LCH The Markets' Partner	N°	Title
Instruction	II.2-2	QUALITY REQUIREMENTS FOR CLEARING MEMBERS

Pursuant to Article 2.2.1.1. of the Clearing Rule Book

CHAPTER 1 REQUIREMENTS FOR CLEARING MEMBERS CLEARING SECURITIES

MARKETS AND CLEARING MEMBERS CLEARING TRANSACTIONS

EXECUTED ON OR REPORTED BY TRADING & MATCHING PLATFORMS

Section 1.1 Individual Clearing Members

Article 1: Organisational requirements

- 1.1 There must be an adequate segregation of duties between the departments or officers involved in risk management (Margin control), internal control, departments involved in commercial affairs¹ and the back office.
- 1.2 The Clearing Member must have an independent risk management department or risk management officer responsible for evaluating the relationship between the measured risks (Margin requirement), the balance available and the trading or credit limits. This department or officer should take appropriate actions in case of limit or Margin requirement breaches. This department or officer must be independent of both the proprietary trading department and Client account management department and must report directly to the Clearing Member's senior management.
- 1.3 The highest middle managers must be actively involved in the risk management (Margin control) process.
- 1.4 The results of the risk management (Margining) system must be fully integrated in the Clearing Member's daily risk management process. These results must form an integral part of the process of identifying, managing and controlling the market risk and/or the counterparty risk that the Clearing Member runs in the portfolios.

Article 2: Risk management system requirements

- 2.1 The risk management system (comprising, at least, of a Margining system) must be sound and must have been carefully implemented.
- 2.2 The Margin requirements for the Clients must be calculated according to the Clearing Rules.
- 2.3 The risk management (Margining) system must be used in combination with internal credit and position limits. These limits must relate to the risk management (margining) system in a way that is consistent and clear to traders, Clients, account managers and senior management.

¹ For example account management or the trading department.

Article 3: Procedure requirements

- 3.1 The check on Clients' Margin requirements must be done independently from the commercial function. These checks must be performed daily and each new Transaction must be approved. Adequate actions in accordance with the Clearing Rules must be taken if a Client does not comply with the Margin requirements.
- 3.2 There must be an adequate procedure for the input and update of Margin percentages.
- 3.3 There must be an adequate procedure for the input and update of credit and position limits.
- 3.4 Senior management must approve of the assumptions relating to the market risk.
- 3.5 The Clearing Member must assess periodically whether the risk management system is functioning in line with written internal policy guidelines and procedures.
- 3.6 The risk management system must be well documented and approved by senior management. The documentation must include a description of the basic principles on which the risk management system is based, and there should be written procedures to be followed if certain norms are not complied with. Senior management must also approve changes in the risk management process.
- 3.7 The entire risk management process must be subjected to a review on a regular basis. This means that checks must be performed on the organisational requirements, the risk management system requirements and the procedure requirements. Items to be covered in this review include the following:
 - The independent position of the risk management department or officer;
 - The validation of every important change in the process of risk measurement;
 - The reliability of the reports produced by the risk management system;
 - The accuracy and completeness of positions data;
 - The accuracy and completeness of Margin percentages;
 - The accuracy, completeness and appropriateness of position and credit limits;
 - The accuracy and appropriateness of the assumptions relating to the underlying value risk and/or the underlying value risk;
 - The accuracy of the valuation and the risk and Margin calculations:
 - Whether the documentation of the risk management system and related process continue to comply with the requirements.

Section 1.2 General Clearing Members

Article 4: Organisational requirements

- 4.1 There must be an adequate segregation of duties between the departments involved in risk management (Margin control), internal control, departments involved in commercial affairs² and the back office.
- 4.2 The Clearing Member must have an independent risk management department responsible for designing and implementing the risk management system, for evaluating the relationship between the measured risks (Margin requirement), the balance available and the trading or credit limits. This department should take appropriate actions in case of limit or Margin requirement breaches. This department must be independent of both the proprietary trading department and the Client account management department and must report directly to the Clearing Member's senior management.
- 4.3 Middle and senior managers must be actively involved in the risk management (Margin control) process. Risk management must be considered an essential part of the organisation's operations. Sufficient resources should be made available for risk management activities.
- 4.4 The results of the risk management (Margining) system must be fully integrated in the Clearing Member's daily risk management process. These results must form an integral part of the process of identifying, managing and controlling the market risk and/or the counterparty risk that the Clearing Member runs in the portfolios.

Article 5: Risk management system requirements

- 5.1 The risk management system (comprising, at least, of a Margining system) must be sound and must have been carefully implemented.
- 5.2 The Margin requirements must be calculated according to the Clearing Rules.
- 5.3 The risk management (Margining) system must be used in combination with internal credit and position limits. These limits must relate to the risk management (Margining) system in a way that is consistent and clear to Clients, Trading Members or Associated Trading Members, account managers and senior management.

Article 6: Procedure requirements

- 6.1 There should be Client contracts for Trading Members or Associated Trading Members, stipulating that the Clearing Member has the authority to enforce a reduction in the portfolios of Clients.
- The check on Clients' Margin requirements must be done independently from the commercial function. These checks must be performed daily and each new Transaction must be approved. Adequate actions in accordance with the Clearing Rules must be taken if a Client does not comply with the Margin requirements.
- 6.3 There must be an adequate procedure for the input and update of Margin percentages.
- 6.4 There must be an adequate procedure for the input and update of credit and position limits.
- 6.5 Senior management must approve of the assumptions relating to the market risk.

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² For example account management or the trading department

- 6.6 The Clearing Member must assess periodically whether the risk management system is functioning in line with written internal policy guidelines and procedures.
- 6.7 The risk management system must be well documented and approved by senior management. The documentation must include a description of the basic principles on which the risk management system is based, and there should be written procedures to be followed if certain norms are not complied with. Senior management must also approve changes in the risk management process.
- The entire risk management process must be subjected to a review on a regular basis. This means that checks must be performed on the organisational requirements, the risk management system requirements and the procedure requirements. Items to be covered in this review include the following:
 - The independent position of the risk management department;
 - The validation of every important change in the process of risk measurement;
 - The reliability of the reports produced by the risk management system;
 - The accuracy and completeness of positions data;
 - The accuracy and completeness of Margin percentages;
 - The accuracy, completeness and appropriateness of position and credit limits;
 - The accuracy and appropriateness of the assumptions relating to the underlying value risk and/or the underlying value risk;
 - The accuracy of the valuation and the risk and Margin calculations;
 - Whether the documentation of the risk management system and related process continue to comply with the requirements.

CHAPTER 2 REQUIREMENTS FOR DERIVATIVE MARKETS CLEARING MEMBERS

Section 2.1 Individual Clearing Members

Article 7: Organisational requirements

- 7.1 There must be an adequate segregation of duties between the departments or officers involved in risk management (Margin control), internal control, departments involved in commercial affairs³ and the back office.
- 7.2 The Clearing Members clearing their own market making positions (ICMT) must have sufficient, adequately trained staff available to provide the necessary capacity to deal with complex models, both in the trading department and in departments involved in risk management and the back office.
- 7.3 The Clearing Members clearing Clients (ICMC) must have sufficient, adequately trained staff available to check the compliance with Margin requirements by the Clients and take appropriate action if Clients do not comply. This staff must be independent of Client account management and must report directly to the Clearing Member's senior management.

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³ For example account management or the trading department

- 7.4 The ICMT must have an independent risk management department or risk management officer responsible for designing and implementing the risk management system, including evaluating the relationship between the measured risks and the trading limits. This department must be independent of both the proprietary trading department and Client account management department and must report directly to the Clearing Member's senior management.
- 7.5 In the ICMT the highest middle and senior managers must be actively involved in the risk management process. Risk management must be considered an essential part of the organisation's operations. Sufficient resources should be made available for risk management activities.
- 7.6 In the ICMC the highest middle managers must be actively involved in the risk management (Margin control) process.
- 7.7 The results of the risk management (margining) system must be fully integrated in the Clearing Member's daily risk management process. These results must form an integral part of the process of identifying, managing and controlling the market risk and/or the counterparty risk that the Clearing Member runs in the portfolios.

Article 8: Risk management system requirements

- 8.1 The risk management system (comprising for the ICMC of, at least, the margining system) must be sound and must have been carefully implemented.
- 8.2 The risk management system of the ICMT should, at least, take into account changing underlying value, changing volatility and changing interest rates for the proprietary portfolio.
- 8.3 The risk of the proprietary portfolio should be calculated on the basis of generally accepted price models and valuation systems.
- 8.4 The Margin requirements must be calculated according to the Clearing Rules.
- 8.5 The ICMT must carry out stress tests on a regular basis. The stress tests are to be used for evaluating events and factors that could seriously affect the Clearing Member's and their Clients' financial position. The scenarios used for the stress tests must include those factors that could lead to extreme results in the portfolios, or which could seriously adversely affect the management of risks attached to these portfolios. These factors include unusual events regarding to, at least, underlying value, volatility and interest rate, as the scenarios must provide a picture of the impact that these events could have on positions. The results of the stress tests form part of the standard reports used by management and the board of directors.
- 8.6 The risk management department of the ICMT must carry out back tests on a regular basis. These back tests involve historical comparisons of the size of the calculated risk with the actual daily changes in the value of the portfolio and with the hypothetical changes on the basis of static positions.
- 8.7 The risk management (Margining) system must be used in combination with internal credit and position limits. These limits must relate to the risk management (margining) system in a way that is consistent and clear to Trading Members, Associated Trading Members, Clients, account managers and senior management.

Article 9: Procedure requirements

- 9.1 Managers of the ICMT that have sufficient seniority and authority to be able to enforce a reduction in the proprietary portfolio must critically assess the daily reports produced by the independent risk management department.
- 9.2 Senior management must approve of the price models and valuation systems used by the front and back offices. This also includes the assumptions relating to the risk parameters.
- 9.3 The Clearing Member must assess periodically whether the risk management system is functioning in line with written internal policy guidelines and procedures.
- 9.4 The risk management system must be well documented and approved by senior management. The documentation must include a description of the basic principles on which the risk management system is based, and there should be written procedures to be followed if certain norms are not complied with. Senior management must also approve changes in the risk management process.
- 9.5 The entire risk management process must be subjected to a review on a regular basis. This means that checks must be performed on the organisational requirements, the risk management system requirements and the procedure requirements. Items to be covered in this review include the following:
 - The independent position of the risk management department;
 - The process for obtaining approval for price models and valuation systems used by the front and back offices;
 - The validation of every important change in the process of risk measurement;
 - The reliability of the reports produced by the risk management system;
 - The accuracy and completeness of positions data;
 - The accuracy and completeness of Margin percentages;
 - The accuracy, completeness and appropriateness of position and credit limits;
 - The verification of the consistency, timeliness and reliability of the data sources used by the internal model, including the independence of these sources;
 - The accuracy and appropriateness of the assumptions relating to the risk parameters;
 - The accuracy of the valuation and the risk and Margin calculations;
 - The verification of the model's accuracy by means of empirical validation;
 - Whether the documentation of the risk management system and related process continue to comply with the requirements.

Section 2.2 General Clearing Members

Article 10: Organisational requirements

- 10.1 There must be an adequate segregation of duties between the departments involved in risk management (Margin control), internal control, departments involved in commercial affairs and the back office.
- 10.2 The Clearing Member must have sufficient, adequately trained staff available to provide the necessary capacity to deal with complex models, both in the trading department and in departments involved in risk management and the back office.
- 10.3 The Clearing Member must have an independent risk management department responsible for designing and implementing the risk management system, for evaluating the relationship between the measured risks (Margin requirement), the balance available and the trading or credit limits. This department must be independent of both the proprietary trading department and the Client account management department, must take appropriate actions in case of limit or Margin violations and must report directly to the Clearing Member's senior management.
- 10.4 The highest middle and senior managers must be actively involved in the risk management process. Risk management must be considered an essential part of the organisation's operations. Sufficient resources should be made available for risk management activities.
- The results of the risk management (Margining) system must be fully integrated in the Clearing Member's daily risk management process. These results must form an integral part of the process of identifying, managing and controlling the market risk and/or the counterparty risk that the Clearing Member runs in the portfolios.

Article 11: Risk management system requirements

- 11.1 The risk management system must be sound and must have been carefully implemented.
- 11.2 The risk management system should, at least, take into account changing underlying value, changing volatility and changing interest rates for both the proprietary portfolio and the portfolios of the Clients (Trading Members or Associated Trading Members).
- 11.3 The risks of both the proprietary portfolio and the portfolios of the Clients (Trading Members or Associated Trading Members) should be calculated on the basis of generally accepted price models and valuation systems.
- 11.4 The Margin requirements (if applicable) must be calculated according to the Clearing Rules.
- 11.5 The Clearing Member must carry out stress tests on a regular basis. The stress tests are to be used for evaluating events and factors that could seriously affect the Clearing Member's and their Clients' (Trading Members or Associated Trading Members) financial position. The scenarios used for the stress tests must include those factors that could lead to extreme results in the portfolios, or which could seriously adversely affect the management of risks attached to these portfolios. These factors include unusual events regarding to, at least, underlying value, volatility and interest rate, as the scenarios must provide a picture of the impact that these events could have on positions. The results of the stress tests form part of the standard reports used by management and the board of directors.

⁴ For example account management or the trading department.

- 11.6 The risk management department must carry out back tests on a regular basis. These back tests involve historical comparisons of the size of the calculated risk with the actual daily changes in the value of the portfolio and with the hypothetical changes on the basis of static positions.
- 11.7 The risk management system must be used in combination with internal credit and position limits. These limits must relate to the risk management system in a way that is consistent and clear to Trading Members or Associated Trading Members, Clients, account managers and senior management.

Article 12: Procedure requirements

- 12.1 There must be client contracts for Trading Members or Associated Trading Members, stipulating that the Clearing Member has the authority to enforce a reduction in the portfolios of clients.
- 12.2 The daily reports produced by the independent risk management department must be critically assessed by managers that have sufficient seniority and authority to be able to enforce a reduction in the proprietary portfolio and in the Clients' portfolios.
- 12.3 Senior management must approve of the price models and valuation systems used by the front and back offices. This also includes the assumptions relating to the risk parameters.
- 12.4 The Clearing Member must assess periodically whether the risk management system is functioning in line with written internal policy guidelines and procedures.
- 12.5 The risk management system must be well documented and approved by senior management. The document must include a description of the basic principles on which the risk management system is based, and there should be written procedures to be followed if certain norms are not complied with. Senior management must also approve changes in the risk management process.
- 12.6 The entire risk management process must be subjected to a review on a regular basis. This means that checks must be performed on the organisational requirements, the risk management system requirements and the procedure requirements. Items to be covered in this review include the following:
 - The independent position of the risk management department;
 - The integration of the risk parameters underlying value, volatility and interest rate regarding both the proprietary portfolio and the portfolios of the Clients (Trading Members or Associated Trading Members) in the daily risk management process;
 - The process for obtaining approval for price models and valuation systems used by the front and back offices;
 - The validation of every important change in the process of risk measurement;
 - The reliability of the reports produced by the risk management system;
 - The accuracy and completeness of positions data;
 - The accuracy and completeness of Margin percentages;
 - The accuracy, completeness and appropriateness of position and credit limits;

- The verification of the consistency, timeliness and reliability of the data sources used by the internal model, including the independence of these sources;
- The accuracy and appropriateness of the assumptions relating to the risk parameters;
- The accuracy of the valuation and the risk and Margin calculations;
- The verification of the model's accuracy by means of empirical validation;
- Whether the documentation of the risk management system and related process continue to comply with the requirements.

CHAPTER 3 TRANSITORY AND MISCELLANEOUS PROVISIONS

Article 13: Audit

To supervise the compliance with these requirements LCH SA can, during and after the Transition Period, audit or inspect the site where the clearing activities are carried out as well as any other site directly or indirectly link to these activities. It can also recurrently ask for information to Clearing Member' regarding its progress in fulfilling these criteria.