of significant liquidity or credit problems spreading

during times of financial market turmoil. This Act has modified the regulatory structure for CCPs that are considered systemically important¹¹⁷ and too big to fail.

First, it mandates central clearing of standardized OTC swaps¹¹⁸ on DCOs as a new safeguard. Second, it created the “Cleared Swaps Customers Account” and introduced the LSOC Model for the protection of margin posted by cleared swaps customers.¹¹⁹

The DFA introduced a provision mirroring section 4d(a) of the CEA in order to enhance the protection of the margin that cleared swaps customers post with their FCMs. Section 724(a)(2)(A) of the DFA¹²⁰ provides that

[a] futures commission merchant *shall treat and deal* with all money, securities, and property of *any swaps customer received to margin*, guarantee, or secure a swap cleared by or through a derivatives clearing organization (including money, securities,

among financial institutions or markets and thereby threaten the stability of the financial system of the United States.

Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 803(9), 124 Stat. 1376, 1807 (2010).

¹¹⁷ These CCPs have been reclassified as Derivatives Clearing Organizations (“DCEs”). “The term ‘designated clearing entity’ means a designated financial market utility that is a derivatives clearing organization registered under section 5b of the Commodity Exchange Act (7 U.S.C. 7a-1) or a clearing agency registered with the Securities and Exchange Commission under section 17A of the Securities Exchange Act of 1934 (15 U.S.C. 78q-1).” Dodd-Frank Act § 803(3). The CFTC and SEC may prescribe regulations for the CCPs they regulate. *Id.* § 805(2)(A). A discussion on DCEs and Clearing Agencies is outside the scope of this Article. “The term ‘financial market utility’ means any person that manages or operates a multilateral system for the purpose of transferring, clearing, or settling payments, securities, or other financial transactions among financial institutions or between financial institutions and the person.” *Id.* § 803(6)(A). Furthermore, “the term ‘designated financial market utility’ means a financial market utility that the Council has designated as systemically important under § 804.” *Id.* § 803(4).

¹¹⁸ *Id.* § 723(a)(3) (mandating the clearing of swaps through a DCO); *id.* § 763(a) (mandating the clearing of security-based swaps through a clearing agency).

¹¹⁹ CME GRP., LSCO AND CLEARED SWAPS CUSTOMER PROTECTION, <http://www.cmegroup.com/clearing/risk-management/lsoc-cleared-swaps-customer-protection.html> [<https://perma.cc/3W3M-ZRP6>].

¹²⁰ Section 724(a) of the Dodd-Frank Act amended the CEA and added a new § 4d(f), which has been codified at 7 U.S.C. § 6d and 17 C.F.R. § 22.2.

or property accruing to the swaps customer as the result of such a swap) *as belonging to the swaps customer*.¹²¹

Section 724(a)(2)(B) of the DFA provides that

[m]oney, securities, and property of a swaps customer described in subparagraph (A) shall be *separately accounted for and shall not be commingled with the funds of the futures commission merchant or be used to margin, secure, or guarantee any trades or contracts of any swaps customer or person other than the person for whom the same are held*.¹²²

C. The Segregation Requirement for CCPs

CFTC Regulation 1.20(g) imposes the segregation requirement on CCPs that hold futures customer margin:

All *futures customer funds* received by a derivatives clearing organization from a member to purchase, margin, guarantee, secure or settle the trades, contracts or commodity options of the clearing member's futures customers and all money accruing to such futures customers as the result of trades, contracts or commodity options so carried shall be *separately accounted for and segregated as belonging to such futures customers*, and a derivatives clearing organization shall not hold, use or dispose of such futures customer funds except as belonging to such futures customers. A derivatives clearing organization shall deposit futures customer funds under an account name that clearly identifies them as futures customer funds and shows that such funds are segregated as required by sections 4d(a) and 4d(b) of the Act and by this part.¹²³

Section 724(a)(6) of the DFA now extends this requirement to CCPs that hold cleared swaps customer margin:

It shall be unlawful for any person, including any derivatives clearing organization and any *depository institution*, that has received any money, securities, or property for deposit in a separate account or accounts as provided in paragraph (2) [of

¹²¹ Dodd-Frank Act § 724(a)(2)(A) (2010) (“Swaps; Segregation and Bankruptcy Treatment ... Segregation Required.”) (emphasis added). This section has been codified at 17 C.F.R. § 22.2(a) (2015).

¹²² Dodd-Frank Act § 724(a)(2)(B) (“Commingling Prohibited.”) (emphasis added). This has been codified at 7 U.S.C. § 6d(f)(2)(B) and 17 C.F.R. § 22.2(c).

¹²³ 17 C.F.R. § 1.20(g)(1) (2015) (emphasis added). This is repeated in 17 C.F.R. § 39.15(b)(1) (2015).

section 724(a)] to *hold, dispose of, or use any such money, securities, or property as belonging to the depositing futures commission merchant* or any person other than the swaps customer of the futures commission merchant.¹²⁴

D. Observations

The statutory language used to describe the “segregation requirement” is very similar for both futures and swaps customers. Customers in both markets, therefore, should theoretically have the same level of protection.

This Article argues that these sections were introduced in order to prohibit the FCM and the CCP from “using” the margin of non-defaulting customers of an insolvent FCM to cover the obligations of any defaulting customers.

In order to achieve protection against fellow-customer risk, the LSOC Model is required as a minimum level of protection in both the futures and cleared swaps markets. It has been observed that futures customers are currently not protected from fellow customer risk,¹²⁵ which is contrary to the statutory intention of the CEA.

VI. CUSTOMER MARGIN ACCOUNTS

FCMs can maintain up to three different types of accounts¹²⁶ for their customers: Customer Segregated Accounts, Cleared Swaps Customer Accounts, and 30.7 Accounts.¹²⁷ The Futures Industry Association (“FIA”) has noted that

[t]he requirement to maintain these separate accounts reflects the different risks posed by the different products. Cash, securities, and other collateral ... required to be held in one type of account, *e.g.*, the Customer Segregated Account, may not be commingled with funds required to be held in another type of

¹²⁴ Codified at 7 U.S.C. § 6d(f)(6) and 17 C.F.R. § 22.7 (emphasis added).

¹²⁵ See LSCO AND CLEARED SWAPS CUSTOMER PROTECTION, *supra* note 119.

¹²⁶ See *generally* FUTURES INDUS. ASS’N, PROTECTION OF CUSTOMER FUNDS, FREQUENTLY ASKED QUESTIONS, VERSION 3.0 4 (May 2014).

¹²⁷ An FCM will deposit the margin of customers that trade futures and options listed on foreign exchanges in a 30.7 Account. 17 C.F.R. § 30.7 (2015) U.S. laws therefore may not apply to these accounts. Since 30.7 Accounts do not receive protection from the CEA and U.S. Bankruptcy Code, they are outside the scope of this Article.

account, *e.g.*, the 30.7 Account, except¹²⁸ as the [CFTC] may permit by order.¹²⁹

A. Customer Segregated Account

The FCM will deposit the margin of customers that trade futures and options¹³⁰ listed on U.S. futures exchanges in a Customer Segregated Account in accordance with section 4d(a) of the CEA. The FCM must separately account¹³¹ for and segregate all customer margin from the FCM's proprietary accounts,¹³² is prohibited from commingling customer margin with its own margin in the same account, and "shall treat and deal with the funds of a futures customer as belonging to such futures customer."¹³³ This is "a form of collective trust," according to Professor Markham.¹³⁴

The FCM may only commingle customer margin in a single omnibus account "for convenience."¹³⁵ This "financial innovation" provides "greater capital efficiency due to margin reductions

¹²⁸ The CFTC may permit the FCM to commingle customer margin across the different account types. See Dodd-Frank Wall Street Reformation and Consumer Protection Act, Pub. L. No. 111-203, § 724(a)(3)(B), 124 Stat. 1376, 1807 (2010); 17 C.F.R. 1.20(e)(3) (2015). For example, in August of 2012, the CFTC authorized ICE Clear Europe Limited, which is registered with the Commission as a DCO, and its FCM clearing members, to commingle margin posted for cleared swaps with margin posted for foreign futures and foreign options (which should typically be held in a 30.7 Account) traded on ICE Futures Europe in the Cleared Swaps Customer Account. This was done to allow portfolio margining. See FUTURES INDUS. ASS'N, *supra* note 126, at 5 n.5.

¹²⁹ *Id.* at 5; see also CFTC REPORT, *supra* note 14, at 6359.

¹³⁰ This Article does not consider the options markets.

¹³¹ 17 C.F.R. § 1.20(a) ("A futures commission merchant must separately account for all futures customer funds and segregate such funds as belonging to its futures customers. A futures commission merchant shall deposit futures customer funds under an account name that clearly *identifies* them as futures customer funds and shows that such funds are segregated as required by § 4d(a) and 4d(b) of the [CEA] and by this part.") (emphasis added).

¹³² 17 C.F.R. § 1.20(e)(2).

¹³³ 17 C.F.R. § 1.20(f)(1) ("*Limitation on use of futures customer funds.* A futures commission merchant shall treat and deal with the funds of a futures customer as belonging to such futures customer. A futures commission merchant shall not *use* the funds of a futures customer to secure or guarantee the commodity interests, or to secure or extend the credit, of any person other than the futures customer for whom the funds are held.") (emphasis added).

¹³⁴ Markham, *supra* note 2, at 95.

¹³⁵ 17 C.F.R. § 1.20(e)(1).

for correlated positions,”¹³⁶ which reduces costs for all the market participants.

The Customer Segregated Account “may”¹³⁷ be held at the following “permitted depositories”¹³⁸: a bank or trust company located in the United States,¹³⁹ another FCM,¹⁴⁰ a DCO,¹⁴¹ or a bank or trust company located outside of the United States that has regulatory capital in excess of \$1 billion.¹⁴² The requirement for holding a Customer Segregated Account away from the FCM reduces the ability of the FCM to perpetrate fraud and misuse customer margin.¹⁴³

The FCM is required to make a daily computation (marking-to-market) of the “total amount of futures customer funds on deposit in segregated accounts on behalf of futures customers.”¹⁴⁴ The FCM should immediately report a shortfall to the CFTC and Designated Self-Regulatory Organization (“DSRO”), and bring the amount up to the necessary level by depositing its own funds if necessary.¹⁴⁵ The FCM is also required to submit bimonthly,¹⁴⁶ monthly,¹⁴⁷ and annual reports¹⁴⁸ to the CFTC or its DSRO.

¹³⁶ Commodities Futures Trading Commission, Notice of Proposed Rulemaking—Risk Management Requirements for Derivatives Clearing Organizations, 76 Fed. Reg. 3698, 3716 (Jan. 20, 2011).

¹³⁷ 17 C.F.R. § 1.20(b). The use of the term “may” instead of “must” in rule § 1.20(b) introduces legal uncertainty, as it suggests that FCMs may hold a Customer Segregated Account at a location that is different from the list provided in the regulation (e.g., a FCM may hold the account for their immediate customers). The language used by the FIA, however, clarifies that customer margin cannot be held by the immediate FCM and is “required to be held in Customer Accounts at a bank or trust company, a DCO or *another* FCM.” FUTURES INDUS. ASS’N, *supra* note 126, at 12 (emphasis added).

¹³⁸ The segregation requirement applies to margin deposits held at a permitted depository. 17 C.F.R. § 1.20(f)(3); 17 C.F.R. § 22.4 (2015).

¹³⁹ 17 C.F.R. § 1.20(b)(1).

¹⁴⁰ *Id.* § 1.20(b)(3).

¹⁴¹ *Id.* § 1.20(b)(2).

¹⁴² *Id.* § 1.20(c). *See generally id.* § 1.49.

¹⁴³ However, this risk is substituted for the risk that the CCP or the depository will commit fraud or experience operational risk.

¹⁴⁴ 17 C.F.R. § 1.32(a)(1) (2015).

¹⁴⁵ *Id.* § 1.32(a)(2).

¹⁴⁶ *Id.* § 1.32(f).

¹⁴⁷ 17 C.F.R. § 1.10(b)(1)(i) (2015).

¹⁴⁸ *Id.* § 1.10(b)(1)(ii).

Aside from the previously mentioned reports, there is no requirement for FCMs to report and identify “individual” customer margin deposits to the CCP.¹⁴⁹ The FCM merely needs to clearly identify the “location” of each Customer Segregated Account and report on the “total amount” collectively held in segregation.¹⁵⁰ The depository must provide a written acknowledgement to the FCM that it has been informed that the margin it holds belongs to the FCM’s customers,¹⁵¹ and a copy of this acknowledgement must be sent to the CFTC and the FCM’s DSRO.¹⁵²

In addition, the depository must provide the CFTC with “read-only electronic access to transaction and account balance information for futures customer accounts.”¹⁵³ These reporting requirements and direct online access by the CFTC should reduce instances of fraudulent activity by FCMs. This will aid the DSRO in identifying any discrepancies between the amount of segregated customer funds reported by the FCM and the permitted depository.

B. Cleared Swaps Customer Account

The FCM will deposit the margin of customers who trade swaps that are cleared through a registered DCO in a Cleared Swaps Customer Account in accordance with the new section 4d(f) of the CEA. Although the rules are very similar to those governing Customer Segregated Accounts, there are some important distinctions.

As with Customer Segregated Accounts, the FCM is prohibited from commingling¹⁵⁴ any margin it receives from swaps customers with funds in its own proprietary account. The FCM shall not use¹⁵⁵ swaps customer margin to cover any obligations of the

¹⁴⁹ 17 C.F.R. § 39.13(g)(8)(C) (2015).

¹⁵⁰ 17 C.F.R. §§ 1.32(f)(1)–(2); NAT’L FUTURES ASS’N MANUAL § 16(e), <https://www.nfa.futures.org/nfamanual/NFAManual.aspx> [hereinafter NFA MANUAL]; see also *infra* note 169.

¹⁵¹ 17 C.F.R. § 1.20(d) (2015); see 17 C.F.R. § 1.20 app. A.

¹⁵² *Id.* § 1.20(d)(4).

¹⁵³ *Id.* § 1.20(d)(3)(i).

¹⁵⁴ 7 U.S.C. § 6d(f)(2)(B) (2015); 17 C.F.R. § 22.2(c)(2)(i) (2015).

¹⁵⁵ Dodd-Frank Act, Pub. L. No. 111-203, § 724(a)(2)(B), 124 Stat. 1376, 1683 (2010).

other swaps customers and shall “treat and deal” with all swaps customer margin as “belonging to the swaps customer.”¹⁵⁶

The FCM may also deposit and commingle swaps customer margin with the margin of its other swaps customers “for convenience.”¹⁵⁷ Further, it may use swaps customer margin to enter into the same list of investments as those permitted for margin held in Customer Segregated Accounts.¹⁵⁸

The account may be held at the same list of permitted depositories¹⁵⁹ allowed for Customer Segregated Accounts. An important distinction is that an FCM may “itself” hold a Cleared Swaps Customer Account for its immediate customers,¹⁶⁰ which is not possible for Customer Segregated Accounts. It is speculated that this distinction exists because the reporting requirements for margin deposited in Cleared Swaps Customer Accounts are more rigorous than for margin deposited in Segregated Customer Accounts. This makes it harder for an FCM to misappropriate or misallocate cleared swaps customer margin.

An FCM must provide the CCP “[a]t least once each business day” with information that is “sufficient to identify, for each Cleared Swaps Customer, the portfolio of rights and obligations arising from the Cleared Swaps that such [FCM] intermediates for such ... [c]ustomer.”¹⁶¹

These daily reporting requirements add an extra layer of protection for swaps customers from fellow customer risk, from the claims of an insolvent FCM’s other creditors, and by facilitating

¹⁵⁶ *Id.* § 724(a)(2)(A).

¹⁵⁷ *Id.* § 724(a)(3)(A)(i) (“Exceptions: Use of Funds—In General—Notwithstanding paragraph (2) [of § 724(a)], money, securities, and property of swap customers of a futures commission merchant described in paragraph (2) may, *for convenience*, be commingled and deposited in the same account or accounts with any bank or trust company or with a derivatives clearing organization.”) (emphasis added).

¹⁵⁸ *Id.* § 724(a)(4) (codified at 17 C.F.R. § 22.2(e)(1) (2010)) (noting that “the futures commission merchant shall bear sole responsibility for any losses resulting from the investment of customer funds in instruments described in [17 C.F.R. § 1.25]”).

¹⁵⁹ The list of permitted depositories is included in 17 C.F.R. § 1.49(d) (2015). See 17 C.F.R. §§ 22.2(b)(3), 22.4, 22.9.

¹⁶⁰ 17 C.F.R. § 22.2(b)(2).

¹⁶¹ *Id.* § 22.11(c)(2).

porting. Consequently, cleared swaps customers receive a higher level of protection than futures customers if their FCMs default.

A permitted depository, which includes a CCP, must also segregate customer margin from its own proprietary accounts: it must “treat”¹⁶² the margin as “belonging” to the customer and may not “hold, dispose of, or use” the margin “as belonging to the [FCM] or any person other than the swaps customer of the [FCM].”¹⁶³

An FCM may post any excess margin collected from Cleared Swaps Customers to the CCP, provided that the CCP’s rules permit this, and it is possible for the FCM to identify customer margin on a daily basis.¹⁶⁴

C. Losses Are Not Shared Across Account Classes

The CFTC “rules prohibit an FCM from using the funds of one customer to meet the obligations of another customer.”¹⁶⁵ Consequently, losses will not be shared across account classes.¹⁶⁶ For example, a shortfall of customer margin in the Customer Segregated Account will not be shared with customers of the Cleared Swaps Customer Account.

D. The “Buffer” Margin

The FCM is permitted in all account types to deposit its own proprietary assets (cash and unencumbered securities) to act as a buffer and to ensure that the customer margin accounts do not become under-segregated.¹⁶⁷

This buffer margin is known as the “residual interest” of the FCM.¹⁶⁸ These assets are held for the “benefit of futures

¹⁶² *Id.* § 22.7.

¹⁶³ Dodd-Frank Act § 724(a)(6).

¹⁶⁴ 17 C.F.R. § 22.13(c).

¹⁶⁵ FUTURES INDUS. ASS’N, *supra* note 126, at 8. See 17 C.F.R. § 190.08(c) (2015).

¹⁶⁶ Upon a double default, “the [c]learing [h]ouse shall not apply segregated customer collateral to any payment obligations or [l]osses arising from a default in any proprietary account [of the FCM] or a different customer account class.” CME RULEBOOK, *supra* note 14, Rule 802.G; see U.S. Bankruptcy Code, 11 U.S.C. § 763 (2015).

¹⁶⁷ 17 C.F.R. §§ 1.23(a)(1)–(2) (2015).

¹⁶⁸ *Id.* § 1.23(c).

customers,”¹⁶⁹ and would presumably be distributed to margin customers in the event of a shortfall in the relevant account in priority to the other unsecured creditors of the FCM. Professor Filler has noted that “[m]ost large FCMs deposit a substantial amount of their own capital in the customer segregated account to provide excess funds in the event a futures customer does not timely meet its margin requirements.”¹⁷⁰ The FCM must establish written procedures to ensure that the residual interest in the customer margin accounts that it maintains does not fall below a certain level.¹⁷¹ The FCM must immediately notify the CFTC and its DSRO if the residual interest falls below this level.

E. Accounts Maintained by CCPs

CCPs will maintain a margin account for each asset class for the FCM’s proprietary positions (FCM Proprietary Accounts). They will also maintain an account for each asset class for the FCM’s customers (Customer Accounts). A CCP, therefore, must segregate customer margin from its own equity and the proprietary margin of the FCMs.

The CCP must deposit customer margin in an account at a permitted depository¹⁷² in the name of the CCP and for the benefit of the FCM’s customers.¹⁷³ This includes a bank, a trust company, or at a Federal Reserve Bank if the CCP is classified as a DCE. The CCP may commingle the customer margin it receives from multiple FCMs in one omnibus account with the margin of customers of the same account class. For example, the CCP “may commingle the Cleared Swaps Customer Collateral that it receives from multiple [FCMs] on behalf of their Cleared Swaps Customers.”¹⁷⁴

¹⁶⁹ *Id.* § 1.23(a)(1); *see also id.* (Customer Segregated Accounts); *id.* §§ 30.7(a)–(d) (30.7 Accounts); *id.* § 22.2(e)(4) (Cleared Swaps Customer Accounts). *See generally* NFA MANUAL, *supra* note 150, § 16 (mirroring the previously mentioned provisions).

¹⁷⁰ Filler, *supra* note 41, at 5.

¹⁷¹ This level is known as the “Targeted Residual Interest.” *See* FUTURES INDUS. ASS’N, *supra* note 126, at 7–8.

¹⁷² 17 C.F.R. § 1.20(g)(2) (2015) (futures); *id.* §§ 22.3(b)–(c) (cleared swaps).

¹⁷³ *See* Filler, *supra* note 41, at 6.

¹⁷⁴ 17 C.F.R. § 22.3(c)(1) (2010).

It is typical for customer margin to be deposited in an account that is controlled by the CCP,¹⁷⁵ because it will have faster access to use the margin of defaulting customers and FCMs in an emergency situation. The CCP must identify the margin of customers depositing in Cleared Swaps Customer Accounts.¹⁷⁶ This is not a requirement for Customer Segregated Accounts.¹⁷⁷

If the FCM's customer margin account is held on the books of the CCP, the risk exists under the Futures Model that the CCP will use the margin of non-defaulting customers in a double default situation. This risk does not arise under the LSOC Model, as the Bankruptcy Code prohibits the CCP from using customer margin that can be identified.

VII. LEGAL MECHANISMS FOR POSTING AND HOLDING MARGIN

A. *Title Transfer Versus Security Interest*

Traditionally, there are two broad legal mechanisms for posting margin: title transfer or security interest. In a "title transfer arrangement," "the collateral taker receives full ownership of the collateral"¹⁷⁸ and receives proprietary rights in the transferred assets.

In its place [the collateral giver] acquires a *contractual* right to the return of equivalent assets if the liabilities are discharged, namely assets that, in an economic sense, are *identical* to the collateral that was originally posted (for example, in the case of securities, securities of the same series and nominal value), although not necessarily precisely the same assets that were delivered.¹⁷⁹

This legal arrangement allows the collateral taker to "reuse" or "re-hypothecate" the collateral for its *own purposes* in investments that are expected to be profitable. Re-hypothecation is the practice

¹⁷⁵ As opposed to being deposited with a third-party custodian, as explained below.

¹⁷⁶ See 17 C.F.R. § 22.2(f).

¹⁷⁷ See generally 17 C.F.R. § 1.23 (2015).

¹⁷⁸ Fausto Giacomet, *Is the ordinary treatment of client assets in prime brokerage consistent with the recognition of a trust upon insolvency of the prime broker?*, 8 CAP. MKTS. L. J. 205, 210 (2013).

¹⁷⁹ SIMON FIRTH, *DERIVATIVES LAW & PRACTICE* 6–9 (2008) (emphasis added).

of a collateral taker using, “for its own purposes,”¹⁸⁰ customer securities that have been transferred through a title transfer arrangement.¹⁸¹ This practice would normally leave customers with a contractual right against the collateral taker for the return of their margin, as it is no longer possible to identify the transferred securities. Consequently, the collateral giver assumes the credit risk of the collateral taker, and is left as an unsecured creditor for the return of the collateral upon the insolvency of the collateral taker. Collateral takers will charge lower fees or interest rates in exchange for the privilege of being able to reuse the collateral giver’s margin.

In a “security interest arrangement,” the collateral taker receives a “*limited proprietary interest* in the collateral assets, without allowing it to freely deal with them.... [T]he collateral giver retain[s] a residual property right *in rem* known as equity of redemption, and therefore the assets under this arrangement would not be at risk if the collateral taker [becomes] insolvent.”¹⁸² It must be possible to continuously identify the customer margin for this type of arrangement to be valid.

The legal structure for posting margin in the U.S. futures and cleared swaps markets under the statutory regime is slightly more complicated because the client margin can reside at both the CCP and the clearing member.¹⁸³ The following section will analyze the *sui generis* statutory trust that was created by the CEA and the DFA to protect customers.

B. The Statutory Trust

Although futures and cleared swaps transactions are contractual obligations, the margin that is posted to secure these

¹⁸⁰ Manmohan Singh & James Aitken, *The (sizable) Role of Re-hypothecation in the Shadow Banking System* 3 (IMF Monetary and Cap. Mkt. Dept., Working Paper No. WP/10/172, 2010).

¹⁸¹ “Clients who permit rehypothecation of their collateral may be compensated either through a lower cost of borrowing or a rebate on fees.” *Dictionary Definition, Rehypothecation*, INVESTOPEDIA, <http://www.investopedia.com/terms/r/rehypothecation.asp> [<https://perma.cc/434A-Q9Z2>].

¹⁸² Giacomet, *supra* note 178, at 210 (emphasis added) (footnote omitted).

¹⁸³ DAVID MURPHY, OTC DERIVATIVES: BILATERAL TRADING & CENTRAL CLEARING: AN INTRODUCTION TO REGULATORY POLICY, MARKET IMPACT AND SYSTEMIC RISK, GLOBAL FINANCIAL MARKETS SERIES 164 (2013).

contractual obligations receives proprietary protections under a trust structure.

1. The Statutory Trust for Futures Customers

The CEA has created a sui generis statutory trust in order to protect futures customers. This innovative hybrid legal structure, which developed in a piecemeal fashion over time, incorporates elements of trust law, title transfer arrangements, security interests, and the market practices of CCPs.¹⁸⁴

Under the Futures Model, futures customers transfer their margin in a structure that is akin to a title transfer arrangement, and they have a *contractual claim* for the return of their margin.¹⁸⁵ Moreover, the CCP is a “super priority” creditor with a security interest over all the margin deposited in the Customer Segregated Account.¹⁸⁶

In a double default situation, the CCP’s security interest attaches to all the customer margin and provides it with a claim in priority over the claims of all other creditors. The CCP’s default

¹⁸⁴ The possibility of a hybrid legal structure was confirmed by the Report on Margin Segregation. It noted that under a title transfer arrangement, the customers

would forfeit their proprietary interests in such margin immediately upon such transfer The customers ... would retain only a contractual claim against the transferees for the return of the margin so transferred, not a proprietary interest therein. Notwithstanding the foregoing, where customers have transferred title to their margin, it may nevertheless be possible for CMs to establish trust or security interest arrangements that would allow customers to establish proprietary interests in the margin or the contractual obligation of the holder of margin to return such margin to the CM (as agent or customer for the customers).

REPORT ON MARGIN SEGREGATION, *supra* note 36, at 25.

¹⁸⁵ *Id.* (noting that a title transfer arrangement would give rise to a contractual claim and not a property interest). This must be the case if securities margin is subsequently re-hypothecated.

¹⁸⁶ Super-priority creditors “are a special class of creditor who are paid before all the other creditors of the insolvent counterparty.” Christian Chamorro-Courtland, *The Legal Aspects of Non-Financial Market Central Counterparties*, 27 BANKING & FIN. L. REV. 553, 555 n.12 (2012) [hereinafter Chamorro-Courtland, *Legal Aspects*].

waterfall permits it to recover the margin of the defaulting customers from the collective margin pool, even if the remaining margin technically belongs to the non-defaulting customers.¹⁸⁷ Consequently, the non-defaulting customers are not protected from claims of the CCP, and will share any losses on a pro rata basis.

After sharing any losses in the account, futures customers are provided with *equitable proprietary rights* to recover any remaining margin in the account from the bankruptcy trustee in priority to the insolvent FCM's other general creditors.¹⁸⁸ In sum, futures customers have contractual rights vis-à-vis the CCP, and equitable proprietary rights vis-à-vis the insolvent FCM's other general creditors; hence, the sui generis nature of the trust.

2. *The Statutory Trust for Cleared Swaps Customers*

Under the LSOC Model, cleared swaps customers transfer their margin in a structure that is akin to a security interest arrangement.¹⁸⁹ Moreover, the CCP is a "super-priority" creditor with a security interest over customer margin.¹⁹⁰ The CCP, however, is only allowed to use the margin of the defaulting customers.¹⁹¹ The new statutory trust created by the DFA provides non-defaulting cleared swaps customers with a higher level of protection.¹⁹²

The non-defaulting customers will receive *equitable proprietary rights*¹⁹³ from the moment they transfer their margin to the FCM or CCP (and not contractual rights). They will have priority over the CCP and the insolvent FCM's general creditors to recover all

¹⁸⁷ Bora Yagiz, *Clearinghouses' default "waterfall" offers no panacea against their potential failure*, REUTERS: FIN. REG. FORUM (Apr. 10, 2014), <http://blog.thomsonreuters.com/index.php/clearinghouses-default-waterfall-offers-no-panacea-against-their-potential-failure/> [https://perma.cc/39NC-85V8].

¹⁸⁸ 11 U.S.C. § 766(i) (2012).

¹⁸⁹ M. Holland West & Matthew K. Kerfoot, Symposium: *The Impact of Dodd-Frank on Derivatives*, 18 FORDHAM J. CORP. & FIN. L. 269, 278 (2013).

¹⁹⁰ Chamorro-Courtland, *Legal Aspects*, *supra* note 186.

¹⁹¹ West & Kerfoot, *supra* note 189.

¹⁹² Gabriel D. Rosenberg & Jai R. Massari, *Regulation Through Substitution as Policy Tool: Swap Futurization Under Dodd-Frank*, 2013 COLUM. BUS. L. REV. 667, 726 (2013).

¹⁹³ 11 U.S.C. § 766(i).

“identifiable” margin deposits.¹⁹⁴ In sum, the CCP is strictly prohibited from using the margin of the non-defaulting customers in a double default situation.

C. Permitted Investments for Customer Excess Margin

There is an important exception to the segregation requirement. CFTC Regulation 1.25 allows FCMs and CCPs to invest the excess margin of futures customers and cleared swaps customers in a list of “permitted investments”¹⁹⁵ so that the margin is not sitting idle.

CCPs and FCMs “shall bear sole responsibility for any losses resulting from the investment of customer funds.”¹⁹⁶ The law provides futures customers and cleared swaps customers with a different level of protection.

1. Investment and Re-hypothecation of Futures Customer Margin

The FCM and the CCP may only invest excess futures customer margin in a *limited* list of “permitted investments” contained in CFTC Regulation 1.25: they may re-hypothecate¹⁹⁷ customer securities that are “highly liquid”¹⁹⁸ and “invest customer money”¹⁹⁹ in U.S. government bonds.²⁰⁰ CCPs and FCMs can retain any interest or income that they generate from these investments.²⁰¹

CFTC Regulation 1.25(b)(1) requires that permitted investments “must be ‘highly liquid’ such that they have the ability to be converted into cash within one business day without material

¹⁹⁴ *Id.*

¹⁹⁵ See 17 C.F.R. § 1.25 (2015). The CFTC can amend this list from time to time. In response to various FCM failures, the list was amended in December 2011 to only permit investment in instruments that are guaranteed by the U.S. government. See Markham, *supra* note 2, at 124.

¹⁹⁶ 17 C.F.R. § 1.29(b) (2015) (futures); *id.* § 22.2(e)(1) (cleared swaps).

¹⁹⁷ 17 C.F.R. § 1.25(a)(2)(i).

¹⁹⁸ See *id.* § 1.25(a)(2)(ii)(A).

¹⁹⁹ *Id.* § 1.25(a).

²⁰⁰ The law does not appear to allow other permitted depositories that hold customer margin accounts to invest or re-hypothecate customer margin. 7 U.S.C. § 6d(b) (2012); 17 C.F.R. § 1.25.

²⁰¹ 17 C.F.R. § 1.29(a) (2014).

discount in value.”²⁰² The Bankruptcy Code requires the trustee to liquidate any non-identifiable assets and return them to customers in the form of cash.²⁰³ This practice is therefore consistent with a title transfer arrangement.

Legal scholars have debated whether customers are able to receive protection under a trust if their securities margin is re-hypothecated. Markham has argued that the practice of re-hypothecating customer margin is “[a]t variance with traditional trust principles.”²⁰⁴ Giacomet has also argued that re-hypothecation is not compatible with traditional trust law principles, as it is no longer possible to identify the securities that have been transferred (i.e., they are non-identifiable).²⁰⁵

The Author argues to the contrary that re-hypothecation will not invalidate a trust. As a persuasive authority, the English High Court held in *Pearson & Ors v. Lehman Brothers Finance S.A.*²⁰⁶ that there was still certainty of subject matter necessary for a valid trust after Lehman Brothers²⁰⁷ re-hypothecated the margin of its customers.²⁰⁸

The sui generis statutory trust created by the CEA therefore provides futures customers with equitable proprietary rights upon the insolvency of their FCM. Nevertheless, futures customers

²⁰² *Id.* § 1.25(b)(1).

²⁰³ Treatment of Customer Property, 11 U.S.C. §§ 766(e)(3), (h)(1) (2012).

²⁰⁴ Markham, *supra* note 2, at 96.

²⁰⁵ Giacomet has criticized prime brokerage agreements, and argues that [i]t is easy for hedge funds to benefit from the recognition of a trust upon prime broker becomes insolvency ... even though this is inconsistent with the treatment of client assets in the ordinary course of business Prime brokerage clients have clear reasons to ‘convert’ their proprietary interests in their assets into personal rights claims against their intermediary. Nonetheless, upon insolvency and by means of a trust, these clients are being able to benefit from proprietary entitlements that they have rejected outside of an insolvency event [T]here seems to be a certain hypocrisy when hedge funds argue that their property is held on trust [T]rust law appears to be in a confused state.

Giacomet, *supra* note 178, at 219, 221.

²⁰⁶ [2010] EWHC (ch) 2914 (Eng.).

²⁰⁷ *Id.*

²⁰⁸ *See* Giacomet, *supra* note 178, at 217.

will still be exposed to investment risk,²⁰⁹ operational risk, and fellow customer risk.

In a shortfall situation, losses are mutualized between all the customers. Futures customers may claim a pro rata share of the remaining cash proceeds of the re-hypothecated securities after the CCP has been paid and in priority to the insolvent FCM's other general creditors.²¹⁰

2. Investment and Re-hypothecation of Cleared Swaps Customer Margin

Under the DFA, the FCM²¹¹ and CCP²¹² may invest excess cleared swaps customer margin in the same list of investments permitted under CFTC Regulation 1.25. The law is different, however, as the FCM and CCP must treat customer margin "as belonging to such Cleared Swaps Customer."²¹³ The FCM must credit any "accruals" resulting from invested or re-hypothecated margin to the customer,²¹⁴ and is not permitted to use and keep any interest or income generated from re-hypothecated margin. In this sense, it is not a true re-hypothecation. The economic effect is akin to a security interest arrangement.²¹⁵

The statutory trust provides cleared swaps customers with equitable proprietary rights to recover the proceeds of the re-hypothecated margin in priority to the CCP and the insolvent

²⁰⁹ "Investment risk" occurs when customer margin that is used in permitted investments by the FCM faces insurmountable losses and results in a shortfall. This situation can arise where "a bankruptcy trustee incurs losses in liquidating collateral held in the ... [c]ustomer [a]ccount in which the FCM had invested in accordance with Commission Rule 1.25," FUTURES INDUS. ASS'N, *supra* note 126, at 10.

²¹⁰ *Id.* at 15; Walter Lukken, The Regulation of Futures and Derivatives, Panel at the A.B.A. Derivatives and Futures Law Annual Program: Exchange and Clearing Issues (June 23, 2010).

²¹¹ 17 C.F.R. § 22.2(e)(1) (2012).

²¹² *Id.* § 22.3(d).

²¹³ *Id.* § 22.15.

²¹⁴ *Id.* § 22.2(f)(2)(ii).

²¹⁵ It should be noted that customers do not have a security interest in the re-hypothecated securities, however, as it is not possible to identify the transferred assets. Fausto Giacomet has noted in the context of security interest arrangements that "if a right of use is conferred to the collateral taker, the equity of redemption is eliminated when this right of use is exercised." Giacomet, *supra* note 178, at 210–11.

FCM's other general creditors. The insolvency trustee will have to return all of the invested cash and the cash proceeds of liquidated securities that were re-hypothecated.²¹⁶ Alternatively, the customer may request that the trustee return "like-kind securities."²¹⁷ This means that customers are not exposed to fellow-customer risk, as there is no mutualization of excess margin.²¹⁸

As with futures customers, however, the cleared swaps customers remain exposed to investment risk if the re-hypothecated securities have lost value and the FCM or CCP is insolvent. The FIA has noted that "excess funds, wherever held, are subject to the *pro rata* distribution provisions of the Bankruptcy Code in the event of a *shortfall* in a defaulting FCM's Cleared Swaps Customer Account."²¹⁹

3. Collateral Transformation

Re-hypothecation is necessary for the process of "collateral transformation."²²⁰ This may be necessary in situations where the FCM accepts a wider range of collateral from customers than is actually accepted by the CCP. The FCM will need to "transform" this collateral into a type of valid collateral that will be accepted with the CCP.²²¹

4. Observations and Recommendations

In sum, the U.S. legislative provisions contained in the CEA and the DFA for protecting futures and cleared swaps customers are *sui generis* legal structures that incorporate various (sometimes

²¹⁶ 17 C.F.R. § 1.25(b)(1) (2014).

²¹⁷ *Id.* § 190.08(d)(ii)(3).

²¹⁸ ICE Trust has noted that

if [a] customer fails to pay, ICE Trust will have the right to access that customer's assets that are in the Excess Omnibus Account. (This does not mutualize losses across other clients since ICE Trust will have no right to use the assets in the Excess Omnibus Account that belong to any other customer.).

REPORT ON MARGIN SEGREGATION, *supra* note 36, at 58 n.84.

²¹⁹ FUTURES INDUS. ASS'N, *supra* note 126, at 15 (emphasis added).

²²⁰ *See generally* MURPHY, *supra* note 183, at 162.

²²¹ For example, ICE Trust permits this practice. *See* ICE, ICE TRUST U.S. CLEARING HOUSE FOR CREDIT DEFAULT SWAPS (CDS), https://www.theice.com/publicdocs/clear_us/ICE_Trust_Overview.pdf [<https://perma.cc/26YS-BHJN>].

conflicting)²²² legal concepts. Any legal incongruities should not diminish the legality of the statutory trust.

VIII. THE LEGAL ASPECTS OF OMNIBUS ACCOUNTS

The applicable bankruptcy rules differ in their treatment of customer margin deposited in the various customer margin account classes upon the bankruptcy of the FCM. There are two types of omnibus accounts: those in which customers intend to share losses as co-owners on a pro rata basis (the Futures Model), and those in which customers intend to have their margin treated as legally separate (the LSOC Model).²²³ The distinction becomes important in a double default situation.²²⁴ The legal literature reviewed above, however, has failed to clarify that omnibus accounts may take two different legal forms.

A. *The Blended Fund Theory*

In some omnibus accounts, the intention is to treat all the customer margin that is deposited in the account as a single “blended fund.”²²⁵ This arises if the customers opt to hold their margin in a single account as co-owners for cost-saving or administrative purposes. The blended fund theory views the margin deposited in the account as

an indistinguishable mixture of value, and so it is impossible to say which part is any claimant’s [The] individual deposits lose their identity in the increased balance. The result of the

²²² For instance, in the case of futures customers, it is inconsistent with a trust arrangement for the FCM and CCP to receive the interest and income generated from investing and rehypothecating excess customer margin instead of the customer.

²²³ The type of account used is less important in situations where the customer margin deposited in an omnibus account is all properly accounted for after the FCM’s insolvency. In those cases, the customers should receive the full value of the margin in priority to the FCM’s other unsecured creditors in accordance with 11 U.S.C. § 766(h)(2) of the Bankruptcy Code.

²²⁴ Linklaters has noted that “the LSOC Model differs from the traditional futures approach ... in how it handles [d]ouble [d]efaults.” LINKLATERS, *supra* note 12, at 3.

²²⁵ Wayne L. Townsend, *Constructive Trusts and Bank Collections*, 39 YALE L.J. 980, 983–84 (1930).

loss of *identity* of deposits is that withdrawals cannot be definitively ascribed to any particular deposit.²²⁶

It has been observed that omnibus accounts using the Futures Model have followed the blended fund theory.²²⁷ CCPs that clear futures contracts have developed market practices that treat futures customer margin deposited in a Customer Segregated Account as an indistinguishable mixture of value that loses its identity once it is commingled with the margin of the other customers.

From a legal perspective, the futures customers hold the margin on a collective basis and own the commingled margin as “co-owners.”²²⁸ All risks are mutualized between them. In support of this observation, the CFTC Report notes that “DCOs treat each FCM’s customer account on an omnibus basis, that is, as belonging to an *undifferentiated* group of customers.”²²⁹ Moreover, the CSA has noted that “the primary argument for allowing mutualisation of fellow customer risk is the potential for lower costs.”²³⁰

This type of account can present problems for some customers in a double default situation. If there is insufficient margin held in the FCM’s proprietary account at the CCP to cover the obligations of the defaulting customer, then the CCP is permitted to use futures customer margin that it holds in a Customer Segregated Account to cover. This will affect the margin of all futures customers holding margin in that account, and they will have to share in any shortfall on a pro rata basis.

This also means that any losses arising from investment risk, fraud committed by the FCM or CCP, or other operational risks resulting in a shortfall of margin in the omnibus account cannot be ascribed to any particular customer. In the event that the FCM holding the omnibus account became insolvent, the insolvency trustee would also have to distribute to customers the remaining margin in the omnibus account on a pro rata basis.

²²⁶ LIONEL SMITH, *THE LAW OF TRACING* 195, 185 (1997) (emphasis added).

²²⁷ See generally Michael Rawson, *3 Trends Toward Lower-Fee Investments*, MORNINGSTAR (June 12, 2014, 11:00 AM), <http://www.morningstar.com/cover/videocenter.aspx?id=651309> [<https://perma.cc/F6GG-WEYU>].

²²⁸ Accounts for Clearing Securities Futures, 75 SEC Docket 1505, 1561 (2001).

²²⁹ CFTC REPORT, *supra* note 14, at 6339 (emphasis added).

²³⁰ CSA CONSULTATION PAPER, *supra* note 7, at 19.

1. *The Blended Fund Theory and the Market Practices of CCPs*

An insolvency trustee must apply section 766 of the U.S. Bankruptcy Code²³¹ to distribute customer margin upon the insolvency of an FCM. Section 766(h) specifies that

the trustee shall distribute customer property *ratably* to customers on that basis and to the extent of such customers' allowed net equity²³² claims, and in priority to all other claims Such distribution shall be in the form of—(1) *cash*; (2) the return or transfer ... of *specifically identifiable* customer securities, property or commodity contracts[.]²³³

Section 766(e) requires the trustee to “liquidate” any commodity contract that cannot be “identified” with a particular customer²³⁴ and distribute the proceeds in the form of “money.”²³⁵ Therefore, customer margin that is not specifically identifiable, including securities,²³⁶ will be distributed as cash among all the customers on a pro rata basis.

CCPs that clear futures contracts in the United States do not keep records²³⁷ that identify individual customer margin deposits

²³¹ 11 U.S.C. § 766 (2012).

²³² This is the amount obtained after close-out netting. 17 C.F.R. § 190.07(b) (2012) (“Net equity means the total claim of a customer against the estate of the debtor based on the commodity contracts held by the debtor for or on behalf of such customer less any indebtedness of the customer to the debtor.”).

²³³ 11 U.S.C. § 766(h) (emphasis added).

²³⁴ *Id.* § 766(e) (“Subject to subsection (b) of this section, the trustee shall liquidate any commodity contract that ... (2) cannot be transferred ... or (3) cannot be identified to a particular customer.”).

²³⁵ *Id.* Furthermore, “[t]he trustee shall reduce to *money*, consistent with good market practice, all securities and other property, other than commodity contracts, held as property of the estate, except for specifically identifiable securities or property distributable under subsection (h) ... of this section.” *See id.* § 766(f) (emphasis added).

²³⁶ The Supervisors of the Major OTC Derivatives Dealers note that “the sharing rules applicable to commodity customers of insolvent FCMs in the event of a shortfall in a Bankruptcy Code proceeding do not differ on the basis of whether margin was posted in the form of securities or cash.” REPORT ON MARGIN SEGREGATION, *supra* note 36, at 53.

²³⁷ The CFTC Report has noted that “information about the customers as a whole, and about each individual customer’s positions, are [sic] transmitted to the DCO every day [under the LSOC Model], an information flow (and store) that is not present in the Futures Model.” CFTC REPORT, *supra* note 14, at 6340.

under their current market practices,²³⁸ as there is no express requirement to do so under the CEA or CFTC Regulations.²³⁹ The law only requires CCPs to identify the omnibus account as belonging to the futures customers collectively.²⁴⁰ Due to the lack of records, CCPs are unable to identify the margin deposits of individual customers. The Author argues that CCPs adopted the blended fund theory in the futures markets as a part of their market practices, in order to take advantage of sections 766(e) and (h) of the Bankruptcy Code.²⁴¹

This practice allows CCPs to avoid the cost of maintaining updated records on individual customer margin deposits, as this process requires receiving a continuous flow of information from the FCMs.²⁴² It also provides CCPs with a larger default waterfall, as the CCP can use the margin of a non-defaulting customer in a double default situation²⁴³ in order to meet its obligations to the other CMs.

Therefore, it is not surprising that some major CCPs have demonstrated support for adopting the Futures Model in the context of the cleared swaps industry.²⁴⁴ They have argued that the benefits of eliminating fellow customer risk under the LSOC Model are outweighed by the costs and the “Futures Model has served the futures industry well for many decades.”²⁴⁵

²³⁸ The CCP will only be aware of the total amount that it is owed by the FCM after marking to market at end of day. The CCP will not know the individual sums of margin that are owed by the individual customers to their FCM.

²³⁹ 17 C.F.R. § 39.13(g)(8)(i)(B) (2012).

²⁴⁰ *Id.* § 1.20(g).

²⁴¹ 11 U.S.C. § 766 (2012).

²⁴² *Id.*

²⁴³ See CFTC REPORT, *supra* note 14, at 6340:

Under the Futures Model, the DCO could use the entirety of the FCM’s customer account (or as much of it as necessary) to meet the entire loss created by the default. Transfer of customer positions would be difficult, in that the DCO would lack information as to which customers were in default, and which positions belonged to defaulting customers (and, presumably, would not be transferred) and which did not. The DCO would be permitted to liquidate customer positions, a process which might take between one and ten days.

²⁴⁴ These CCPs were CME and ICE. *Id.* at 6344 n.54.

²⁴⁵ *Id.* at 6341. It has been argued that LSOC will introduce legal uncertainty, as it has not been tested in the cleared swaps markets:

Ultimately, the LSOC Model would impose additional costs on FCMs and CCPs that they would have to forward on to consumers.²⁴⁶ For example, “one DCO estimated that it would have to increase the amount of collateral that each Cleared Swaps Customer must provide by 60 percent if it could no longer access the collateral of non-defaulting Cleared Swaps Customers to cure certain defaults.”²⁴⁷

2. Allocating Losses for a Double Default Under the Futures Model

Under the Futures Model, customers holding margin in an omnibus Customer Segregated Account will share risk as co-owners; consequently, losses are allocated on a pro rata basis²⁴⁸ among all the customers in a double default situation, including the non-defaulting customers.²⁴⁹

CME argued that the Futures Model provides the best balance of costs versus industry risk as a whole and is “the *only* approach that provides both legal and operational certainty to all parties in the event of an FCM default.” According to CME, the [LSOC Model] imperfectly protects customer collateral and thus, “the Commission [should] not rush to implement a ‘solution’ that gives superficial comfort, but may not work either operationally or legally in the event of an actual default.”

Id. at 6345. These comments, however, leave room for criticism, since returning identifiable property to non-defaulting customers in an insolvency situation has not proven to be a complicated process in past insolvencies.

²⁴⁶ *Id.* at 6341:

[S]ome DCOs may have anticipated including collateral from non-defaulting Cleared Swaps Customers as an element in their financial resources packages. If DCOs no longer have access to such collateral, then those DCOs would need to obtain additional financial resources to meet proposed Commission requirements. Both FCMs and DCOs averred that the costs associated with obtaining such additional financial resources may be substantial, and would ultimately be borne by Cleared Swaps Customers.

²⁴⁷ *Id.* at 6341 n.30.

²⁴⁸ 11 U.S.C. §§ 766(h), (i)(1) (2012).

²⁴⁹ “If a Double Default were to occur, the DCO would have recourse to the property of any customers of the FCM in the same account class, including non-defaulting customers.” LINKLATERS, *supra* note 12, at 3.

The insolvency trustee has access to resources in the following order. First, the trustee will liquidate the remaining proprietary assets of the insolvent FCM and cover the obligations of the defaulting customers by paying the CCP from the FCM's remaining assets.²⁵⁰ Second, if there is still a debt owing from the defaulting customers to the CCP, then the CCP can access its default waterfall to use the collective margin deposited in the Customer Segregated Account.²⁵¹ This will affect the margin of both the defaulting and non-defaulting customers.

Third, once all the obligations to the CCP have been covered, the insolvency trustee will distribute any margin remaining in the Customer Segregated Account to the customers that have claims.²⁵² This distribution process will require the insolvency trustee to close out and liquidate²⁵³ all open futures contracts and convert any securities margin into cash for a ratable distribution to all the margin customers.²⁵⁴

For example, A, B, C, and D are customers that each deposit \$25 million as an initial margin in a Customer Segregated Account with their FCM for futures transactions that they have entered into. The account contains a total of \$100 million. Customer A experiences a catastrophic loss of \$50 million in its futures positions due to unexpected volatility in the financial markets; as a result, it owes the FCM an additional \$25 million in variation margin, which it is unable to pay.

The following actions will take place in sequence: first, the FCM will use \$25 million of initial margin belonging to A in the margin account to pay the CCP. Second, as this amount is not enough to cover A's obligations, the FCM must use its own proprietary assets, of which it only has a total of \$13 million, after having experienced heavy losses itself. Since the FCM's proprietary

²⁵⁰ The CME Rulebook allows the CCP to reimburse customers of any account type for any losses experienced to customer margin from the proprietary assets of the CM. CME RULEBOOK, *supra* note 14, at 11 (Rule 802.G(6) states that “[u]pon liquidating the defaulting clearing member’s proprietary account, any remaining collateral may be applied by the clearing house to losses remaining in the defaulting clearing member’s customer account classes.”).

²⁵¹ *See id.* at 7, 11.

²⁵² 11 U.S.C. §§ 766(h)–(j) (2012).

²⁵³ The futures contract will not be closed out if the customer notifies the FCM of its intention to deliver the physical commodity. *Id.* § 766(b).

²⁵⁴ *Id.* §§ 766(f), (h)(1).

assets are insufficient to pay the remaining \$12 million to the CCP, this debt causes the FCM to default on its obligations to the CCP, resulting in a double default. Third, there is a shortfall of \$12 million, a loss that is collectively shared between A, B, C, and D on a pro rata basis as co-owners. Because the CCP is unable to “identify” which customer defaulted on its obligations, the CCP will access the Customer Segregated Account to assume the loss, leaving only \$63 million in the account when there should be \$75 million. B, C and D suffer a loss of \$4 million each.²⁵⁵ The remaining \$63 million of customer margin will be distributed evenly between B, C and D; in other words, they each receive \$21 million from the insolvency trustee.

The allocation of losses in this situation would have been the same if the shortfall in customer margin had been sustained from operational risk or fraudulent misappropriations committed by the depository or the CCP.²⁵⁶

3. Problems Associated with the Blended Fund Theory

The blended fund theory presents three problems. First, this theory is incompatible with the language used in the CEA. The FCM²⁵⁷ and the CCP²⁵⁸ are prohibited from “using” the margin of one futures customer to guarantee or secure the obligations of another futures customer. The Author speculates that CCPs have purposefully refused to keep records on individual customer margin deposits. The CCP cannot ensure that the margin of one customer will not be used to cover the losses of another customer if they are unable to “identify” each individual customers’ margin deposits in their records. The CCP is a “super priority” creditor with respect to the customer margin account.²⁵⁹ It is not concerned

²⁵⁵ A’s margin was already exhausted by the FCM.

²⁵⁶ 11 U.S.C. § 764(a) (2012). Section 764(a) of the Bankruptcy Code provides that “any transfer by the ... [FCM] that, but for such transfer, would have been customer property, may be avoided by the [insolvency] trustee, and such property shall be treated as customer property.” *Id.* Notwithstanding, in order to protect the integrity of the market, the CFTC has the discretion to uphold the finality of transactions by ensuring that any misappropriated margin that is used in cleared transactions will not be undone. *See id.* § 764(b).

²⁵⁷ *See* 7 U.S.C. § 6d(a)(2) (2012).

²⁵⁸ *See* 17 C.F.R. § 39.15(b)(1) (2015).

²⁵⁹ *See* Chamorro-Courtland, *Legal Aspects*, *supra* note 186, at 555.

with identifying which customers defaulted on their obligations and which customers are subsidizing the resulting losses. The CCP is concerned merely with using the customer margin to pay its obligations to the creditor CMs, which is its primary obligation under the clearing arrangement.²⁶⁰

Second, it is observed that FCMs are required to expressly notify customers in the contract for opening a futures account that they are exposed to fellow customer risk. For example, TradeStation Securities Inc., a registered FCM, has highlighted in its account agreement that

[t]he funds you deposit with a futures commission merchant are not held by the futures commission merchant in a separate account for your individual benefit. Futures commission merchants *commingle* the funds received from customers in one or more accounts and you may be *exposed to losses incurred by other customers* if the futures commission merchant does not have sufficient capital to cover such other customers' trading losses.²⁶¹

Arguably, sharing risk as co-owners in the omnibus account goes against the intention of the CEA. It is also inequitable, because customers are not provided with the option of choosing the level of protection that their margin should receive.²⁶²

Furthermore, imposing co-ownership risk on futures customers and protecting cleared swaps customers from fellow customer risk

²⁶⁰ See generally Craig Pirrong, Mutualization of Default Risk, Fungibility, and Moral Hazard: the Economics of Default Risk Sharing in Cleared and Bilateral Markets 33–34 (Univ. of Notre Dame, Working Paper, Feb. 2010), http://business.nd.edu/uploadedFiles/Academic_Centers/Study_of_Financial_Regulation/pdf_and_documents/clearing_moral_hazard_1.pdf [<https://perma.cc/6X7V-A76K>]; see also CRAIG PIRRONG, ISDA, THE ECONOMICS OF CENTRAL CLEARING 7–9, 13–14 (May 2011), https://www2.isda.org/attachment/MzE0Ng==/ISDA_discussion_CCP_Pirrong.pdf [<https://perma.cc/9RQG-BABZ>].

²⁶¹ TRADESTATION SECS., FUTURES ACCOUNT APPLICATION BOOKLET 2, <http://www.tradestation.com/~media/Files/TradeStation/Account%20Forms/Account%20Applications/TSS/Futures/Futures%20Individual%20and%20Joint%20Application.ashx> [<https://perma.cc/6QAJ-EMQP>] [hereinafter TRADESTATION, BOOKLET] (emphasis added).

²⁶² The Supervisors of the Major OTC Derivatives Dealers note that “[t]his mutualized sharing regime among customers cannot be varied by contract.” REPORT ON MARGIN SEGREGATION, *supra* note 36, at 34.

appears unjust when the language used in the legislation is nearly identical. The CFTC has acknowledged this by “directing staff to look into the possibility of adopting the [LSOC Model] for the futures market. The Commission remains committed to protecting the market participants.”²⁶³

Third, porting is hindered under the Futures Model, since it is not possible to identify the margin deposits of individual customers for immediate transfer. This contradicts the policy requiring FCMs and CCPs to be able to immediately transfer customer margin upon the insolvency of the FCM.²⁶⁴

B. The Distinguishable Fund Theory

In some omnibus accounts, the intention is to treat the customer margin that is deposited in the account as a “distinguishable fund.”²⁶⁵ This arises when the customers intend to have their funds operationally commingled and legally segregated. Under the distinguishable fund theory, “individual deposits *retain* their *identity* in the increased balance. The balance is seen as composed of a series of debts [W]ithdrawals *can* be ascribed to particular deposits.”²⁶⁶

This theory requires the FCM and CCP to keep accurate and up-to-date records of each individual margin deposit and withdrawal made into and out of the omnibus account by each individual customer.²⁶⁷ This recordkeeping allows the FCM and CCP to “identify”²⁶⁸ the margin of each customer from a legal standpoint.²⁶⁹ The daily flow of information and storage of information

²⁶³ CFTC REPORT, *supra* note 14, at 6349.

²⁶⁴ See S. REP. NO. 94-989, at 8 (1978).

²⁶⁵ See generally SMITH, *supra* note 226, at 183–85; see also INV. CO. INST., NAVIGATING INTERMEDIARY RELATIONSHIPS 3, 7 (Sept. 2009), https://www.ici.org/pdf/ppr_09_nav_relationships.pdf [<https://perma.cc/B53F-JK4E>].

²⁶⁶ SMITH, *supra* note 226, at 185 (emphasis added).

²⁶⁷ See CFTC REPORT, *supra* note 14, at 6339, 6352, 6368.

²⁶⁸ 17 C.F.R. § 190.01(l)(1) (2015) (defining “specifically identifiable property” as “property received, acquired, or held by or for the account of the debtor from or for the account of a customer to margin, guarantee or secure and open commodity contract”).

²⁶⁹ The CME Group has noted in its clearing rules that “[t]he Clearing House shall rely on its own books and records to *identify* the portfolio of rights and obligations arising from the positions of each cleared swaps customer.” CME

by the CCP means that it is less reliant on the FCM during an emergency.²⁷⁰

The DFA has responded to the market practices of CCPs in the futures industry. The new law requires CCPs to identify and keep updated records of individual customer margin deposits.²⁷¹ It has achieved this goal by introducing the distinguishable fund theory to omnibus accounts holding cleared swaps customer margin.

The DFA prevents CCPs from taking advantage of the Bankruptcy Code. Section 766(c) of the Bankruptcy Code specifies that “[t]he trustee shall *return* promptly to a customer any *specifically identifiable* security, property, or commodity contract to which such customer is entitled, or *shall transfer*, on such customer’s behalf, such security, property, or commodity contract to a commodity broker that is not a debtor under this title.”²⁷² Consequently, the distinguishable fund theory prohibits CCPs from using the margin of non-defaulting cleared swaps customers in a double default situation.²⁷³ In the event that the FCM holding the omnibus account became insolvent, the insolvency trustee would “transfer” or “return” all identifiable margin to the non-defaulting customers.²⁷⁴ CCPs can only use the identifiable margin of the defaulting customers to cover their respective obligations to the FCM.²⁷⁵ The distinguishable fund theory therefore facilitates the

RULEBOOK, *supra* note 14, at 11. CME Group is also complying with the new CFTC Regulations, noting that “[t]he Clearing House shall treat positions and collateral of the cleared swaps customers of a clearing member, which has been declared to be in default, in accordance with Part 22 of the CFTC’s regulations.” *Id.*

²⁷⁰ See CFTC REPORT, *supra* note 14, at 6369.

²⁷¹ *Id.* at 6336–37.

²⁷² 11 U.S.C. § 766(c) (2012) (emphasis added); *see also* 17 C.F.R. § 190.08(d) (2015) (re-emphasizing this point).

²⁷³ CFTC REPORT, *supra* note 14, at 6336–37.

²⁷⁴ *Id.* at 6340:

Under the LSOC Model, the DCO could only use the collateral attributable to defaulting customers (those whose positions suffered losses) to meet the loss. Thus, all collateral attributable to customer whose net positions gained or were “flat” (neither gained nor lost), and much of the collateral attributable to customers whose net positions lost, would be immediately available for transfer.

²⁷⁵ The collective obligations of the defaulting customer to the FCM should correspond directly with the FCM’s obligations to the CCP.

ability of porting the margin of non-defaulting customers, as the CCP is able to immediately identify and transfer the margin to a new solvent CM.

The CFTC has adopted the LSOC model, because the language used in sections 724 (a)(2)(A) and (B) of the DFA²⁷⁶ is compatible with the distinguishable fund theory. This requires the CCP and FCM to “identify” the margin of individual customers in their books. The LSOC Model, however, does not mitigate losses arising from investment risk, operational risk, or fraudulent misappropriations²⁷⁷ of customer margin committed by the FCM, the depository, or the CCP.

In situations in which it is impossible to identify individual cleared swaps customer margin due to fraud or corrupted records, the non-defaulting customers may also be required to share any losses with the defaulting customers on a pro rata basis, unless they were able to trace and recover their margin.²⁷⁸ This occurs because losses cannot be attributed to any particular customer and there is uncertainty as to which particular customer’s margin was misappropriated or lost.

1. Allocating Losses for a Double Default Under the LSOC Model

The LSOC Model²⁷⁹ prohibits the FCM and the CCP from using the margin, including excess margin, of the non-defaulting cleared

²⁷⁶ See CFTC REPORT, *supra* note 14, at 6344. The CFTC Report notes that the LSOC Model is the “most appropriate model for Cleared Swaps Customer Collateral under § 4d(f) of the CEA.” *Id.* Two prominent FCMs, Fidelity and Blackrock, have noted that LSOC “is supported by the statutory language and purposes of the Dodd-Frank Act.” *Id.*

²⁷⁷ In other words, the LSOC Model does not eliminate the “MF Global problem,” which arises when there is a shortfall in the customer margin account because a bankrupt FCM fraudulently or negligently used or commingled customer margin with its own proprietary assets. See Zachary T. Brumfield, *The Future of the Commodity Futures Market: How Customer Segregated Accounts can be Better Protected from Insolvent Futures Commission Merchants*, 2.1 GLOBAL MKTS. L.J. 1, 4–5, 9–13 (2013).

²⁷⁸ See LINKLATERS, *supra* note 12, at 3–4.

²⁷⁹ See CME GRP., LSOC AND CME GROUP’S VISION FOR CLEARED SWAPS CUSTOMER PROTECTION 1 (Oct. 2012), <https://www.cmegroup.com/clearing/files/lsoc-and-cme-groups-vision-cleared-swaps-customer-protection.pdf> [https://

swaps customers in a Cleared Swaps Customer Account in a double default situation. It therefore provides enhanced protection for cleared swaps customers by eliminating fellow customer risk.²⁸⁰ Any losses arising from a double default will have to be fulfilled from the FCM's proprietary assets and the CCP's default waterfall.²⁸¹

For example, A, B, C, and D are customers that each deposit \$25 million as margin in a Cleared Swaps Customer Account with their FCM for cleared swaps contracts that they have entered into. The account contains a total of \$100 million. Customer A experiences a catastrophic loss of \$50 million in its cleared swaps positions due to unexpected volatility in the financial markets. Customer A therefore owes the FCM an additional \$25 million, which it is unable to pay.

The first and second steps are identical to the scenario above²⁸² that described the shortfall for futures customers. The third step is different: the shortfall of \$12 million does not affect B, C, and D, and their margin deposits are not used. The \$75 million remaining in the account will be immediately identified and either ported or distributed to B, C, and D by the insolvency trustee. Each customer will receive its full deposit of \$25 million. The loss of \$12 million will be covered by the CCP from its default waterfall.

C. Arguments Against the Blended Fund Theory in the Futures Markets

Arguably, the Futures Model instills a sense of market discipline and a form of "self-regulation," as customers will carefully select a reputable FCM. The additional protection afforded by the LSOC Model may not be required in a properly functioning market, such as the futures market. Nonetheless, this Article argues, for various reasons, for replacing the Futures Model with the LSOC Model in the futures market.

perma.cc/67FX-EL2M]; see also Commodity and Securities Exchanges, 17 C.F.R. §§ 22.1(1), 22.2(a) (2015).

²⁸⁰ See FUTURES INDUS. ASS'N, *supra* note 126, at 8–10.

²⁸¹ See LINKLATERS, *supra* note 12, at 1–3.

²⁸² See *supra* Part VIII.A.2.

1. Risk Monitoring

The CCP is in a better position than the futures customers to monitor the financial exposure of market participants and safeguard against the risk of a CM becoming insolvent. The CFTC Report has recognized this in the context of the swaps markets:

The ability of a swaps customer to determine Fellow-Customer Risk at a particular FCM is limited, because confidentiality restraints inherently limit the amount of information that an FCM can provide customers with respect to the creditworthiness, swaps positions, and, in some cases, even identity of its other customers. This in turn impairs ... the customer's ability to evaluate Fellow-Customer Risk, hindering their ability to manage it, insure against it, or appropriately account for it in business decision-making.²⁸³

This information asymmetry also exists for futures customers. More importantly, CCPs have an added incentive to closely monitor their CMs under the LSOC Model, since CCPs have fewer resources under the default waterfall to cover a CM default.²⁸⁴

2. The Statutory Intention

The mutualization of risk goes against the spirit of the law. Ignoring the identity of individual customer margin deposits is an unfair market practice that contradicts the language used in CFTC Regulation 1.20(g). This provision does not permit CCPs to “use or dispose of such futures customer funds except as belonging to such futures customers.”²⁸⁵

²⁸³ CFTC REPORT, *supra* note 14, at 6364–65.

[T]here are efficiency gains in centralizing FCM monitoring in a small number of parties. Moreover, because of confidentiality considerations, among other things, DCOs have greater access to information from their Clearing Members than Cleared Swaps Customers do. As a result of this greater access to information and because of the increased incentive on DCOs to actively monitor the risks posed by their Clearing Member FCMs and Cleared Swaps Customers, the overall effectiveness of risk management may be increased.

Id. at 6365 n.252.

²⁸⁴ *See id.* at 6368.

²⁸⁵ 17 C.F.R. § 1.20(g) (2015).

Arguably, it is unclear whether this provision continues to apply to the CCP in situations when the FCM becomes insolvent, as it is not a part of the Bankruptcy Code. However, this protection was plausibly intended to apply when the FCM becomes insolvent, since it enhances the protection of customer margin.

The CFTC elaborated on the intention of the “segregation requirement” within the CEA in *Dorn v. Shearson Hayden Stone, Inc.*, noting that

[t]he language of the statute and its legislative history indicate that Section 4d [CEA] was designed for the broad purpose of *protecting customers* from having their money, securities or property *appropriated by a [FCM], or some other depository, without adequate legal basis*, and the more specific purpose of ensuring the integrity of the futures market transactions by a [FCM] for its own account or for other customers.²⁸⁶

The point of commingling customer margin in an omnibus account is “for convenience”²⁸⁷ of the FCM and CCP, not to cover the obligations that the CCP owes to its CMs. There is nothing in the statute mentioning that the non-defaulting customers are required to “subsidize” the CCP for the obligations it owes to the creditor CMs in a double default situation. This subsidy would amount to “using” non-defaulting customer margin for the CCP’s own purposes.

Customer margin deposits are regarded as trust funds that should receive bankruptcy protection from the insolvent FCM’s general creditors.²⁸⁸ A CCP could be considered a general creditor under the statutory language,²⁸⁹ as it is technically “some other depository.”²⁹⁰ A CCP falls under the list of permitted depositories²⁹¹ that can hold futures customer funds; therefore, CCPs should not be allowed to use customer margin for their own purposes.

In support of this view, the CSA argues that “[c]ollateral is provided by a customer to address the risk associated with a customer’s default, not the default of their clearing member or

²⁸⁶ CFTC No. R 77-167, 1981 WL 26035 (Oct. 6, 1981).

²⁸⁷ 17 C.F.R. § 1.20(e)(1) (2015).

²⁸⁸ See Markham, *supra* note 2, at 94.

²⁸⁹ 80 CONG. REC. 7858 (1936).

²⁹⁰ *Dorn*, 1981 WL 26035, at *3.

²⁹¹ 17 C.F.R. § 1.20(b)(2) (2015).

other customers.”²⁹² The “segregation requirement” is supposed to prohibit the CCP from “using” customer funds to cover the losses of other customers in the same account class in the futures markets.²⁹³ In practice, this has not occurred.

The CFTC Report supports this argument in the context of cleared swaps:

Prohibiting DCOs from using the collateral of non-defaulting customers to protect a DCO from risks within a DCO’s control is consistent with the *statute’s goal* of protecting customer funds By better protecting Cleared Swaps Customer Collateral against fellow-customer risk, the LSOC Model will enhance compliance with *the values of CEA* Section 4d(f), which requires that the property of each individual customer be protected The [CFTC] has carefully considered the available evidence regarding the costs and benefits of [the LSOC Model] and has concluded that the [LSOC Model] best accomplishes the *statutory objectives* of protecting customer deposits.²⁹⁴

Surprisingly, the CFTC has not made the same argument for the protection of futures customers. The same statutory language is used in sections 4d(a) and (f), which suggests that the statutory “goals” and “values” are the same for cleared swaps and futures customers. Customers in both markets should receive protection against fellow customer risk by applying the LSOC Model.

This argument has two limitations. First, the CFTC’s comments in *Dorn v. Shearson* suggest that a depository holding customer funds, including a CCP, can use customer margin if there is an “adequate legal basis.”²⁹⁵ Arguably, CCPs may have an adequate legal basis to use the funds of non-defaulting customers, because these customers have given contractual consent to sharing risk as co-owners when they open a futures account.

Second, this Author has previously demonstrated in an article on *Central Counterparties (CCP) and the New Transnational Lex Mercatoria*²⁹⁶ that CCPs have been allowed by the courts in

²⁹² CSA CONSULTATION PAPER, *supra* note 7, at 24.

²⁹³ *Dorn*, 1981 WL 26035, at *3.

²⁹⁴ CFTC REPORT, *supra* note 14, at 6370 (emphasis added).

²⁹⁵ 1981 WL 26035, at *3.

²⁹⁶ See generally Christian Chamorro-Courtland, *Central Counterparties (CCP) and the New Transnational Lex Mercatoria*, 10 FLA. ST. U. BUS. REV. 57 (2011).

various common law jurisdictions to contract out of any statutes that negatively affect the CCP in an insolvency situation. A court in the United States may hold, therefore, that the CCP's clearing rules and practices will take priority over any provisions in the CEA or Bankruptcy Code that diminish the resources available in the default waterfall.²⁹⁷

Until the courts or the CFTC provide some clarification over the conflict between the customer protection rules and the clearing practices of CCPs, there is legal uncertainty regarding the effect of the CEA's provisions. This issue needs immediate clarification, as any delays caused by litigation during the next financial crisis may exacerbate systemic risk.

3. Policy Goals

The CFTC's regulations are promulgated in light of certain policy goals. Under section 15(a) of the CEA, the CFTC should consider the costs and benefits of a proposed regulation before it is issued.²⁹⁸ The CFTC must create rules that "ensure the financial integrity," avoid "systemic risk," and "protect all market participants from ... misuses of customer assets."²⁹⁹ It is difficult to balance these policy goals in an insolvency situation, as there is typically a finite amount of resources available for distribution.

The Futures Model and CCP market practices suggest that the preferred policy in the futures markets has been to protect the financial system from systemic risk by providing CCPs with a larger default "waterfall" in the form of full access to futures customer margin.³⁰⁰ This practice, however, has come at the expense of futures customers, who are exposed to fellow customer risk.

Arguably, adoption of the LSOC Model in the futures markets is more compatible with these policy goals. It provides better protection for futures customers without increasing systemic risk or compromising the financial integrity of the futures markets, as

²⁹⁷ It is also possible that a court may find that CCPs are not general creditors under the statute. There is evidence to suggest that CCPs will be treated as "super priority" creditors and provided with access to the margin of non-defaulting customers.

²⁹⁸ See 7 U.S.C. § 19(a) (2015).

²⁹⁹ 7 U.S.C. § 5(b) (2015); see also *id.* § 19(a)(2).

³⁰⁰ CFTC REPORT, *supra* note 14, at 6338.

it merely shifts fellow customer risk from customers to the CCP. It is possible for CCPs to mitigate and reallocate this risk by requiring customers to post higher levels of initial margin³⁰¹ and/or requiring CMs to deposit larger amounts of collateral into the CCP's guaranty fund.³⁰² Customers, therefore, would experience an opportunity cost of having to post more margin in exchange for better protection and lower risk. In this sense, the CFTC Report has noted that the LSOC Model "would function in a manner analogous to insurance."³⁰³

Moreover, it is unlikely that CCPs will exclusively increase margin requirements from their CMs and their customers if the LSOC Model is adopted. The Committee on Payment and Market Infrastructures and the International Organization of Securities Commissions (CPMI-IOSCO) has recommended that "[a]ll systemically important [CCPs] should have a comprehensive and effective recovery plan."³⁰⁴

A recovery plan requires a CCP to establish

ex ante contractual arrangements, to address any uncovered loss, liquidity shortfall or capital inadequacy, whether arising from participant default or other causes (such as business, operational or other structural weaknesses), including actions to replenish any depleted pre-funded financial resources and liquidity arrangements, as necessary to maintain the [CCP's] viability as a going concern and the continued provision of critical services.³⁰⁵

This means that CCPs should not rely solely on the margin posted by CMs and their customers in a double default situation. For instance, LCH.Clearnet has recommended that additional resources could come from, inter alia, assessment powers, variation margin gains haircutting, and replenishment of the default fund.³⁰⁶

³⁰¹ CME has warned that customers will have to post \$500 billion in margin to secure their margin positions. *Id.* at 6364.

³⁰² *Id.* at 6365.

³⁰³ *Id.* at 6364.

³⁰⁴ COMM. PAYMENT MKT. INFRASTRUCTURES INT'L ORG. SEC. COMM'N, RECOVERY OF FINANCIAL MARKET INFRASTRUCTURES 1 (Oct. 2014), <http://www.bis.org/cpmi/publ/d121.pdf> [<https://perma.cc/3EQH-9G7H>].

³⁰⁵ *Id.* at 3 (emphasis added).

³⁰⁶ LCH.CLEARNET, CCP RISK MANAGEMENT, RECOVERY & RESOLUTION 17–19 (Nov. 7, 2014), <http://www.lchclearnet.com/documents/731485/762448>

4. *Co-ownership Is an Outdated Practice*

Arguably, the practice of futures customers holding margin as co-owners is outdated. This practice made sense when the “segregation requirement” was initially created in 1934. Historically, it was expensive to “identify” customer margin at all times; it was administratively burdensome, or even impossible, for an FCM to communicate and report to the CCP on the margin deposits of individual futures customers on a daily basis.³⁰⁷

This excuse should no longer be accepted in light of technological advances. The commercialization of computers and the Internet has increased the speed and decreased the cost of communication.³⁰⁸ In the twenty-first century, it is unfair to expose futures customers to fellow customer risk and require them to share risk as co-owners without giving them the option of paying for a higher level of protection.

5. *Losses Are Uncertain Under the Futures Model*

The Futures Model creates uncertainty for customers upon the insolvency of their FCM, as they will not know the amount of their losses resulting from fellow customer risk. This decreases confidence in the futures markets and can exacerbate volatility during periods of market stress.

The LSOC Model reduces this uncertainty, as it facilitates the porting of margin. The termination of large contractual positions could lead to increased volatility and liquidity risk in the markets. The current Futures Model could exacerbate systemic risk if various customers simultaneously terminate their derivatives trades upon the insolvency of their FCM. Porting would allow customers to transfer their open futures and cleared swaps positions

/final+white+paper+version+three.pdf/1d1700aa-a1ae-4a6c-8f6f-541eec9b7420 [https://perma.cc/9CDB-896K].

³⁰⁷ CFTC REPORT, *supra* note 14, at 6344.

³⁰⁸ The CFTC Report supports this point in the context of cleared swaps: “[T]hough treating futures customer collateral on a collective basis may, at one time, have been practically necessary ‘for convenience,’ such practice is not standard in the current swaps market nor is it as critical in an era where account information is stored and processed on an automated basis.” *Id.* at 6362 n.230 (citing comments made by CME).

to a solvent FCM without having to close out all their open contractual positions.³⁰⁹

6. Capital Requirements

The Bank for International Settlements has published guidelines for the application of Basel III³¹⁰ to banks clearing directly or indirectly with a CCP.³¹¹ The guidelines require banks to hold an additional 2 percent capital if a CCP can use the margin of non-defaulting customers in a double default situation.³¹²

There are no additional capital requirements for banks that post customer margin in a manner that is “bankruptcy remote from the CCP.”³¹³ This is possibly the largest incentive to adopt the LSOC Model in the futures markets, as this change will significantly lower capital requirements for banks.

D. Possible Limitations of Adopting the LSOC Model in the Futures Market

1. Institutional Investors

Arguably, the LSOC Model has not been adopted in the futures industry because most of the market participants are institutional investors prepared to accept fellow customer risk in exchange for lower fees from CMs, and therefore do not require the same level

³⁰⁹ Linklaters notes that “[w]hile portfolios are portable under the futures model, because a DCO has recourse to the collateral of all of a defaulting FCM’s futures customers, any deficiency can significantly hamper porting.” LINKLATERS, *supra* note 12, at 3.

³¹⁰ The Bank for International Settlements has defined “Basel III” as a comprehensive set of reform measures, developed by the Basel Committee on Banking Supervision, to strengthen the regulation, supervision and risk management of the banking sector. These measures aim to: [i]mprove the banking sector’s ability to absorb shocks arising from financial and economic stress, whatever the source[;] [i]mprove risk management and governance[; and] strengthen banks’ transparency and disclosures.

See BANK INT’L SETTLEMENTS, INTERNATIONAL REGULATORY FRAMEWORK FOR BANKS, BIS, <http://www.bis.org/bcbs/basel3.htm> [<https://perma.cc/6FRX-GZY5>].

³¹¹ See BIS, CAPITAL REQUIREMENTS, *supra* note 64.

³¹² *Id.* ¶ 203, at 7.

³¹³ *Id.* ¶ 202, at 7.

of protection as retail customers. This argument, however, does not explain why the LSOC Model was adopted and widely supported by market participants in the cleared swaps industry, which is also used by many institutional investors.

2. *Uncertain Costs*

The cost of adopting the LSOC Model in the futures industry is uncertain. Some commentators have suggested that it may come at a significant expense for futures customers. COOConnect notes that

CCPs run on remarkably low levels of capital. At the end of 2011, LCH.Clearnet held liabilities valued at €541 billion on an equity capital base of €333.1 million, or just 0.06 per cent of its liabilities. Of course, CCPs run matched books—what one member owes is offset exactly by what another member owes to them—but this is still a worryingly thin capital base.³¹⁴

CCPs may need to raise additional funds to buttress their default waterfall.

The following points consider the potential costs of adopting LSOC. First, ISDA and CME have estimated that implementing the LSOC Model for cleared swaps will require 60 percent to 90 percent more initial margin than the Futures Model, assuming that no changes are made to the guaranty fund.³¹⁵ CME has estimated that cleared swaps customers will have to post \$800 to \$900 billion under the LSOC Model,³¹⁶ whereas they would only have to post around \$500 billion if the Futures Model were adopted.

Alternatively, CME estimated that it could raise the necessary resources by doubling the size of the guaranty fund;³¹⁷ this would require \$100 billion under the LSOC Model or \$50 billion under the Futures Model. If CCPs request additional margin from their CMs, as a consequence of adopting the LSOC Model in the futures markets, CMs may pass these costs onto their customers.

³¹⁴ COOCONNECT, *supra* note 1.

³¹⁵ CFTC REPORT, *supra* note 14, at 6365.

³¹⁶ *Id.* at 6366.

³¹⁷ *Id.*

Consequently, CMs may charge their customers higher fees and require them to post more margin.³¹⁸

Linklaters has mentioned that “LSOC may increase swap clearing costs due to higher margin, guaranty fund and assessment requirements imposed by DCOs stripped of access to non-defaulting swap customers’ margin.”³¹⁹ This comment, however, is dubious, as CCPs did not have access to non-defaulting swap customer margin before the financial crisis, as there was no mandatory clearing requirement for swaps contracts.

Second, COOConnect has noted that “CCPs devour collateral.”³²⁰ This suggests that there could be systemic consequences if CCPs demand more variation margin from CMs and their customers. Any increase might force futures customers to exchange more securities for cash in the repo markets, because variation margin must be posted in the form of cash.

Consequently, a huge increase in the demand for cash raises the potential for cash shortages and liquidity risk during a financial crisis; market participants will be less willing to exchange cash for securities during times of market stress. It is unlikely, however, that CCPs would increase customer margin requirements by a significant amount, as this would cause customers to move to cheaper competitors in foreign markets.³²¹

A beneficial consequence of introducing the LSOC Model to the futures market is that it may hinder CCPs from competing on margin. Dr. David Murphy, the former Head of Risk at the ISDA, has argued that “there is a great temptation for CCPs to reduce margin: lower margin encourages more trading, and hence more fees for the clearing house.”³²² The desire of CCPs to

³¹⁸ *Id.*

³¹⁹ LINKLATERS, *supra* note 12, at 1.

³²⁰ COOCONNECT, *supra* note 1.

³²¹ There is evidence that customers have begun to switch from CME Group to LCH.Clearnet due to the lower fees offered by the latter. Joe Rennison, *Investors in Switch from CME to LCH*, FIN. TIMES (June 9, 2015), <http://www.ft.com/cms/s/0/cee93f2c-0ea5-11e5-8aca-00144feabdc0.html#axzz3yaa8xdrb> [<https://perma.cc/ML8G-VT2B>]. Therefore, customers do take into consideration the amount of fees they pay when choosing a CCP. There is no evidence, however, linking the higher fees at CME Group with the adoption of the LSOC Model.

³²² MURPHY, *supra* note 183, at 150.

increase margin requirements would therefore be counterbalanced by their desire to compete with lower fees in order to attract more customers.

Third, the CFTC has estimated that the operational costs of implementing the LSOC Model for the cleared swaps market is “likely to be slightly less than \$1 million per year per FCM, with one-time costs of about \$700,000.”³²³ These costs, however, are insignificant for large FCMs.

In the CFTC Report, swaps customers have expressed that they are prepared to pay the costs associated with implementing the LSOC Model in the cleared swaps market because they desire the additional protection.³²⁴ It is probable that futures customers would also be prepared to pay the increased costs associated with implementing the LSOC Model in the futures markets if they were provided with the same opportunity.

The futures markets are a fraction of the size of the OTC markets. In December of 2014, the global market for OTC contracts had a notional value of \$630 trillion,³²⁵ whereas the global futures and options markets only had a notional value of \$64 trillion.³²⁶ The costs of implementing LSOC in the futures markets should therefore be significantly lower.

In support of this argument, LCH.Clearnet, which has been clearing swaps for over a decade, has noted that the margin levels and guaranty fund contributions are the same under the Futures Model and the LSOC Model.³²⁷ “The operational costs would be the same across all [segregation] models being considered given a requirement for DCOs to collect margin on a gross basis.”³²⁸ There is no evidence, therefore, suggesting that operational costs will significantly increase if the LSOC Model is implemented in the futures markets.

³²³ CFTC REPORT, *supra* note 14, at 6368.

³²⁴ *Id.* at 6364, 6369–70.

³²⁵ BANK INT’L SETTLEMENTS, BIS QUARTERLY REV. A141 (Sept. 2015), <http://www.bis.org/statistics/dt1920a.pdf> [<https://perma.cc/DB6E-2DVY>].

³²⁶ BANK INT’L SETTLEMENTS, BIS QUARTERLY REV. A146 (March 2015), http://www.bis.org/statistics/r_qa1503_hanx23a.pdf [<https://perma.cc/LN7N-QHG7>].

³²⁷ CFTC REPORT, *supra* note 14, at 6366.

³²⁸ *Id.* at 6368.

3. *Double Defaults Are Rare*

First, the CFTC Report notes that “[b]y their nature, double defaults are rare events, though potentially important if they involve major FCMs.”³²⁹ There have only been two cases of double defaults by FCMs in the U.S. futures markets in the past two decades³³⁰: Griffin Trading Co.³³¹ and Klein Futures Inc.³³²

If the risk of a double default occurring in the futures markets is low, however, there should be no reason for CCPs to raise the margin requirements for futures customers if the LSOC Model is adopted. Fellow customer risk will rarely materialize into any costs for the CCP. The only additional costs for CCPs and FCMs might be the additional reporting and record keeping of individual customer margin deposits.

Second, adopting the LSOC Model in the cleared swaps market is arguably justified because swaps contracts are riskier than futures contracts:

A number of commenters suggested that Fellow-Customer Risk may be greater in the cleared swaps market than in the futures market because swaps are less liquid than exchange-traded futures (thereby resulting in greater volatility of prices, particularly in times of financial stress) and because the aggregate value of transactions in the swaps market is many times greater than the aggregate value of transactions in the futures market.³³³

In response to these comments, it is noted that LCH.Clearnet has been clearing interest rate swaps for over a decade, and there has never been a failure of an FCM relating to the clearing of swaps.³³⁴ Therefore, the different risk profiles between futures

³²⁹ *Id.* at 6364. Linklaters has argued that “due to the nature of the segregation regime and the overcollateralization inherent in initial margin requirements, it is exceedingly unlikely that a Double-Default would ever actually occur.” LINKLATERS, *supra* note 12, at 3 n.3.

³³⁰ Double defaults are so rare that Professor Filler mistakenly assumed that “there has not been such a shortfall” arising from a double default in the United States. Filler, *supra* note 41, at 6.

³³¹ *See, e.g.*, *Inskeep v. Griffin*, 440 B.R. 148 (N.D. Ill. 2010).

³³² *See, e.g.*, CFTC REPORT ON KLEIN & CO., *supra* note 59.

³³³ CFTC REPORT, *supra* note 14, at 6364.

³³⁴ *Id.* at 6364 n.245.

and swaps contracts is a weak argument for justifying the different levels of protection that customers receive.

E. The Limitations of the LSOC Model

There are some situations where a blended fund will unintentionally arise under the LSOC Model. The LSOC Model does not protect customers from sharing losses on a pro rata basis if the CCP's or FCM's records are corrupted due to fraud committed by the FCM or CCP, or where other operational risks lead to a shortfall. Linklaters has noted that

[t]he LSOC Model does no more to protect customer property held by an FCM than does the futures market segregation model ... [C]ustomers under the LSOC Model are just as exposed to the operational and investment risk at the FCM level as futures customers are.³³⁵

Consequently, the LSOC Model only protects cleared swaps customers from fellow customer risk if the CCP maintains accurate records that can identify individual customer margin deposits.

IX. COMPARISON WITH THE U.S. SECURITIES MARKETS

In the context of the securities markets, broker-dealers are required to “segregate” customer margin under SEC Rule 15c3-3. The securities and margin of customers are commingled into a specially designated omnibus account that follows the blended fund model. This rule was introduced in response to the “Paperwork Crisis” at the end of the 1960s in order to provide customers with protection from the broker-dealer using customer property for its own purposes.³³⁶ This was not enough, however, to provide customers with adequate protection from operational risks or fraud committed by the broker-dealer.

The Securities Investor Protection Act of 1970 (SIPA) was enacted in response to a series of customer securities that were misappropriated by brokers.³³⁷ This gave the SEC the authority

³³⁵ LINKLATERS, *supra* note 12, at 4.

³³⁶ See Markham, *supra* note 61, at 108.

³³⁷ USCOURTS.GOV, SECURITY INVESTOR PROTECTION ACT (SIPA), <http://www.uscourts.gov/services-forms/bankruptcy/bankruptcy-basics/securities-investor-protection-act-sipa> [<https://perma.cc/SJ5K-RKEM>].

to create the Securities Investor Protection Corporation (SIPC) to provide securities customers with insurance protection.³³⁸

The SIPC is “a private non-profit corporation that is funded by assessments on broker-dealers.”³³⁹ It provides each customer with up to \$500,000 for lost securities and \$100,000 for lost cash when its broker becomes insolvent.³⁴⁰

X. INSURANCE FOR DERIVATIVES CUSTOMERS

Professor Markham has provided a detailed history explaining the reasons for adopting insurance in the securities markets and rejecting it in the futures markets.³⁴¹ His research analyzes several U.S. government reports, and concludes that the losses generated by FCM failures were historically so low—less than \$10 million between 1938 to 1985—that it would not be “cost effective” to introduce insurance to protect futures customers.³⁴² Professor Markham also points out that

[s]egregation requirements under the CEA are critical to customer protection in the commodity futures industry because there is no insurance, such as that available for securities customers under SIPC. There is thus a disparity of treatment between commodity traders and securities customers.³⁴³

The failure of several large FCMs over the past decade has raised the issue of introducing insurance, because derivatives customers risk losing substantial sums if they are not protected from fraud or other operational risks.³⁴⁴ The modern derivatives

³³⁸ *Id.*

³³⁹ Markham, *supra* note 2, at 100.

³⁴⁰ Professor Markham has noted that

[t]he claims of general creditors are subordinated to the claims of the broker-dealer’s customers. The trustee will return all securities held in the name of specific customers, and it then pools remaining securities for a *pro rata* distribution to customers. In the event of a shortfall, SIPC will cover the loss up to the \$500,000/\$100,000 limits.

Id. at 101.

³⁴¹ Markham, *supra* note 61, at 66–71, 99–105.

³⁴² Markham, *supra* note 2, at 127.

³⁴³ *Id.* at 126.

³⁴⁴ For example, TradeStation has noted that it does not provide insurance for futures customer margin: “The funds you deposit with a futures commission

markets operate in an electronic realm that could be adversely affected by hacking, terrorism, rogue traders, high frequency trading, power outages, and software/hardware failures. For instance, CME Group created a \$100 million insurance fund, the “Family Farmer and Rancher Protection Fund,” to regain the confidence of its futures customers in response to the failure of MF Global.³⁴⁵

Professor Markham has noted, however, that there is a concern that insurance may introduce moral hazards and increase costs for customers in the form of higher fees.³⁴⁶ The benefits of fully protecting customers from fraud and other operational risks should outweigh the costs of introducing mandatory insurance that is akin to the SIPC for the protection of derivatives customers.³⁴⁷

This would create consistency with the level of protection provided in the U.S. securities markets and in other jurisdictions. As noted above, it is probable that customers would accept these costs in exchange for additional protection.

XI. OTHER SOLUTIONS FOR PROTECTING CUSTOMER MARGIN

Some commenters have suggested using Third-Party Custodial Accounts (“TPCA”) to enhance customer protection.³⁴⁸ A TPCA is an agreement “where a futures customer posts his or her margin to a third-party safekeeping account held at a custodial bank rather than posting margin directly to the FCM.”³⁴⁹ Although

merchant for trading futures positions are not protected by insurance in the event of the bankruptcy or insolvency of the futures commission merchant, or in the event your funds are misappropriated.” TRADESTATION, BOOKLET, *supra* note 261, ¶ 2, at 2.

³⁴⁵ This fund protects the segregated funds of “U.S. family farmers and ranchers who hedge their business in CME Group futures markets,” and covers up to \$25,000 per account for losses resulting from fellow customer risk, fraud, or other operational risks. *CME Group Establishes \$100M Fund to Provide Additional Protection for Family Farmers and Ranchers: Fund Launched as Initial Step in Restoring Confidence of Market Users*, INVESTOR.CMEGROUP.COM (Feb. 2, 2012), <http://investor.cmegroup.com/investor-relations/releasedetail.cfm?ReleaseID=645279> [<https://perma.cc/LR38-M8AW>].

³⁴⁶ Markham, *supra* note 2, at 128.

³⁴⁷ CFTC Commissioner Bart Chilton has proposed plans to create a Futures Investor and Customer Protection Corporation for the protection of futures customers. Brumfield, *supra* note 277, at 19.

³⁴⁸ *Id.* at 24.

³⁴⁹ *Id.* at 23.

TPCAs are permitted for Cleared Swaps Customer Accounts, the CFTC prohibited their use for Customer Segregated Accounts in May 2005.³⁵⁰

However, TPCAs have received mixed reviews. Professor Markham supports their use, as they “would require reporting by the bank to the FCM’s customers, telling them how much is held in custody for their account at the bank.”³⁵¹ On the other hand, the FIA has argued that TPCAs will not increase the protection of customer margin:

Although the Commission has stated that an FCM may agree to maintain a third-party custodial account on behalf of a Cleared Swaps Customer, third-party custodial accounts would require an FCM to use its own capital to post initial margin with a DCO on behalf of a customer. Consequently, such accounts may adversely affect an FCM’s liquidity and would impose additional costs on customers [T]he Commission has emphasized that third-party custodial accounts do not provide any greater protection to customers in the event that an FCM fails when there is a shortfall in one or more Customer Accounts.³⁵²

It is argued that TPCAs, on their own, do not provide adequate protection to customers, as they merely substitute the counterparty risk of depositing with the FCM or the CCP for the counterparty risk of a third-party custodian.³⁵³

Finally, the creation of a central fund for depositing customer margin, a “Central Customer Funds Repository,” has also been proposed for increasing customer protection. This repository would be similar to the Depository Trust & Clearing Corporation in the securities markets.³⁵⁴ However, this would be an expensive solution for protecting customer margin.

³⁵⁰ FUTURES INDUS. ASS’N, *supra* note 126, at 10 n.19. TPCAs are permitted to be used only in limited circumstances. *See* Amendment of Interpretation, 70 Fed. Reg. 24,768, 24,770 (May 11, 2005).

³⁵¹ Markham, *supra* note 2, at 129.

³⁵² FUTURES INDUS. ASS’N, *supra* note 126, at 14.

³⁵³ COOCONNECT also notes that “it is intrinsically difficult to insert a tri-party agent into a derivatives relationship because the clearing broker is the intermediary between the client and the clearing house.” COOCONNECT, *supra* note 1.

³⁵⁴ *See* Markham, *supra* note 2, at 129; Brumfield, *supra* note 277, at 28.

XII. THE LAW IN OTHER JURISDICTIONS

A. Canada

In Canada, the relevant laws for the futures industry are created at the provincial level.³⁵⁵ For example, section 46 of the Ontario Commodity Futures Act³⁵⁶ and article 72 of the Quebec Derivatives Act³⁵⁷ contain provisions that mirror section 4d(a) of the CEA. These provisions also provide protection to customers in the form of a statutory trust.³⁵⁸

Part XII of the Bankruptcy and Insolvency Act³⁵⁹ provides a bankruptcy trustee with the power to wind up an insolvent “securities firm” (which includes a futures broker).³⁶⁰ Moreover, a securities firm deals in “securities,” which includes “commodity futures” and “financial futures.”³⁶¹ The trustee will pool futures customer margin together with the assets of all the insolvent broker’s futures and securities customers, and allocate any losses on a pro rata basis.³⁶² The claims of futures customers take priority over the claims of the insolvent broker’s other general creditors.

Futures customers that contract with a “securities firm” that is a member of the Canadian Investor Protection Fund (CIPF)³⁶³ are covered for up to CA\$1 million in insurance protection upon the insolvency of their broker.³⁶⁴ This scheme, which is privately

³⁵⁵ This is different than the U.S. approach, where the relevant laws are federal.

³⁵⁶ Commodity Futures Act, R.S.O. 1990, c. C.20 (Can.).

³⁵⁷ Derivatives Act, R.S.Q., c. I-14.01 (Can.).

³⁵⁸ *Id.* § 72; Commodity Futures Act § 46.

³⁵⁹ Bankruptcy and Insolvency Act, R.S.C. 1985, c. B-3 (Can.).

³⁶⁰ *Id.* §§ 259–61.

³⁶¹ *Id.* § 253.

³⁶² *Id.* §§ 261–62; see *Trustees Report on Preliminary Administration*, In the Matter of the Bankruptcy of MF Global Canada Co. of the City of Toronto in the Province of Ontario, Mar. 6, 2012, District of Ontario, Division No. 9, Court File No. 31-456930, Estate No. 31-456930, at 11 (Can.) [hereinafter MF Global Canada Report].

³⁶³ CIPF is a customer compensation fund. See *CIPF Timeline*, CIPF.CA, <http://www.cipf.ca/Public/AboutUs/HistoryofCIPF/CIPFTimeline.aspx> [https://perma.cc/EE7U-A9H6].

³⁶⁴ *What Coverage Does CIPF Provide?*, CIPF.CA, <http://www.cipf.ca/Public/CIPFCoverage/WhatCoverageDoesCIPFProvide.aspx> [https://perma.cc/C9CW-3KVP].

funded by its members, covers losses arising from fraud, other operational risks, and fellow-customer risk. For example, the majority of MF Global Canada's customers were eligible to receive CIPF insurance upon MF Global's insolvency.³⁶⁵ Unlike the U.S. position, this insurance protection covers losses experienced in futures accounts and securities accounts. It does not, however, cover losses experienced from re-hypothecating customer securities margin.

It should also be noted that Canadian federal law currently allows CCPs to choose the segregation model that will be used to protect customers. This is different from the U.S. approach. This power originates from the Payment Clearing and Settlement Act (PCSA),³⁶⁶ which exempts the clearing rules of a "designat[ed]"³⁶⁷ CCP from Canadian insolvency laws.³⁶⁸

This is evidenced in the manual of the Canadian Depository Clearing Corporation ("CDCC"), which expressly excludes the margin of non-defaulting futures customers of an insolvent CM from the default waterfall.³⁶⁹ The CDCC, however, has the power to change its rules to incorporate the margin of non-defaulting customers into the default waterfall.

The Canadian Securities Administrators (CSA) have argued for the adoption of the LSOC Model in the cleared swaps markets in Canada,³⁷⁰ and have published a Model Law that will soon be implemented at the provincial level.³⁷¹ The Model Law contains provisions that mirror the DFA for the protection of cleared swaps customer margin, including a sui generis statutory trust.³⁷² In light of the effects of the PCSA, it is unclear how this Model Law

³⁶⁵ MF Global Canada Report, *supra* note 362, at 15.

³⁶⁶ Payment Clearing and Settlement Act, S.C. 1996, c. 6 (Can.).

³⁶⁷ *Id.* § 4(1).

³⁶⁸ *Id.* §§ 13, 13.1.

³⁶⁹ CAN. DERIVATIVES CLEARING CORP., CDCC OPERATIONS MANUAL 20–22 (2015) http://www.cdcc.ca/f_rules_en/cdcc_operations_manual_en.pdf [<https://perma.cc/7J9D-PR3X>].

³⁷⁰ CSA CONSULTATION PAPER, *supra* note 7, at 4.

³⁷¹ CSA Staff Report 91-304, *Model Provincial Rules—Derivatives: Customer Clearing and Protection of Customer Collateral and Positions*, 37 OSCB 787 (Jan. 16, 2014) (Can.). This proposed Model law is in the consultation stages at the time of writing.

³⁷² *Id.*

will interact with any conflicting CCP rules. It is also unclear whether cleared swaps customers will be eligible for CIPF insurance protection.

B. The European Union

The European Market Infrastructure Regulation (EMIR)³⁷³ requires CCPs operating in the European Union to provide customers with a choice for the desired level of segregation (the “Optional Model”).³⁷⁴ The European approach, however, would not work under the U.S. Bankruptcy Code:

[T]he customer seeking greater collateral protection [under the optional model] will still share in any shortfalls in customer collateral. According to the CFTC this is because all customers transacting in the same type of contracts would be deemed to be participants in an “account class” regardless of the segregation model they select under the U.S. bankruptcy laws.³⁷⁵

The CFTC Regulations only permit margin funds to be held in futures accounts, 30.7 accounts, and cleared swaps accounts,³⁷⁶ and therefore does not recognize the possibility of choosing an individually segregated account under the Full Physical Segregation Model.³⁷⁷ The CFTC would need to amend the definition of “account class” for this to occur. Nevertheless, this is unlikely to happen, as the CFTC Report has noted that an individually segregated account would not provide any greater protection than the LSOC Model.³⁷⁸

It should also be noted that IOSCO supports the Optional Model. The IOSCO argues that customers should be allowed to opt for a lower level of protection in exchange for lower fees if the customer provides express written consent to waive these

³⁷³ Commission Regulation 648/2012, 2012 O.J. (L 201) 36.

³⁷⁴ *Id.* art. 39 (5).

³⁷⁵ CSA CONSULTATION PAPER, *supra* note 7, at 17.

³⁷⁶ 17 C.F.R. § 190.01(a)(1) (2012).

³⁷⁷ This model requires the CM and the CCP to hold an individual account for each customer’s margin deposits. Although it provides a high level of protection, it is the most expensive and administratively intensive model. CSA CONSULTATION PAPER, *supra* note 7, at 15.

³⁷⁸ *Id.* at 20–21.

protections.³⁷⁹ To the contrary, this Article argues that customers should arguably not be allowed to choose a level of protection lower than the LSOC Model, because that would be contrary to the policy goal of protecting customers and could hinder the portability of customer margin in a financial crisis. The Optional Model, therefore, should not be adopted in the United States.

XIII. FUTURE DEVELOPMENTS IN THE LAW

It appears that the CFTC rules are not final as of the time of this writing. Some possible reforms may include introducing the option for individual customer accounts, the adoption of the LSOC Model for the futures market, a private form of insurance akin to the SIPC for futures and swaps customer margin, more stringent reporting requirements for FCMs and depositories, and real-time online access to customer margin accounts for regulators and CCPs.

A. Observations and Recommendations

This Article argues that the futures industry should adopt the LSOC Model as a minimum safeguard for the protection of customer margin from fellow customer risk. The CFTC has noted in the context of cleared swaps contracts that LSOC “provides the best balance between benefits and costs in order to protect market participants and the public.”³⁸⁰ The language used in the CEA suggests that the legislature also intended for LSOC to be adopted for futures customers. This is a necessary change in order to meet the policy goal of protecting futures customers.

The change proposed in this Article, however, could have a negative impact on the current CCP risk management models, as they would lose an important source of emergency funding. CCPs would no longer have access to the margin of non-defaulting customers as a part of their default waterfall. Consequently, CCPs may need to raise additional resources as part of their recovery and resolution plans in order to manage risks adequately.

³⁷⁹ Richard Hill, *IOSCO Report Proposes Principles to Protect Client Assets*, 45 SEC. REG. & L. REP. 247, 247 (2013).

³⁸⁰ CFTC REPORT, *supra* note 14, at 6344.

Finally, mandatory insurance is necessary to protect customers in the derivative markets from all other risks, because the LSOC Model only protects against fellow customer risk. This would be consistent with the approach in the U.S. securities markets and in other jurisdictions.

B. Implementation of the Proposed Changes

The recommended changes are easy to implement. First, the CFTC needs to publish a press release to confirm that the LSOC Model will replace the Futures Model in the futures industry. The CFTC must amend its regulations to clarify that FCMs need to report on individual customer margin deposits in the Customer Segregated Account to the CCP on a daily basis. These reporting requirements should enable the CCP to identify individual customer margin deposits in the account to facilitate porting and ensure that customer margin is returned to non-defaulting customers upon the insolvency of their FCM.

Second, Congress needs to pass legislation that creates a Futures Investor and Customer Protection Corporation to provide insurance to futures and cleared swaps customers. Overall, these simple changes should bolster confidence in the U.S. derivative markets and provide them with a competitive edge over markets with weaker customer protections.