

# CLEARINGHOUSE SHAREHOLDERS AND “NO CREDITOR WORSE OFF THAN IN LIQUIDATION” CLAIMS

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## *Abstract*

*Clearinghouses are the centerpiece of global policymakers’ 2009 framework of reforms in the over-the-counter derivative markets in response to the 2007–08 financial crisis. Dodd-Frank’s Title VII implemented these reforms in the U.S. More than ten years have now passed since the establishment of this framework. Yet much work continues on outstanding issues surrounding the recovery and resolution of a distressed or insolvent clearinghouse. This Article examines one of these issues: the possibility of clearinghouse shareholders raising no creditor worse off than in liquidation claims in resolution. It argues that such claims are nonsensical and should be unavailable to clearinghouse shareholders. This would decrease moral hazard in and promote the rationalization of the global clearing ecosystem for derivatives.*

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I. INTRODUCTION

In the aftermath of the 2007–08 financial crisis, global policymakers established a framework of reforms for the \$559 trillion<sup>1</sup> over-the-counter (OTC) derivative markets.<sup>2</sup> The mandated use of clearinghouses<sup>3</sup>—also known as CCPs—by standardized (commoditized) OTC derivatives were at the center of these changes.<sup>4</sup> Indeed, it “has become the symbol of response to the Great Financial Crisis” in these markets.<sup>5</sup> In the U.S., Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act

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<sup>1</sup> BANK FOR INT’L SETTLEMENTS, GLOBAL OTC DERIVATIVES MARKET: FOREIGN EXCHANGE, INTEREST RATE, EQUITY-LINKED CONTRACTS\_\_table D5.1, <http://stats.bis.org/statx/srs/table/d5.1> (last updated Mar. 12, 2020).

<sup>2</sup> See Press Release, G20, Leaders’ Statement: The Pittsburgh Summit (Sept. 25, 2009) (available at [https://www.treasury.gov/resource-center/international/g7-g20/Documents/pittsburgh\\_summit\\_leaders\\_statement\\_250909.pdf](https://www.treasury.gov/resource-center/international/g7-g20/Documents/pittsburgh_summit_leaders_statement_250909.pdf)); see also Colleen Baker, *Incomplete Clearinghouse Mandates*, 56 AM. BUS. L. J. 507 (2019) (providing background on why clearinghouses became the centerpiece of reforms to OTC derivative markets).

<sup>3</sup> There are several different types of clearinghouses and important differences exist among them. In this Article, “clearinghouse” or “CCP” should be understood as referring to a central counterparty clearinghouse for derivatives.

<sup>4</sup> Ron Berndsen, *Five Fundamental Questions on Central Counterparties* (Tilburg University Center Discussion Paper No. 2020-028, 2020). Globally, there are approximately 60 clearinghouses, which clear a variety of financial instruments (securities, repurchase agreements, derivatives). *Id.* at 2.

<sup>5</sup> *Id.* at 29.

(Dodd-Frank) implemented these reforms.<sup>6</sup> Yet, clearinghouses already had a long history in financial markets. More than a century ago, derivatives market participants had developed this ingenious institution.<sup>7</sup> Clearinghouses promote transactional efficiencies in the post-trade process and manage counterparty credit risk. Today, especially given the global clearing mandates, clearinghouses have become “super-systemic” financial market infrastructures.<sup>8</sup>

In November 2020, the Financial Stability Board (FSB)<sup>9</sup> released *Guidance on Financial Resources to Support CCP Resolution and on the Treatment of CCP Equity in Resolution* (Guidance).<sup>10</sup> Although clearinghouses have proven to be robust risk management institutions, they can and have failed.<sup>11</sup> Indeed, in September 2018, a NASDAQ clearinghouse was at the center of events that “shook the world’s financial system.”<sup>12</sup> Given the risk of clearinghouse distress or insolvency, global

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<sup>6</sup> Wall Street Transparency and Accountability Act of 2010, Pub. L. No. 111-203 (2010).

<sup>7</sup> See generally Randall S. Kroszner, *Can the Financial Markets Privately Regulate Risk?: The Development of Derivatives Clearinghouses and Recent Over-the-Counter Innovations*, 31 J. MONEY, CREDIT AND BANKING 596 (1999).

<sup>8</sup> Letter from Sir Paul Tucker, Chair, Systemic Risk Council to Randal K. Quarles, Chairman, Financial Stability Board: Bank for International Settlements (July 31, 2020) [hereinafter “The Systemic Risk Council Letter”] (available at <https://www.fsb.org/wp-content/uploads/Systemic-Risk-Council-2.pdf>).

<sup>9</sup> See FIN. STABILITY BD., <https://www.fsb.org/about/> (last visited Oct. 2, 2020) (describing the Financial Stability Board as “an international body that monitors and makes recommendations about the global financial system”).

<sup>10</sup> See generally FIN. STABILITY BD., GUIDANCE ON FINANCIAL RESOURCES TO SUPPORT CCP RESOLUTION AND ON THE TREATMENT OF CCP EQUITY IN RESOLUTION (2020) (available at <https://www.fsb.org/wp-content/uploads/P161120-1.pdf>).

<sup>11</sup> See JON GREGORY, CENTRAL COUNTERPARTIES: MANDATORY CLEARING AND BILATERAL MARGIN REQUIREMENTS FOR OTC DERIVATIVES 267–70 (2014) (providing that these failures include the Caisse de Liquidation in France in 1974, the Kuala Lumpur Commodity Clearing House in Malaysia in 1983, and the Hong Kong Futures Exchange Clearing Corporation in Hong Kong in 1987); see also *id.* at 269 (noting that Professor Craig Pirrong states that “[i]t is probably fair to say that the CCPs [clearinghouses] of the Chicago Mercantile Exchange (CME), Options Clearing Corporation (OCC) and the Chicago Board of Trade (CBOT) were very close to failure and only prompt action from the Federal Reserve prevented a catastrophe (Pirrong 2013).”); Berndsen, *supra* note 4, at 25 (providing a table illustrating the “four historical cases of CCP stress,” where stress is defined as the exhausting of the default waterfall with outstanding losses).

<sup>12</sup> Jack Ewing & Milan Schreuer, *How a Lone Norwegian Trader Shook the World’s Financial System*, N.Y. TIMES, May 3, 2019, at BU1.

policymakers and international bodies such as the FSB are focused on clearinghouse resolution as demonstrated by the Guidance.

The Guidance notes the possibility of clearinghouse shareholders raising “no creditor worse off than in liquidation” (“NCWOL”) claims in a clearinghouse resolution.<sup>13</sup> Yet, shareholders are not creditors. This Article argues that such claims for clearinghouse shareholders are nonsensical<sup>14</sup> and should not be available. Shareholders are neither creditors nor are clearinghouses banks. Extending NCWOL claims to clearinghouse shareholders would increase moral hazard and miss an opportunity to promote the rationalization of the global clearing ecosystem for derivatives.

This Article proceeds as follows: Part I provides a brief primer on clearinghouses, recovery, and resolution. It also reviews the different types of losses a clearinghouse could experience and the two predominant types of ownership structures of these institutions. Both considerations are integral to the possibility of shareholders making NCWOL claims in a clearinghouse resolution. Part II explores NCWOL claims, why clearinghouse shareholders might assert such claims in resolution, and the Guidance’s discussion of this issue. Part III argues that NCWOL claims for clearinghouse shareholders are nonsensical and should be unavailable. The Article then concludes.

## II. PART I: A BRIEF PRIMER ON CLEARINGHOUSES, RECOVERY, & RESOLUTION

### *A. The Rational for and a Description of Clearinghouses*

After a financial trade is made, a post-trade process known as clearing and settlement begins. To settle securities trades, there must be an exchange of the security and the payment amount. However, derivatives contracts frequently require that after a trade is made, payments between the counterparties be exchanged throughout its term (tenor). While securities contracts typically settle within a few days, the lifetime of a

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<sup>13</sup> FIN. STABILITY BD., *supra* note 10, at 8.

<sup>14</sup> Note that the Futures Industry Association and the International Swaps and Derivatives Association have stated: “Under US regulation, CCP equity is not subject to the NCWOL safeguard.” *See* FUTURES INDUS. ASS’N ET AL., FINANCIAL RESOURCES TO SUPPORT CCP RESOLUTION AND THE TREATMENT OF CCP EQUITY IN RESOLUTION 3–4 (2020) (available at <https://www.fsb.org/wp-content/uploads/FIA-IIF-ISDA-1.pdf>).

derivatives contract could be years. For example, many credit default swaps have five-year terms. Indeed, a derivative contract's term is "*essential to the contract . . . the fundamental economic purpose of a derivatives transaction involves the reciprocal obligations of the parties over the life of the contract.*"<sup>15</sup> Hence, counterparty credit risk—the risk that a party to a derivatives contract will default on its obligations prior to the expiration of the contract's term—is a significant concern for market participants.

Clearinghouses are designed to ameliorate counterparty credit risk through multiple layers of financial resources. They also promote transactional efficiencies through the multilateral netting of trading positions, allowing members to make net rather than gross payments to the clearinghouse, implementing strict collateralization,<sup>16</sup> and centralizing standards for and the monitoring of members' financial condition. Figure 1 below illustrates the difference between bilateral clearing and settlement—when trading counterparties make their own arrangements for the clearing and settlement of their derivatives contracts—versus the use of a clearinghouse. In this figure, A, B, and C represent market participants engaged in derivatives trading. The top diagram illustrates bilateral clearing and settlement.

The two bottom diagrams in Figure 1 illustrate market participants' use of a clearinghouse. Here, A, B, and C are *clearing members* or members of the clearinghouse. When A ("buyer") and B ("seller") clear their trade through a clearinghouse, the clearinghouse essentially steps into the middle of the trade through contractual novation. It becomes the buyer to the seller (B) and the seller to the buyer (A). Hence, the clearinghouse holds offsetting positions and does not have market risk as long as its members are not in default. It is critical to understand that the original counterparties—A and B—no longer have legal obligations or direct counterparty credit exposure to each other in terms of their original trade. Both A and B must make any payments they owe on their derivatives contracts to the clearinghouse, and the clearinghouse must make any payments it owes on the positions it holds to A or B. Membership in a clearinghouse requires that a market participant meet certain financial requirements and consent to ongoing monitoring of its financial condition

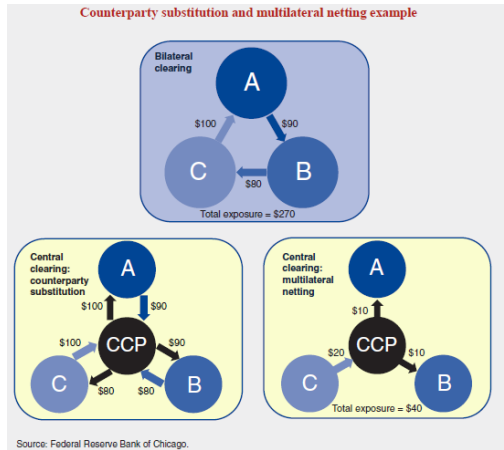
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<sup>15</sup> Robert R. Bliss & Robert S. Steigerwald, *Derivatives Clearing and Settlement: A Comparison of Central Counterparties and Alternative Structures*, 30 FED. RES. BANK CHI. ECON. 22, 23 (2006) (emphasis added).

<sup>16</sup> See Craig Pirrong, *A Bill of Goods: CCPs and Systemic Risk*, 2 J. FIN. MKT. INFRASTRUCTURES 55 (2014).

by the clearinghouse. Clearinghouse members must also post initial margin (a performance bond), generally make daily variation margin payments, and contribute to a common default fund.

Figure 1<sup>17</sup>



Clearinghouses clear different types of derivatives with different risk profiles. Figure 2 illustrates a typical clearinghouse default waterfall of financial resources. Clearinghouse rulebooks, which are specific to each institution, delineate the contractual arrangement between the clearinghouse and its members. They specify the order in which the financial resources in the default waterfall are to be used in the event of a clearing member's default.<sup>18</sup> Were a member to default, its payment obligations, such as any variation margin owed, must be covered and its trading portfolio hedged and auctioned to return the clearinghouse to a market neutral position (offsetting positions). In general, clearinghouses first use the defaulted member's initial margin and default fund contribution to cover its outstanding obligations. If this amount is

<sup>17</sup> Ivana Ruffini, *Central Clearing: Risks and Customer Protections*, 39 FED. RSRV. BANK CHI. ECON. PERSPECTIVES 90, 92 (2015).

<sup>18</sup> See Colleen Baker, *Clearinghouses for Over-the-Counter Derivatives* 42–43 (Nov. 1, 2016) (unnumbered working paper) (on file with The Volker Alliance) (providing that more than one clearing member could default at the same time; regulations for systemically significant clearinghouses in the U.S. require the default fund to meet a “Cover 2” standard, meaning that it would have enough financial resources to cover the default of its two largest clearing members).

insufficient, there could be a thin layer of capital contributed by the clearinghouse to cover any obligations still outstanding.<sup>19</sup>

Historically, clearing members were also the owners of the clearinghouse. Today, most clearinghouses—for example, ICE Clear Credit and CME Clearing—are part of publicly-traded, global exchange group behemoths, such as Intercontinental Exchange and CME Group, respectively, rather than member-owned institutions. However, clearing members are still primarily responsible for losses resulting from the default of a clearing member as Figure 2 illustrates. This arrangement has been termed “incomplete demutualization.”<sup>20</sup> It creates a fundamental conflict of interest between clearinghouse shareholders whose primary interest is profits and clearing members whose primary interest is risk management.<sup>21</sup> In the case of publicly traded clearinghouses, risk does not follow reward. The unique arrangement of allocating most default losses to customers also violates basic principles of corporate finance.<sup>22</sup>

Once any clearinghouse capital in the default waterfall is exhausted, the clearinghouse will use the remaining member funds in the common default fund in an attempt to cover any remaining obligations.<sup>23</sup> If the clearinghouse exhausts the resources in its default fund, it has reached the

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<sup>19</sup> See ANGELA ARMAKOLLA & BENEDETTA BIACHI, THE EUROPEAN CENTRAL COUNTERPARTY (CCP) ECOSYSTEM 10–13 (May 2017) (available at <https://www.bis.org/ifc/publ/ifcb46za.pdf>) (noting that some jurisdictions, for example the E.U., require that shareholder-owned clearinghouses contribute a specified amount of capital to their default waterfall); see also Baker, *supra* note 18, at 43 (noting that others, for example the U.S., do not; in practice, however, most shareholder-owned clearinghouses do contribute some capital to the default waterfall); see, e.g., Press Release, ABN AMRO Clearing et al., A Path Forward for CCP Resilience, Recovery, and Resolution (March 10, 2020), (available at <https://www.goldmansachs.com/media-relations/press-releases/current/multimedia/ccp-paper-2020.pdf>); see Berndsen, *supra* note 4, at 28 (providing that economists have commented that these amounts “in practice... cannot quantitatively be considered as a meaningful loss-absorbing component given its small size”).

<sup>20</sup> Robert Cox & Robert Steigerwald, “*Incomplete Demutualization*” and Financial Market Infrastructure: Central Counterparty Ownership and Governance After the Crisis of 2008-09, 4 J. FIN. MKT. INFRASTRUCTURES 25 (2016).

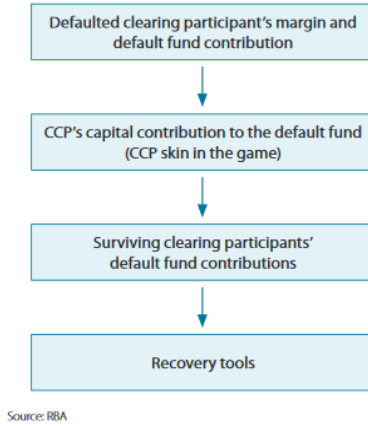
<sup>21</sup> See FUTURES INDUS. ASS’N ET AL., *supra* note 14.

<sup>22</sup> *Id.* at 3.

<sup>23</sup> See Berndsen, *supra* note 4, at 23.

“end of the waterfall.”<sup>24</sup> At this point, the clearinghouse is in distress<sup>25</sup> and the recovery process begins.<sup>26</sup>

Figure 2<sup>27</sup>



### B. Clearinghouse Recovery and Resolution

Clearinghouse recovery is a process somewhat akin to a private debt restructuring and should be provided for in the rulebook.<sup>28</sup> Professor Ron Berndsen explains that “[t]he three main elements of recovery are: 1) restore the matched book after a default (as the CCP still has part or all of the portfolios of the defaulter(s); 2) allocate remaining default losses with in general three possible candidates for absorbing those losses: the CCP, the surviving clearing members and the taxpayer; and 3) cover liquidity shortfalls that may arise[.]”<sup>29</sup> Rulebooks generally permit the clearinghouse to make at least one, if not more, “cash calls” to members for additional capital.<sup>30</sup> However, this amount could still be insufficient to cover default losses or not be paid by members in a timely fashion. Additionally, various tools such as reduction (haircutting) of variation margin gains, full or partial tear up of contracts, and allocation of the defaulted member’s

<sup>24</sup> *Id.* at 5.

<sup>25</sup> *Id.* at 23.

<sup>26</sup> *Id.* at 24.

<sup>27</sup> Louise Carter & Megan Garner, *Skin in the Game—Central Counterparty Risk Controls and Incentives*, RSRV. BANK AUSTL. BULLETIN, June 2015, at 79, 82 (available at <https://www.rba.gov.au/publications/bulletin/2015/jun/pdf/bu-0615-9.pdf>).

<sup>28</sup> Berndsen, *supra* note 4, at 24.

<sup>29</sup> *Id.* at 24.

<sup>30</sup> *Id.* at 26.



positions to another member can also, in theory, be used.<sup>31</sup> However, concerns exist about the potential impact of these tools on financial market stability.

If the recovery process were unsuccessful, the clearinghouse would be resolved or wound down (liquidated).<sup>32</sup> Resolution is analogous to a formal bankruptcy filing as resolution authorities (RAs) assume partial or complete control of the clearinghouse.<sup>33</sup> The RA might even intervene prior to the exhaustion of the recovery process, especially in the case of a systemically significant clearinghouse.<sup>34</sup>

### *C. Allocation of Default and Non-Default Losses*

Clearinghouse losses can also result from non-default issues (cybersecurity problems, investment<sup>35</sup> or custody losses, operational issues, etc.) or a combination of both default and non-default issues.<sup>36</sup> In the case of a member-owned clearinghouse, the source of the losses (default, non-default, or a combination) is unimportant to the question of financial responsibility. Members, as shareholders, will be responsible for both. However, who is responsible for non-default losses, and which types, becomes extremely important in the case of a clearinghouse within a publicly traded exchange group infrastructure. Remarkably, there is a lack of clarity about this issue and it is currently a subject of much controversy.<sup>37</sup> Moreover, how contemporaneous default and non-default losses would be divided, and the respective loss allocation made between shareholders and members is completely unclear and likely impossible to clarify.<sup>38</sup>

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<sup>31</sup> See *id.* 24–27.

<sup>32</sup> See *id.* at 27.

<sup>33</sup> *Id.*

<sup>34</sup> *Id.*

<sup>35</sup> See *id.* at 14 (providing that clearing member collateral can be invested in a variety of ways, including “reverse repos, central bank deposit, commercial bank deposit and high-quality asset purchases”).

<sup>36</sup> See *id.* at 22.

<sup>37</sup> *Id.*

<sup>38</sup> See, e.g., Sir John Dermot Turing, *Response: Guidance on Financial Resources to Support CCP Resolution*, FIN. STABILITY BD. 1, 2 (July 28, 2020) (commenting “[i]t should be stressed that a pure distinction between ‘default’ and ‘non-default’ losses is not achievable”).

Not surprisingly, clearing members of a publicly traded clearinghouse generally object to any obligation to cover non-default losses,<sup>39</sup> with the possible exception by some of custody, settlement, or investment losses if the member has a choice about, or control over, such decisions.<sup>40</sup> Clearinghouses argue it would be against standard market practice to make them insurers in these areas and liable for losses due to a third-party's action.<sup>41</sup> Some clearinghouses have argued that non-default loss allocation should be based upon a balance between decision control and receipt of benefits.<sup>42</sup>

If clearinghouses were owned by their members, as they were historically, issues about loss allocation and the fundamental conflict of interest between shareholders' profit motive and members' risk management focus would be ameliorated. Due to these considerations, some scholars have argued that clearinghouses should return to member ownership.<sup>43</sup> However, an alternative to the remutualization of clearinghouses would be to hold clearinghouses responsible for any default losses that exceeded the defaulting member's initial margin and defund fund contribution, and for all non-default losses (with the possible exception of custody, settlement, and investment losses). From the perspective of this Article, this would be a more sensible arrangement.

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<sup>39</sup> Memorandum from Allianz Glob. Investors et al. on A Path Forward for CCP Resilience, Recovery, and Resolution 6 (Oct. 24, 2019) (available at <https://www.goldmansachs.com/media-relations/press-releases/current/multimedia/ccp-paper.pdf>) (providing "[i]t is generally not appropriate for clearing members or end-users to bear these NDLs since they are not responsible for the choices that led to them").

<sup>40</sup> FUTURES INDUS. ASS'N ET AL., *supra* note 14, at 12.

<sup>41</sup> *See, e.g.*, Memorandum from Fin. Stability Bd. on Public Responses to Consultation on Guidance on Financial Resources to Support CCP Resolution and on the Treatment of CCP Equity in Resolution (Aug. 10, 2020) (available at <https://www.fsb.org/2020/08/public-responses-to-consultation-on-guidance-on-financial-resources-to-support-ccp-resolution-and-on-the-treatment-of-ccp-equity-in-resolution>) (providing file links to responses by exchanges and clearinghouses such as the Options Clearing Corporation, the Chicago Mercantile Exchange, Intercontinental Exchange, the World Federation of Exchanges, and CCP12 to the FSB's Guidance).

<sup>42</sup> LONDON STOCK EXCH. GRP., *Response to FSB Guidance on Financial Resources to Support CCP Resolution and on the Treatment of CCP Equity in Resolution*, FIN. STABILITY BD. 1, 2 (July 31, 2020).

<sup>43</sup> *See, e.g.*, Colleen M. Baker, Incomplete Clearinghouse Mandates, *supra* note 1; Paolo Saguato, *The Ownership of Clearinghouses: When "Skin in the Game" Is Not Enough, the Remutualization of Clearinghouses*, 34 YALE J. REG. 601 (2017).

The author is unaware of other examples in the marketplace in which the customers (clearing members) of a publicly traded institution, rather than its shareholders, are responsible for losses created by the business or other customers. Commentators have also argued for clearinghouses being a “regular part of a market economy”<sup>44</sup> and suggested that:

[i]f owners object to putting their equity at risk, then they should not own for-profit entities, which take huge notional counterparty-credit exposures and other financial risks. Instead, they could have a contractual relationship where they receive a fee for providing operational services rather than, as now, the excess cash flows and profits of the clearing houses they run.<sup>45</sup>

Indeed, were these recommendations followed, this Article and the second part of the Guidance would be moot.

### III. PART II: NCWOL CLAIMS FOR CLEARINGHOUSE SHAREHOLDERS?

#### *A. NCWOL Claims*

What then would a NCWOL claim be and what is the argument for the possibility of clearinghouse shareholders asserting such claims in resolution? As a preliminary matter, the acronym “NCWOL” stands for “no creditor worse off than in liquidation.” Note the absence of the word “shareholder.”

The NCWOL principle originated in the bank resolution context<sup>46</sup> and international jurisdictions have varied in their application of the idea.<sup>47</sup> The principle addresses scenarios in which bank regulators resolve a failing bank by transferring the bank’s assets and some of its liabilities to a “good” or bridge bank and leaving some liabilities in the “bad” or failed bank.<sup>48</sup> As a result, similarly situated creditors are likely to receive divergent treatment if some creditors retain claims on assets transferred to the “good” or bridge bank while others are left-behind in the failed bank and suffer extensive losses.<sup>49</sup> The NCWOL safeguard aims to ensure “that the

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<sup>44</sup> The Systemic Risk Council Letter, *supra* note 8, at 3.

<sup>45</sup> *Id.*

<sup>46</sup> See FUTURES INDUS. ASS’N ET AL., *supra* note 14, at 4.

<sup>47</sup> David Ramos & Javier Solana, *Bank Resolution and Creditor Distribution: The Tension Shaping Global Banking—Part I: “External and Intra-Group Funding” and “Ex Ante planning v. Ex Post Execution” Dimensions*, 28 U. MIAMI BUS. L. REV. 1, 27–29 (2019).

<sup>48</sup> See FUTURES INDUS. ASS’N ET AL., *supra* note 14, at 20.

<sup>49</sup> *Id.*

left-behind creditors would receive at least what they would have received in liquidation [which] decrease[s] the likelihood of their challenging the resolution plan.”<sup>50</sup>

In the U.S., the Federal Deposit Insurance Corporation (FDIC)—the regulatory agency responsible for resolving failed banks—is permitted to treat similarly situated creditors differently so long as doing so both meets certain statutory objectives and ensures all creditors receive at least the liquidation value of their claims.<sup>51</sup>

What then is the argument for the possibility of clearinghouse shareholders asserting NCWOL claims in resolution? If a systemically important clearinghouse were to become distressed, it would attempt to regain stability and return to a matched book (offsetting positions) through the recovery process outlined in its rulebook. Ideally, it would succeed and resume normal operations. If the recovery process failed, an RA would intervene to resolve or wind down the clearinghouse.

Alternatively, an RA might intervene prior to the completion of the recovery process to ensure continuity of the clearinghouse’s operations and to promote financial market stability. As systemically significant clearinghouses are too interconnected and critical to fail, this possibility is highly foreseeable. Although clearinghouses and market participants have asked that RAs clarify the timing of resolution intervention,<sup>52</sup> thus far, this remains unclear. If the RA were to intervene prior to a failed recovery process, the RA’s actions in the resolution process could ultimately result in clearinghouse shareholders experiencing larger losses than “in liquidation under the applicable insolvency regime.”<sup>53</sup>

Clearinghouse rulebooks primarily allocate default losses to clearing members rather than shareholders.<sup>54</sup> However, the RA’s actions could deviate from these rulebook measures and require clearinghouse equity to absorb losses before arrangements provided for by the recovery process had been exhausted. Most clearing members are themselves systemically significant institutions. Their financial condition would also be critical to

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<sup>50</sup> *Id.* at 4.

<sup>51</sup> Ramos & Solana, *supra* note 47, at 27 (citing 12 U.S.C. § 5390(b)(4)).

<sup>52</sup> *See, e.g.*, Letter from Chris Edmonds, Intercontinental Exchange, Inc. (July 31, 2020) (on file with Fin. Stability Bd.) (stating that “resolution authority actions should be agreed ex ante and defined in rulebooks”).

<sup>53</sup> FIN. STABILITY BD., *supra* note 10.

<sup>54</sup> *Id.*

financial market stability, so the possibility of an RA deviating from the rulebook to promote financial stability is highly foreseeable.

If the rulebook's recovery arrangements, in which clearing members are likely largely responsible for default losses and at least some non-default losses, are enforceable in insolvency in a particular jurisdiction, there is a concern that deviations by the RA from the rulebook's arrangements could "enable equity holders to raise NCWOL claims" as discussed in the Guidance.<sup>55</sup> However, some market participants have argued that in bankruptcy, the clearinghouse's loss allocation "measures could not be applied as a legal matter."<sup>56</sup>

### B. *The Guidance and NCWOL Claims for Shareholders*

The Guidance is divided into two parts. The first part addresses "[a]ssessing the adequacy of financial resources to support CCP resolution"<sup>57</sup> through a five-step process. The second part focuses on the "[t]reatment of CCP equity in resolution."<sup>58</sup> The possibility of clearinghouse shareholders asserting NCWOL claims in resolution is one aspect of this topic.

Part II of the Guidance refers to several prior FSB documents: the *Key attributes of effective resolution regimes for financial institutions* (Key Attributes),<sup>59</sup> Appendix II-Annex 1 of the Key Attributes (FMI Annex),<sup>60</sup> and *Guidance on central counterparty resolution and resolution planning* (FSB 2017).<sup>61</sup> It notes that a resolution principle set out by all three is "to provide mechanisms enabling shareholders and creditors to absorb losses in a manner that respects the hierarchy of claims in liquidation."<sup>62</sup> It also notes a principle

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<sup>55</sup> *Id.*

<sup>56</sup> See FUTURES INDUS. ASS'N ET AL., *supra* note 14 (stating as an example "the counterfactual would presumably require the assumption that a CCP's default fund assessments had been called and paid, but a CCP's rules may provide that its authority to call or require funding of assessments terminates upon its bankruptcy").

<sup>57</sup> FIN. STABILITY BD., *supra* note 10.

<sup>58</sup> *Id.*

<sup>59</sup> FIN. STABILITY BD., *Key Attributes of Effective Resolution Regimes for Financial Institutions* (2014), [https://www.fsb.org/wp-content/uploads/r\\_141015.pdf](https://www.fsb.org/wp-content/uploads/r_141015.pdf).

<sup>60</sup> *Id.*

<sup>61</sup> FIN. STABILITY BD., *GUIDANCE ON CENTRAL COUNTERPARTY RESOLUTION AND RESOLUTION PLANNING* (2017) (available at <https://www.fsb.org/wp-content/uploads/P050717-1.pdf>).

<sup>62</sup> FIN. STABILITY BD., *supra* note 10.

of the Key Attributes: that in resolution, “CCP should be fully loss absorbing” and “should absorb losses first.” However, it adds that:

the Key Attributes also include a safeguard for creditors as a right of compensation where they do not receive at a minimum what they would have received in liquidation of the CCP under the applicable insolvency regime (NCWOL safeguard). Further, the FMI Annex provides that, for the purpose of determining NCWOL for participants, the assessment of losses should assume the full application of the CCP’s rules and procedures for loss allocation. The FSB 2017 Guidance provides that the assessment of whether participants, equity holders and creditors have been made worse off than in liquidation should assume, in accordance with applicable insolvency law, the full application of the CCP’s rules and arrangements and any other contractual agreements.<sup>63</sup>

The Guidance relates the FMI Annex’s inclusion of clearinghouse equity holders as within the NCWOL safeguard. However, neither document explains nor justifies why this safeguard, which by its very name is for creditors, should be extended to equity.

If CCP equity is only responsible for losses or only loss absorbing once all of a clearinghouse’s rules and arrangements for recovery have been exhausted, then it is unclear that it would ever be responsible for any default losses at all. The exception would be any equity placed in the default waterfall. The Guidance notes that “[t]he [Principles for Financial Market Infrastructures] call for a CCP to have in place comprehensive loss allocation arrangements for default losses.”<sup>64</sup> “These recovery procedures are expected to manage most, if not all, difficulties faced by a CCP.”<sup>65</sup>

Recovery arrangements generally allocate default losses to clearing members. Predictably, clearinghouses support adherence to rulebook loss allocations.<sup>66</sup> When pushed to their limits, recovery arrangements should, in theory, return a clearinghouse to stability and a matched book or facilitate an unwind (essentially, liquidation) of the clearinghouse. As commentators have noted: “[i]t is not at all clear what a hypothetical

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<sup>63</sup> *Id.*

<sup>64</sup> *Id.*

<sup>65</sup> Edmonds, *supra* note 52.

<sup>66</sup> See CME GRP., GUIDANCE ON FIN. RES. TO SUPPORT CCP RESOLUTION AND ON THE TREATMENT OF CCP EQUITY IN RESOLUTION (July 31, 2020) (available at <https://www.fsb.org/wp-content/uploads/CME-Group-3.pdf>).

insolvency looks like for a CCP whose balance sheet would not in fact be insolvent following assumed application of its rulebook—the proceeding would likely be more akin to a solvent wind-down of business.”<sup>67</sup> Clearinghouse equity should absorb at least some non-default losses. The rulebook might require clearing members to assume responsibility for some non-default losses. However, it is not at all clear that it would be possible to effectively separate default and non-default losses should they occur simultaneously.

The FSB states that enabling shareholders to raise NCWOL claims may lead to a result that “may be inconsistent with the other Key Attributes principle that equity should be fully loss absorbing in resolution. This may also raise moral hazard concerns by allowing equity holders to maintain their equity interest in a CCP post resolution while participants are made to bear losses.”<sup>68</sup> The FSB highlights a critical inconsistency that should be resolved as it cannot be reconciled. Market participants have commented that:

Policymakers and market participants have now spent several years discussing and struggling to reconcile the FSB’s extension of the NCWO safeguard to CCP equity and the requirement for comprehensive loss allocation in recovery with the FSB’s principle that equity should be fully loss-bearing and the objective that no taxpayer funds be used to pay NCWO compensation to equity. These things cannot be reconciled (particularly in a scenario in which the RA enters early), and the FSB should either accept this fact or revise the safeguard so that it does not extend to CCP equity.<sup>69</sup>

The Guidance also underscores the moral hazard risk involved in shielding equity from default losses. It recommends that RAs consider “adjust[ing] the exposure of CCP equity to losses,” mechanisms for doing this, and “additional options to address the identified limitations” to equity being fully loss absorbing in resolution.<sup>70</sup>

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<sup>67</sup> Memorandum from Allen & Overy on Proposed CCP Recovery & Resolution Regulation to ISDA (Apr. 2, 2020) (available at <https://www.isda.org/a/AD9TE/AO-Memo-for-ISDA-NCWO-CCP-Equity.pdf>).

<sup>68</sup> FIN. STABILITY BD., *supra* note 10.

<sup>69</sup> FUTURES INDUS. ASS’N ET AL., *supra* note 14, at 28.

<sup>70</sup> FIN. STABILITY BD., *supra* note 10.

#### IV. PART III: NCWOL CLAIMS SHOULD BE UNAVAILABLE TO CLEARINGHOUSE SHAREHOLDERS

Not surprisingly, clearinghouses generally support the possibility of NCWOL claims for shareholders in resolution<sup>71</sup> while members do not.<sup>72</sup> Market participants have asked for a justification for extending the NCWOL safeguard to clearinghouse shareholders.<sup>73</sup> Thus far, it does not appear that either policymakers or clearinghouses have provided a clear rationale.<sup>74</sup> This Part argues that NCWOL claims should be unavailable to clearinghouse shareholders. They are not creditors and clearinghouses are not banks. Extension of this safeguard to shareholders would increase moral hazard and miss an important opportunity to promote the rationalization of the clearinghouse ecosystem.

First, shareholders are not creditors. The distinction between these constituencies is one of the most basic in finance. It is indisputable that the acronym is “NCWOL,” and not “NSWOL,” which would be the acronym for “no shareholder worse off than in liquidation.” If clearinghouse shareholders want the right to make such claims, they should make the case for it and use the appropriate acronym.

Second, protecting clearinghouse shareholders from loss in resolution creates serious moral hazard and fairness issues. “CCPs have a unique corporate structure[,]”<sup>75</sup> which is the result of the “incomplete demutualization”<sup>76</sup> of formerly mutualized (member-owned) entities. This anomalous, incomplete or hybrid structure is problematic because it creates a foundational incentive conflict between shareholders and clearing members. As scholars have noted, it is precarious, rife with moral hazard, and should be rationalized.<sup>77</sup>

To the best of the author’s knowledge, there is no marketplace precedent in which customers are largely responsible for losses created by other customers, for losses created by the business itself, or required to

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<sup>71</sup> See, e.g., CME GRP., *supra* note 66.

<sup>72</sup> See FUTURES INDUS. ASS’N ET AL., *supra* note 14.

<sup>73</sup> *Id.* at 28.

<sup>74</sup> CME GRP. *supra* note 66 (stating that “[c]onsistent with the FSB’s Key Attributes, the NCWOL assessment to determine if creditors, in this case the CCP’s shareholders, would have been worse off under resolution...”; yet shareholders and creditors are clearly distinct).

<sup>75</sup> FUTURES INDUS. ASS’N ET AL., *supra* note 14, at 3.

<sup>76</sup> Cox & Steigerwald, *supra* note 20.

<sup>77</sup> See generally Baker, *supra* note 2.



assist the business should it become financially distressed. Risk should follow reward, especially in the case of super-systemic, publicly traded, for-profit institutions. If policymakers want clearinghouses to act like “systemic risk monitors and managers,” their equity must be at stake in resolution:<sup>78</sup>

It is unreasonable to expect clearinghouses to focus on systemic risks if owners keep profits during the good times but, rather than being extinguished, survive the worse times with their rights to surplus income intact; that, of course, amounts to a subsidy from members and users, and in some circumstances potentially from taxpayers. Their incentives matter hugely to preserving stability in the system, given they set the margin and other requirements that shape the availability and use of leverage in trading markets.<sup>79</sup>

Not exposing clearinghouse equity to loss in resolution also creates fairness concerns. As commentators emphasize: “[w]hile profits in business are privatized by the CCP equity holders, losses in recovery and resolution will be socialized to clearing participants and in extremis the tax-payer.”<sup>80</sup> As further explained by commentators, it would be inaccurate and “in contrast to basic corporate finance principles that clearing participants are asked to ‘bail out’ a CCP, yet future profits that the CCP would not have had without the support from clearing participants go to the shareholders of the CCP.”<sup>81</sup>

Third, clearinghouses are not banks.<sup>82</sup> The NCWOL safeguard originated in the bank resolution context. Commentators argue that “the insolvency counterfactual which is meaningful for banks does not easily translate to CCPs, which achieve much of their financial robustness through mutualized loss-sharing rather than own capital and also . . . have rulebook powers that allow them to reduce/remove the realistic risk of insolvency in a way that is not possible for banks.”<sup>83</sup> Policymakers have

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<sup>78</sup> The Systemic Risk Council Letter, *supra* note 8.

<sup>79</sup> *Id.*

<sup>80</sup> FUTURES INDUS. ASS’N ET AL., *supra* note 14, at 16.

<sup>81</sup> *Id.*

<sup>82</sup> For a discussion of the differences between banks and clearinghouses, see Mark Jozsef Manning & David Hughes, *Central Counterparties and Banks: Vive La Difference*, 4 J. FIN. MKT. INFRASTRUCTURES 1–24 (2016).

<sup>83</sup> Allen & Overy, *supra* note 67, at 4.

also carefully distinguished clearinghouses from banks.<sup>84</sup> Although clearing members have called for higher levels of clearinghouse capital,<sup>85</sup> clearinghouses have emphasized that they “manage risk; they do not introduce risk.”<sup>86</sup>

Clearinghouses are, without question, in control of their risk models. These decisions about risk impact the probability of their experiencing default losses.<sup>87</sup> Clearinghouses can increase members’ margin requirements and default fund contributions to reduce this probability. If clearinghouses were required to maintain higher levels of capital, they would need to increase clearing fees to avoid a “return [on equity] less than the cost of equity.”<sup>88</sup> If prudential clearinghouse margin or capital increases would discourage clearing or are uneconomic for the clearinghouse, then the problem could be the current clearinghouse ownership model itself.

Finally, as the author has argued elsewhere, the clearinghouse ecosystem, specifically the ownership of clearinghouses, should be rationalized.<sup>89</sup> Otherwise, there is a significant risk of following a path similar to that of Fannie Mae and Freddie Mac—who have been in government conservatorship for more than twelve years—in the clearinghouse context were a clearinghouse to become distressed or insolvent.<sup>90</sup> If it were credibly clear ex-ante that NCWOL claims would be unavailable to clearinghouse shareholders in resolution, this pre-announced restriction should impact shareholder incentives and promote the rationalization of the nonsensical incentive structures in the clearinghouse ecosystem.

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<sup>84</sup> See Robert T. Cox & Robert S. Steigerwald, *A CCP is a CCP is a CCP*, Federal Reserve Bank of Chicago Working Paper, FED. RESERVE BANK CHI. (Apr. 5, 2017), <https://www.chicagofed.org/publications/policy-discussion-papers/2017/pdp-1>.

<sup>85</sup> See ABN AMRO Clearing et al., *supra* note 19.

<sup>86</sup> Letter from Angelo Evangelou, Chief Policy Officer, Cboe Global Markets, to Chair Quarles, Fin. Stability Bd. (July 31, 2020) (available at <https://www.fsb.org/wp-content/uploads/Cboe-Global-Markets.pdf>).

<sup>87</sup> Turing, *supra* note 38.

<sup>88</sup> Memorandum from European Association of CCP Clearing Houses (EACH) on Financial Resources to Support CCP Resolutions (July 2020) (available at <https://www.fsb.org/wp-content/uploads/European-Association-of-CCP-Clearing-Houses-1.pdf>).

<sup>89</sup> See generally Baker, *supra* note 2.

<sup>90</sup> *Id.*

These incentive structures violate basic corporate finance principles in at least two ways: 1) they separate risk from reward in largely allocating responsibility for default losses to clearing members and clearinghouse profits to shareholders; and 2) they expect customers to absorb losses created by other customers and to forgo compensation for their financial contribution. In any other context, such expectations would be nonsensical. Although the historical evolution of exchanges and clearinghouses from member-ownership to shareholder-ownership explains the descriptive reality of many clearinghouses' "incomplete demutualization," this does not necessitate normative acquiescence to the status quo.

Although their emphasis differs, both clearinghouses and clearing members seem to recognize that the global clearing ecosystem for derivatives is rife with potentially problematic incentive structures. Clearing members are concerned that not enough clearinghouse capital is at risk to incentivize proper risk management by clearinghouses who are themselves concerned that clearing members will not be incentivized to cooperate in recovery absent being required to do so. The amount of time, effort, and expense that have been invested—and likely will continue to be invested—by global policymakers and market participants in trying to manage fundamentally misaligned incentives would seem to be better spent by accepting the need to rationalize these incentive structures and formulating a gradual path forward. Making NCWOL claims unavailable to clearinghouse shareholders would be an important step in this direction.

## V. CONCLUSION

Clearinghouses and their shareholders want to be indistinguishable from creditors and banks for purposes of NCWOL claims. Yet clearinghouse shareholders do not want to be creditors nor do clearinghouses want to be subject to bank regulation. Policymakers should not allow clearinghouses to have their cake and to eat it too. The push by clearinghouse shareholders to be treated as creditors for NCWOL purposes is a canary in the coal mine warning of the ultimate fragility of recovery arrangements in clearinghouse rulebooks due to the dysfunctional incentive structures in much of the clearinghouse ecosystem. Making NCWOL claims unavailable for clearinghouse shareholders would be a step towards the much-needed rationalization of this area.