

David A. Stawick  
Secretary  
Commodity Futures Trading Commission  
Three Lafayette Centre  
1155 21st Street, NW  
Washington, DC 20581

August 5, 2011

Dear Mr Stawick,

**RIN: 3038-AC99 Protection of Cleared Swaps Customer Contracts and Collateral; Conforming Amendments to the Commodity Broker Bankruptcy Provisions.**

LCH.Clearnet Group (“The Group”) is pleased to add further comment to the Commodity Futures Trading Commission (“Commission”) on the important issue of the protection of margin collateral posted by customers clearing swaps transactions.

The Group strongly supports the “Complete Legal Segregation” model put forward in the Commission’s Notice of Proposed Rulemaking on “Protection of Cleared Swaps Customer Contracts and Collateral; Conforming Amendments to the Commodity Broker Bankruptcy Provisions”.

In our view the Complete Legal Segregation model outlined by the Commission is the most appropriate model for customers clearing swaps transactions. It is also the most readily achievable model for providing the client collateral protection levels sought by Congress and the model that most closely parallels the protections that we understand will be required in Europe under the European Commission’s proposal for a European Market Infrastructure Regulation (“EMIR”)<sup>1</sup>.

Introducing customer-level safeguards under the Complete Legal Segregation model should help increase the overall safety and soundness of the financial markets, and ensure that the protections and safeguards afforded to US clients are at least as strong as those available in the bilateral marketplace. Under current bilateral swaps market practises, clients are able to negotiate for individual segregation of collateral that they post for uncleared swaps. The collateral posted by clients that have made such arrangements, although subject to other risks, is not subject to the risk of the default of other market participants that have entered into transactions with their swaps counterparts. These clients believe it is inappropriate that they should be subject to such “fellow-customer” risk when clearing their swaps transactions.

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<sup>1</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0484:FIN:EN:PDF>

The Group has already successfully implemented a client clearing model analogous to the proposed Complete Legal Segregation model at LCH.Clearnet Ltd in London and can confirm that the costs of operating and using such a model are no higher than those that would be incurred under any other of the models outlined by the Commission. Indeed, the costs of clearing swaps at LCH.Clearnet Ltd are identical, irrespective of whether the client chooses to clear under our gross omnibus account facility (which is equivalent to the CFTC's proposed Futures model), or whether the client chooses to clear under our individually segregated account structure (equivalent to Complete Legal Segregation – "CLS"). All clients in Europe have elected to use our "CLS" style offering, clearing in excess of USD 200 billion worth of swaps to date.

In our view the CLS model offers the best level of client protections without wholly altering the infrastructure that is already in place for clearing, risk managing and default managing swaps. Indeed, it ensures that the protection afforded clients is akin to that afforded to direct clearing members. Like direct clearing members, who do not risk losing their initial margin owing to the default of another member, clients clearing under the CLS structure will not be exposed to losing their initial margin due to a default of another client of their clearing member.

We are aware that some clearinghouses argue that higher costs are involved in the CLS structure, however having implemented this model we can categorically refute these claims. We set out our detailed arguments for this in the attached annex, but would like to bring the following points to the Commission's immediate attention.

### **Operational Costs**

The ongoing operational costs for the DCO offering swaps clearing under the CLS model will be no higher than for the DCO offering swaps client clearing under any of the other models outlined by the Commission. This is because in its proposed Risk Management Requirements for Derivatives Clearing Organizations<sup>2</sup>, the Commission requires that any DCO offering swaps client clearing will have to collect initial margin on a gross basis for each individual customer account equal to the sum of the initial margin amounts that would be required by the DCO for each individual customer within that account if each individual customer were a clearing member. The DCO is not permitted to net positions of different customers against one another.

If the Commission adopts this important requirement, any DCO offering any swaps clearing service under any of the models outlined by the Commission in its Proposed Rulemaking will be required to track margin on an individual client basis and FCMs will be required to do the same.

LCH.Clearnet strongly supports this proposed requirement for two reasons.

Firstly, it is imperative that any DCO offering swap clearing services has the ability to view the position and risk of each counterparty to which it may have exposure to in a default event. The DCO needs such visibility in order to accurately hedge and close out the risk in a default event. The DCO must therefore always have daily (and intraday) visibility on risk and positions not only at the Futures Commission Merchant ("FCM") level, but also at the individual client level.

Secondly, client portability. Without client level visibility, client portability will become severely compromised. If the DCO does not track individual client margin and positions, the DCO will have to rely on the FCM's records to identify each client's positions in the case of the FCM's default.

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<sup>2</sup> <http://www.cftc.gov/ucm/groups/public/@lrfederalregister/documents/file/2011-690a.pdf>

Clearinghouses seeking to offer swaps clearing services may face build-out costs to comply with this requirement – however these are one-off investment costs that DCOs will have to make if they are to be ready to process, risk manage and default manage swaps transactions. These are one-off costs that are fundamentally necessary for a clearinghouse to be in the swaps clearing business. No clearinghouse should be able to offer client clearing for swaps without full visibility at the individual client level. This gross margining requirement should therefore stand, irrespective of the swaps clearing service the DCO chooses to offer.

### **Risk Costs**

The risk costs will be identical whether the DCO implements swaps clearing under the Complete Legal Segregation model, the Futures model, the Physical Segregation model or the Legal Segregation with Recourse model.

It is of the utmost importance that DCOs are managed prudently. Accordingly, DCO risk waterfalls must cater for all events, not just ‘shock’ events. Thus, irrespective of the model under which the DCO offers swaps clearing, the DCO should never rely on the availability of collateral posted by any swaps customer either to cover a fellow-customer default, or to cover the default of an FCM. This is because it is at least possible - if not highly probable - that a customer will seek to port its margins and positions to another FCM either in advance of the default of its FCM, or in advance of the default of another customer of its FCM.

For this reason, there should be no economic difference in terms of margin called for implementing any of the models outlined by the Commission. The Group’s clearinghouses’ models do not take account of the client Initial Margin mutualization layers when calculating risk waterfall provisions. This is because, from a prudential risk management perspective, we recognize that there can be no certainty of availability of funds in the client Initial Margin mutualization layer. As a result of this risk management assumption, the risk exposure calculated for each client and FCM account in all our models is funded up-front by Initial Margin at the individual account level and by the FCMs’ contributions to the mutualized guaranty fund, thus removing any reliance on Initial Margin provided by non-defaulting clients.

### **Conclusion**

We look forward to working with the Commission to extend our existing swaps client clearing service to US customers. We believe that the CLS model would best complement the Commission’s existing client protection mechanisms and would therefore recommend that the Commission’s rules allow DCOs to provide customer accounts under the CLS structure. The Group appreciates the thought and consideration that the Commission has given to this important rulemaking. We are grateful for the opportunity to comment on these issues and would be pleased to enter into a further dialogue with the Commission.

Yours sincerely



Ian Axe  
**Chief Executive Officer**

# Evaluating the Costs of Complete Legal Segregation

White Paper

August 2011

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## Introduction

As part of the Dodd-Frank rule writing process, the CFTC conducted a review of the potential account structures used to segregate client collateral. Although not finalized, the CFTC has recommended an account structure for OTC swaps called Complete Legal Segregation (also known as Legally Segregated, Operationally Commingled [LSOC]) to replace the existing Gross Omnibus account structure used in the US Futures markets. A few industry participants have opposed the switch to Complete Legal Segregation (CLS) on the premise that CLS will increase the costs of clearing.

In LCH.Clearnet's opinion, the Complete Legal Segregation account structure does not increase the cost of clearing. The objective of this paper is to provide the underlying argument for our opinion.

# 1 Account Structure Overview

This section provides a brief overview of the Gross Omnibus and Complete Legal Segregation account structures.

## 1.1 Gross Omnibus

Under the Gross Omnibus account structure, client margin is legally segregated from the clearing member's proprietary account (the "House" account), but commingled with other customers of the clearing member (the "Client Omnibus" account). In the event of a default of the clearing member in the House account, the clearinghouse may not utilize client margin.

However, in the event that a shortfall in the Client Omnibus account causes a default of the clearing member (ie a "Double Default"), then the margin of all clients of the defaulting clearing member may be utilized by the clearinghouse as part of the default waterfall. As a result, clients have exposure to other clients of the clearing member, a concept known as "fellow customer risk."

Porting of clients in the event of default is subject to CFTC approval and the relevant trustee in bankruptcy, however the expectation is that the clearinghouse will be able to allow up to 48 hours for clients to port to a new clearing member. Note that the 48 hours provision is not mandatory and may be shorter or longer depending upon market conditions and the discretion of the clearinghouse.

In order to port their trades, clients will either need to collectively make good the shortfall in the client gross omnibus account or will need to post new margin (ie double margin) at their new Futures Commission Merchant (FCM). Consequently, clients will need to post additional margin, whether to fulfil the gross omnibus shortfall or by double margining at the new clearing member until the clearinghouse determines how much of their original margin is not required to address losses associated with the FCM default (when such margin held by the clearinghouse in respect of the defaulting FCM will be returned to that FCM's estate).

The below table outlines the LCH.Clearnet Default Waterfall under the two different default types. Although the details of the default waterfall may differ across clearinghouses, all CFTC regulated clearinghouses operate under the Gross Omnibus account structure in the US and, as a result, include the margin of clients of a defaulted FCM in their waterfall.

	FCM Default in House Account Only	FCM Default in Client Gross Omnibus Account
1	Margin of Defaulting FCM	Margin of Defaulting FCM
2	Default Fund Contribution of Defaulting FCM	Default Fund Contribution of Defaulting FCM
3	LCH.Clearnet Capital (up to £20m)	<b>Margin of ALL Clients of Defaulting FCM<sup>1</sup></b>
4	Default Fund Contribution of Non-Defaulting Members	LCH.Clearnet Capital (up to £20m)
5	SwapClear Undertaking <sup>2</sup>	Default Fund Contribution of Non-Defaulting Members
6	LCH.Clearnet Remaining Capital	SwapClear Undertaking
7		LCH.Clearnet Remaining Capital

<sup>1</sup> Note that although client margin is in the LCH.Clearnet waterfall (as required by the CFTC under Gross Omnibus), LCH.Clearnet does not place any value on this layer in the Default Waterfall, as described in greater detail in Section 2.2.

<sup>2</sup> The SwapClear Undertaking is LCH.Clearnet's right to call additional funds from SwapClear Clearing Members, up to a maximum amount per member default.



## 1.2 Complete Legal Segregation (CLS)

Complete Legal Segregation (“CLS”) is an account structure type in which collateral posted to the clearinghouse by a clearing member on behalf of clients is operationally comingled in one account (the “Operationally Comingled Client Account”), but is legally segregated. As a result, the initial margin of non-defaulting clients may never be utilized by the clearinghouse to cover the losses of defaulting clients.

In the event that a client cannot make a margin call to a FCM, and the FCM is unable to cover the client’s shortfall, then the FCM will not be able to make the margin call in the Operationally Comingled Client Account (ie a “Double Default”). Although the default process under CLS is yet to be determined, LCH.Clearnet’s proposed mechanism is that we will put the FCM in default and give all clients 48 hours to find a new clearing member and port their contracts along with collateral. As under Gross Omnibus, the 48 hour provision is not mandatory and may be shorter or longer depending upon market conditions and the discretion of LCH.Clearnet. The defaulting client may be unable to port if it is not able to meet the margin call at any new FCM. As a result, the client will be put into default along with the FCM House account. Losses will be covered utilizing the margin of the defaulting client and defaulting FCM first, on a pro-rata basis, and then by the rest of the Default Waterfall.

It should be noted that in Europe LCH.Clearnet offers clients an option to choose a gross omnibus or a CLS equivalent account structure. As of July 2011, all client volume in Europe has elected to leverage the CLS model (over €200 billion notional).

The below table compares the Default Waterfalls of Gross Omnibus and CLS.

	FCM Default in House Account Only (Under Gross Omni or CLS)	FCM Default in Client Gross Omnibus Account	FCM Default in the Operationally Comingled Client Account Under CLS
1	Margin of Defaulting FCM	Margin of Defaulting FCM	Margin of Defaulting Clients and Defaulting FCM, pro-rata
2	Default Fund Contribution of Defaulting FCM	Default Fund Contribution of Defaulting FCM	Default Fund Contribution of Defaulting FCM
3	LCH.Clearnet Capital (up to £20m)	<b>Margin of <u>ALL</u> Clients of Defaulting FCM</b>	LCH.Clearnet Capital (up to £20m)
4	Default Fund Contribution of Non-Defaulting Members	LCH.Clearnet Capital (up to £20m)	Default Fund Contribution of Non-Defaulting Members
5	SwapClear Undertaking	Default Fund Contribution of Non-Defaulting Members	SwapClear Undertaking
6	LCH.Clearnet Remaining Capital	SwapClear Undertaking	LCH.Clearnet Remaining Capital
7		LCH.Clearnet Remaining Capital	

## 2 Evaluating the Costs

Some representatives of the industry have opposed CLS on the basis that they believe CLS will impose higher costs in the form of additional operational costs and higher margins. These arguments are evaluated below.

### 2.1 The Additional Operational Cost Argument

An argument occasionally made against CLS is that it will increase the operational costs of clearing members and clearinghouses. The basis for the argument is that the implementation of CLS will force clearing members and clearinghouses to build infrastructure to track and understand margin on an individual client basis, in order to facilitate the legal segregation by client. However, the CFTC has already proposed mandating clearinghouses to track margin on an individual client basis for OTC products, regardless of account structure.

The CFTC explains this proposed requirement as follows., “Proposed § 39.13(g)(8)(i) would require a DCO to collect initial margin on a gross basis for each clearing member’s customer account equal to the sum of the initial margin amounts that would be required by the DCO for each individual customer within that account if each individual customer were a clearing member. A DCO would not be permitted to net positions of different customers against one another, but it could collect initial margin for its clearing members’ house accounts on a net basis.”<sup>3</sup> As a result, clearing houses will be forced to track margin on an individual client basis under any account structure, which will force the clearing member to do the same (as they are the conduit for the underlying information).

LCH.Clearnet strongly supports this proposed requirement for two reasons.

Firstly, it is imperative that any DCO offering swap clearing services has the ability to view the position and risk of each counterparty to which it may have exposure to in a default event. The DCO needs such visibility in order to be able to accurately hedge and close out the risk in a default event. The DCO must therefore always have daily (and intraday) visibility on risk and positions not only at the FCM level, but also at the individual client level.

Secondly, without client level visibility and gross margining, client portability becomes severely compromised. If the DCO does not track individual client margin and positions, these will have to be determined by the DCO after a default by relying on the records of the defaulting FCM.

Clearinghouses seeking to offer swaps clearing services may face build-out costs to comply with this requirement – however such one-off costs are a result of being adequately prepared to process, risk manage and default manage OTC derivative transactions. These are one-off costs that are fundamentally necessary for a clearinghouse to be in the OTC derivative clearing business. No clearinghouse should be able to offer client clearing for swaps without full visibility at the individual client level. This requirement should therefore stand irrespective of the account structure selected by the CFTC.

Finally, the client account under CLS is “operationally commingled.” As a result, clearing members and clearinghouses can utilize the same gross omnibus account structure from an operational perspective, limiting additional infrastructure costs. In other words, the operational infrastructure of CLS is the same as Gross Omnibus, it is only the legal segregation that is different.

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<sup>3</sup> 76 FR at 3706.

## 2.2 The Additional Margin Argument

Another argument occasionally made against CLS is that it will increase the margin requirements of clients. The basis for this argument is that if the margin of non-defaulting clients is removed from the default waterfall, then it must be replaced with something else, such as higher initial margin or higher default fund contributions.

For example, suppose the following example:

- Clearing Member X has 3 clients with margin requirements as follows: Client A \$50m, Client B \$30m, & Client C \$20m (or a total of \$100m).
- Clearing Member X has proprietary positions in its House account with margin of \$80m
- Clearing Member X has a \$40m contribution to the Default Fund
- The total Default Fund is \$500m
- Clearinghouse Z has capital of \$200m
- Clearinghouse Z has the ability to call an additional \$50m per member in the event of default
- Clearinghouse Z has four members
- Client B defaults and causes the default of Clearing Member X

In the event of default, clearinghouse resources under Gross Omnibus would be as follows:

	FCM Default in Client Gross Omnibus Account	Available Resources
1	Margin of Defaulting FCM	\$80m
2	Default Fund Contribution of Defaulting FCM	\$40m
3	<b>Margin of ALL Clients of Defaulting FCM</b>	\$100m
4	Clearinghouse Capital (up to \$20m)	\$20m
5	Default Fund Contribution of Non-Defaulting Members	\$460m (\$500m – \$40m)
6	Additional Undertaking	\$150m (3 members * \$50m)
7	Remaining Clearinghouse Capital	\$180m (\$200m – 20m)
	Total	\$1,030m

Under CLS, clearinghouse resources would be as follows:

	FCM Default in the Operationally Commingled Client Account Under CLS	Available Resources
1	Margin of Defaulting Clients and Defaulting FCM, pro-rata	\$110m
2	Default Fund Contribution of Defaulting FCM	\$40m
3	Clearinghouse Capital (up to \$20m)	\$20m
4	Default Fund Contribution of Non-Defaulting Members	\$460m
5	Additional Undertaking	\$150m
6	Remaining Clearinghouse Capital	\$180m
	Total	\$960m

As observed, under CLS the clearinghouse has \$70m less in financial resources for the same risk. To make up this difference, advocates against CLS argue that the clearinghouse must increase the initial margin of clients, or the default fund contribution of clearing members, or a combination of both to cover this shortfall.

## ANALYSIS

At face value the argument is convincing. However, in our view the error exists in the assumption that the non-defaulting clients will remain at the defaulting FCM. As with Lehman, concern into the validity of a clearing member often plays out for weeks - if not months - prior to the actual default. To avoid losing their margin or interfering with their operations, clients may opt to leave a “weak” clearing member for a “stronger” clearing member. Indeed, according to research conducted by the CFTC, over 75% of Lehman’s clients left prior to the bank’s default.<sup>4</sup> Clients now have an even greater understanding of “fellow customer risk” and will be even less likely to stay at a weak FCM than clients were during the Lehman default.

As a result, the \$100m client margin layer in the Gross Omnibus Default Waterfall would have been less than \$25m during the Lehman default and may be substantially less in future defaults. Further, it is possible that all healthy clients leave a nearly defaulted clearing member and that the margin of all non-defaulting clients is \$0. For this reason, we believe that a clearinghouse is miscalculating their financial resources if they assign value to the margin of non-defaulting clients for the purposes of determining their aggregate financial resources that can be relied upon in event of a default.

On this basis, LCH.Clearnet does not assign any value to the margin of non-defaulting clients. As a result, our margin requirements are the same under Gross Omnibus and our CLS-equivalent account structure in Europe. **Therefore, initial margin is the same under the gross omnibus and CLS account structures in the US.**

## IN PRACTICE

As LCH.Clearnet does not place value on the margin of non-defaulting clients in its waterfall, many would expect our margin to be higher than our competitors. Based on feedback from market participants, this is not the case. In many cases we have seen our initial margin requirements to be lower than our competitors. This is not the result of competing on margin. Indeed, LCH.Clearnet has used the same essential margin methodology for OTC Interest Rate Swaps since 2001.

We utilize a proprietary historical simulation VaR methodology called PAIRS (Portfolio Approach to Interest Rate Scenarios). For members, the initial margin calculation for a portfolio is set by the observed maximum relative loss per portfolio in any given 5-day holding period over the last 5 years.<sup>5</sup> SwapClear uses a 5-day holding period based on assumptions (and empirical observation) as to the time required to hedge the defaulted positions in the event of default, and therefore the time that the clearinghouse is “on-risk” for variation margin losses on the portfolio. For clients we utilize a 7-day holding period to reflect the additional 48 hours we aim to give clients to port in the event of a member default. The 48 hour provision is not mandatory and may be shorter or longer depending upon market conditions and the discretion of LCH.Clearnet.

Our margin methodology was put to the test in the Lehman default and has proven robust. LCH.Clearnet was the only clearinghouse to clear OTC interest rate derivatives during the financial crisis and was able to successfully hedge and auction the Lehman book. Following the Lehman default, LCH.Clearnet returned 65% of Lehman’s total initial margin to the Lehman bankruptcy administrator.

Interest rate swaps are margined on a portfolio basis and as a result it is difficult to make a general statement that one clearinghouse’s margin is less than another clearinghouse’s margin. It is possible for one clearinghouse to have lower margin vis-à-vis its peers on certain types of portfolios and higher margin vis-à-vis its peers on other types of portfolios. With that said, for the purposes of this document it is helpful to compare margins on the simplest of positions.

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<sup>4</sup> 76 FR at 33847

<sup>5</sup> Note that LCH.Clearnet stress tests its aggregate financial resources, such as our Default Fund, utilizing a number of historical and hypothetical scenarios to ensure that our risk evaluation is not limited to the last 5 years.

When comparing our initial margin requirements versus a significant competitor in the US (who places value on the margin of non-defaulting clients in their waterfall), we found that on a simple 2Y interest rate swap receiver (i.e. a position where the participant is a receiver of the fixed rate and a payer of the floating rate) our margin is approximately 30% less, on a 5Y receiver 26% less, on a 10Y receiver 18% less, and on a 30Y receiver 24% less.<sup>6</sup>

As a result, if a client clears through LCH.Clearnet under the CLS account structure, **it is possible for the client to receive the protection offered under CLS while paying lower margin** than they would at a competitor under the Gross Omnibus model. To re-emphasize, **this is not the result of LCH.Clearnet lowering its margin** to compete in the US. Our margin methodology for OTC Interest Rate Swaps has remained the same since 2001.

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<sup>6</sup> Our margin comparison is based on feedback from market participants. Note however that some of our competitors have announced that they will be moving to a margin methodology similar to LCH.Clearnet's PAIRS model. It is unclear what the results of the above comparison will be under the new model.

### 3 Conclusion

The primary arguments against Complete Legal Segregation do not withstand detailed analysis. Operationally, the costs feared by some related to the introduction of CLS are unfounded. Such costs will exist regardless of account structure. From a margin standpoint, LCH.Clearnet already operates both account structures under a model where (1) the margin is exactly the same, (2) the margin is already frequently less than competing clearinghouses, and (3) the margin methodology has been proven sufficient through the largest clearing member OTC default.