



Application for

Exemption from subsection 21.2(0.1) of the *Securities Act* (Ontario) (“OSA”) pursuant to section 147 of the OSA.

LCH.Clearnet LLC

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Contents

- 1. PART I - BACKGROUND**
 1. Legal and Ownership Structure of LCH
 2. Regulatory Status
 3. Clearing Activities in Ontario

- 2. PART II – APPLICATION OF APPROVAL CRITERIA TO CLEARING AGENCY**
 1. Governance
 2. Fees
 3. Access
 4. Rules and Rulemaking
 5. Due Process
 6. Risk Management
 7. Systems and Technology
 8. Financial Viability and Reporting
 9. Operational Reliability
 10. Protection of Assets
 11. Outsourcing
 12. Information Sharing and Regulatory Cooperation

LCH.Clearnet LLC (“**LCH**”) is applying to the Ontario Securities Commission (the “**OSC**”) for an order, pursuant to section 147 of the *Securities Act* (Ontario) (the “**OSA**”), exempting LCH from the clearing agency recognition requirement in subsection 21.2(0.1) of the OSA.

PART I - BACKGROUND

1. Legal and Ownership Structure of LCH

LCH is a clearing house organized under the laws of the state of Delaware, United States of America (“**U.S.**”). LCH operates as a central counterparty (“**CCP**”) clearing house and receives most of its revenue from clearing fees charged to its Clearing Members and treasury income. LCH is a wholly-owned subsidiary of LCH.Clearnet (US) LLC – formerly IDCG (International Derivatives Clearing Group). IDCG was bought by LCH.Clearnet Group Ltd on 15 August 2012.

LCH.Clearnet (US) LLC is wholly-owned by LCH.Clearnet Group Ltd. (“**LCH Group**”). LCH Group is 57.8 per cent owned by the London Stock Exchange (C) Limited (“**LSEG**”), a wholly owned subsidiary of London Stock Exchange Group plc, and 42.2 per cent owned by clearing participants and exchanges.

2. Regulatory Status

LCH is a Derivatives Clearing Organization (“**DCO**”) within the meaning of that term under the U.S. Commodity Exchange Act (“**CEA**”) and, as such, is registered by the U.S. Commodity Futures Trading Commission (“**CFTC**”). LCH submitted a Subpart C DCO Election Form to the CFTC. LCH’s election to be regulated based on the Subpart C Rules was accepted and this went into effect on 31 December 2013. Therefore, LCH may be considered as a Qualifying Central Counterparty (“**QCCP**”) for regulatory capital purposes in the US.

LCH, whose address is 17 State Street, 28 Floor, New York, NY 10004, USA, launched operations on 3 June 2013 and currently has 15 Clearing Members. None of these are Ontario residents.

LCH Group, which is incorporated in the U.K., is regulated as a Compagnie financière by the Autorité de contrôle prudentiel et de résolution (France).

The following is an overview of (i) the requirements imposed by the CFTC in the U.S. and (ii) how the oversight of LCH by the CFTC ensures ongoing compliance with the criteria in Appendix A to OSC Staff Notice 24-702 *Regulatory Approach to Recognition and Exemption from Recognition of Clearing Agencies* (“**Staff Notice 24-702**”):

(a) Requirements imposed by the CFTC on LCH

The following is a list of the main legislation relevant to DCOs:

- CEA (as amended by the Dodd-Frank Wall Street Reform and Consumer Protection Act) at

http://www.law.cornell.edu/uscode/html/uscode07/usc_sup_01_7_10_1.html.

- CFTC regulations at http://www.ecfr.gov/cgi-bin/text-idx?sid=7e1068de65d0eb767da92b5ee2740d46&c=ecfr&tpl=/ecfrbrowse/Title17/17cfrv1_02.tpl.

(b) Description of how the oversight of LCH by the CFTC ensures ongoing compliance with the criteria in Staff Notice 24-702

LCH is registered with the CFTC as a DCO. A DCO is a clearinghouse, clearing association, clearing corporation, or similar entity that enables each party to an agreement, contract, or transaction to substitute, through novation or otherwise, the credit of the DCO for the credit of the parties; arranges or provides, on a multilateral basis, for the settlement or netting of obligations; or otherwise provides clearing services or arrangements that mutualize or transfer credit risk among participants (see CFTC regulation § 1.3(d)).

To obtain and maintain registration, a DCO must comply with the DCO core principles (“**Core Principles**”) established in Section 5b of the CEA. In summary, the Core Principles require a DCO to: 1) maintain adequate financial, operational, and managerial resources; 2) establish appropriate standards for participant and product eligibility; 3) possess adequate and appropriate risk management capabilities; 4) have the ability to complete settlements on a timely basis under varying circumstances; 5) maintain standards and procedures to protect member and participant funds; 6) have efficient and fair default rules and procedures; 7) maintain adequate rule enforcement and dispute resolution procedures; 8) establish adequate and appropriate systems safeguards, emergency procedures, and plan for disaster recovery; 9) provide necessary reports to allow the CFTC to oversee clearinghouse activities; 10) maintain all business records for five years in a form acceptable to the CFTC; 11) publish clearinghouse rules and operating procedures; 12) enter into appropriate domestic and international information-sharing agreements; 13) avoid actions that are unreasonable restraints of trade or that impose anti-competitive burdens; 14) establish transparent governance arrangements and fitness standards; 15) establish and enforce rules to minimize conflicts of interest in the DCO’s decision-making process, and a process for resolving any conflicts; 16) ensure that governing boards include market participants; and, 17) have a well-founded legal framework for the activities of the DCO.

The CFTC’s Division of Clearing and Risk (“**DCR**”) has day-to-day responsibility for overseeing DCOs. The DCR discharges this responsibility by reviewing DCO rule changes and swap clearing submissions, and by assessing DCO compliance with CFTC regulations. The DCR reviews all rule changes submitted by LCH. Since the CFTC’s regulations contain a broad definition of the term “rule,”¹ this process provides the DCR

¹ CFTC regulation § 40.1 defines “rule” as any constitutional provision, article of incorporation, bylaw, rule, regulation, resolution, interpretation, stated policy, advisory, terms and conditions, trading protocol, agreement or instrument corresponding thereto, including those that authorize a response or establish standards for responding to a specific emergency, and any amendment or addition thereto or repeal thereof, made or issued by a registered entity or by the governing board thereof or any committee thereof, in whatever form adopted.

with a great deal of insight into LCH's ongoing operations and future plans. LCH is also required to notify the CFTC of changes in key personnel, financial condition, and system incidents and breaches of the CFTC's regulations. The DCR reviews each of these notifications and often seeks additional information on the reports. The DCR also carries out annual, in-person inspections of DCOs in order to assess their compliance with the Core Principles and other CFTC regulations. LCH's Chief Compliance Officer and other compliance professionals are in almost daily contact with LCH's DCR designated point of contact to discuss pending rule changes, event-specific reports and emerging issues. In addition, LCH senior management is in frequent contact, by phone and in-person, with the Division Director and Deputy Director of DCR. LCH Group is not subject to CFTC regulation.

LCH is a Subpart C DCO and may be considered as a QCCP in the US. The Subpart C Rules address the gaps between the CFTC DCO Requirements and the 24 CPSS-IOSCO Principles for Financial Market Infrastructures ("PFMIs"). So through the combination of the DCO Requirements and the Subpart C Rules, the CFTC has fully implemented the PFMIs in the United States. The preamble to the Subpart C Rules explicitly states that "Subpart C DCOs should be QCCPs" for the purposes of Basel III. Basel III has been implemented in the USA by the Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III issued by the Governors of the Federal Reserve Board and the Office of the Comptroller of the Currency ("Regulatory Capital Rules"). The Regulatory Capital Rules define a QCCP as a designated financial market utility under Title VIII of the Dodd-Frank Act or, if not located in the US, one that meets or exceeds the risk management standards established under the law of its home country that are consistent with international standards set by CPSS/IOSCO in the PFMIs.

LCH has completed a disclosure framework in accordance with CPSS-IOSCO guidelines, and this is published at http://www.lchclearnet.com/Images/pfmi%20disclosure%20final%2030%20dec_tcm6-64624.pdf.

3. Clearing Activities in Ontario

LCH does not have any office or maintain any other physical installations in Ontario or any other Canadian province or territory. LCH does not currently have any plans to open such an office or to establish any such physical installations in Ontario or elsewhere in Canada.

LCH plans to offer its clearing service for the interest rate asset class, SwapClear US, to Ontario residents.

U.S.-domiciled SwapClear US is a service for the clearing and settlement of a range of interest rate derivatives. LCH's sister company, LCH.Clearnet Ltd. ("**LCH UK**"), concurrently and separately operates the SwapClear Global Service with separate rules, membership and products. There is no interoperability between the U.S.-domiciled SwapClear US service and the SwapClear Global Service, and none is planned. The SwapClear Global Service was originally launched by LCH UK in 1999 and has expanded over time to now offer clearing services in respect of a range of interest rate swap ("**IRS**") transactions.



Transactions cleared through SwapClear US are executed by Clearing Members on a bilateral basis, either inter-office, or through brokers, or on swap execution facilities recognized by LCH.

Under LCH's regulations, there are two types of recognized participant in SwapClear US, a Clearing Member ("CM") (who may or may not be registered with the CFTC as a Futures Commission Merchant ("FCM"), providing clearing services to clients under the terms of the CEA and relevant CFTC regulations), and a SwapClear Dealer² ("SD"). An applicant must enter into a Clearing Membership Agreement with LCH before it can become a Clearing Member. The Clearing Membership Agreement contains an acknowledgement that the applicant accepts the regulations ("**LCH Regulations**") and procedures ("**LCH Procedures**") of the LCH Rulebook, which contains the operating rules of LCH.

A CM may clear trades originally transacted by itself (including those in the name of one of its branches, being within the same legal entity), and may also clear trades transacted by an SD with whom it has entered into a SD Clearing Agreement.

LCH acts as CCP to swap transactions registered with it by a CM or by an SD. On registration of a transaction with SwapClear US, the counterparty's transactions, which can be entered by either a CM or an SD, are novated to LCH.

SwapClear US' fundamental purpose is to ensure the financial performance of all interest rate derivatives cleared via the SwapClear US service, should a Clearing Member default. In a default, LCH becomes responsible for the cleared positions of the defaulted Clearing Member and must (a) make good on any losses borne by the defaulter and (b) as far as possible facilitate transfer ("porting") of the defaulter's clients' open positions.

SwapClear US calculates the potential loss it may have to cover in the event of a default of a Clearing Member. To cover this loss, an amount known as "Initial Margin," must be provided to SwapClear US by all Clearing Members. It is held by LCH and only utilized in the event of the Clearing Member's default.

Initial Margin is designed to cover potential market losses that a cleared portfolio could incur over a specified holding period. This is set at the portfolio's expected shortfall over a five day period for house positions, and a seven day period for client positions, over a ten year look back. SwapClear US's initial margining also incorporates a margin multiplier framework that requires extra margin to cover any credit, liquidity, concentration and sovereign risks not captured by the PAIRS model. The value of individual interest rate swap contracts changes throughout each trading day. SwapClear US conducts a valuation of each individual contract (known as "marking to market") and collects losses from Clearing Members on the losing side of the trade to pay gains to Clearing Members on the gaining side of the trade. Margin collected to cover a Clearing Member's daily gain or loss is known as the Clearing Member's "Variation Margin."

² A SwapClear Dealer is an affiliate of a SwapClear Clearing Member that is registered with LCH and able to submit transactions on behalf of that SwapClear Clearing Member for clearing in that member's name.



By collecting variation margin, SwapClear US ensures that Clearing Members are current on all obligations and avoids default scenarios where Clearing Member losses have accumulated over a prolonged period of time.

Many of SwapClear US' valuation principles have become the market standard for cleared IRS, including overnight index swap (OIS) discounting and price alignment interest.

In the event of a default of a Clearing Member, LCH will hedge and transfer the defaulter's positions while meeting the on-going financial obligations of the defaulter. At inception, SwapClear US' Default Management process was revolutionary for centrally cleared products. After the successful closeout by LCH UK of Lehman Brothers' IRS portfolio in 2008, the process has become the market standard for IRS.

To meet the financial obligations of the defaulter, SwapClear US employs a robust default waterfall designed to ensure the performance of cleared IRS in extreme but plausible scenarios.

The LCH Default Fund is sized based on the sum of the two largest Clearing Members' stress test losses over Initial Margin using a carefully selected set of extreme but plausible stress test scenarios, looking back at each Clearing Member's and their client positions over the previous 60 business days. Allocation to each individual Clearing Member is based on each Clearing Member's average Initial Margin for the past 20 business days. This is consistent with the CPSS-IOSCO Principles for Financial Market Infrastructures³.

Full details of the Default Fund are set out under section 6.1 of this application.

³ See self-assessment at http://www.lchclearnet.com/Images/pfmi%20disclosure%20final%2030%20dec_tcm6-64624.pdf, p. 15

PART II – APPLICATION OF APPROVAL CRITERIA TO CLEARING AGENCY

1. Governance

1.1 The governance structure and governance arrangements of the clearing agency ensure:

(a) effective oversight of the clearing agency;

The activities and operations of LCH are directed and overseen by its Board. The Board of LCH is comprised of ten individuals, is chaired by an independent non-executive director, and includes two other independent non-executive directors⁴, an executive CEO, the LCH Group Chief Risk Officer (“CRO”), one LSEG director, the CEO of LCH UK, one users and two clients^{5 6}. Thirty percent of the current LCH Board are independent members.⁷

Governance arrangements are clearly specified and information regarding them is publicly available online (see:http://www.lchclearnet.com/about_us/corporate_governance/legal_and_regulatory_structure.asp) and in the annual report of LCH Group.

The LCH Board is responsible for overseeing the activities of LCH, and ensuring they are consistent with LCH Group’s medium-term financial plan. This includes all decisions relating to: risk tolerance, policies, and management; the company’s medium and long-term strategy and budget; approving material contracts⁸; oversight of internal controls and compliance; and the company’s annual reporting. The CEO reports to the LCH Board for all decisions taken by LCH executive management. LCH has a Local Management Committee to aid the CEO in his discharge of these responsibilities.

The LCH Group CEO is responsible for the day-to-day management of LCH Group, both directly, and through delegation to functional heads throughout LCH Group and its subsidiaries. The LCH Group CEO works in conjunction with the subsidiary and business unit CEOs to implement the LCH Group’s medium term financial plan. The LCH Group CEO is directly responsible to the LCH Group Board. Under the LSEG Relationship Agreement, LSEG is entitled to appoint and remove the LCH Group CEO.⁹

As a part of efforts to harmonize governance and operations across the subsidiaries of LCH Group, LCH Group operates an Executive Committee, formed under the authority of and chaired by the LCH Group CEO. The Executive Committee’s function is to advise

⁴ A further independent non-executive director is being sought to replace an independent non-executive director who stood down on 31 December 2013.

⁵ An additional user director has been chosen and is in the process of being appointed.

⁶ The newly appointed Group CEO will be appointed to the Board upon assuming office.

⁷ The full range of governance documents for all regulated entities under the LCH Group are available at: http://www.lchclearnet.com/about_us/corporate_governance/legal_and_regulatory_structure.asp.

⁸ For example, contracts exceeding €5 million or IT investments exceeding €2 million.

⁹ LSEG retains this right while it holds at least 40 per cent of the shares. While it holds at least 20 per cent of the shares, it retains the right to be consulted on the appointment.

and support the LCH Group CEO in the discharge of its responsibilities, and to assist the subsidiary CEOs where appropriate. The Executive Committee oversees and advises on group-wide issues relating to: compliance and performance relative to LCH Group's strategy; risk management; financial management and reporting; operational management, including regulatory compliance; internal and external audit; and supervision of the LCH Group level sub-committees, namely the Operating Committee, Finance Committee, and Executive Risk Committee. In a similar vein, the Executive Risk Committee aids the LCH Group Board in its risk oversight. The Executive Risk Committee receives advice from, and makes recommendations to the subsidiary risk committees and CROs, and advises the LCH Group Board and senior LCH Group-level management on risk-related matters. The LCH Group CRO and the CROs of the subsidiaries are members of the Executive Risk Committee.

The LCH Group Board also has Remuneration, Audit and Nominations Committees, and the LCH Board has its own Risk, Audit and Remuneration Committees.

The LCH Group Board is responsible for setting strategy, objectives and policies, and approves budgets and significant business decisions.¹⁰ LCH, together with other CCPs in the Group, reviews on an annual basis the system of internal control. Reporting lines exist to the LCH Group Board via the LCH Group CEO and the Executive Committee on operational matters and via the LCH Group CRO and the Executive Risk Committee on risk management issues.

This structure is being partially replicated at each of the LCH Group subsidiary CCPs, each which will have its own Operating Committee, Finance Committee, and Executive Risk Committee. LCH established the terms of reference for a Remuneration Committee in Q4 2013 but this has not yet met.

The LCH Board meets at least quarterly throughout the year. It has full and effective oversight of LCH and monitors the senior management through review of and discussions about information provided to it by senior management, as well as reports from internal and external audits.

LCH's Board is accountable to its shareholders. Non-executive directors of the LCH Board are drawn from the ownership of the LCH Group. LCH Group Board membership includes representatives of users of the services of operating subsidiaries with a variety of complementary skills, product knowledge and industry experience and ensures that LCH Board and clients' interests are closely aligned.

LCH works with a group of its largest participants in the strategic development of SwapClear, including SwapClear US. LCH has formed arrangements for SwapClear under which the majority of the cost of developing and operating SwapClear is borne by these participants. Accordingly, some aspects of SwapClear's governance and some

¹⁰ For example, those relating to contracts greater than €5 million or for longer than three years; mergers and acquisitions; and extension or cessation of a part of LCH Group's business.

financial returns from SwapClear are shared with these participants. A summary of these arrangements, which cover the US service, is published on LCH's website¹¹.

(b) the clearing agency's activities are in keeping with its public interest mandate;

LCH Group's stated corporate objectives are to (i) reduce risk and safeguard the financial infrastructure in the markets it serves, (ii) deliver market leading and cost-effective clearing services, and (iii) be the leading multi-asset clearing house, independently serving diverse markets around the world. LCH's governance structure is designed to ensure that LCH meets these corporate objectives. The LCH Board retains the responsibility to ensure that LCH meets these objectives.

(c) fair, meaningful and diverse representation on the governing body (Board) and any committees of the Board, including a reasonable proportion of independent directors;

LCH Group's Nominations Committee terms of reference lay out the criteria in respect of independent non-executive directors ("LCH" here includes the LCH Group and any of its subsidiary CCPs).

In determining whether a person is fit for appointment as chairman to any LCH Board or as an independent non-executive director to any LCH Board, the Committee shall consider whether such person is independent in character and judgment, and whether there are relationships or circumstances (including any with LSEG or any of its subsidiary undertakings and/or with any significant User or Venue shareholder) which are likely to affect, or could appear to affect, such person's judgment. In addition, the Committee shall have regard to relevant factors which may include if such person has a relationship that would disqualify such person as a "public director" within the meaning of the CFTC Rules in force from time to time or as an "independent director" under any corporate governance standards applicable from time to time (including the UK Corporate Governance Code) or which the relevant LCH Board otherwise determines should be complied with in the interests of best practice corporate governance.

The Committee shall, as often as necessary in light of all the facts and circumstances, but at least annually, verify its determination made pursuant to paragraph 5.3 in respect of each independent non-executive director's fitness.

When the Committee makes decisions on recommendations in relation to the appointment of a new independent non-executive director to any LCH Board, the Committee will take into account (amongst other things, including specific restrictions under local law) that ideally there should be, amongst the independent non-executive directors:

- (a) a breadth of industry expertise and experience and product knowledge;

¹¹

http://www.lchclearnet.com/Images/swapclear%20and%20forexclear%20governance%20arrangements_tc_m6-64434.pdf

(b) particular expertise and experience in each of (i) risk management, (ii) audit, (iii) clearing services and (iv) financial services and, in the case of the SA Board, CDS;

(c) representation of the geographic spread of the Group's business; and

(d) diversity, including gender, age, geographical provenance, and educational and professional background.

LCH maintains Audit, Risk and Remuneration Committees.

The purpose of the Audit Committee is to determine whether management has put in place adequate internal control systems that provide reasonable assurance that corporate objectives will be achieved and that LCH complies with applicable regulatory requirements, in force from time to time. The Committee is composed mainly of independent non-executive directors. No fewer than two members must be independent non executives. Other members will include a member of the Risk Committee, a director associated with or connected to an LCH Group shareholder which is not an exchange or trading venue and one member recommended by the London Stock Exchange Group plc for so long as it controls or exercises 20% of LCH Group. The Audit Committee shall meet no fewer than four times per year.

The purpose of the Remuneration Committee is to; consider and review the remuneration policy of LCH and make recommendations to the Board; review specific salary and bonus recommendations on an annual basis, in particular those relating to Executive Committee members and align rewards to both performance and risk profile; review any major changes proposed in the employee benefit structures of LCH and approve targets for performance related pay schemes. The Committee is composed of at least four members of which at least half are independent non-executive directors and one will be recommended by the London Stock Exchange Group plc for so long as it controls or exercises 20% of LCH Group. The Remuneration Committee meets at least twice per year.

The purpose of the Risk Committee is to consider all matters of significant and operational risk faced by LCH. The principal activities of the Committee include, but not limited to; risk appetite, tolerance and strategy, risk policies and methodology, membership, sovereign risk, default management and new services and enhancements to existing services. The Committee is composed of independent non-executive directors (2) and representatives of the Users, Clients and Venues (3). The London Stock Exchange Group plc is also entitled to appoint a representative on the Risk Committee. The Risk Committee meets as least six times per year or more frequently according to the business to be considered.

Day-to-day operations of LCH are the responsibility of LCH's chief executive and other senior management. Their decisions are exercised with an appropriate degree of independence from the LCH Board.

See also (b) above.

- (d) a proper balance among the interests of the owners and the different entities seeking access (participants) to the clearing, settlement and depository services and facilities (settlement services) of the clearing agency;**

Membership applications are subject to the Risk Committee approved criteria and approvals or rejections are made under the delegated authority of the Risk Committee. Market representatives attend in their capacity as risk experts and do not represent their employer. See also (c) above.

Membership criteria are set out in the clearing house regulations. Membership criteria must be met in order for an applicant to be considered for Clearing Member status. These requirements are without prejudice to the provisions of the Clearing Membership Agreement which must be executed by the applicant, and must equally be met by Clearing Members.

- (e) the clearing agency has policies and procedures to appropriately identify and manage conflicts of interest;**

The Risk Committee and Audit Committee have procedures in place to manage potential conflicts of interest or conflicts of interest when they arise.

Both the Risk Committee and Audit Committee are governed by Terms of Reference. Under powers formally delegated by the LCH Board, the Chief Executive of LCH has responsibility for establishing, maintaining and implementing the risk management framework (embracing principles, policies, methodologies, systems, internal controls, processes, procedures and people) in line with the LCH Group Board's approved appetite for risk (the extent and categories of risk which the LCH Group Board regards as acceptable for the group to bear). This explicit delegation of powers, which otherwise might anyway have been assumed to be exercised by the executive, is considered necessary formally to preserve the independence of risk management, to avoid conflicts of interest if the LCH Board or Risk Committee was involved in the decision-making and to ensure a timely response to situations which can develop and deteriorate rapidly.

Matters concerning significant risks faced by the LCH Group's operating subsidiaries are addressed by a Risk Committee of the relevant subsidiary board or, in the case of operational risk matters, by the Audit Committee of the relevant subsidiary.

The Chairman of the Risk Committee of each subsidiary reports to the Board on the discussions, decisions and recommendations of the committee in order for the Board to understand the business implications and where necessary to formally ratify these decisions and recommendations. Under powers formally delegated by the Board, the Chief Executive of each subsidiary has responsibility for all risk decisions taken within the framework of agreed risk policies. All changes to risk policy require thorough review by the Risk Committee and its recommendation for Board approval.

Conflicts of interest with respect to directors are monitored closely. First, conflicts of interest for every director are investigated at the time of appointment, considered and approved by the LCH Board and reviewed annually. Second, conflicts of interest for every director are also addressed at every LCH Board meeting in relation to the agenda items and the sensitivity of projects arising in the course of LCH Board business.

- (f) **each director or officer of the clearing agency, and each person or company that owns or controls, directly or indirectly, more than 10 percent of the clearing agency is a fit and proper person; and**

Each LCH Board member has extensive experience, knowledge and skills necessary to operate LCH's clearing facility. The LCH Board meets at least quarterly throughout the year. It has full and effective oversight of LCH and monitors the senior management through review of and discussions about information provided to it by senior management, as well as reports from internal and external audits.

- (g) **there are appropriate qualifications, limitation of liability and indemnity provisions for directors and officers of the clearing agency.**

All directors and officers of all subsidiary entities are included in within LSEG's Directors and Officers Liability Insurance Policy.

The Chief Executive Officer and senior management of LCH have responsibility for the day-to-day operations of LCH. Their decisions are exercised with an appropriate degree of independence from the LCH Board. See also paragraph 1.1(d) above on the Risk and Audit Committee structure.

2. Fees

2.1 All fees imposed by the clearing agency are equitably allocated. The fees do not have the effect of creating unreasonable barriers to access.

The fees charged by LCH's SwapClear US service comply with the "fair and open access" requirement of Core Principle C (Participant and Product Eligibility) as each plans is open to all Clearing Members and clients.

LCH has in place procedures to control its costs of operation and undertakes regular analysis and benchmarking on charges. LCH is entitled to levy fees in respect of such matters and at such rates as may from time to time be prescribed. Fees shall be payable by Clearing Members, as may be prescribed by LCH Regulations and LCH Procedures, and detailed in the online fee schedule.

SwapClear US's booking, maintenance, and discounted fees apply, and are available to all Clearing Members. SwapClear US's fees, including all discount arrangements, are publicly available on the LCH website at: <http://www.lchclearnet.com/fees/lc/swapclear.asp>, and apply equally to all Clearing Members.

2.2 The process for setting fees is fair and appropriate, and the fee model is transparent.

See 2.1 above.

Any changes made to the fees and charges payable shall take effect, as prescribed by the LCH Procedures. Fee changes are notified to the regulators prior to taking effect.

3. Access

3.1 The clearing agency has appropriate written standards for access to its services.

By virtue of the membership agreement that Clearing Members sign with LCH, Clearing Members are subject to the LCH Regulations and LCH Procedures in the conduct of their business. More specifically, the membership criteria applicable to Clearing Members are contained in LCH Regulation 102.

The LCH Regulations and LCH Procedures are publicly available on the LCH website and the governing laws and regulations are available on relevant websites.

LCH has clear internal procedures for access to its services. These are consistent with the LCH Regulations and LCH Procedures publicly available.

The LCH Rulebook is published and amended from time to time to accurately reflect the services provided.

3.2 The access standards and the process for obtaining, limiting and denying access are fair and transparent. A clearing agency keeps records of

(a) each grant of access including, for each participant, the reasons for granting such access, and

Under LCH's Procedures, the grant of access, including the reasons for granting to a Clearing Member is documented and transparent. In considering a new Clearing Member application, LCH conducts thorough reviews into the organization concerned. Potential Clearing Members must meet the basic requirement to be considered for membership, which is a minimum net capital requirement of USD50 million and a satisfactory assessment of financial and operational capabilities by LCH. The minimum contribution to the Default Fund is defined in LCH's Regulations. Appropriate banking arrangements must be put in place, and the organization must have appropriate systems to cope with their clearing activities.

LCH additionally requires that each SwapClear US member have, within its corporate group, at least one banking institution, credit institution, securities firm, investment firm or similar entity licensed by the competent authorities of the United States, or a member state of the European Union, or the equivalent of a banking institution, credit institution, securities firm, investment banking firm or similar entity licensed by the competent authorities of a country outside the United States and the European Union and which is subject to prudential rules considered by LCH to be at least as rigorous as those applicable to similar entities within the United States or the European Union.

LCH may impose further conditions on members, including a requirement to provide additional collateral. LCH has the right to request additional financial information from a member at its discretion.

(b) each denial or limitation of access, including the reasons for denying or limiting access to an applicant.

Under LCH's Procedures, the denial of access or limitation of access, including the reasons for denying or limiting access to a Clearing Member is also documented and transparent. LCH may, in its sole discretion, refuse an application for membership where it considers it appropriate to do so in accordance with its internal risk management policies and procedures as amended from time to time. LCH may, at any time, impose additional conditions relative to continued Clearing Member status, and at any time vary or withdraw any such conditions. These conditions may include, but are not limited to, a requirement to deposit additional security in cash or collateral as determined by LCH. Section 8 of the LCH Procedures lays out the process for disciplinary proceedings against members.

4. Rules and Rulemaking

4.1 The clearing agency's rules are designed to govern all aspects of the settlement services offered by the clearing agency, and

(a) are not inconsistent with securities legislation,

LCH's rulebook, policies and procedures meet the definition of "Rule" in the CFTC regulations. LCH's rules and regulations are consistent with the CEA and CFTC regulations, and are subject to CFTC self-certification or approval.

Additionally, LCH has sought Canadian legal advice regarding its rules and arrangements, and on the basis of such advice, LCH has taken comfort that its rules and arrangements are consistent with applicable securities legislation and Canadian federal and Ontario law.

LCH has procedures and arrangements in place to enforce its rules. In practice, as the majority of the rules, as laid out in the LCH Regulations and LCH Procedures, are in relation to the daily compliance with financial obligations and the monthly re-calculation of the Default Fund contributions, therefore, enforcement is routine and essentially automated. LCH also has effective arrangements for the investigation and resolution of complaints arising in connection with the performance of, or failure to perform, any of its regulatory functions, including arrangements for the investigation of a complaint by a person independent of the clearing house.

Section 6 of the LCH Procedures deals with the LCH appeals process. To date, LCH has not received any appeals.

(b) do not permit unreasonable discrimination among participants, and

Because non-compliance with most rules is so visible – and would constitute an act of default under LCH's Default Regulations – compliance can be said to be mandatory. In the case of financial resource requirements, LCH monitors members' compliance with the net capital requirement on an on-going basis. All members are also obliged to inform LCH immediately if their net capital falls

below the lowest amount or in the case of a significant reduction in its shareholders' funds or net capital as compared to their previous financial returns.

LCH's rules apply equally to all Clearing Members and do not discriminate among Clearing Members.

- (c) **do not impose any burden on competition that is not necessary or appropriate.**

Eligible firms have the right to apply for approval to become a Clearing Member of LCH, subject to meeting the requirements of LCH. LCH does not impose any unnecessary or inappropriate burdens on competition.

4.2 The clearing agency's rules and the process for adopting new rules or amending existing rules should be transparent to participants and the general public.

LCH Regulations and LCH Procedures are transparent and available to the public at http://www.lchclearnet.com/rules_and_regulations/lhc/.

The LCH Rulebook is amended from time to time to accurately reflect the services provided. LCH notifies the CFTC of changes to the Rules of LCH where applicable and publishes them upon approval.

4.3 The clearing agency monitors participant activities to ensure compliance with the rules.

LCH's Risk Management Department is responsible for reviewing each member's creditworthiness and financial condition. LCH monitors members' compliance with the net capital requirement on an on-going basis and members are obliged to provide certain financial information for this purpose under the Rulebook. All members are also obliged to notify LCH immediately in the case of a significant reduction in its shareholders' funds or net capital as compared to their previous financial returns.

LCH utilizes an internal credit scoring framework which considers both qualitative and quantitative factors including financial analysis, external ratings, market implied data and operational capability. LCH has the right to request additional financial information from a member at its discretion. The internal credit scores influence LCH's Risk Management Department's response to more specific risks identified by daily monitoring, as well as determining the frequency of future assessments of each member. LCH may impose further conditions on members, including a requirement to provide additional collateral.

See also section 4.1(b) above.

4.4 The rules set out appropriate sanctions in the event of non-compliance by participants.

Sanctions for Clearing Member non-compliance are detailed in Section 8.4 of the LCH Procedures, which provide:

The Clearing House shall be entitled, in its absolute discretion, to impose the following sanctions against a Clearing Member, pursuant to these Disciplinary Procedures, provided

that any such sanction is proportionate and commensurate with the seriousness of the Alleged Breach¹²:

Section 8.5 of the LCH Procedures describes the relevant procedures to dispute the imposition of sanctions:

Where a Clearing Member wishes to dispute the Clearing House's decision to impose sanctions listed in Section 8.3 or 8.4, a Clearing Member may, within twenty-eight (28) days (or such longer period as the Chief Executive or the CCO of the Clearing House may, at their discretion, direct) of receiving the Decision Notice in accordance with Section 8.2(h) or 8.3, file an Appeal in accordance with Section 6 of the Procedures. In the event that the Clearing Member does not lodge an appeal within the relevant timeframe, the decision rendered by the Clearing House in connection with the Alleged Breach shall be final and binding. In the event that the Clearing Member does lodge an Appeal, the results of the Appeal process shall be final and binding.

5. Due Process

5.1 For any decision made by the clearing agency that affects an applicant or a participant, including a decision in relation to access, the clearing agency ensures that:

- (a) an applicant or a participant is given an opportunity to be heard or make representations; and**

Full LCH appeals procedure can be found in the LCH Procedures. A brief overview of the process is set out below.

A Clearing Member or, in certain cases, an SD or other non-member, may appeal against a decision of LCH.

A Clearing Member may appeal against the following decisions made by LCH:

- a decision by the Clearing House to rescind that Clearing Member's eligibility to have Contracts of a certain category registered in its name;
or

¹² These include:

- (a) to impose a fine or require the Clearing Member to make any other form of payment in an amount which it considers appropriate;
- (b) public censure, by way of publishing all or part of the decision taken by the Clearing House pursuant to Disciplinary Proceedings on the Website;
- (c) suspension for a fixed period, as determined by Clearing House in its sole discretion from any one or all of the clearing services offered by the Clearing House;
- (d) issuance of a private warning or reprimand;
- (e) termination of the Clearing Membership Agreement; and/or
- (f) any combination of the above.

- a decision by the Clearing House to terminate that Clearing Member's Clearing Membership Agreement other than when such decision occurs in connection with the operation by the Clearing House of the Default Regulations.

Appeals must be made by lodging an appeal via an appeal form to the Chief Compliance Officer, who shall acknowledge receipt within seven days. Further information may be requested.

There are several steps by which an appeal can proceed, namely, the appeal can be submitted by the Chief Compliance Officer to the Appeal Committee¹³, or to an Appeal Tribunal in the event that a notice of further appeal is made.

- (b) the clearing agency keeps a record of, gives reasons for, and provides for appeals or reviews of, its decisions.**

LCH keeps a record of, and gives reasons for, its decisions that affect an applicant or Clearing Member, including a decision relating to access. Additionally, LCH provides for appeals or reviews of its decisions. A Clearing Member who is aggrieved by any action taken by LCH or decision of LCH (other than any decision set out in section 6.2 of the Clearing House Procedures), or any decision taken under LCH Regulation 109 in connection with LCH's powers under the Default Regulations may, no later than 28 days after the date of the decision or action, request a review of such action or decision by the Chief Executive of LCH.

6. Risk Management

6.1 The clearing agency's settlement services are designed to minimize systemic risk.

As a CCP, LCH is responsible for the performance of all registered contracts through to their final settlement. In the case of all swap contracts, that final settlement takes the form of a cash payment from one Clearing Member to another – that last payment bringing to an end the chain of periodic payments initiated after registration and made on the basis of settlement to latest market prices. All such cash payments are made through LCH's Protected Payments System (“PPS”), which is an assured payments arrangement operated by LCH and five banking groups in the U.K. and U.S. that act as bankers to LCH's Clearing Members. LCH currently has no PPS arrangements in Canada. Segregation of default funds is not relevant to LCH because it only runs the SwapClear US service and has only one default fund.

LCH has a rigorous intra-day margining policy and monitors the creditworthiness and market exposure of each Clearing Member on an ongoing basis. (For further information please refer to section 6.3(1)) of this application.

¹³ An Appeal Committee consists of the CEO of LCH together with two Board directors nominated by the LCH Chairman.

LCH's rules provide for a number of financial resources to cover its credit exposures. These consist of: (1) margin provided by members in respect of their outstanding positions; (2) capital contributions from LCH; and (3) a pooled default fund of paid-up contributions from members. These resources would be used in the following order to cover losses due to a member's default: (A) the defaulted member's margin and default fund contributions; (B) LCH's capital contribution; and (C) contributions from non-defaulting members to the default fund. In the event that LCH's default fund is diminished by 25% or more, LCH has the authority under its Rulebook to require non-defaulting members to pay additional "unfunded" contributions to the default fund that, with respect to each default, cannot exceed an amount equal to each clearing member's funded contribution requirements. LCH cannot call "unfunded" contributions with respect to more than three defaults in a six-month period.

The size of the SwapClear US default fund was approximately \$525 million as of November 2013. It comprises two components: a core component and an additional component that supports the intraday provision of credit needed to facilitate 'real-time' trade registration.

The core component is sized to cover the sum of the stress-test losses of the two clearing members creating the largest financial exposure to LCH in extreme but plausible conditions (and the stress-test losses of their affiliates and clients) in excess of margin, plus an additional buffer of ten percent. However, the core component is currently subject to a cap of \$5 billion. It is subject to a floor of \$15 million multiplied by the number of current clearing members. The core component is resized monthly with reference to a rolling look-back period of 60 business days.

The proportion of the core component that each clearing member is obliged to contribute is calculated according to that member's average initial margin requirement for the previous month as a share of all clearing members' aggregate initial margin requirements.

In accordance with CFTC requirements, new trades are registered with (i.e., novated to) LCH as quickly as technologically practicable following submission, subject to LCH holding sufficient collateral to cover the incremental margin requirement or the incremental margin requirement being within specified tolerance limits for the relevant members based in part on internal credit ratings.

LCH mitigates the credit risk that arises from offering trade registration tolerance limits through an additional component in the default fund. This additional component is sized to cover the sum of the two largest members' stress-test losses (and the stress-test losses of their affiliates and clients) arising from the extension of intraday tolerance limits. The proportion that each member is obliged to contribute is based on its tolerance limit utilization relative to the aggregate utilization of all members over the prior 20 business days, subject to a floor of \$10 million and a cap of \$40 million. Member contributions to the additional component are rebalanced on the same timeline as those to the core component.

The Rulebook allows LCH to call from members pre-specified amounts of additional capital to replenish default fund resources utilized as a result of a member's default. In the event of a default, LCH is permitted to call an amount equal to a member's contribution requirement to satisfy LCH's losses with respect to the default.

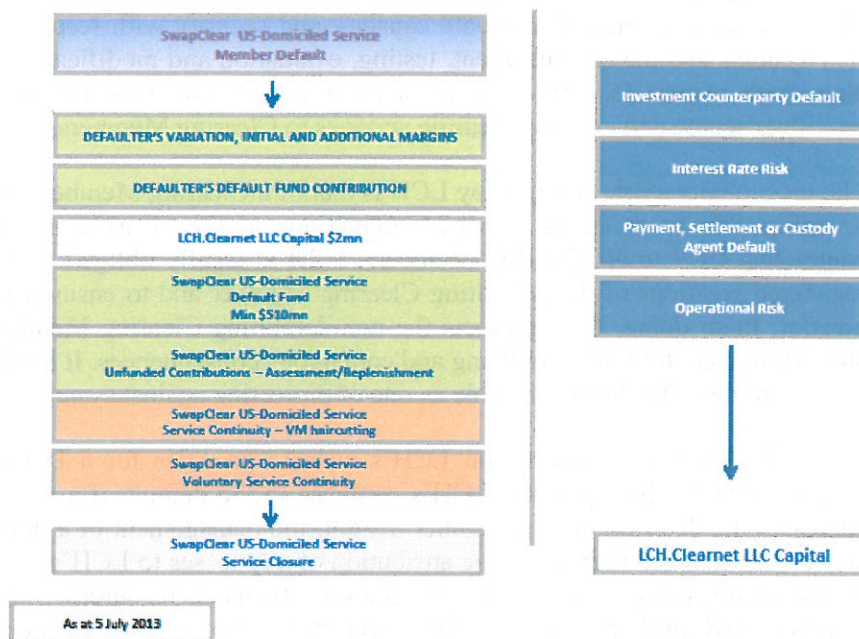
LCH assesses the sufficiency of the default fund through daily stress testing. Sufficiency is assessed with reference to the sum of the two largest stress-test losses under extreme but plausible scenarios, plus the stress-test losses of their affiliates and clients. This process involves the daily re-valuation of each member's portfolio using a set of historical and theoretical stress-test scenarios incorporating price and volatility shifts to estimate a worst-case loss in excess of that member's initial margin.

The stress-testing framework is reviewed periodically, with a full review of the coverage of the contracts cleared, model assumptions and parameters. This process also involves a review of stress-test scenarios to ensure their plausibility and accuracy. In addition, ad hoc reviews are carried out when it is deemed that a change in the market may have a material impact on any scenario's plausibility.

LCH maintains a record of historical stress-test scenarios covering financial crises and exceptional trading days from 1987 onwards. From these, LCH's Risk Management Department is responsible for selecting those historical periods that are sufficiently extreme to include as stress-test scenarios. These selections are subject to approval by both the Executive Risk Committee and the LCH Risk Committee. In addition, the Executive Risk Committee reviews and adds new periods of increased market volatility to the set of stress-test scenarios as soon as practicable.

Stress testing for SwapClear US currently considers a suite of extreme but plausible scenarios, comprising the most volatile five-day periods since 1992, as well as a number of theoretical stress scenarios, including Eurozone break-up scenarios. The results of this daily stress testing are also used (in conjunction with a back-testing process) to determine the appropriateness of the underlying assumptions and parameters used in the stress testing regime.

LCH.Clearnet LLC Default Waterfall



FCMs provide client clearing services to unaffiliated clients in a variety of jurisdictions. Trades are submitted to LCH for clearing via an Approved Trade Source¹⁴. Once cleared, client assets are protected under the CFTC regime whereby LCH operates a Legal Segregation with Operational Commingling (LSOC) model which restricts a DCO from utilizing the value of assets of one client to meet the obligations of another client or FCM. In addition, LCH rules provide for netting on a client account by client account basis in the event of an LCH failure to pay or insolvency.

LCH is currently in the process of developing a wind-down and recovery plan as required by CFTC Regulation 39.39. LCH intends to work in concert with LCH Grou and the subsidiaries thereof to harmonize these plans. In particular, given the relationship between LCH UK and LCH, LCH intends to harmonize its plan with the wind-down and recovery plan adopted by LCH UK. Significant initial efforts are already in process as of the date of this letter. LCH intends to complete this plan, which will set forth and assess the effectiveness of a full range of options for recovery or orderly wind-down, by June of 2014.

¹⁴ As defined in the LCH Rulebook, ““Approved Trade Source System” means a system or facility, such as an exchange, a clearing house, a swap execution facility, a designated contract market, trade affirmation or routing system or other similar venue or system, approved by the Clearing House for presenting Transactions to the Clearing House. For the avoidance of doubt, the “SwapClear API” is not an Approved Trade Source System.”

6.2 The clearing agency has appropriate risk management policies and procedures and internal controls in place.

LCH recognizes that the management of counterparty and market risk associated with its CCP role, maintenance of adequate capacity and security with respect to its automated (IT) systems and the establishment, testing, evaluation and modification of, and back-up plans with respect to, such systems is integral to the achievement of its objective of providing secure and efficient clearing services to Clearing Members.

The most obvious risk managed by LCH is that of a Clearing Member no longer meeting, or being able to meet, its financial obligations to the clearing organisation. As the contractual CCP to all Clearing Members, LCH is legally obliged to assume the open, registered positions of the defaulting Clearing Member and to ensure their settlement or transfer. In so doing, LCH protects the non-defaulting Clearing Members, their clients, and the markets from de-stabilizing and contagious consequences. It has become standard practice to describe this central role as one of protecting against systemic risk.

The LCH Rulebook available on LCH's website provides for a Default Management Process (DMP) which governs LCH's response to the default of a member. The DMP addresses the declaration of a member default, the management of a defaulted member's house and client positions, and the attribution of any losses to LCH's financial resources. It also establishes a right to call for additional financial resources from non-defaulting members and further actions in the event that all of LCH's financial resources are exhausted. The DMP is implemented by the LCH Default Management Group (DMG) comprised of personnel from SwapClear US, Risk Management and a revolving group of senior traders who are seconded to LCH from members in the event of a default.. The DMG has the discretion to hedge the defaulted member's portfolios and split these into sub-portfolios for auction. Where the clearing member clears for customers and prior to hedging and close-out, LCH will work with the CFTC, trustee in bankruptcy and Bankruptcy Court in order to port a customer's positions and assets to a solvent clearing member. In addition and where applicable, a defaulter's proprietary and customer portfolios are auctioned separately.

Once the risk of the portfolio is reduced by the DMG, the hedged portfolio is split by currency or (at the discretion of the DMG) into sub-portfolios within that currency. The DMG then conducts an auction for each portfolio. To ensure obligations created for non-defaulting members are proportional to the scale and nature of a member's activities, each member's default fund contribution is apportioned into "Auction Incentive Pools" (AIPs) as part of the DMP. Each AIP is linked to the auction of a specific currency portfolio. The size of the allocation of a member's funds to an AIP is proportional to the risk of that member's cleared positions in that currency. Therefore, although there is no legal obligation to bid on any auction portfolio non-defaulting members with large positions in a certain currency will be incentivized to bid competitively in the auction of the defaulter's portfolio in that currency.

Further, the operational capabilities of each Clearing Member such as ability to load, price and bid on a potentially large number of trades during a default are tested via the default fire drills which are conducted twice a year. All members are required to participate, including those traders who are part of the DMG to ensure that all relevant stakeholders are familiar with the DMP.

As described above, in order to control the default risks that it manages, LCH sets minimum capital requirements for Clearing Members, and monitors compliance with those requirements and the general financial health of its Clearing Members; establishes margining policies of various kinds, together with monitoring and limits on exposures relative to capital; and maintains a Default Fund and related default cover as a precaution against any situation in which a defaulter's Initial Margin is insufficient to cover the cost to LCH of managing a default.

Internal Audit

The internal audit function conducted by LCH's Internal Audit department covers all aspects of LCH's activities, drawing on external audit expertise as appropriate. The Head of Audit reports to the Chairman of the Audit Committee and to the Chairman of LCH.

The Internal Audit department is independent of LCH management, reporting directly to the LCH Board Audit Committee. The audit strategy covers all risk areas through a risk based approach and the audit plans are reviewed & approved by the Audit Committee.

6.3 Without limiting the generality of the foregoing, the clearing agency's services or functions are designed to achieve the following objectives:

- 1. Where the clearing agency acts as a central counterparty, it rigorously controls the risks it assumes.**

Role of the Risk Department

LCH's overarching approach to risk management is administered according to LCH Group's Risk Management Framework. Designed to harmonize risk management across LCH Group and its subsidiaries, this framework attempts to comprehensively identify the range of risks to which the group is potentially exposed and designate responsibility for these risks. Through the framework, the LCH Group Board defines tolerance levels for each category of risk. The framework also sets guidelines for internal reporting to provide assurance that the framework is observed. The LCH Board has approved LCH Group's Risk Management Framework for LCH (as part of the aforementioned risk-management harmonization efforts) and LCH reviews compliance with the framework and the framework itself on at least an annual basis.

The framework is given effect by more targeted and detailed policies of LCH Group, each reviewed at least annually and adopted by all of the clearing house subsidiaries of LCH Group, which address:

financial resource adequacy; counterparty credit risk; liquidity risk; latent market risk; model governance; default management; settlement, payment and custody risks; investment risk; and operational risk.

The Chief Risk Officer of LCH reports directly to the CEO and functions within the LCH Group's risk framework.

LCH Group's credit assessment policy provides a uniform framework for credit risk assessments pertaining to clearing members and other corporate/banking

counterparties across LCH Group and its subsidiaries, including settlement agents, custodians, the protected payment system (PPS) banks, concentration banks, investment counterparties and margin collateral issuers.

LCH manages its credit exposures to members through the maintenance of prefunded financial resources, the enforcement of participation criteria, and regular monitoring. In addition, the LCH Rulebook allows LCH to call for additional funds from members under certain conditions. Members' positions are monitored continuously, with particular focus on the size of each member's cleared positions relative to its capital and to the total open interest in a particular contract.

LCH calculates internal credit ratings for each member through an assessment of both quantitative and qualitative factors. These ratings influence LCH's Risk Management Department's response to more specific risks identified by daily monitoring, as well as determining the frequency of future assessments of each member. These internal credit ratings are also considered by the Credit Risk Management Committee and recommended for approval to the Executive Risk Committee.

LCH has full intra-day risk assessment capability for SwapClear US and performs routine intra-day monitoring of valuation losses and re-calculated Initial Margin requirements, including new business. If monitoring gives rise to concerns about the size of positions in a Clearing Member's client account (which at LCH is an FCM's CFTC/Part 22 compliant, Cleared Swaps Customer Account (see section 6.1) further information is sought from the Clearing Member, notably about the concentration of individual client positions. Although LCH does not routinely collect information on individual client positions, LCH may require Clearing Members to provide such information (refer to LCH Procedures 1.4).

Initial and Intraday Margin

All open positions are marked to market daily. For SwapClear US, marking-to-market uses LCH's published zero-coupon yield curves; variation margin equal to the change in the net present value of each member's portfolio is then paid to or by LCH. This practice ensures that LCH's valuations of members' positions remain current and that losses do not accrue over time (which would otherwise impair the ability of LCH's financial resources to cover market risk in the event of a default). Rates are typically sourced from banks or brokers. LCH collects initial margin to cover potential losses incurred during the close-out of a defaulted member's positions.

Intra-day calls must be confirmed by PPS banks no later than one hour after they are made.

Initial margin requirements for SwapClear US are calculated using the Portfolio Approach to Interest Rate Scenarios (PAIRS) model. The model calculates expected shortfall on a portfolio over an assumed five-day holding (close-out) period, based on approximately ten years of historical market data. The model also accounts for historical FX rate movements relative to U.S. dollars, to address

the FX risk of positions denominated in other currencies. The coverage of potential future exposures has a confidence level of at least 99.7 percent.

SwapClear US's initial margining also incorporates a margin multiplier framework that requires extra margin to cover any credit, liquidity, concentration and sovereign risks not captured by the PAIRS model. Further, the holding (close-out) period used to determine initial margin requirements on the positions of a member's customer (i.e., "client" positions) is subject to an additional two days.

Initial margin is called at least daily. LCH makes additional intraday margin calls when margin liabilities exceed predetermined credit thresholds, based on portfolio revaluations conducted multiple times each day.

Collateral

LCH currently accepts only USD cash and a limited range of non-cash securities as collateral a Clearing Member may lodge to cover its obligations and restricts its investment of any funds in terms of the range of products and counterparties with which it deals. The range of collateral accepted is available at http://www.lchclearnet.com/risk_management/lhc/acceptable_collateral.asp.

The cash margin is invested securely in accordance with LCH's Investment Risk Policy which sets the minimum credit criteria for these counterparties and requires a high percentage of the investments to be secured against high quality collateral. There have been no principal losses on such investments.

The securities held as margin cover are marked to market daily and subject to haircuts-whose appropriateness is regularly reviewed. LCH also has a collateral concentration framework that limits the amount of collateral members can post in particular securities. Additionally, LCH reserves the right to place concentration limits on particular asset types and to manage specific concentration in members' collateral portfolios. Where positions are considered to be excessively concentrated, members will be contacted to re-align their portfolio.

Non-cash collateral is held with U.S. custodian banks. The financial condition and procedures of custodian banks are reviewed by LCH at least every two years. LCH utilizes a group-wide custodian due diligence framework, which provides guidelines that seek to ensure that custodian relationships provide adequate protection of LCH's assets.

LCH monitors liquidity on a daily basis. A daily minimum operational liquidity target is set by the LCH Assets and Liabilities Committee. This target should ensure that LCH has sufficient liquid resources available to cover the largest expected daily operational liquidity requirements. LCH identifies two potential sources of liquidity risk: (1) stressed outflows from daily operations and (2) management of member defaults. The main driver for daily operational liquidity outflows is the return of cash collateral to members. Member default liquidity risks arise from the fulfilment of the obligations of the defaulted

member (typically variation margin payments to non-defaulted clearing members) and losses due to the close-out of the defaulted member's cleared positions. In addition, liquidity pressures may be exacerbated by any FX mismatches. Operational liquidity flows are managed on a day-to-day basis by LCH's Collateral and Liquidity Management Department in accordance with LCH Group's liquidity policy.

LCH calculates liquidity requirements under stress scenarios including the default of the two members (and any members affiliated therewith) that would give rise to the largest liquidity requirement following a default. Based on these stress tests, LCH sets daily operational liquidity targets for U.S. dollars to ensure outflows related to normal business activities can be met.

LCH carries out daily default liquidity stress tests and models its liquidity profile out to 30 days. The model considers the default of the two members that would give rise to the largest liquidity requirements. Default liquidity stress testing takes into consideration other relationships which LCH may have with the defaulted members.

2. The clearing agency minimizes principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment.

Not applicable in relation to the clearing process as there are no securities underlying SwapClear US transactions.

3. Final settlement occurs no later than the end of the settlement day. Intraday or real-time finality is provided where necessary to reduce risks.

The Rulebook sets out the conditions under which settlement obligations become final and irrevocable. LCH instructs payments to and from members via 'Payment Transfer Orders', sent via the SWIFT messaging system to the relevant member's settlement bank in LCH's PPS (i.e., the member's PPS bank). The Procedures specify that a member's obligation to LCH will be deemed to be satisfied only when funds have been transferred from the PPS bank to LCH's account at its concentration bank and any time permitted by the relevant payment system for the recall of any such payment has expired. Further, the Procedures specify that LCH's obligation to a member will be deemed met when funds have been transferred from LCH's concentration bank to the member's PPS bank.

For each revaluation of members' obligations where a net call is made on a member, the member's PPS bank is required to make an irrevocable commitment to fund the obligation due to LCH the following morning if the call was made overnight or within one hour if the call was made intraday. Where an initial margin call is made in U.S. dollars the PPS bank is required to send a payment to LCH at the concentration bank through the appropriate payment system within two hours. Where the margin call obligation is in a currency with a future value date (i.e., next-day currencies or currency holidays), an irrevocable commitment is made on the same timeline as described above but the actual payment is not settled until the value date. Where the net obligation calculated overnight is in

favor of the member, payment flows from the concentration bank to that PPS bank in the morning, after all member calls are settled.

LCH can issue PPS calls on every day that it is open, regardless of whether that day is a business day for the relevant currency; however, where it is not a business day in the currency, the value date of that payment is deferred to the next business day as per market convention.

Payment transfer orders through the PPS are irrevocable once the PPS bank has confirmed the commitment via SWIFT message. This confirmation must be made the following morning where the call was made overnight or within one hour if the call was made intraday.

If a Clearing Member defaults, LCH will make all daily settlement payments due to other Clearing Members utilizing resources in the order described in section 6.2 above.

4. **Where the clearing agency extends intraday credit to participants, including a clearing agency that operates net settlement systems, it institutes risk controls that, at a minimum, ensure timely settlement in the event that the participant with the largest payment obligation is unable to settle**

LCH provides intraday credit to facilitate 'real-time' trade registration such that, in accordance with CFTC requirements, new trades are registered with (i.e., novated to) LCH as quickly as technologically practicable following submission, subject to LCH holding sufficient collateral to cover the incremental margin requirement or the incremental margin requirement being within specified tolerance limits for the relevant members based in part on internal credit ratings.

LCH makes intraday margin calls when margin erosion and trade registration fund usage exceeds predetermined, member-specific thresholds. This practice ensures that LCH's valuations of member positions and credit usage remain current and that losses do not accrue over time (which would otherwise impair the ability of LCH's initial margin to cover market risk in the event of a member default). LCH further mitigates the credit risk that arises from offering trade registration tolerance limits through an additional component in the default fund.

See also above section 6.2 paragraphs 1 – 3.

5. **Assets used to settle the ultimate payment obligations arising from derivatives transactions carry little or no credit or liquidity risk. If central bank money is not used, steps are to be taken to protect participants in settlement services from potential losses and liquidity pressures arising from the failure of the cash settlement agent whose assets are used for that purpose.**

LCH does not have access to accounts at central banks. It uses commercial financial institutions as PPS banks and concentration banks to facilitate the following:

- Obligations between LCH and its members; for example, initial margin, default fund contributions and participation fees.

- Obligations notionally among members; for example, variation margin and cash settlement of contracts.

LCH executes a standardized set of binding terms and conditions (i.e., the “PPS Agreement”) with the commercial banks that participate in the PPS. The PPS Agreement requires PPS banks to confirm PPS calls made to members for whom they provide PPS services; calls made overnight must be confirmed the following morning, and intraday calls must be confirmed within one hour of the call being received by the PPS bank. For concentration banks, the PPS Agreement sets out requirements around any onward transfer of funds in LCH’s account upon instruction from LCH. LCH’s credit exposure to PPS banks is mitigated as clearing members are responsible for meeting obligations to LCH until such time as funds arrive in LCH’s concentration account.

The PPS involves transitional settlement across the books of the commercial banks that act as PPS banks. By maintaining internal book-entry accounts for members, LCH is able to net financial obligations between LCH and its members. This reduces credit and liquidity risks by removing the need for gross settlement through the PPS of offsetting obligations. However, net cash obligations to or from LCH are ultimately discharged through the PPS.

LCH Group’s risk management policies set the standards for the selection and monitoring of exposures that arise from PPS and concentration bank activities on a daily (and intraday, where appropriate) basis. PPS and concentration banks must meet the following eligibility criteria:

- have a minimum internal credit score as approved by the Credit Risk Management Committee;
- be able to demonstrate operational suitability such as accounting and SWIFT messaging capabilities; and
- a requirement to adhere to LCH procedures.

LCH reserves the right to apply more stringent criteria when, in its assessment, a PPS bank’s financial resources or operational capability are not commensurate with its level of business. In the event that a bank no longer wishes to participate in the PPS, a minimum of three months’ notice must be given and arrangements made with LCH for an orderly transition. All members are required to have contingency plans such that they can continue to meet obligations to LCH in the event of a PPS bank failure. The list of PPS banks used by LCH is disclosed to the public.¹⁵

6. **If the clearing agency establishes links to settle cross-border trades, it designs and operates such links to reduce effectively the risks associated with cross-border settlements.**

LCH has not established any such links.

¹⁵ http://www.lchclearnet.com/risk_management/llc/pps/

- 6.4 The clearing agency engaging in activities not related to settlement services carries on such activities in a manner that prevents the spillover of risk to the clearing agency that might affect its financial viability or negatively impact any of the participants in the settlement service.**

LCH may not undertake any activity which could potentially be a regulated activity unless that activity constitutes clearing. LCH has a formal New Product Approval Process whereby all new offerings must be vetted to make sure that the offering does not affect the clearing house as described.

7. Systems and Technology

7.1 For its settlement services systems, the clearing agency:

(a) develops and maintains

(i) reasonable business continuity and disaster recovery plans,

LCH provides an efficient and continuous service level to Clearing Members and their clients by ensuring that the critical activities which underpin its products and services can be recovered within the agreed Recovery Time Objective (“**RTO**”) required of DCOs by CFTC regulations. LCH achieves this by maintaining a regularly tested set of recovery options that is reviewed on a bi-annual basis, and independently tested at least annually.

Primary Recovery Strategy (Localized Disruption)

LCH maintains a dedicated Work Area Recovery (WAR) site in New York City which is available in the event a local incident impacts business continuity at the primary site, 17 State Street, 28th Floor, New York, NY 10004. The critical business will be recovered to the WAR site within the two hour RTO that LCH has established. Remote staff will be used to supplement activity at the recovery site. Where local utility providers are not impacted (i.e., broadband, power, etc.), all New York personnel have remote access. LCH maintains two geographically diverse data centers (in London and Paris) for its core clearing and the systems operated at each data center have redundancy that allows for data processing to continue or failover to a different center in the event of outages. Data is mirrored across data centers to ensure no loss of data in the event of a contingency.

Secondary Recovery Strategy (Widespread Disruption)

Should a widespread incident impact business continuity at the primary site and the WAR site concurrently, the LCH business will be recovered to the London offices within two hours. If the widespread disruption continues beyond 48 hours, then the Business Continuity Management Team (BCMT) may decide to move critical New York functions to London. Where local utility providers are not impacted (i.e., broadband, power, etc.), all New York personnel have remote access. LCH maintains

two geographically diverse data centers (in London and Paris) for its core clearing and the systems operated at each data center have redundancy that allows for data processing to continue or failover to a different center in the event of outages. Data is mirrored across data centers to ensure no loss of data in the event of a contingency.

(ii) an adequate system of internal control,

In order to be able to carry out its commercial activities, LCH must comply with the regulatory requirements of the jurisdictions in which it operates. LCH is required by both its own regulatory obligations and prudent management to ensure it develops and implements comprehensive and effective internal controls and risk management systems.

These are monitored internally by various layers of functional management, supplemented by internal audit and board committees (in particular the Risk Committee and the Audit Committee), and externally by regulators and external auditors. Reports resulting from independent reviews are submitted to the Audit Committee on a regular basis.

(iii) adequate information technology general controls, including controls relating to information systems operations, information security, change management, problem management, network support, and system software support;

LCH's core operating systems have fully adequate capacity and that adequacy is regularly reviewed.

LCH's basic technical standard is ISO/IEC/27001. The ISO 27000 family of standards helps us keep information assets secure. Using this family of standards, we can manage the security of assets such as financial information, intellectual property, employee details and information entrusted to us by third parties. ISO/IEC 27001 is the best-known standard in the family providing requirements for an information security management system (ISMS). Like other ISO management system standards, certification to ISO/IEC 27001 is possible but not obligatory. We have chosen to implement the standard in order to benefit from the best practice it contains. ISO does not perform certification.

Security Standards are coordinated by a senior executive whose responsibilities include security and business continuity and contingency planning. The senior executive reports directly to the Global Head of Operations.

LCH conducts regular reviews of its 'internal' and 'external' security by penetration testing, assisted by external consultancy. The 'external' testing confirms a high level of impenetrability.

New developments are tested in separate environments outside live systems. All user access to LCH systems is coordinated by two central units.

(b) on a reasonably frequent basis, and in any event, at least annually, and in a manner that is consistent with prudent business practice,

(i) makes reasonable current and future capacity estimates,

LCH seeks to ensure that all systems (both software and hardware) have headroom capacity well in excess of expected volumes. IT Services Production performs regular stress testing on key systems using the multiples of peak daily volume.

(ii) conducts capacity stress tests to determine the ability of those systems to process transactions in an accurate, timely and efficient manner,

As discussed in (b)(i) above, LCH keeps capacity under periodic review through regular stress testing on key systems and will conduct capacity stress tests as part of the non-functional testing during major changes as part of the project delivering the change, to ensure that systems are able to process transactions in an accurate, timely and efficient manner.

(iii) tests its business continuity and disaster recovery plans; and

LCH has comprehensive business continuity arrangements to deal with short, medium and long-term disruptions. LCH's business recovery strategy is founded on a Business Impact Assessment, which is reviewed annually and in the event of any significant changes occurring within LCH. A business continuity framework is in operation which covers departmental emergency procedures, processes, procedures and staff contact details and agreed emergency procedures in order to maintain or restore business operations in the required timescales. Business continuity and disaster recovery plans are reviewed on an ongoing basis and assessed on a quarterly basis.

LCH has an annual testing schedule in place which exercises key components of LCH's business continuity arrangements, this includes:

- Data Centre Tests;
- Work Area Recovery Testing;
- Crisis Management Exercises; and
- Call Tree Exercises.

LCH also offers its Clearing Members the opportunity to participate in the scheduled Data Centre tests on at least an annual basis.

(c) promptly notifies the regulator of any material systems failures.

LCH grades incidents affecting its key systems on a priority scale from 1 to 4, with 1 being the most serious and 4 the least. A priority 1 incident is classified as: “An incident which prevents LCH from fulfilling its financial, legal or regulatory obligations - widespread unavailability of services to all members or partners.” A priority 2 incident is classified as: “An incident which impairs LCH’s ability to fulfill its financial, legal or regulatory obligations - limited availability of services to multiple members or partners.”

Priority 1 and 2 incidents are reported to the CFTC, as soon as LCH’s Compliance and Regulation department has been notified of the incident.

7.2 The clearing agency annually engages a qualified party to conduct an independent systems review and prepare a report in accordance with established audit standards regarding its compliance with section 7.1(a).

As a limited liability company organized under the laws of Delaware, LCH is required to meet, and currently satisfies, the statutory annual audit requirements applicable to such companies. The Audit Committee of the LCH Board is responsible for supervising LCH’s compliance with such audit requirements, as well as other audits undertaken by LCH’s internal auditors or by external auditors its operations. The Risk Committee considers and comments on all aspects of LCH’s risk appetite, tolerance and strategy, taking account of the current and prospective macroeconomic and financial environment and, in particular, to comment on LCH’s “Risk Appetite” statement before it is submitted to the LCH Board for approval.

A key input to this are detailed Audit plans by External and Internal Audit for the Audit Committee and Board’s consideration and approval each year and risk-based audits are carried out during the following twelve months in accordance with these plans. The output from these audits is reported to the Audit Committee for its challenge, in the discharge of its role as third line of defence, and a report made at each Board meeting on progress and any issues, including system issues should these arise. As part of these plans, Internal Audit review existing controls that have been implemented on IT systems used by LCH and/or follow up by providing reports to the LCH Executive Management and Audit Committee which would highlight any encountered deficiencies.

The core objective of the Internal Audit function is to assist Management and the Audit Committee in the effective and efficient discharge of their responsibilities. This involves the evaluation of policies, control standards and associated procedures designed to manage business risks; and are achieved by carrying out internal audits and consulting activities, both of which provide objective insights, analysis, appraisals, observations and recommendations relating to improvements in the quality and application of internal risk controls. In this regard, Internal Audit fulfils a “third line” assurance role within the company.

Internal Audit will have regard to the Code of Ethics and the International Standards for the Professional Practice of Internal Auditing published by the Institute of Internal Auditors (IIA).

Internal Audit has direct access to the LCH Board and the Audit Committee, and is accountable to the Audit Committee. The Audit Committee Chairman reports regularly to the Board on all aspects relating to the Committee. The Head of Internal Audit reports directly to the Audit Committee Chairman on functional matters and to the Chairman for administrative matters¹⁶. In addition, Internal Audit will have direct access to the LCH Chief Executive Officer for strategic matters, as and when required. The Audit Committee Chairman will provide an appraisal of the Head of Internal Audit; this will normally be as part of the annual performance review process.

8. Financial Viability and Reporting

8.1 The clearing agency has sufficient financial resources for the proper performance of its functions and to meet its responsibilities and allocates sufficient financial and staff resources to carry out its functions as a clearing agency in a manner that is consistent with any regulatory requirements.

As a DCO under the CEA, LCH is subject to the CEA and CFTC regulations. These require that a DCO shall have adequate financial, operational, and managerial resources, as determined by the CFTC, to discharge each responsibility of the DCO. In particular, each DCO shall possess financial resources that, at a minimum, exceed the total amount that would enable the DCO to meet its financial obligations to its members and participants notwithstanding a default by the member or participant creating the largest financial exposure for that organization in extreme but plausible market conditions, and also enable the DCO to cover the operating costs of the DCO for a period of one year (as calculated on a rolling basis), including a six-month liquidity requirement.

For the Default Fund, see section 6 above. In addition to that, LCH's capital as at 31 December 2013 is USD48 million.

The financial resources required to support LCH's operations are achieved through a range of measures, including LCH's own capital and financial resources, ensuring that the Clearing Members are adequately capitalized, effective margining and risk management practices and the Default Fund.

LCH's cash, including cash posted to it by members and capital, is either held at commercial banks, invested in reverse repurchase agreements, used to purchase high-quality securities or invested in US government money market funds. LCH restricts its investment activities to counterparties and issuers that meet minimum internal credit rating requirements; exposures to credit institutions are further subject to counterparty-specific limits. Currently, all LCH's investment counterparties are high-credit commercial banks subject to prudential supervision.

LCH's SwapClear US service went live on 3rd June 2013 and is in a build-up phase. As of 21st January, 35% of LCH's total cash portfolio is placed in overnight investments in US Dollars. The average maturity of the total portfolio is 82 days. However, the capital is

¹⁶ The Chairman has delegated the regular administrative responsibility for Internal Audit to the Chief Administration Officer.

not intended to be the primary source of funds for use in the event of losses incurred as a result of a Clearing Member defaulting.

9. Operational Reliability

9.1 The clearing agency has procedures and processes to ensure the provision of accurate and reliable settlement services to participants.

LCH's core operating systems have fully adequate capacity and that adequacy is regularly reviewed.

The 27001 standard sets out the details of the specification (process approach) for an Information Security Management System and a framework for defining, implementing, operating, reviewing and maintaining security within an organisation but which must be highly influenced by the company's business needs, security requirements, working practices, size and structure. The 27002 standard is code of practice for information security, specifying numerous (i.e., hundreds), controls which can be utilized based on the company's information security appetite (as defined through the 27001 standard).

It is possible to achieve certification against the 27001 standard. The LCH security framework is aligned with the 27001 standard process approach which is underpinned by technical and procedural controls consistent with the 27002 standard, notwithstanding that the controls defined in the 27002 standard are static. LCH also develops its own security standards to address any new technologies that LCH wishes to use. The Information Security Policy sets out detailed information regarding security controls in place in respect to the security of information, the workplace environment, operations and network management, systems development and maintenance, and business continuity management.

LCH's security standards are set out in the Information Security Policy. The Business Continuity & Security team conducts regular "internal" and "external" security penetration testing, assisted by external consultancy. Developments are tested in separate environments outside live systems. All user access to LCH systems is co-ordinated by central units. LCH grades incidents affecting its key systems on a scale from 1 to 4, with 1 being the most serious and 4 being the least. It also seeks to ensure that all systems have headroom capacity in excess of expected volumes.

10. Protection of Assets

10.1 The clearing agency has established accounting practices, internal controls, and safekeeping and segregation procedures to protect the assets that are held by the clearing agency.

LCH's Clearing Member account structure and requirements are designed to complement statutory client protection mechanisms that require client funds to be segregated from a firm's own funds. LCH makes client accounts available for its Clearing Members that have clients and that are required by applicable law to segregate client funds from firm funds. Clearing Member proprietary positions are maintained in "house" accounts with LCH. LCH's obligations as CCP to Clearing Member trades relate separately to positions registered in a Clearing Member's house account and such Clearing Member's client account(s). In the event of a Clearing Member's default, LCH cannot offset positions in

the Clearing Member's house account with those held in a client account, nor can LCH apply margin cover held in relation to positions registered in the Clearing Member's client account(s) to meet shortfalls with respect to positions in the Clearing Member's house account.

LCH utilizes a group-wide custodian due diligence framework, which provides guidelines that seek to ensure that custodian relationships provide adequate protection of LCH's assets.

11. Outsourcing

11.1 Where the clearing agency has outsourced any of its key functions, it has appropriate and formal arrangements and processes in place that permit it to meet its obligations and that are in accordance with industry best practices. The outsourcing arrangement provides regulatory authorities with access to all data, information, and systems maintained by the third party service provider required for the purposes of regulatory oversight of the agency.

Reviews are conducted by management with a number of suppliers to discuss their role as service providers.

LCH.Clearnet has established a co-sourcing relationship with Tata Consulting Services ("TCS"), to provide certain IT support/data processing services to LCH UK and its affiliates (including LCH). TCS is a leading service provider in India.

Under the arrangement TCS provides application and infrastructure support from India to cover clearing support services outside of the hours of the U.S. The team in India comprises TCS employees who have been trained by LCH. Management, control, responsibility, and accountability for the operation of the service lie with LCH. The arrangement has been reviewed in detail by the LCH Audit Committee.

LCH also receives, under the terms of a Master Services Agreement with LCH UK, a variety of services, including information technology, enterprise risk management, business and other services, to support the operation of LCH. Management, control, responsibility, and accountability for the operation of the LCH UK-LCH service lies with LCH. The arrangement has been reviewed in detail by senior management at LCH UK and LCH and was submitted to the CFTC prior to the launch of LCH.

The outsourcing arrangements provide regulatory authorities with access to all data, information and systems maintained by the third party service provider.

12. Information Sharing and Regulatory Cooperation

12.1 For regulatory purposes, the clearing agency cooperates by sharing information or otherwise with the Commission and its staff, self-regulatory organizations, exchanges, quotation and trade reporting systems, alternative trading systems, other clearing agencies, investor protection funds, and other appropriate regulatory bodies.

The CFTC participates in the LCH Group regulatory college led by the Autorité de Contrôle Prudentiel et de résolution and a Memorandum of Understanding governing



information sharing has been signed by all regulators involved. The Autorité de Contrôle Prudentiel et de résolution is the consolidated prudential supervisor of the group.

LCH can confirm that it is willing to provide information about it and its activities to assist the OSC in the exercise of its functions, is willing to be open with the OSC or other appropriate bodies in regulatory matters, and will diligently pursue enquiries from the OSC or other appropriate bodies as necessary.

LCH.Clearnet LLC

A handwritten signature in black ink, appearing to read "David Weisbrod", written over a horizontal line.

By:

Name: David Weisbrod

Title: Chief Executive Officer