



COMMISSION DELEGATED REGULATION (EU) No 153/2013
of 19 December 2012
supplementing Regulation (EU) No 648/2012 of the European
Parliament and of the Council with regard to regulatory technical
standards on requirements for central counterparties

(Text with EEA relevance)

CHAPTER I

GENERAL

Article 1

Definitions

For the purposes of this Regulation, the following definitions apply:

- (1) ‘basis risk’ means the risk arising from less than perfectly correlated movements between two or more assets or contracts cleared by the central counterparty (CCP);
- (2) ‘confidence interval’ means the percentage of exposures movements for each financial instrument cleared with reference to a specific lookback period that a CCP is required to cover over a certain liquidation period;
- (3) ‘convenience yield’ means the benefits from direct ownership of the physical commodity and is affected both by market conditions and by factors such as physical storage costs;
- (4) ‘margins’ means margins as referred to in Article 41 of Regulation (EU) No 648/2012 which may include initial margins and variation margins;
- (5) ‘initial margin’ means margins collected by the CCP to cover potential future exposure to clearing members providing the margin and, where relevant, interoperable CCPs in the interval between the last margin collection and the liquidation of positions following a default of a clearing member or of an interoperable CCP default;
- (6) ‘variation margin’ means margins collected or paid out to reflect current exposures resulting from actual changes in market price;
- (7) ‘jump to default risk’ means the risk that a counterparty or issuer defaults suddenly before the market has had time to factor in its increased default risk;

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- (8) ‘liquidation period’ means the time period used for the calculation of the margins that the CCP estimates necessary to manage its exposure to a defaulting member and during which the CCP is exposed to market risk related to the management of the defaulter’s positions;
- (9) ‘lookback period’ means the time horizon for the calculation of historical volatility;
- (10) ‘testing exception’ means the result of a test which shows that a CCP’s model or liquidity risk management framework did not result in the intended level of coverage;
- (11) ‘wrong-way risk’ means the risk arising from exposure to a counterparty or issuer when the collateral provided by that counterparty or issued by that issuer is highly correlated with its credit risk.

CHAPTER II

RECOGNITION OF THIRD COUNTRY CCPs

(Article 25 of Regulation (EU) No 648/2012)

*Article 2***Information to be provided to ESMA for the recognition of a CCP**

An application for recognition submitted by a CCP established in a third country shall contain at least the following information:

- (a) full name of the legal entity;
- (b) identities of the shareholders or members with qualifying holdings;
- (c) a list of the Member States in which it intends to provide services;
- (d) classes of financial instruments cleared;
- (e) details to be included in the ESMA website in accordance with Article 88(1)(e) of Regulation (EU) No 648/2012;
- (f) details of its financial resources, the form and methods in which they are maintained and the arrangements to secure them including default management procedures;
- (g) details on the margin methodology and for the calculation of the default fund;
- (h) a list of the eligible collateral;
- (i) a breakdown of values, in prospective form if needed, cleared by the applying CCP by each Union currency cleared;

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- (j) results of the stress tests and back tests performed during the year preceding the date of application;
- (k) its rules and internal procedures with evidences of full compliance with the requirements applicable in that third country;
- (l) details of any outsourcing arrangements;
- (m) details on segregation arrangements and respective legal soundness and enforceability;
- (n) details on the CCP's access requirements and terms for suspension and termination of membership;
- (o) details of any interoperability arrangement, including the information provided to the third country competent authority for the purpose of assessing the arrangement.

CHAPTER III

ORGANISATIONAL REQUIREMENTS

(Article 26 of Regulation (EU) No 648/2012)

*Article 3***Governance arrangements**

1. The key components of the governance arrangements of the CCP that define its organisational structure as well as clearly specified and well-documented policies, procedures and processes by which its board and senior management operate shall include the following:

- (a) the composition, role and responsibilities of the board and any board committees;
- (b) the roles and responsibilities of the management;
- (c) the senior management structure;
- (d) the reporting lines between the senior management and the board;
- (e) the procedures for the appointment of board members and senior management;
- (f) the design of the risk management, compliance and internal control functions;
- (g) the processes for ensuring accountability to stakeholders.

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2. A CCP shall have adequate staff to meet all obligations arising from this Regulation and from Regulation (EU) No 648/2012. A CCP shall not share its staff with other group entities, unless under the terms of an outsourcing arrangement in accordance with Article 35 of Regulation (EU) No 648/2012.

3. A CCP shall establish lines of responsibility which are clear, consistent and well-documented. A CCP shall ensure that the functions of the chief risk officer, chief compliance officer and chief technology officer are carried out by different individuals, who shall be employees of the CCP entrusted with the exclusive responsibility of performing these functions.

4. A CCP that is part of a group shall take into account any implications of the group for its own governance arrangements including whether it has the necessary level of independence to meet its regulatory obligations as a distinct legal person and whether its independence could be compromised by the group structure or by any board member also being a member of the board of other entities of the same group. In particular, such a CCP shall consider specific procedures for preventing and managing conflicts of interest including with respect to outsourcing arrangements.

5. Where a CCP maintains a two-tiered board system, the role and responsibilities of the board as established in this Regulation and in Regulation (EU) No 648/2012 shall be allocated to the supervisory board and the management board as appropriate.

6. The risk management policies, procedures, systems and controls shall be part of a coherent and consistent governance framework that is reviewed and updated regularly.

*Article 4***Risk management and internal control mechanisms**

1. A CCP shall have a sound framework for the comprehensive management of all material risks to which it is or may be exposed. A CCP shall establish documented policies, procedures and systems that identify, measure, monitor and manage such risks. In establishing risk-management policies, procedures and systems, a CCP shall structure them in a way as to ensure that clearing members properly manage and contain the risks they pose to the CCP.

2. A CCP shall take an integrated and comprehensive view of all relevant risks. These shall include the risks it bears from and poses to its clearing members and, to the extent practicable, clients as well as the risks it bears from and poses to other entities such as, but not limited to interoperable CCPs, securities settlement and payment systems, settlement banks, liquidity providers, central securities depositories, trading venues served by the CCP and other critical service providers.

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3. A CCP shall develop appropriate risk management tools to be in a position to manage and report on all relevant risks. These shall include the identification and management of system, market or other interdependencies. If a CCP provides services linked to clearing that present a distinct risk profile from its functions and potentially pose significant additional risks to it, the CCP shall manage those additional risks adequately. This may include separating legally the additional services that the CCP provides from its core functions.

4. The governance arrangements shall ensure that the board of a CCP assumes final responsibility and accountability for managing the CCP's risks. The board shall define, determine and document an appropriate level of risk tolerance and risk bearing capacity for the CCP. The board and senior management shall ensure that the CCP's policies, procedures and controls are consistent with the CCP's risk tolerance and risk bearing capacity and that they address how the CCP identifies, reports, monitors and manages risks.

5. A CCP shall employ robust information and risk-control systems to provide the CCP and, where appropriate, its clearing members and, where possible, clients with the capacity to obtain timely information and to apply risk management policies and procedures appropriately. These systems shall ensure, at least that credit and liquidity exposures are monitored continuously at the CCP level as well as at the clearing member level and, to the extent practicable, at the client level.

6. A CCP shall ensure that the risk management function has the necessary authority, resources, expertise and access to all relevant information and that it is sufficiently independent from the other functions of the CCP. The CCP chief risk officer shall implement the risk management framework including the policies and procedures established by the board.

7. A CCP shall have adequate internal control mechanisms to assist the board in monitoring and assessing the adequacy and effectiveness of its risk management policies, procedures and systems. Such mechanisms shall include sound administrative and accounting procedures, a robust compliance function and an independent internal audit and validation or review function.

8. A CCP's financial statement shall be prepared on an annual basis and be audited by statutory auditors or audit firms within the meaning of Directive 2006/43/EC of the European Parliament and of the Council ⁽¹⁾.

*Article 5***Compliance policy and procedures**

1. A CCP shall establish, implement and maintain adequate policies and procedures designed to detect any risk of failure by the CCP and its employees

⁽¹⁾ OJ L 157, 9.6.2006, p. 87.

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to comply with the its obligations under this Regulation, Regulation (EU) No 648/2012 and Implementing Regulation (EU) No 1249/2012, as well as the associated risks, and put in place adequate measures and procedures designed to minimise such risk and to enable the competent authorities to exercise their powers effectively under these Regulations.

2. A CCP shall ensure that its rules, procedures and contractual arrangements are clear and comprehensive and they ensure compliance with this Regulation, Regulation (EU) No 648/2012 and Implementing Regulation (EU) No 1249/2012 as well as all other applicable regulatory and supervisory requirements.

The rules, procedures and contractual arrangements of the CCP shall be recorded in writing or another durable medium. These rules, procedures, and contractual arrangements and any accompanying material shall be accurate, up-to-date and readily available to the competent authority, clearing members and, where appropriate, clients.

A CCP shall identify and analyse the soundness of the rules, procedures and contractual arrangements of the CCP. If necessary, independent legal opinions shall be sought for the purpose of this analysis. The CCP shall have a process for proposing and implementing changes to its rules and procedures and prior to implementing any material changes to consult with all affected clearing members and submit the proposed changes to the competent authority.

3. In developing its rules, procedures and contractual arrangements a CCP shall consider relevant regulatory principles and industry standards and market protocols and clearly indicate where such practices have been incorporated into the documentation governing the rights and obligations of the CCP, its clearing members and other relevant third parties.

4. A CCP shall identify and analyse potential conflicts of law issues and develop rules and procedures to mitigate legal risk resulting from such issues. If necessary, independent legal opinions shall be sought by the CCP for the purpose of this analysis.

A CCP's rules and procedures shall clearly indicate the law that is intended to apply to each aspect of the CCP's activities and operations.

*Article 6***Compliance function**

1. A CCP shall establish and maintain a permanent and effective compliance function which operates independently from the other functions of the CCP. It shall ensure that the compliance function has the necessary authority, resources, expertise and access to all relevant information.

When establishing its compliance function, the CCP shall take into account the nature, scale and complexity of its business, and the nature and range of the services and activities undertaken in the course of that business.

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2. The chief compliance officer shall at least have the following responsibilities:
- (a) monitor and, on a regular basis, assess the adequacy and effectiveness of the measures put in place in accordance with Article 5(4) and the actions taken to address any deficiencies in the CCP's compliance with its obligations;
 - (b) administer the compliance policies and procedures established by senior management and the board;
 - (c) advise and assist the persons responsible for carrying out the CCP services and activities to comply with the CCP's obligations under this Regulation, Regulation (EC) No 648/2012 and Implementing Regulation (EU) No 1249/2012 and other regulatory requirements, where applicable;
 - (d) report regularly to the board on compliance by the CCP and its employees with this Regulation, Regulation (EU) No 648/2012 and Implementing Regulation (EU) No 1249/2012;
 - (e) establish procedures for the effective remediation of instances of non-compliance;
 - (f) ensure that the relevant persons involved in the compliance function are not involved in the performance of the services or activities they monitor and that any conflicts of interest of such persons are properly identified and eliminated.

*Article 7***Organisational structure and separation of the reporting lines**

1. A CCP shall define the composition, role and responsibilities of the board and senior management and any board committees. These arrangements shall be clearly specified and well-documented. The board shall establish, at a minimum an audit committee and a remuneration committee. The risk committee established in accordance with Article 28 of Regulation (EU) No 648/2012 shall be an advisory committee to the board.
2. The board shall assume at least the following responsibilities:
- (a) the establishment of clear objectives and strategies for the CCP;
 - (b) the effective monitoring of senior management;
 - (c) the establishment of appropriate remuneration policies,
 - (d) the establishment and oversight of the risk management function;
 - (e) the oversight of the compliance function and internal control function;
 - (f) the oversight of outsourcing arrangements;
 - (g) the oversight of compliance with all provisions of this Regulation, Regulation (EU) No 648/2012, Implementing Regulation (EU) No 1249/2012 and all other regulatory and supervisory requirements;

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(h) the provision of accountability to the shareholders or owners and employees, clearing members and their customers and other relevant stakeholders.

3. Senior management shall have at least the following responsibilities:

(a) ensuring consistency of the CCP's activities with the objectives and strategy of the CCP as determined by the board;

(b) designing and establishing compliance and internal control procedures that promote the CCP's objectives;

(c) subjecting the internal control procedures to regular review and testing;

(d) ensuring that sufficient resources are devoted to risk management and compliance;

(e) be actively involved in the risk control process;

(f) ensuring that risks posed to the CCP by its clearing and activities linked to clearing are duly addressed.

4. Where the board delegates tasks to committees or sub-committees, it shall retain the approval of decisions that could have a significant impact on the risk profile of the CCP.

5. The arrangements by which the board and senior management operate shall include processes to identify, address and manage potential conflicts of interest of members of the board and senior management.

6. A CCP shall have clear and direct reporting lines between its board and senior management in order to ensure that the senior management is accountable for its performance. The reporting lines for risk management, compliance and internal audit shall be clear and separate from those for the other operations of the CCP. The chief risk officer shall report to the board either directly or through the chair of the risk committee. The chief compliance officer and the internal audit function shall report directly to the board.

*Article 8***Remuneration policy**

1. The remuneration committee shall design and further develop the remuneration policy, oversee its implementation by senior management and review its practical operation on a regular basis. The policy itself shall be documented and reviewed at least on an annual basis.

2. The remuneration policy shall be designed to align the level and structure of remuneration with prudent risk management. The policy shall account for prospective risks as well as existing risks and risk outcomes. Pay out schedules shall be sensitive to the time horizon of risks. In particular in the case of variable remuneration the policy shall take due account of possible mismatches of performance and risk periods and shall ensure that payments are deferred as appropriate. The fixed and variable components of total remuneration shall be balanced and shall be consistent with risk alignment.

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3. The remuneration policy shall provide that staff engaged in risk management, compliance and internal audit functions are remunerated in a manner that is independent of the business performance of the CCP. The level of remuneration shall be adequate in terms of responsibility as well as in comparison to the level of remuneration in the business areas.

4. The remuneration policy shall be subject to independent audit, on an annual basis. The results of these audits shall be made available to the competent authority.

*Article 9***Information technology systems**

1. A CCP shall design and ensure its information technology systems are reliable and secure as well as capable of processing the information necessary for the CCP to perform its activities and operations in a safe and efficient manner.

The information technology architecture shall be well-documented. The systems shall be designed to deal with the CCP's operational needs and the risks the CCP faces, be resilient, including in stressed market conditions, and be scalable, if necessary, to process additional information. The CCP shall provide for procedures and capacity planning as well as for sufficient redundant capacity to allow the system to process all remaining transactions before the end of the day in circumstances where a major disruption occurs. The CCP shall provide for procedures for the introduction of new technology including clear reversion plans.

2. In order to ensure a high degree of security in information processing and to enable connectivity with its clearing members and clients as well as with its service providers, a CCP shall base its information technology systems on internationally recognised technical standards and industry best practices. The CCP shall subject its systems to stringent testing, simulating stressed conditions, before initial use, after making significant changes and after a major disruption has occurred. Clearing members and clients, interoperable CCPs and other interested parties shall be involved as appropriate in the design and conduct of these tests.

3. A CCP shall maintain a robust information security framework that appropriately manages its information security risk. The framework shall include appropriate mechanisms, policies and procedures to protect information from unauthorised disclosure, to ensure data accuracy and integrity and to guarantee the availability of the CCP's services.

4. The information security framework shall include at least the following features:

- (a) access controls to the system;
- (b) adequate safeguards against intrusions and data misuse;
- (c) specific devices to preserve data authenticity and integrity, including cryptographic techniques;

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(d) reliable networks and procedures for accurate and prompt data transmission without major disruptions;

(e) audit trails.

5. The information technology systems and the information security framework shall be reviewed at least on an annual basis. They shall be subject to independent audit assessments. The results of these assessments shall be reported to the board and shall be made available to the competent authority.

*Article 10***Disclosure**

1. A CCP shall make the following information available to the public free of charge:

(a) information regarding its governance arrangements, including the following:

(i) its organisational structure as well as key objectives and strategies;

(ii) key elements of the remuneration policy;

(iii) key financial information including its most recent audited financial statements;

(b) information regarding its rules, including the following:

(i) default management procedures, procedures and supplementary texts;

(ii) relevant business continuity information;

(iii) information on the CCP's risk management systems, techniques and performance in accordance with Chapter XII;

(iv) all relevant information on its design and operations as well as on the rights and obligations of clearing members and clients, necessary to enable them to identify clearly and understand fully the risks and costs associated with using the CCP's services;

(v) the CCP's current clearing services, including detailed information on what it provides under each service;

(vi) the CCP's risk management systems, techniques and performance, including information on financial resources, investment policy, price data sources and models used in margin calculations;

(vii) the law and the rules governing:

(1) the access to the CCP;

(2) the contracts concluded by the CCP with clearing members and, where practicable, clients;

(3) the contracts that the CCP accepts for clearing;

(4) any interoperability arrangements;

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- (5) the use of collateral and default fund contributions, including the liquidation of positions and collateral and the extent to which collateral is protected against third party claims;
- (c) information regarding eligible collateral and applicable haircuts;
- (d) a list of all current clearing members, including admission, suspension and exit criteria for clearing membership.

Where the competent authority agrees with the CCP that any of the information under point (b) or (c) of this paragraph may put at risk business secrets or the safety and soundness of the CCP, the CCP may decide to disclose that information in a manner that prevents or reduces those risks, or not to disclose such information.

2. A CCP shall disclose to the public, free of charge, information regarding any material changes in its governance arrangements, objectives, strategies and key policies as well as in its applicable rules and procedures.

3. Information to be disclosed to the public by the CCP shall be accessible on its website. Information shall be available in at least a language customary in the sphere of international finance.

*Article 11***Internal auditing**

1. A CCP shall establish and maintain an internal audit function which is separate and independent from the other functions and activities of the CCP and which has the following tasks:

- (a) to establish, implement and maintain an audit plan to examine and evaluate the adequacy and effectiveness of the CCP's systems, internal control mechanisms and governance arrangements;
- (b) to issue recommendations based on the result of work carried out in accordance with point (a);
- (c) to verify compliance with those recommendations;
- (d) to report internal audit matters to the board.

2. The internal audit function shall have the necessary authority, resources, expertise, and access to all relevant documents for the performance of its functions. It shall be sufficiently independent from the management and shall report directly to the board.

3. Internal audit shall assess the effectiveness of the CCP's risk management processes and control mechanisms in a manner that is proportionate to the risks faced by the different business lines and independent of the business areas assessed. The internal audit function shall have the necessary access to information in order to review all of the CCP's activities and operations, processes and systems, including outsourced activities.

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4. Internal audit assessments shall be based on a comprehensive audit plan that shall be reviewed and reported to the competent authority at least on an annual basis. The CCP shall ensure that special audits may be performed on an event-driven basis at short notice. Audit planning and review shall be approved by the board.

5. A CCP's clearing operations, risk management processes, internal control mechanisms and accounts shall be subject to independent audit. Independent audits shall be performed, at a least, on an annual basis.

CHAPTER IV

RECORD KEEPING

(Article 29 of Regulation (EU) No 648/2012)

*Article 12***General requirements**

1. A CCP shall keep records in a durable medium that allows information to be provided to the competent authorities, ESMA and relevant European System of Central Banks (ESCB) members, and in such a form and manner that the following conditions are met:

- (a) each key stage of the processing by the CCP may be reconstituted;
- (b) the original content of a record before any corrections or other amendments may be recorded, traced and retrieved;
- (c) measures to prevent unauthorised alteration of records are in place;
- (d) security and confidentiality of the data recorded are ensured through appropriate measures;
- (e) a mechanism for identifying and correcting errors is incorporated in the record keeping system;
- (f) the timely recovery of the records in the case of a system failure is ensured within the record keeping system.

2. Where records or information are less than six months old, they shall be provided to the authorities listed in paragraph 1 as soon as possible and at the latest by the end of the following business day following a request from the relevant authority.

3. Where records or information are older than six months, shall be provided to the authorities listed in paragraph 1 as soon as possible and within five business days following a request from the relevant authority.

4. Where the records processed by the CCP contain personal data CCPs shall have regard to their obligations under Directive 95/46/EC of the European Parliament and of the Council⁽¹⁾ and Regulation (EC) No 45/2001 of the European Parliament and of the Council⁽²⁾.

⁽¹⁾ OJ L 281, 23.11.1995, p. 31.

⁽²⁾ OJ L 8, 12.1.2001, p. 1.

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5. Where a CCP maintains records outside the Union, it shall ensure that the competent authority, ESMA and the relevant members of the ESCB are able to access the records to the same extent and within the same periods as if they were maintained within the Union.

6. Each CCP shall name the relevant persons who can, within the delay established in paragraphs 2 and 3 for the provision of the relevant records, explain the content of its records to the competent authorities.

7. All records required to be kept by a CCP under this Regulation shall be open to inspection by the competent authority. A CCP shall provide the competent authority with a direct data feed to the records required under Articles 13 and 14, when requested.

*Article 13***Transaction records**

1. A CCP shall maintain records of all transactions in all contracts it clears and shall ensure that its records include all information necessary to conduct a comprehensive and accurate reconstruction of the clearing process for each contract and that each record on each transaction is uniquely identifiable and searchable at least by all fields concerning the CCP, interoperable CCP, clearing member, client, if known to the CCP, and financial instrument.

2. In relation to every transaction received for clearing, a CCP shall, immediately upon receiving the relevant information, make and keep updated a record of the following details:

- (a) the price, rate or spread and quantity;
- (b) the clearing capacity, which identifies whether the transaction was a buy or sale from the perspective of the CCP recording;
- (c) the instrument identification;
- (d) the identification of the clearing member;
- (e) the identification of the venue where the contract was concluded;
- (f) the date and time of interposition of the CCP;
- (g) the date and time of termination of the contract;
- (h) the terms and modality of settlement;
- (i) the date and time of settlement or of buy-in of the transaction and to the extent they are applicable of the following details:
 - (i) the day and the time at which the contract was originally concluded;
 - (ii) the original terms and parties of the contract;

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- (iii) the identification of the interoperable CCP clearing one leg of the transaction, where applicable;
- (iv) the identity of the client, including any indirect client, where known to the CCP, and in case of a give-up, the identification of the party that transferred the contract.

*Article 14***Position records**

1. A CCP shall maintain records of positions held by each clearing member. Separate records shall be held for each account kept in accordance with Article 39 of Regulation (EU) No 648/2012 and the CCP shall ensure that its records include all information necessary to conduct a comprehensive and accurate reconstruction of the transactions that established the position and that each record is identifiable and searchable at least by all fields concerning the CCP, interoperable CCP, clearing member, client, if known to the CCP, and financial instrument.

2. At the end of each business day a CCP shall make a record in relation to each position including the following details, to the extent they are linked to the position in question:

- (a) the identification of the clearing member, of the client, if known to the CCP, and of any interoperable CCP maintaining such position, where applicable;
- (b) the sign of the position;
- (c) the daily calculation of the value of the position with records of the prices at which the contracts are valued, and of any other relevant information.

3. A CCP shall make, and keep updated, a record of the amounts of margins, default fund contributions and other financial resources referred to in Article 43 of Regulation (EU) No 648/2012, called by the CCP and the corresponding amount actually posted by the clearing member at the end of day and changes to that amount that may occur intraday, with respect to each single clearing member and client account if known to the CCP.

*Article 15***Business records**

1. A CCP shall maintain adequate and orderly records of activities related to its business and internal organisation.

2. The records referred to in paragraph 1 shall be made each time a material change in the relevant documents occurs and shall include at least:

- (a) the organisational charts for the board and relevant committees, clearing unit, risk management unit, and all other relevant units or divisions;

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- (b) the identities of the shareholders or members, whether direct or indirect, natural or legal persons, that have qualifying holdings and the amounts of those holdings;
- (c) the documents attesting the policies, procedures and processes required under Chapter III and Article 29;
- (d) the minutes of board meetings and, if applicable, of meetings of sub-committees of the board and of senior management committees;
- (e) the minutes of meetings of the risk committee;
- (f) the minutes of consultation groups with clearing members and clients, if any;
- (g) internal and external audit reports, risk management reports, compliance reports, and reports by consultant companies, including management responses;
- (h) the business continuity policy and disaster recovery plan, required under Article 17;
- (i) the liquidity plan and the daily liquidity reports, required under Article 32;
- (j) records reflecting all assets and liabilities and capital accounts as required under Article 16 of Regulation (EU) No 648/2012;
- (k) complaints received, with information on the complainant's name, address, and account number; the date the complaint was received; the name of all persons identified in the complaint; a description of the nature of the complaint; the disposition of the complaint, and the date the complaint was resolved;
- (l) records of any interruption of services or dysfunction, including a detailed report on the timing, effects and remedial actions;
- (m) records of the results of the back and stress tests performed;
- (n) written communications with competent authorities, ESMA and the relevant members of the ESCB;
- (o) legal opinions received in accordance with Chapter III;
- (p) where applicable, documentation regarding interoperability arrangements with other CCPs;
- (q) the information under Article 10(1)(b)(vii) and (1)(d);
- (r) the relevant documents describing the development of new business initiatives.

▼B*Article 16***Records of data reported to a trade repository**

A CCP shall identify and retain all information and data required to be reported in accordance with Article 9 of Regulation (EU) No 648/2012, along with a record of the date and time the transaction is reported.

CHAPTER V

BUSINESS CONTINUITY

(Article 34 of Regulation (EU) No 648/2012)

*Article 17***Strategy and policy**

1. A CCP shall have a business continuity policy and a disaster recovery plan which are approved by the board. The business continuity policy and the disaster recovery plan shall be subject to independent reviews which are reported to the board.

2. The business continuity policy shall identify all critical business functions and related systems, and include the CCP's strategy, policy, and objectives to ensure the continuity of these functions and systems.

3. The business continuity policy shall take into account external links and interdependencies within the financial infrastructure including trading venues cleared by the CCP, securities settlement and payment systems and credit institutions used by the CCP or a linked CCP. It shall also take into account critical functions or services which have been outsourced to third-party providers.

4. The business continuity policy and disaster recovery plan shall contain clearly defined and documented arrangements for use in the event of a business continuity emergency, disaster or crisis which are designed to ensure a minimum service level of critical functions.

5. The disaster recovery plan shall identify and include recovery point objectives and recovery time objectives for critical functions and determine the most suitable recovery strategy for each of these functions. Such arrangements shall be designed to ensure that in extreme scenarios critical functions are completed on time and that agreed service levels are met.

6. A CCP's business continuity policy shall identify the maximum acceptable time for which critical functions and systems may be unusable. The maximum recovery time for the CCP's critical functions to be included in the business continuity policy shall not be higher than two hours. End of day procedures and payments shall be completed on the required time and day in all circumstances.

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7. A CCP shall take into account the potential overall impact on market efficiency in determining the recovery times for each function.

*Article 18***Business impact analysis**

1. A CCP shall conduct a business impact analysis which is designed to identify the business functions which are critical to ensure the services of the CCP. The criticality of these functions to other institutions and functions in the financial infrastructure shall be part of the analysis.

2. A CCP shall use scenario based risk analysis which is designed to identify how various scenarios affect the risks to its critical business functions.

3. In assessing risks, a CCP shall take into account dependencies on external providers, including utilities services. A CCP shall take action to manage such dependencies through appropriate contractual and organisational arrangements.

4. Business impact analysis and scenario analysis shall be kept up to date, shall be reviewed at least on an annual basis and following an incident or significant organisational changes. The analyses shall take into account all relevant developments, including market and technology developments.

*Article 19***Disaster recovery**

1. A CCP shall have in place arrangements to ensure continuity of its critical functions based on disaster scenarios. These arrangements shall at least address the availability of adequate human resources, the maximum downtime of critical functions, and fail over and recovery to a secondary site.

2. A CCP shall maintain a secondary processing site capable of ensuring continuity of all critical functions of the CCP identical to the primary site. The secondary site shall have a geographical risk profile which is distinct from that of the primary site.

3. A CCP shall maintain or have an immediate access to a secondary business site, at least, to allow staff to ensure continuity of the service if the primary location of business is not available.

4. The need for additional processing sites shall be considered by the CCP, in particular if the diversity of the risk profiles of the primary and secondary sites does not provide sufficient confidence that the CCP's business continuity objectives will be met in all scenarios.

▼B*Article 20***Testing and monitoring**

1. A CCP shall test and monitor its business continuity policy and disaster recovery plan at regular intervals and after significant modifications or changes to the systems or related functions to ensure the business continuity policy achieves the stated objectives including the two hour maximum recovery time objective. Tests shall be planned and documented.

2. Testing of the business continuity policy and disaster recovery plan shall fulfil the following conditions:
 - (a) involve scenarios of large scale disasters and switchovers between primary and secondary sites;

 - (b) include involvement of clearing members, external providers and relevant institutions in the financial infrastructure with which interdependencies have been identified in the business continuity policy.

*Article 21***Maintenance**

1. A CCP shall regularly review and update its business continuity policy to include all critical functions and the most suitable recovery strategy for them.

2. A CCP shall regularly review and update its disaster recovery plan to include the most suitable recovery strategy for all critical functions.

3. Updates to the business continuity policy and disaster recovery plan shall take into consideration the outcome of the tests and recommendations of independent reviews and other reviews and of competent authorities. CCPs shall review their business continuity policy and disaster recovery plan after every significant disruption, to identify the causes and any required improvements to the CCP's operations, business continuity policy and disaster recovery plan.

*Article 22***Crisis management**

1. A CCP shall have a crisis management function to act in case of an emergency. The crisis management procedure shall be clear and documented in writing. The board shall monitor the crisis management function and regularly receive and review reports on it.

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2. The crisis management function shall contain well-structured and clear procedures to manage internal and external crisis communications during a crisis event.

3. Following a crisis event, the CCP shall undertake a review of its handling of the crisis. The review shall, where relevant, incorporate contributions from clearing members and other external stakeholders.

*Article 23***Communication**

1. A CCP shall have a communication plan which documents the way in which the senior management, the board and relevant external stakeholders, including competent authorities, clearing members, clients, settlement agents, securities settlement and payment systems and trading venues, will be kept adequately informed during a crisis.

2. Scenario analysis, risk analysis, reviews and results of monitoring and tests shall be reported to the board.

CHAPTER VI

MARGINS

(Article 41 of Regulation (EU) No 648/2012)

*Article 24***Percentage**

1. A CCP shall calculate the initial margins to cover the exposures arising from market movements for each financial instrument that is collateralised on a product basis, over the time period defined in Article 25 and assuming a time horizon for the liquidation of the position as defined in Article 26. For the calculation of initial margins the CCP shall at least respect the following confidence intervals:

- (a) for OTC derivatives, 99,5 %;
- (b) for financial instruments other than OTC derivatives, 99 %.

2. For the determination of the adequate confidence interval for each class of financial instruments it clears, a CCP shall in addition consider at least the following factors:

- (a) the complexities and level of pricing uncertainties of the class of financial instruments which may limit the validation of the calculation of initial and variation margin;
- (b) the risk characteristics of the class of financial instruments, which can include, but are not limited to, volatility, duration, liquidity, non-linear price characteristics, jump to default risk and wrong way risk;
- (c) the degree to which other risk controls do not adequately limit credit exposures;

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(d) the inherent leverage of the class of financial instruments, including whether the class of financial instrument is significantly volatile, is highly concentrated among a few market players or may be difficult to close out.

3. The CCP shall inform its competent authority and its clearing members on the criteria considered to determine the percentage applied to the calculation of the margins for each class of financial instruments.

4. Where a CCP clears OTC derivatives that have the same risk characteristics as derivatives executed on regulated markets or an equivalent third country market, on the basis of an assessment of the risk factors set out in paragraph 2, the CCP may use an alternative confidence interval of at least 99 % for those contracts if the risks of OTC derivatives contracts it clears are appropriately mitigated using such confidence interval and the conditions in paragraph 2 are respected.

*Article 25***Time horizon for the calculation of historical volatility**

1. A CCP shall ensure that according to its model methodology and its validation process established in accordance with Chapter XII, initial margins cover at least with the confidence interval defined in Article 24 and for the liquidation period defined in Article 26 the exposures resulting from historical volatility calculated based on data covering at least the latest 12 months.

A CCP shall ensure that the data used for calculating historical volatility capture a full range of market conditions, including periods of stress.

2. A CCP may use any other time horizon for the calculation of historical volatility provided that the use of such time horizon results in margin requirements at least as high as those obtained with the time period defined in paragraph 1.

3. Margin parameters for financial instruments without a historical observation period shall be based on conservative assumptions. A CCP shall promptly adapt the calculation of the required margins based on the analysis of the price history of the new financial instruments.

*Article 26***Time horizons for the liquidation period****▼MI**

1. For the purposes of Article 41 of Regulation (EU) No 648/2012, a CCP shall determine the appropriate time horizons for the liquidation period taking into account the characteristics of the financial instrument cleared, of the type of account in which the financial instrument is held, of the market where the financial instrument is traded, and the following minimum time horizons for the liquidation period:

(a) five business days for OTC derivatives;

▼ M1

- (b) two business days for financial instruments other than OTC derivatives held in accounts not meeting the conditions laid down in point (c);
- (c) one business day for financial instruments other than OTC derivatives held in omnibus client accounts or in individual client accounts provided that the following conditions are met:
 - (i) the CCP keeps separate records of the positions of each client at least at the end of each day, calculates the margins in respect of each client, and collects the sum of the margin requirements applicable to each client on a gross basis;
 - (ii) the identity of all the clients is known to the CCP;
 - (iii) the positions held in the account are not proprietary positions of undertakings of the same group as the clearing member;
 - (iv) the CCP measures the exposures and calculates for each account initial and variation margin requirements on a near to real-time basis and at least every one hour during the day using updated positions and prices;
 - (v) where the CCP does not allocate new trades to each client during the day, the CCP collects the margins within one hour where the margin requirements calculated in accordance with point (iv) are higher than 110 % of the updated available collateral in accordance with Chapter X, unless the amount of the intraday margins to be paid to the CCP is not material on the basis of predefined amount defined by the CCP and agreed by the competent authority, and to the extent that trades previously allocated to clients are margined separately from trades that are not allocated during the day.

2. In all cases, for determining the appropriate time horizons for the liquidation period, the CCP shall evaluate and sum at least the following:

- (a) the longest possible period that may elapse from the last collection of margins up to the declaration of default by the CCP or activation of the default management process by the CCP;
- (b) the estimated period needed to design and execute the strategy for the management of the default of a clearing member according to the particularities of each class of financial instrument, including its level of liquidity and the size and concentration of the positions, and the markets the CCP will use to close-out or hedge completely a clearing member position;
- (c) where relevant, the period needed to cover the counterparty risk to which the CCP is exposed.

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3. In evaluating the periods defined in paragraph 2, the CCP shall consider at least the factors indicated in Article 24(2) and the time period for the calculation of the historical volatility as defined in Article 25.

4. Where a CCP clears OTC derivatives that have the same risk characteristics as derivatives executed on regulated markets or an equivalent third country market, it may use a time horizon for the liquidation period different from the one specified in paragraph 1, provided that it can demonstrate to its competent authority that:

(a) such time horizon would be more appropriate than that specified in paragraph 1 in view of the specific features of the relevant OTC derivatives;

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(b) such time horizon is at least two business days, or one business day where the conditions laid down in paragraph 1(c) are met.

▼B*Article 27***Portfolio margining**

1. A CCP may allow offsets or reductions in the required margin across the financial instruments that it clears if the price risk of one financial instrument or a set of financial instruments is significantly and reliably correlated, or based on equivalent statistical parameter of dependence, with the price risk of other financial instruments.

2. The CCP shall document its approach on portfolio margining and it shall at least provide that the correlation, or an equivalent statistical parameter of dependence, between two or more financial instruments cleared is shown to be reliable over the lookback period calculated in accordance with Article 25 and demonstrates resilience during stressed historical or hypothetical scenarios. The CCP shall demonstrate the existence of an economic rationale for the price relation.

3. All financial instruments to which portfolio margining is applied shall be covered by the same default fund. By way of derogation, if a CCP can demonstrate in advance to its competent authority and to its clearing members how potential losses would be allocated among different default funds and has set out the necessary provisions in its rules, portfolio margining may be applied to financial instruments covered by different default funds.

4. Where portfolio margining covers multiple instruments, the amount of margin reductions shall be no greater than 80 % of the difference between the sum of the margins for each product calculated on an individual basis and the margin calculated based on a combined estimation of the exposure for the combined portfolio. Where the CCP is not exposed to any potential risk from the margin reduction, it may apply a reduction of up to 100 % of that difference.

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5. The margin reductions related to portfolio margining shall be subject to a sound stress test programme in accordance with Chapter XII.

*Article 28***Procyclicality**

1. A CCP shall ensure that its policy for selecting and revising the confidence interval, the liquidation period and the lookback period deliver forward looking, stable and prudent margin requirements that limit procyclicality to the extent that the soundness and financial security of the CCP is not negatively affected. This shall include avoiding when possible disruptive or big step changes in margin requirements and establishing transparent and predictable procedures for adjusting margin requirements in response to changing market conditions. In doing so, the CCP shall employ at least one of the following options:

- (a) applying a margin buffer at least equal to 25 % of the calculated margins which it allows to be temporarily exhausted in periods where calculated margin requirements are rising significantly;
- (b) assigning at least 25 % weight to stressed observations in the lookback period calculated in accordance with Article 26;
- (c) ensuring that its margin requirements are not lower than those that would be calculated using volatility estimated over a 10 year historical lookback period.

2. When a CCP revises the parameters of the margin model in order to better reflect current market conditions, it shall take into account any potential procyclical effects of such revision.

CHAPTER VII

DEFAULT FUND

(Article 42 of Regulation (EU) No 648/2012)

*Article 29***Framework and governance**

1. To determine the minimum size of default fund and amount of other financial resources necessary to satisfy the requirements of Articles 42 and 43 of Regulation (EU) No 648/2012, taking into account group dependencies, a CCP shall implement an internal policy framework for defining the types of extreme but plausible market conditions that could expose it to greatest risk.

2. The framework shall include a statement describing how the CCP defines extreme but plausible market conditions. It shall be fully documented and retained in accordance with Article 12.

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3. The framework shall be discussed by the risk committee and approved by the board. The robustness of the framework and its ability to reflect market movements shall be subject to at least an annual review. The review shall be discussed by the risk committee and reported to the board.

*Article 30***Identifying extreme but plausible market conditions**

1. The framework described in Article 29 shall reflect the risk profile of the CCP, taking account of cross-border and cross-currency exposures where relevant. It shall identify all the market risks to which a CCP would be exposed following the default of one or more clearing member, including unfavourable movements in the market prices of cleared instruments, reduced market liquidity for these instruments, and declines in the liquidation value of collateral. The framework shall also reflect additional risks to the CCP arising from the simultaneous failure of entities in the group of the defaulting clearing member.

2. The framework shall individually identify all the markets to which a CCP is exposed in a clearing member default scenario. For each identified market the CCP shall specify extreme but plausible conditions based at least on:

- (a) a range of historical scenarios, including periods of extreme market movements observed over the past 30 years, or as long as reliable data have been available, that would have exposed the CCP to greatest financial risk. If a CCP decides that recurrence of a historical instance of large price movements is not plausible, it shall justify its omission from the framework to the competent authority;
- (b) a range of potential future scenarios, founded on consistent assumptions regarding market volatility and price correlation across markets and financial instruments, drawing on both quantitative and qualitative assessments of potential market conditions.

3. The framework shall also consider, quantitatively and qualitatively, the extent to which extreme price movements could occur in multiple identified markets simultaneously. The framework shall recognise that historical price correlations may breakdown in extreme but plausible market conditions.

*Article 31***Reviewing extreme but plausible scenarios**

The procedures described in Article 30 shall be reviewed by the CCP on a regular basis, taking into account all relevant market developments and the scale and concentration of clearing member exposures. The set of historical and hypothetical scenarios used by a CCP to identify extreme but plausible market conditions shall be reviewed by the CCP, in consultation with the risk committee, at least annually and more frequently when market developments or material changes to the set of contracts cleared by the CCP affect the assumptions underlying the scenarios and so require an adjustment to the scenarios. Material changes to the framework shall be reported to the board.



CHAPTER VIII

LIQUIDITY RISK CONTROLS

(Article 44 of Regulation (EU) No 648/2012)

*Article 32***Assessment of liquidity risk**

1. A CCP shall establish a robust liquidity risk management framework which shall include effective operational and analytical tools to identify, measure and monitor its settlement and funding flows on an ongoing and timely basis, including its use of intraday liquidity. CCPs shall regularly assess the design and operation of their liquidity management framework, including considering the results of the stress tests.

2. A CCP's liquidity risk management framework shall be adequately robust to ensure that the CCP is able to effect payment and settlement obligations in all relevant currencies as they fall due, including where appropriate intraday. A CCP's liquidity risk management framework shall also include the assessment of its potential future liquidity needs under a wide range of potential stress scenarios. Stress scenario shall include the default of clearing members according to Article 44 of Regulation (EU) No 648/2012 from the date of a default until the end of a liquidation period and the liquidity risk generated by the CCP's investment policy and procedures in extreme but plausible market conditions.

3. The liquidity risk management framework shall include a liquidity plan which is documented and retained in accordance with Article 12. The minimum content of the liquidity plan shall include the CCP's procedures for:

- (a) managing and monitoring, at least on a daily basis, its liquidity needs across a range of market scenarios;
- (b) maintaining sufficient liquid financial resources to cover its liquidity needs and distinguish among the use of the different types of liquid resources;
- (c) the daily assessment and valuation of the liquid assets available to the CCP and its liquidity needs;
- (d) identifying sources of liquidity risk;
- (e) assessing timescales over which the CCP's liquid financial resources should be available;
- (f) considering potential liquidity needs stemming from clearing members ability to swap cash for non-cash collateral;
- (g) the processes in the event of liquidity shortfalls;
- (h) the replenishment of any liquid financial resources it may employ during a stress event.

The board of the CCP shall approve the plan after consulting the risk committee.

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4. A CCP shall assess the liquidity risk it faces including where the CCP or its clearing members cannot settle their payment obligations when due as part of the clearing or settlement process, taking also into account the investment activity of the CCP. The risk management framework shall address the liquidity needs stemming from the CCP's relationships with any entity towards which the CCP has a liquidity exposure including:

- (a) settlement banks;
- (b) payments systems;
- (c) securities settlement systems;
- (d) nostro agents;
- (e) custodian banks;
- (f) liquidity providers;
- (g) interoperable CCPs;
- (h) service providers.

5. A CCP shall take into account any interdependencies across the entities listed in paragraph 4 and multiple relationships that an entity listed in paragraph 4 may have with a CCP in its liquidity risk management framework.

6. A CCP shall establish a daily report on the needs and resources under points (a), (b) and (c) of paragraph 3 and a quarterly report on its liquidity plan under points (d) to (h) of paragraph 3. The reports shall be documented and retained in accordance with Chapter IV.

*Article 33***Access to liquidity**

1. A CCP shall maintain, in each relevant currency, liquid resources commensurate with its liquidity requirements, defined in accordance with Article 44 of Regulation (EU) No 648/2012 and Article 32 of this Regulation. These liquid resources shall be limited to:

- (a) cash deposited at a central bank of issue;
- (b) cash deposited at authorised credit institutions in accordance with Article 47;
- (c) committed lines of credit or equivalent arrangements with non-defaulting clearing members;
- (d) committed repurchase agreements;
- (e) highly marketable financial instruments that satisfy the requirements of Article 45 and Article 46 and that the CCP can demonstrate are readily available and convertible into cash on a same-day basis using prearranged and highly reliable funding arrangements, including in stressed market conditions.

2. A CCP shall have regard to the currencies in which its liabilities are denominated and shall take into account the potential effect of stressed conditions on its ability to access foreign exchange markets in a manner consistent with the securities settlement cycles of foreign exchange and securities settlement systems.

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3. Committed lines of credit against collateral provided by clearing members shall not be double-counted as liquid resources. A CCP shall take action to monitor and control the concentration of liquidity risk exposures to individual liquidity providers.

4. A CCP shall conduct rigorous due diligence that its liquidity providers have enough capacity to perform according to the liquidity arrangements.

5. A CCP shall periodically test its procedures to access pre-arranged funding arrangements. This may include drawing down test amounts of the commercial lines of credit, to check the speed of access to the resources and reliability of procedures.

6. A CCP shall have detailed procedures within its liquidity plan for using its liquid financial resources to fulfil its payment obligations during a liquidity shortfall. The liquidity procedures shall clearly state when certain resources should be used. The procedures shall also describe how to access cash deposits or overnight investments of cash deposits, how to execute same-day market transactions, or how to draw on prearranged liquidity lines. These procedures shall be regularly tested. A CCP shall also establish an adequate plan for the renewal of funding arrangements in advance of their expiration.

*Article 34***Concentration risk**

1. A CCP shall closely monitor and control the concentration of its liquidity risk exposure, including its exposures to the entities listed in Article 32(4) and to entities in the same group.

2. A CCP's liquidity risk management framework shall include the application of exposure and concentration limits.

3. A CCP shall define processes and procedures for breaches of concentration limits.

CHAPTER IX

DEFAULT WATERFALL

(Article 45 of Regulation (EU) No 648/2012)

*Article 35***Calculation of the amount of the CCP's own resources to be used in the default waterfall**

1. A CCP shall keep, and indicate separately in its balance sheet, an amount of dedicated own resources for the purpose set out in Article 45(4) of Regulation (EU) No 648/2012.

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2. A CCP shall calculate the minimum amount referred to in paragraph 1 by multiplying the minimum capital, including retained earnings and reserves, held in accordance with Article 16 of Regulation (EU) No 648/2012 and Commission Delegated Regulation (EU) No 152/2013 ⁽¹⁾ by 25 %.

The CCP shall revise that minimum amount on a yearly basis.

3. Where the CCP has established more than one default fund for the different classes of financial instruments it clears, the total dedicated own resources calculated under paragraph 1 shall be allocated to each of the default funds in proportion to the size of each default fund, to be separately indicated in its balance sheet and used for defaults arising in the different market segments to which the default funds refer to.

4. No resources other than capital, including retained earnings and reserves, as referred to in Article 16 of Regulation (EU) No 648/2012 shall be used to comply with the requirement under paragraph 1.

*Article 36***Maintenance of the amount of the CCP's own resources to be used in the default waterfall**

1. A CCP shall immediately inform the competent authority if the amount of dedicated own resources held falls below the amount required in Article 35, together with the reasons for the breach and a comprehensive description in writing of the measures and the timetable for the replenishment of such amount.

2. Where a subsequent default of one or more clearing members occurs before the CCP has reinstated the dedicated own resources, only the residual amount of the allocated dedicated own resources shall be used for the purpose of Article 45 of Regulation (EU) No 648/2012.

3. A CCP shall reinstate the dedicated own resource at the least within one month from the notification under paragraph 1.

CHAPTER X

COLLATERAL

(Article 46 of Regulation (EU) No 648/2012)

*Article 37***General requirements**

A CCP shall establish and implement transparent and predictable policies and procedures to assess and continuously monitor the liquidity of assets accepted as collateral and take remedial action where appropriate.

⁽¹⁾ See page 37 of this Official Journal.

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A CCP shall review its eligible asset policies and procedures at least annually. Such a review shall also be carried out whenever a material change occurs that affects the CCP's risk exposure.

*Article 38***Cash collateral**

For the purposes of Article 46(1) of Regulation (EU) No 648/2012, highly liquid collateral in the form of cash shall be denominated in one of the following:

- (a) a currency for which the CCP can demonstrate to the competent authorities that it is able to adequately manage the risk;
- (b) a currency in which the CCP clears transactions, in the limit of the collateral required to cover the CCP's exposures in that currency.

*Article 39***Financial instruments**

For the purposes of Article 46(1) of Regulation (EU) No 648/2012, financial instruments, bank guarantees and gold that meet the conditions set out in Annex I shall be considered as, highly liquid collateral.

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Until 29 November 2023, for the purposes of Article 46(1) of Regulation (EU) No 648/2012, public guarantees that meet the conditions set out in Annex I shall be considered as highly liquid collateral.

▼B*Article 40***Valuing collateral**

1. For the purposes of valuing highly liquid collateral as defined in Article 37, a CCP shall establish and implement policies and procedures to monitor on a near to real time basis the credit quality, market liquidity and price volatility of each asset accepted as collateral. A CCP shall monitor on a regular basis, and at least annually, the adequacy of its valuation policies and procedures. Such review shall also be carried out whenever a material change occurs that affects the CCP's risk exposure.

2. A CCP shall mark-to-market its collateral on a near to real time basis and, where not possible, a CCP shall be able to demonstrate to the competent authorities that it is able to manage the risks.

*Article 41***Haircuts**

1. A CCP shall establish and implement policies and procedures to determine prudent haircuts to apply to collateral value.

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2. Haircuts shall recognise that collateral may need to be liquidated in stressed market conditions and take into account the time required to liquidate it. The CCP shall demonstrate to the competent authority that haircuts are calculated in a conservative manner to limit as far as possible procyclical effects. For each collateral asset, the haircut shall be determined taking in consideration the relevant criteria, including:

- (a) the type of asset and level of credit risk associated with the financial instrument based upon internal assessment by the CCP. In performing such assessment the CCP shall employ a defined and objective methodology that shall not fully rely on external opinions and that takes into consideration the risk arising from the establishment of the issuer in a particular country;
- (b) the maturity of the asset;
- (c) the historical and hypothetical future price volatility of the asset in stressed market conditions;
- (d) the liquidity of the underlying market, including bid/ask spreads;
- (e) the foreign exchange risk, if any;
- (f) wrong-way risk.

3. A CCP shall monitor on a regular basis the adequacy of the haircuts. A CCP shall review the haircut policies and procedures at least annually and whenever a material change occurs that affects the CCP risk exposure, but should avoid as far as possible disruptive or big step changes in haircuts that could introduce procyclicality. The haircut policies and procedures shall be independently validated at least annually.

*Article 42***Concentration limits**

1. A CCP shall establish and implement policies and procedures to ensure that the collateral remains sufficiently diversified to allow its liquidation within a defined holding period without a significant market impact. The policies and the procedures shall determine the risk mitigation measures to be applied when the concentration limits specified in paragraph 2 are exceeded.

2. A CCP shall determine concentration limits at the level of:

- (a) individual issuers;
- (b) type of issuer;
- (c) type of asset;

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(d) each clearing member;

(e) all clearing members.

3. Concentration limits shall be determined in a conservative manner taking into account all relevant criteria, including:

(a) financial instruments issued by issuers of the same type in terms of economic sector, activity, geographic region;

(b) the level of credit risk of the financial instrument or of the issuer based upon an internal assessment by the CCP. In performing such assessment the CCP shall employ a defined and objective methodology that shall not fully rely on external opinions and that takes into consideration the risk arising from the establishment of the issuer in a particular country;

(c) the liquidity and the price volatility of the financial instruments.

4. A CCP shall ensure that no more than 10 % of its collateral is guaranteed by a single credit institution, or equivalent third country financial institution, or by an entity that is part of the same group as the credit institution or third country financial institution. Where the collateral received by the CCP in the form of commercial bank guarantees is higher than 50 % of the total collateral, this limit may be set up to 25 %.

5. In calculating the limits provided for in paragraph 2, a CCP shall include the total exposure of a CCP to an issuer, including the amount of the cumulative credit lines, certificates of deposit, time deposits, savings accounts, deposit accounts, current accounts, money-market instruments, and reverse repurchase facilities utilised by the CCP. These limits shall not apply to collateral held by the CCP in excess of the minimum requirements for margins, default fund or other financial resources.

6. When determining the concentration limit for a CCP's exposure to an individual issuer, a CCP shall aggregate and treat as a single risk its exposure to all financial instruments issued by the issuer or by a group entity, explicitly guaranteed by the issuer or by a group entity, and to financial instruments issued by undertakings whose exclusive purpose is to own means of production that are essential for the issuer's business.

7. A CCP shall monitor on a regular basis the adequacy of its concentration limit policies and procedures. A CCP shall review its concentration limit policy and procedure at least annually and whenever a material change occurs that affects the risk exposure of the CCP.

8. A CCP shall inform the competent authority and the clearing members of the applicable concentration limits and of any amendment to these limits.

9. If the CCP materially breaches a concentration limit set out in its policies and procedures, it shall inform the competent authority immediately. The CCP shall rectify the breach as soon as possible.



CHAPTER XI

INVESTMENT POLICY

(Article 47 of Regulation (EU) No 648/2012)

*Article 43***Highly liquid financial instruments**

For the purposes of Article 47(1) of Regulation (EU) No 648/2012, debt instruments can be considered highly liquid, bearing minimal credit and market risk if they are debt instruments meeting each of the conditions set out in Annex II.

*Article 44***Highly secured arrangements for the deposit of financial instruments**

1. If a CCP is unable to deposit the financial instruments referred to in Article 45 or those posted to it as margins, default fund contributions or contributions to other financial resources, both by way of title transfer and security interest, with the operator of a securities settlement system that ensures the full protection of those instruments then such financial instruments shall be deposited with any of the following:

- (a) a central bank that ensures the full protection of those instruments and that enables the CCP prompt access to the financial instruments when required;
- (b) an authorised credit institution as defined under Directive 2006/48/EC of the European Parliament and of the Council⁽¹⁾ that ensures the full segregation and protection of those instruments, enables the CCP prompt access to the financial instruments when required and that the CCP can demonstrate has low credit risk based upon an internal assessment by the CCP. In performing such an assessment, the CCP shall employ a defined and objective methodology that shall not fully rely on external opinions and that takes into consideration the risk arising from the establishment of the issuer in a particular country;
- (c) a third country financial institution that is subject to and complies with prudential rules considered by the relevant competent authorities to be at least as stringent as those laid down in Directive 2006/48/EC and which has robust accounting practices, safekeeping procedures, and internal controls and that ensures the full segregation and protection of those instruments, enables the CCP prompt access to the financial instruments when required and that the CCP can demonstrate to have low credit risk based upon an internal assessment by the CCP. In performing such an assessment, the CCP shall employ a defined and objective methodology that shall not fully rely on external opinions and that takes into consideration the risk arising from the establishment of the issuer in a particular country.

⁽¹⁾ OJ L 177, 30.6.2006, p. 1.

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2. Where financial instruments are deposited in accordance with letter (b) or (c) of paragraph 1, they shall be held under arrangements that prevent any losses to the CCP due to the default or insolvency of the authorised financial institution.

3. Highly secured arrangements for the deposit of financial instruments posted as margins, default fund contributions or contributions to other financial resources shall only allow the CCP to re-use these financial instruments where the conditions in Article 39(8) of Regulation (EU) No 648/2012 are met and where the purpose of the reuse is for making payments, managing the default of a clearing member or in the execution of an interoperable arrangement.

*Article 45***Highly secured arrangements maintaining cash**

1. For the purposes of Article 47(4) of Regulation (EU) No 648/2012, where cash is deposited other than with a central bank then such deposit shall meet each of the following conditions:

- (a) the deposit is in one of the following currencies:
 - (i) a currency the risks of which the CCP can demonstrate with a high level of confidence that it is able to manage;
 - (ii) a currency in which the CCP clears transactions, in the limit of the collateral received in that currency;
- (b) the deposit shall be placed with one of the following entities:
 - (i) an authorised credit institution as defined under Directive 2006/48/EC that the CCP can demonstrate to have low credit risk based upon an internal assessment by the CCP. In performing such assessment the CCP shall employ a defined and objective methodology that shall not fully rely on external opinions and that takes into consideration the risk arising from the establishment of the issuer in a particular country;
 - (ii) a third country financial institution that is subject to and complies with prudential rules considered by the competent authorities to be at least as stringent as those laid down in Directive 2006/48/EC and which has robust accounting practices, safekeeping procedures, and internal controls and that the CCP can demonstrate to have low credit risk based upon an internal based upon an internal assessment by the CCP. In performing such assessment the CCP shall employ a defined and objective methodology that shall not fully rely on external opinions and that takes into consideration the risk arising from the establishment of the issuer in a particular country.

2. Where cash is maintained overnight in accordance with paragraph 1 then not less than 95 % of such cash, calculated over an average period of one calendar month, shall be deposited through arrangements that ensure the collateralisation of the cash with highly liquid financial instruments meeting the requirements under Article 45, except the requirement at paragraph 1(c) of that Article.

▼B*Article 45***Concentration limits**

1. A CCP shall establish and implement policies and procedures to ensure that the financial instruments in which its financial resources are invested remain sufficiently diversified.
2. A CCP shall determine concentration limits and monitor the concentration of its financial resources at the level of:
 - (a) individual financial instruments;
 - (b) types of financial instruments;
 - (c) individual issuers;
 - (d) types of issuers;
 - (e) counterparties with which arrangements as provided for in points (b) and (c) of Article 44(1) or in Article 45(2) are established.
3. When considering types of issuers a CCP shall take into account the following:
 - (a) geographic distribution;
 - (b) interdependencies and multiple relationships that an entity may have with a CCP;
 - (c) the level of credit risk;
 - (d) exposures the CCP have to the issuer through products cleared by the CCP.
4. The policies and the procedures shall determine the risk mitigation measures to be applied when the concentration limits are exceeded.
5. When determining the concentration limit for a CCP's exposure to an individual issuer or custodian, a CCP shall aggregate and treat as a single risk, the exposure to all financial instruments issued by, or explicitly guaranteed by, the issuer and all financial resources deposited with the custodian.
6. A CCP shall monitor on a regular basis the adequacy of its concentration limit policies and procedures. In addition, a CCP shall review its concentration limit policy and procedure at least annually and whenever a material change occurs that affects the risk exposure of the CCP.
7. If the CCP breaches a concentration limit set out in its policies and procedures, it shall inform the competent authority immediately. The CCP shall rectify the breach as soon as possible.

▼B*Article 46***Non-cash collateral**

Where collateral is received in the form of financial instruments in accordance with the provisions of Chapter X, only Articles 44 and 45 shall apply.

CHAPTER XII

REVIEW OF MODELS, STRESS TESTING AND BACK TESTING

(Article 49 Regulation (EU) No 648/2012)

*SECTION 1****Models and programmes****Article 47***Model Validation**

1. A CCP shall conduct a comprehensive validation of its models, their methodologies and the liquidity risk management framework used to quantify, aggregate, and manage its risks. Any material revisions or adjustments to its models, their methodologies and the liquidity risk management framework shall be subject to appropriate governance, including seeking advice from the risk committee, and validated by a qualified and independent party prior to application.

2. A CCP's validation process shall be documented and at least shall specify the policies used to test the CCP's margin, default fund and other financial resources methodologies and framework for calculating liquid financial resources. Any material revisions or adjustments to such policies shall be subject to appropriate governance, including seeking advice from the risk committee, and validated by a qualified and independent party prior to application.

3. A comprehensive validation shall, at least, include the following:

- (a) an evaluation of the conceptual soundness of the models and framework, including developmental supporting evidence;
- (b) a review of the ongoing monitoring procedures, including verification of processes and benchmarking;
- (c) a review of the parameters and assumptions made in the development of its models, their methodologies and the framework;
- (d) a review of the adequacy and appropriateness of the models, their methodologies and framework adopted in respect of the type of contracts they apply to;

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(e) a review of the appropriateness of its stress testing scenarios in accordance with Chapter VII and Article 52;

(f) an analysis of the outcomes of testing results.

4. A CCP shall establish the criteria against which it assesses whether its models, their methodologies and liquidity risk management framework can be successfully validated. The criteria shall include successful testing results.

5. Where pricing data is not readily available or reliable, a CCP shall address such pricing limitations and, at least, adopt conservative assumptions based on observed correlated or related markets and current behaviours of the market.

6. Where pricing data is not readily available or reliable, the systems and valuation models used for this purpose shall be subject to appropriate governance, including seeking advice from the risk committee, and validation and testing. A CCP shall have its valuation models validated under a variety of market scenarios by a qualified and independent party to ensure that its models accurately produces appropriate prices, and where appropriate, it shall adjust its calculation of initial margins to reflect any identified model risk.

7. A CCP shall regularly conduct an assessment of the theoretical and empirical properties of its margin model for all the financial instruments that it clears.

*Article 48***Testing programmes**

1. A CCP shall have in place policies and procedures that detail the stress and back testing programmes it undertakes to assess the appropriateness, accuracy, reliability and resilience of the models and their methodologies used to calculate its risk control mechanisms including margin, default fund contributions, and other financial resources in a wide range of market conditions.

2. A CCP's policies and procedures shall also detail the stress testing programme it undertakes to assess the appropriateness, accuracy, reliability and resilience of the liquidity risk management framework.

3. The policies and procedures shall include at least methodologies for the inclusion of the selection and development of appropriate testing, including portfolio and market data selection, the regularity of the tests, the specific risk characteristics of the financial instruments cleared, the analysis of testing results and exceptions and the relevant corrective measures needed.

4. A CCP shall include any client positions when performing all tests.

▼B*SECTION 2****Back testing****Article 49***Back testing procedure**

1. A CCP shall assess its margin coverage by performing an *ex-post* comparison of observed outcomes with expected outcomes derived from the use of margin models. Such back testing analysis shall be performed each day in order to evaluate whether there are any testing exceptions to margin coverage. Coverage shall be evaluated on current positions for financial instruments, clearing members and take into account possible effects from portfolio margining and, where appropriate, interoperable CCPs.
2. A CCP shall consider the appropriate historical time horizons for its back testing programme to ensure that the observation window used is sufficient enough to mitigate any detrimental effect on the statistical significance.
3. A CCP shall consider in its back testing programme, at least, clear statistical tests, and performance criteria to be defined by CCPs for the assessment of back testing results.
4. A CCP shall periodically report its back testing results and analysis in a form that does not breach confidentiality to the risk committee in order to seek their advice in the review of its margin model.
5. Back testing results and analysis shall be made available to all clearing members and, where known to the CCP, clients. For all other clients back testing results and analysis shall be made available by the relevant clearing members on request. Such information shall be aggregated in a form that does not breach confidentiality and clearing members and clients shall only have access to detailed back testing results and analysis for their own portfolios.
6. A CCP shall define the procedures to detail the actions it could take given the results of back testing analysis.

*SECTION 3****Sensitivity testing and analysis****Article 50***Sensitivity testing and analysis procedure**

1. A CCP shall conduct sensitivity tests and analysis to assess the coverage of its margin model under various market conditions using historical data from realised stressed market conditions and hypothetical data for unrealised stressed market conditions.

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2. A CCP shall use a wide range of parameters and assumptions to capture a variety of historical and hypothetical conditions, including the most-volatile periods that have been experienced by the markets it serves and extreme changes in the correlations between prices of contracts cleared by the CCP, in order to understand how the level of margin coverage might be affected by highly stressed market conditions and changes in important model parameters.

3. Sensitivity analysis shall be performed on a number of actual and representative clearing member portfolios. The representative portfolios shall be chosen based on their sensitivity to the material risk factors and correlations to which the CCP is exposed. Such sensitivity testing and analysis shall be designed to test the key parameters and assumptions of the initial margin model at a number of confidence intervals to determine the sensitivity of the system to errors in the calibration of such parameters and assumptions. Appropriate consideration shall be given to the term structure of the risk factors, and the assumed correlation between risk factors.

4. A CCP shall evaluate the potential losses in clearing member positions.

5. A CCP shall, where applicable, consider parameters reflective of the simultaneous default of clearing members that issue financial instruments cleared by the CCP or the underlying of derivatives cleared by the CCP. Where applicable, the effects of a client's default that issues financial instruments cleared by the CCP or the underlying of derivatives cleared by the CCP shall also be considered.

6. A CCP shall periodically report its sensitivity testing results and analysis in a form that does not breach confidentiality to the risk committee in order to seek its advice in the review of its margin model.

7. A CCP shall define the procedures to detail the actions it could take given the results of sensitivity testing analysis.

*SECTION 4****Stress testing****Article 51***Stress testing procedure**

1. A CCP's stress tests shall apply stressed parameters, assumptions, and scenarios to the models used for the estimation of risk exposures to make sure its financial resources are sufficient to cover those exposures under extreme but plausible market conditions.

2. A CCP's stress testing programme shall require the CCP to conduct a range of stress tests on a regular basis that shall consider the CCP's product mix and all elements of its models and their methodologies and its liquidity risk management framework.

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3. A CCP's stress testing programme shall prescribe that stress tests are performed, using defined stress testing scenarios, on both past and hypothetical extreme but plausible market conditions in accordance with Chapter VII. Past conditions to be used shall be reviewed and adjusted, where appropriate. A CCP shall also consider other forms of appropriate stress testing scenarios including, but not limited to, the technical or financial failure of its settlement banks, nostro agents, custodian banks, liquidity providers, or interoperable CCPs.
4. A CCP shall have the capacity to adapt its stress tests quickly to incorporate new or emerging risks.
5. A CCP shall consider the potential losses arising from the default of a client, where known, which clears through multiple clearing members.
6. A CCP shall periodically report its stress testing results and analysis in a form that does not breach confidentiality to the risk committee in order to seek its advice in the review of its models, its methodologies and its liquidity risk management framework.
7. Stress testing results and analysis shall be made available to all clearing members and, where known to the CCP, clients. For all other clients, back testing results and analysis shall be made available by the relevant clearing members on request. Such information shall be aggregated in a form that does not breach confidentiality and clearing members and clients shall only have access to detailed stress testing results and analysis for their own portfolios.
8. A CCP shall define the procedures to detail the actions it could take given the results of stress testing analysis.

*Article 52***Risk factors to stress test**

1. A CCP shall identify, and have an appropriate method for measuring, relevant risk factors specific to the contracts it clears that could affect its losses. A CCP's stress tests shall, at least, take into account risk factors specified for the following type of financial instruments, where applicable:
 - (a) interest rate related contracts: risk factors corresponding to interest rates in each currency in which the CCP clears financial instruments. The yield curve modelling shall be divided into various maturity segments in order to capture variation in the volatility of rates along the yield curve. The number of related risk factors shall depend on the complexity of the interest rate contracts cleared by the CCP. Basis risk, arising from less than perfectly correlated movements between government and other fixed-income interest rates, shall be captured separately;

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- (b) exchange rate related contracts: risk factors corresponding to each foreign currency in which the CCP clears financial instruments and to the exchange rate between the currency in which margin calls are made and the currency in which the CCP clears financial instruments;
- (c) equity related contracts: risk factors corresponding to the volatility of individual equity issues for each of the markets cleared by the CCP and to the volatility of various sectors of the overall equity market. The sophistication and nature of the modelling technique for a given market shall correspond to the CCP's exposure to the overall market as well as its concentration in individual equity issues in that market;
- (d) commodity contracts: risk factors that take into account the different categories and sub-categories of commodity contracts and related derivatives cleared by the CCP, including, where appropriate, variations in the convenience yield between derivatives positions and cash positions in the commodity;
- (e) credit related contracts: risk factors that consider jump to default risk, including the cumulative risk arising from multiple defaults, basis risk and recovery rate volatility.

2. In its stress tests, a CCP shall also give appropriate consideration at least to the following:

- (a) correlations, including those between identified risk factors and similar contracts cleared by the CCP;
- (b) factors corresponding to the implied and historical volatility of the contract being cleared;
- (c) specific characteristics of any new contracts to be cleared by the CCP;
- (d) concentration risk, including to a clearing member, and group entities of clearing members;
- (e) interdependencies and multiple relationships;
- (f) relevant risks including foreign exchange risk;
- (g) set exposure limits;
- (h) wrong-way risk.

*Article 53***Stress testing total financial resources**

1. A CCP's stress-testing programme shall ensure that its combination of margin, default fund contributions and other financial resources are sufficient to cover the default of at least the two clearing members to which it has the largest exposures under extreme but plausible market conditions. The stress testing programme shall also examine potential losses resulting from the default of entities in the same group as the two clearing members to which it has the largest exposures under extreme but plausible market conditions.

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2. A CCP's stress-testing programme shall ensure that its margins and default fund are sufficient to cover at least the default of the clearing member to which it has the largest exposures or of the second and third largest clearing members, if the sum of their exposures is larger in accordance with Article 42 of Regulation (EU) No 648/2012.
3. The CCP shall conduct a thorough analysis of the potential losses it could suffer and shall evaluate the potential losses in clearing member positions, including the risk that liquidating such positions could have an impact on the market and the CCP's level of margin coverage.
4. A CCP shall, where applicable, consider in its stress tests, the effects of the default of a clearing member that issues financial instruments cleared by the CCP or the underlying of derivatives cleared by the CCP. Where applicable, the effects of a client's default that issues financial instruments cleared by the CCP or the underlying of derivatives cleared by the CCP shall also be considered.
5. A CCP's stress tests shall consider the liquidation period as provided for in Article 26.

*Article 54***Stress testing liquid financial resources**

1. A CCP's stress-testing programme of its liquid financial resources shall ensure that they are sufficient in accordance with the requirements laid down in Chapter VIII.
 2. A CCP shall have clear and transparent rules and procedures to address insufficient liquid financial resources highlighted by its stress tests to ensure settlement of payments obligations.
- A CCP shall also have clear procedures for using the results and analysis of its stress tests to evaluate and adjust the adequacy of its liquidity risk management framework and liquidity providers.
3. The stress testing scenarios used in the stress testing of liquid financial resources shall consider the design and operation of the CCP, and include all entities that might pose material liquidity risk to it. Such stress tests shall also consider any strong linkages or similar exposures between its clearing members, including other entities that are part of the same group, and assess the probability of multiple defaults and the contagion effect among its clearing members that such defaults may cause.

▼B*SECTION 5**Coverage and use of test results**Article 55***Maintaining sufficient coverage**

1. A CCP shall establish and maintain procedures to recognise changes in market conditions, including increases in volatility or reductions in the liquidity of the financial instruments it clears, so as to promptly adapt calculation of its margin requirement to appropriately account for new market conditions.

2. A CCP shall conduct tests on its haircuts in order to ensure collateral can be liquidated at least at its haircutted value in observed and extreme but plausible market conditions.

3. If a CCP collects margin at a portfolio, as opposed to product level, it shall continuously review and test offsets among products. A CCP shall base such offsets on prudent and economically meaningful methodology that reflects the degree of price dependence between the products. In particular, a CCP shall test how correlations perform during periods of actual and hypothetical severe market conditions.

*Article 56***Review of models using test results**

1. A CCP shall have clear procedures to determine the amount of additional margin it may need to collect, including on an intraday basis, and to recalibrate its margin model where back testing indicates that the model did not perform as expected with the result that it does not identify the appropriate amount of initial margin necessary to achieve the intended level of confidence. Where a CCP has determined that it is necessary to call additional margin it shall do so by the next margin call.

2. A CCP shall evaluate the source of testing exceptions highlighted by its back tests. Depending on the source of exceptions, the CCP shall determine whether a fundamental change to the margin model, or to the models that input into it, is required and whether the recalibration of current parameters is necessary.

3. A CCP shall evaluate the sources of testing exceptions highlighted by its stress tests. The CCP shall determine whether a fundamental change to its models, their methodologies or its liquidity risk management framework is required or if the recalibration of current parameters or assumptions is necessary, on the basis of the sources of exceptions.

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4. Where the results of the tests show an insufficient coverage of margin, default fund or other financial resources, a CCP shall increase overall coverage of its financial resources to an acceptable level by the next margin call. Where the results of the tests show insufficient liquid financial resources, the CCP shall increase its liquid financial resources to an acceptable level as soon as is practicable.

5. A CCP shall, in reviewing its models, their methodologies and the liquidity risk management framework, monitor the frequency of reoccurring testing exceptions to identify and resolve issues appropriately and without undue delay.

*SECTION 6****Reverse stress tests****Article 57***Reverse stress tests**

1. A CCP shall conduct reverse stress tests which are designed to identify under which market conditions the combination of its margin, default fund and other financial resources may provide insufficient coverage of credit exposures and for which its liquid financial resources may be insufficient. When conducting such tests, a CCP shall model extreme market conditions that go beyond what are considered plausible market conditions, in order to help determine the limits of its models, its liquidity risk management framework, its financial resources and its liquid financial resources.

2. A CCP shall develop reverse stress tests tailored to the specific risks of the markets and of the contracts that it provides clearing services for.

3. A CCP shall use the conditions identified in paragraph 1 and the results and analysis of its reverse stress tests to help in identifying extreme but plausible scenarios in accordance with Chapter VII.

4. A CCP shall periodically report its reverse stress testing results and analysis in a form that does not breach confidentiality to the risk committee in order to seek their advice in its review.

*SECTION 7****Default procedures****Article 58***Testing default procedures**

1. A CCP shall test and review its default procedures to ensure they are both practical and effective. A CCP shall perform simulation exercises as part of the testing of its default procedures.

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2. A CCP shall, following testing of its default procedures, identify any uncertainties and appropriately adapt its procedures to mitigate such uncertainty.

3. A CCP shall, through conducting simulation exercises, verify that all clearing members, where appropriate, clients and other relevant parties including interoperable CCP's and any related service providers, are duly informed and know the procedures involved in a default scenario.

*SECTION 8**Validation and testing frequency**Article 59***Frequency**

1. A CCP shall conduct a comprehensive validation of its models and their methodologies at least annually.

2. A CCP shall conduct a comprehensive validation of its liquidity risk management framework at least annually.

3. A CCP shall conduct a full validation of its valuation models at least annually.

4. A CCP shall review the appropriateness of the policies specified in Article 51 at least annually.

5. A CCP shall analyse and monitor its model performance and financial resources coverage in the event of defaults by back testing margin coverage at least daily and conducting at least daily stress testing using standard and predetermined parameters and assumptions.

6. A CCP shall analyse and monitor its liquidity risk management framework by conducting at least daily stress tests of its liquid financial resources.

7. A CCP shall conduct a detailed thorough analysis of testing results at least on a monthly basis in order to ensure its stress testing scenarios, models and liquidity risk management framework, underlying parameters and assumptions are correct. Such analysis shall be conducted more frequently in stressed market conditions, including when the financial instruments cleared or markets served in general display high volatility, become less liquid, or when the size or concentrations of positions held by its clearing members increase significantly or when it is anticipated that a CCP will encounter stressed market conditions.

8. Sensitivity analysis shall be conducted at least monthly, using the results of sensitivity tests. This analysis should be conducted more frequently when markets are unusually volatile or less liquid or when the size or concentrations of positions held by its clearing members increase significantly.

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9. A CCP shall test offsets among financial instruments and how correlations perform during periods of actual and hypothetical severe market conditions at least annually.
10. A CCP's haircuts shall be tested at least monthly.
11. A CCP shall conduct reverse stress tests at least quarterly.
12. A CCP shall test and review its default procedures at least quarterly and perform simulation exercises at least annually, in accordance with Article 61. A CCP shall also perform simulation exercises following any material change to its default procedures.

*SECTION 9****Time horizons used when performing tests****Article 60***The time horizons**

1. The time horizons used for stress tests shall be defined in accordance with Chapter VII and shall include forward-looking extreme but plausible market conditions.
2. The historical time horizons used for back tests shall include data from at minimum the most recent year or as long as a CCP has been clearing the relevant financial instrument if that is less than a year.

*SECTION 10****Public disclosure****Article 61***Information to be publicly disclosed**

1. A CCP shall publicly disclose the general principles underlying its models and their methodologies, the nature of tests performed, with a high level summary of the test results and any corrective actions undertaken.
2. A CCP shall make available to the public key aspects of its default procedures, including:
 - (a) the circumstances in which action may be taken;
 - (b) who may take those actions;
 - (c) the scope of the actions which may be taken, including the treatment of both proprietary and client positions, funds and assets;

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- (d) the mechanisms to address a CCP's obligations to non-defaulting clearing members;
- (e) the mechanisms to help address the defaulting clearing member's obligations to its clients.

*Article 62***Entry into force and application**

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

Point (h) Section 2 of Annex I shall apply from three years after the date of entry into force of this Regulation in respect of transactions on derivatives, as referred to in points (b) and (d) of Article 2(4) of Regulation (EU) No 1227/2011 of the European Parliament and of the Council ⁽¹⁾. ►**M2** However, Section 2, paragraph 1, point (h), of Annex I shall not apply in respect of transactions on derivatives, as referred to in Article 2(4), points (b) and (d), of Regulation (EU) No 1227/2011 from 29 November 2022 to 29 November 2023. ◀

This Regulation shall be binding in its entirety and directly applicable in all Member States.

⁽¹⁾ OJ L 326, 8.12.2011, p. 1.

▼B*ANNEX I***Conditions applicable to financial instruments, bank guarantees and gold considered as highly liquid collateral***SECTION 1****Financial instruments***

For the purposes of Article 46(1) of Regulation (EU) No 648/2012, highly liquid collateral in the form of financial instruments shall be financial instruments meeting the conditions provided for in point 1 of Annex II to this Regulation or transferable securities and money-market instruments which meet each of the following conditions:

- (a) the CCP can demonstrate to the competent authority that the financial instruments have been issued by an issuer that has low credit risk based upon an adequate internal assessment by the CCP. In performing such an assessment, the CCP shall employ a defined and objective methodology that shall not fully rely on external opinions and that takes into consideration the risk arising from the establishment of the issuer in a particular country;
- (b) the CCP can demonstrate to the competent authority that the financial instruments have a low market risk based upon an adequate internal assessment by the CCP. In performing such an assessment, the CCP shall employ a defined and objective methodology that shall not fully rely on external opinions;
- (c) they are denominated in one of the following currencies:
 - (i) a currency the risk of which the CCP can demonstrate to the competent authorities that it is able to manage;
 - (ii) a currency in which the CCP clears contracts, in the limit of the collateral required to cover the CCP's exposures in that currency;
- (d) they are freely transferable and without any regulatory or legal constraint or third party claims that impair liquidation;
- (e) they have an active outright sale or repurchase agreement market, with a diverse group of buyers and sellers, to which the CCP can demonstrate reliable access, including in stressed conditions;
- (f) they have reliable price data published on a regular basis;
- (g) they are not issued by:
 - (i) the clearing member providing the collateral, or an entity that is part of the same group as the clearing member, except in the case of a covered bond and only where the assets backing that bond are appropriately segregated within a robust legal framework and satisfy the requirements set out in this section;
 - (ii) a CCP or an entity that is part of the same group as a CCP;
 - (iii) an entity whose business involves providing services critical to the functioning of the CCP, unless that entity is an EEA central bank or a central bank of issue of a currency in which the CCP has exposures;
- (h) they are not otherwise subject to significant wrong-way risk.

▼B*SECTION 2**Bank guarantees*

1. A commercial bank guarantee, subject to limits agreed with the competent authority, shall meet the following conditions to be accepted as collateral under Article 46(1) of Regulation (EU) No 648/2012:
 - (a) it is issued to guarantee a non-financial clearing member;
 - (b) it has been issued by an issuer that the CCP can demonstrate to the competent authority that it has low credit risk based upon an adequate internal assessment by the CCP. In performing such assessment the CCP shall employ a defined and objective methodology that shall not fully rely on external opinions and that takes into consideration the risk arising from the establishment of the issuer in a particular country;
 - (c) it is denominated in one of the following currencies:
 - (i) a currency the risk of which the CCP can demonstrate to the competent authorities that it is able to adequately manage;
 - (ii) a currency in which the CCP clears contracts, in the limit of the collateral required to cover the CCP's exposures in that currency;
 - (d) it is irrevocable, unconditional and the issuer cannot rely on any legal or contractual exemption or defence to oppose the payment of the guarantee;
 - (e) it can be honoured, on demand, within the period of liquidation of the portfolio of the defaulting clearing member providing it without any regulatory, legal or operational constraint;
 - (f) it is not issued by:
 - (i) an entity that is part of the same group as the non-financial clearing member covered by the guarantee;
 - (ii) an entity whose business involves providing services critical to functioning of the CCP, unless that entity is an EEA central bank or a central bank of issue of a currency in which the CCP has exposures;
 - (g) it is not otherwise subject to significant wrong-way risk;
 - (h) it is fully backed by collateral that meets the following conditions:
 - (i) it is not subject to wrong way risk based on a correlation with the credit standing of the guarantor or the non-financial clearing member, unless that wrong way risk has been adequately mitigated by haircutting of the collateral;
 - (ii) the CCP has prompt access to it and it is bankruptcy remote in case of the simultaneous default of the clearing member and the guarantor.
 - (i) the suitability of the guarantor has been ratified by the board of the CCP after a full assessment of the issuer and of the legal, contractual and operational framework of the guarantee in order to have a high level of comfort on the effectiveness of the guarantee, and notified to the competent authority.
2. A bank guarantee issued by a central bank shall meet the following conditions to be accepted as collateral under Article 46(1) of Regulation (EU) No 648/2012:
 - (a) it is issued by an EEA central bank or a central bank of issue of a currency in which the CCP has exposures;

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- (b) it is denominated in one of the following a currencies:
 - (i) a currency the risk of which the CCP can demonstrate to the competent authorities that it is able to adequately manage;
 - (ii) a currency in which the CCP clears transactions, in the limit of the collateral required to cover the CCP's exposures in that currency;
- (c) it is irrevocable, unconditional and the issuing central bank cannot rely on any legal or contractual exemption or defence to oppose the payment of the guarantee;
- (d) it can be honoured within the period of liquidation of the portfolio of the defaulting clearing member providing it without any regulatory, legal or operational constraint or any third party claim on it.

▼ M2*SECTION 2a**Public guarantees*

Until 29 November 2023, a public guarantee that does not meet the conditions for a central bank guarantee set out in Section 2, paragraph 2, shall meet all of the following conditions to be accepted as collateral under Article 46(1) of Regulation (EU) No 648/2012:

- (a) it is explicitly issued or guaranteed by any of the following:
 - (i) a central government in the EEA;
 - (ii) regional governments or local authorities in the EEA, where there is no difference in risk between exposures of regional governments or local authorities and the central government of that Member State because of the specific revenue-raising powers of the former, and the existence of specific institutional arrangements the effect of which is to reduce their risk of default;
 - (iii) the European Financial Stability Facility, the European Stability Mechanism, or the Union, where applicable;
 - (iv) a multilateral development bank as listed under Article 117(2) of Regulation (EU) No 575/2013 of the European Parliament and of the Council ⁽¹⁾ and established in the Union;
- (b) the CCP can demonstrate that it has low credit risk based upon an internal assessment by the CCP;
- (c) it is denominated in one of the following currencies:
 - (i) a currency the risk of which the CCP can demonstrate to the competent authorities that it is able to adequately manage;
 - (ii) a currency in which the CCP clears transactions, in the limit of the collateral required to cover the CCP's exposures in that currency;
- (d) it is irrevocable, unconditional and the issuing and guaranteeing entities cannot rely on any legal or contractual exemption or defence to oppose the payment of the guarantee;

⁽¹⁾ Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (OJ L 176, 27.6.2013, p. 1).

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- (e) it can be honoured within the period of liquidation of the portfolio of the defaulting clearing member providing it without any regulatory, legal or operational constraint or any third party claim on it.

For the purposes of point (b), the CCP shall employ, in performing the assessment referred to in that point, defined and objective methodology that shall not fully rely on external opinions.

▼ B*SECTION 3**Gold*

Gold shall be allocated pure gold bullion of recognised good delivery and meet the following conditions to be accepted as collateral under Article 46(1) of Regulation (EU) No 648/2012:

- (a) it is directly held by the CCP;
- (b) it is deposited with an EEA central bank or a central bank of issue of a currency in which the CCP has exposures that has adequate arrangements so as to safeguard clearing member or clients' ownership rights to the gold and enables the CCP prompt access to the gold when required;
- (c) it is deposited with an authorised credit institution as defined under Directive 2006/48/EC that has adequate arrangements so as to safeguard clearing member or clients' ownership rights to the gold, enables the CCP prompt access to the gold when required and the CCP can demonstrate to the competent authority that it has low credit risk based upon an adequate internal assessment by the CCP. In performing such an assessment, the CCP shall employ a defined and objective methodology that shall not fully rely on external opinions and that takes into consideration the risk arising from the establishment of the credit institution in a particular country;
- (d) it is deposited with a third country credit institution that is subject to and complies with prudential rules considered by the competent authorities to be at least as stringent as those laid down in Directive 2006/48/EC and which has robust accounting practices, safekeeping procedures and internal controls and that has adequate arrangements so as to safeguard clearing member or clients' ownership rights to the gold, enables the CCP prompt access to the gold when required and CCP can demonstrate to the competent authority that it has low credit risk based upon an internal assessment by the CCP. In performing such an assessment, the CCP shall employ a defined and objective methodology that shall not fully rely on external opinions and that takes into consideration the risk arising from the establishment of the credit institution in a particular country.

*ANNEX II***Conditions applicable to highly liquid financial instruments**

1. For the purposes of Article 47(1) of Regulation (EU) No 648/2012, financial instruments can be considered highly liquid financial instruments, bearing minimal credit and market risk if they are debt instruments meeting each of the following conditions:
 - (a) they are issued or explicitly guaranteed by:
 - (i) a government;
 - (ii) a central bank;
 - (iii) a multilateral development bank as listed under Section 4.2 of Part 1 of Annex VI to Directive 2006/48/EC;
 - (iv) the European Financial Stability Facility or the European Stability Mechanism where applicable;
 - (b) the CCP can demonstrate that they have low credit and market risk based upon an internal assessment by the CCP. In performing such assessment the CCP shall employ a defined and objective methodology that shall not fully rely on external opinions and that takes into consideration the risk arising from the establishment of the issuer in a particular country;
 - (c) the average time-to-maturity of the CCP's portfolio does not exceed two years;
 - (d) they are denominated in one of the following currencies:
 - (i) a currency the risks of which the CCP can demonstrate that it is able to manage; or
 - (ii) a currency in which the CCP clears transactions, in the limit of the collateral received in that currency;
 - (e) they are freely transferable and without any regulatory constraint or third party claims that impair liquidation;
 - (f) they have an active outright sale or repurchase agreement market, with a diverse group of buyers and sellers, including in stressed conditions and to which the CCP has reliable access;
 - (g) reliable price data on these instruments are published on a regular basis.
2. For the purposes of Article 47(1) of Regulation (EU) No 648/2012, derivative contracts can also be considered highly liquid financial investments, bearing minimal credit and market risk if they are entered into for the purpose of:
 - (a) hedging the portfolio of a defaulted clearing member as part of the CCP's default management procedure; or
 - (b) hedging currency risk arising from its liquidity management framework established in accordance with Chapter VIII.

Where derivative contracts are used in such circumstances, their use shall be limited to derivative contracts in respect of which reliable price data is published on a regular basis and to the period of time necessary to reduce the credit and market risk to which the CCP is exposed.

The CCP's policy for the use of derivative contracts shall be approved by the board after having consulted the risk committee.