

EURONEXT CLEARING

Disclosure Framework for Financial Market Infrastructures

NOVEMBER 2021



EURONEXT CLEARING

Table of contents

EXECUTIVE SUMMARY	4
1. SUMMARY OF MAJOR CHANGES SINCE THE LAST UPDATE	5
2. GENERAL BACKGROUND ON THE FMI.....	6
2.1 General description and markets it serves.....	6
2.2 General organisation of the FMI	9
2.3 Legal and regulatory framework	11
2.4 System design and operations.....	14
3. PRINCIPLE-BY-PRINCIPLE SUMMARY NARRATIVE DISCLOSURE	16
4. LIST OF PUBLICLY AVAILABLE RESOURCES.....	116

DOCUMENT SUMMARY

Document Reference	
Responding Institution	Cassa di Compensazione e Garanzia S.p.A.
Authority(ies) regulating, supervising or overseeing the FMI	Banca d'Italia and Consob
The date of this disclosure is	November 2021
This Disclosure can also be found at	www.euronext.com/en/post-trade/euronext-clearing/about/duediligence-faq
For further information, please contact	ccp-compliance@euronext.com

VERSION CONTROL

Date	Version	Summary of Changes
December 2016	1.0	First version
January 2019	1.1	Updated version
November 2021	1.2	Updated version

Executive summary

Cassa di Compensazione e Garanzia S.p.A. (hereinafter referred to as "CC&G", "Euronext Clearing" or else the "Company"), in order to be compliant with the Key Consideration 5 Principle 23 of the "Principles for Financial Market Infrastructures¹" (also named "PFMI") and the "Disclosure Framework and Assessment methodology²" provides - through the present disclosure - relevant information to its clearing members, Authorities and the broader public, to support an accurate understanding of Euronext Clearing and to improve the overall transparency of its governance, operations and risk management framework.

The public disclosure of quantitative data, complementary to this document, set forth in the "CPMI-IOSCO Public quantitative disclosure standards for central counterparties", provides a wide range of regularly updated key quantitative information related to the Euronext Clearing Members, transaction volumes and values, data on financial resources, as expected from the FMIs to support consistent implementation and observance of the PFMI.

Both documents are available on the Company's website:
euronext.com/it/post-trade/euronext-clearing.

¹ The "Principles for Financial Market Infrastructures", have been published in April 2012 by the Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO).

² This report, published in December 2012, has the aim to promote the observance of the principles and responsibilities set forth in the above mentioned "Principles for Financial Market Infrastructures".

1. Summary of major changes since the last update

The main changes, inter alia, to the Disclosure Framework, compared to the 2019 version, are outlined as follows:

- 2.2 General Organisation of FMI: The organisational structure has been strengthened through some changes, regarding Technology, Product Development and Membership.
- Principle 1: Legal Basis – CC&G has been included in the list of EEA systems taken to receive settlement finality protection in the UK pursuant to the Temporary Designation Regime (TDR) by the Bank of England.
- Principle 2: Governance – On 29th April 2021, London Stock Exchange Group PLC (LSEG) completed the transaction for the divestment of London Stock Exchange Group Holdings Italia S.p.A. (LSEG Italia), including Borsa Italiana and Cassa di Compensazione e Garanzia S.p.A (CC&G), to Euronext N.V. (also “Euronext”). As a consequence of such transaction, the direct control of CC&G by Borsa Italiana remains unchanged. The transaction entails only the change of indirect control of CC&G from London Stock Exchange Group PLC (LSEG) to Euronext. Relevant changes occurred in the management structure by appointing a new Board of Directors on 9th of July 2021.
As of 9th of November 2021, the new commercial name for the legal entity Cassa di Compensazione e Garanzia S.P.A. changed to Euronext Clearing.
- Principle 17: Operational Risk –The certificate ISO 22301:2012, Business Continuity governance, has been upgraded to ISO22301:2019, in the first half of 2021.

2. General background on the FMI

2.1 General description and markets it serves

Euronext Clearing aims to ensure the efficient and safe functioning of the markets served and feels committed to promoting and offering its services in an equitable, transparent and non-discriminatory manner and, by doing so, to contribute to the protection of its members and their clients.

Euronext Clearing, due to its role as a systemically important institution, in order to support the stability and efficiency of the financial system, assures the implementation of a robust risk management framework, a set of rules and procedures to ensure full compliance with the applicable regulatory framework and an IT Clearing System providing safe and efficient transactions processing.

To this purpose, Euronext Clearing has proven, over time, its ability to guarantee a very high level of operational reliability confirmed by the fact that, for instance, in 2020 100% of the trades executed in the markets guaranteed by the Company have been correctly received in the Clearing System; the end-of-day procedure was always executed and correctly concluded within the same business day; the Initial Margin and Cash Call requests information was communicated in 2020 to the participants with a rate of 100% successful completion; in 2020 the intraday Margin Calculation was always completed and the cash requested was collected within the expected timeframe.

Euronext Clearing covers a broad range of trading venues and asset classes (please refer to Table 1): shares, warrants and convertible bonds traded on Euronext Milan; ETFs and ETCs traded on ETFPlus; stock, index futures and options, energy futures and futures on durum wheat traded on IDEM (Segments IDEM, IDEX and AGREX); closed-end funds, investment companies and real estate investment companies traded on Euronext MIV Milan; Government bonds traded on MTS, EuroMTS, cash EBM and Repo, ICAP BrokerTec; Italian Government bonds and corporate bonds traded on MOT (Segments Domestic MOT, Euro MOT and Extra MOT), EuroTLX and Hi-MTF.

	Equities			Derivatives			Bonds	ICSD Bonds	
	Euronext Milan	Euronext MIV Milan	ETF Plus	Equity	Energy	Agriculture			
Directly Connected Markets				IDEM	IDEX	AGREX	MTS CashMTS	MOT	EuroMOT
							MTS Repo	Euro TLX	ExtraMOT
							BrokerTec	HiMTF	EuroTLX
									HiMTF
Products Cleared	Shares Warrants Convert. bonds	Closed-end funds Investment companies REIC	ETF ETC	Index futures Index options Single stock futures and options Index and single stock dividend futures	Power Futures	Durum wheat Futures	IT Government bonds & Repos Government bonds Supranational bonds Corporate bonds	Government bonds Supranational bonds Eurobonds	
Open access architecture and straight through processing with connectivity to Euronext Securities, Euroclear and Clearstream									
■ Non-Euronext Group markets ■ Euronext Group markets									

Table 1

Given the membership criteria, Euronext Clearing Members include a range of Italian and International banks and Investment firms, authorized to provide investment services in Italy or subject to mutual recognition.

There are multiple membership profiles, including the General Clearing Members, Individual Clearing Members and Trading Clients. Only General Clearing Members and Individual Clearing Members participate in the system, whilst Trading Clients participate in the system through a General Clearing Member.

As of June 2021, Euronext Clearing had 163 members who joined one or more Sections (please refer to Table 2) with different volumes cleared per year (Trades, Lots, Nominals, Megawatts, depending on the Sections), further outlined in Table 3.

	Equity Section	Equity Derivatives Section	Energy Derivatives Section	Agricultural Commodity Derivatives	Bond Section	ICSD Bond Section
GCM	17	26	6	2	13	12
ICM	12	10	-	-	55	17
TC	61	31	3	1	25	19
Tot	90	67	9	3	93	48

Table 2

Clearing Volumes	2018	2019	2020
Equities Unit: trades	75.667.085	68.751.259	96.328.375
Equity Derivatives Unit: lots	36.244.434	30.701.189	25.108.886
Bond - Wholesale Nominal in Million €	17.480.588	22.134.920	19.344.277
Bond - Retail including Domestic & ICSD Unit: trades	3.888.822	4.282.587	3.742.118
Energy Derivatives Unit: MW	1.708.570	821.278	487.690
Agricultural Derivatives Unit: Tons	0	0	0

Table 3

2.2 General organisation of the FMI

CC&G, whose organizational chart has been reported in Figure 1, adopts the traditional system of administration and control, whereby corporate management is under the responsibility of the Board of Directors and overall control activities are assigned to the Board of Statutory Auditors which acts as the Audit Committee.

Following the resignations of Lorenzo Guasco and Claudio Grego the Board held on 15th June 2021 appointed Mary O'Dea and Giorgio Modica pursuant to article 2386 paragraph 1 of Civil Code.

Luisella Bosetti, Valentina Sidoti e Raffaele Jerusalemi resigned as directors of Cassa di Compensazione e Garanzia S.p.A. on 16th June, 21 June 2021 and 29th June 2021. As a result, the entire Board is deemed to have lapsed with effect from the moment of its reconstitution as the majority of the directors appointed by the shareholders' meeting has ceased.

The Board of Directors was appointed by the Shareholders' meeting held on the 9th of July 2021 and shall remain in office until the approval of the financial statement as of 31st of December 2023. The current Board is composed of the following directors: Renato Tarantola (Chair), Giorgio Modica (Deputy Chair and Executive Director of finance), Marco Polito (General Manager and CEO), Simon Gallagher, Mary O'Dea (independent non-executive director), Vincenzo Pontolillo (independent non-executive director) and Alfredo Maria Magri (independent non-executive director).

The Remuneration Committee (appointed by the Board of Directors held on the 9th of July 2021) is composed of the following members: Giorgio Modica (Chair), Alfredo Maria Magri and Vincenzo Pontolillo.

The Board of Statutory Auditors was appointed by the Shareholders meeting held on the 29th of April 2021 and expiring with the approval of the financial statements as of 31st of December 2023 is composed as follows: Roberto Ruozi (Chair), Mauro Coazzoli e Fabio Artoni (effective auditors), and Michela Haymar d'Ettore and Franco Carlo Papa (alternate auditors).

The Supervisory Body pursuant to Legislative Decree 231/2001, appointed by the Board of Directors held on 9th of July 2021, shall remain in office until the approval of the financial statements as of 31st December 2023. It is composed as follows: Lucia Fulvi (Chief Compliance Officer), Stefania Fulgenzi (Italy Internal Audit) and Gabriella Egidi (external lawyer).

The Risk Committee (appointed by the Board of Directors held on the 9th of July 2021) is composed, among other members, of the following independent board members: Alfredo Magri and Mary O'Dea.

The Board of Directors is responsible for the strategic guidance and supervision of the Company's overall business activities, as well as of the risk management process, so that the risks assumed in the framework of the Company's business activities are consistent with the strategic guidelines.

CC&G has established several Committees and procedures that ensure the accountability to the stakeholders. Among the advisory committees to the Board, a Risk Committee and a Remuneration Committee have been constituted.

In addition, internal management committees assist in the decision making processes with regard to core business matters such as: margins, default funds, membership, operational risk and investments.

Moreover, CC&G adopts a Code of Conduct, which is intended to ensure the independent, efficient and correct performance of the business activity, either to mitigate and manage potential Conflicts of Interest and to punish behaviors breaching the transparency of the system, the protection of the customers, and the orderly execution of the services. The core values that underpin the Code of Conduct are independence, impartiality, confidentiality, honesty, loyalty, fairness, and professional competence, and all interested parties must abide by them.

From Sept 15th 2020 onwards, the organisational structure has been strengthened through some changes, formally communicated to local Authorities. The Areas involved have been Technology, Product Development and Membership. Following this changes, the Euronext Clearing CEO and GM first line of reports consists currently of the following organisational functions: Chief Technology Officer and Service Management, Operations, Sales & Relationship Management, Investment & Liquidity Management, Business Management and Change.

In detail:

A new function CTO and Service Management has been set up with the accountabilities on all Euronext Clearing technology services and service management for SaaS. This function has a reinforced and dedicated focus on core services with the new unit Legacy System Architecture and the management of the client on the non-core services with the new Unit Service Management focused on the provision of the clearing services to the other CCPs, so called "SaaS services".

The function Product Development has been renamed Business Management and Change and supports the development of new product /services and ensures the best management of the internal processes and the change strategies. This Area covers Product Development function, including Quality Assurance, Project Office and Business Management.

The Membership function has been moved under the CRO Area, within the Risk Management Office (for Membership activities the final accountability remains in charge of CEO).

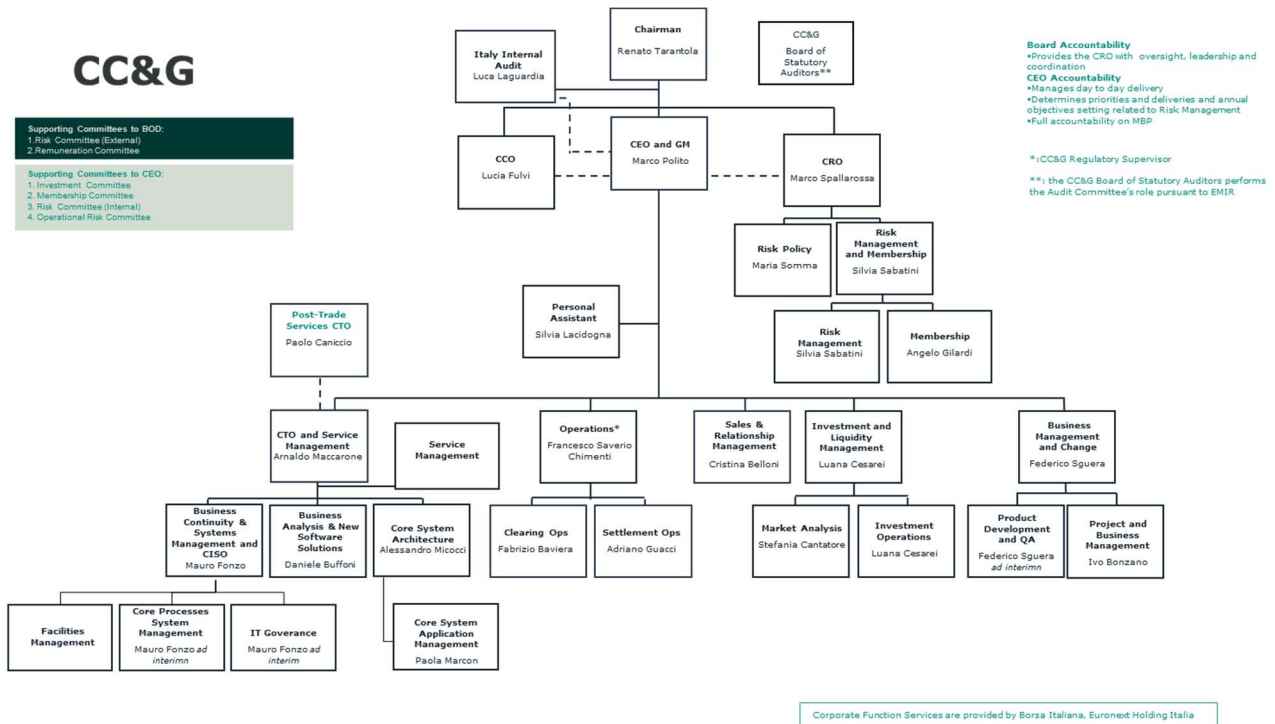


Figure 1

2.3 Legal and regulatory framework

Cassa di Compensazione e Garanzia SpA, as a joint stock company, was founded in 1992 and is incorporated under the Italian law. It belongs to the Euronext N.V. and it is wholly controlled by Borsa Italiana S.p.A., under the direction and coordination of Euronext Holding Italia S.p.A, as specified in Figure 2. On 29th April 2021, London Stock Exchange Group PLC (LSEG) completed the transaction for the divestment of London Stock Exchange Group Holdings Italia S.p.A. (LSEG Italia), including Borsa Italiana and Cassa di Compensazione e Garanzia S.p.A, to Euronext N.V..

As a consequence of such transaction, the direct control of CC&G by Borsa Italiana remains unchanged. The transaction entails only the change of indirect control of CC&G from London Stock Exchange Group PLC (LSEG) to Euronext.

Furthermore, as of 9th of November 2021, the new commercial name for the legal entity Cassa di Compensazione e Garanzia S.p.A. changed to Euronext Clearing.

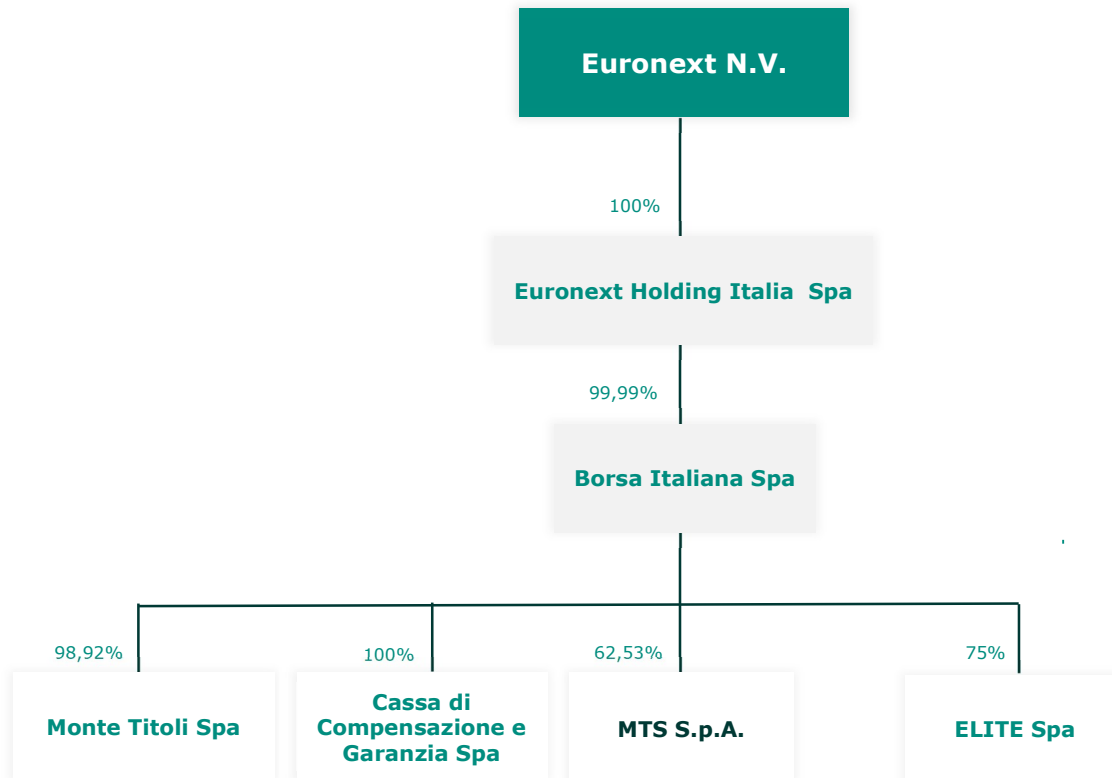


Figure 2

On May 2014 CC&G has been authorised by Banca d'Italia, in agreement with Consob, in accordance with the provisions set forth by the Regulation (EU) No 648/2012 on "OTC derivatives, central counterparties and trade repositories" (also named hereinafter "EMIR"), to operate as central counterparty and to manage the interoperability link with LCH SA. CC&G is therefore, since then, listed on the ESMA register of the authorised CCPs.

Furthermore, as of January 2019, CC&G has been included in the list of third country CCPs offering clearing services and activities in the UK under the Temporary Recognition Regime (TRR) by the Bank of England. Also, CC&G has been included in the list of EEA systems taken to receive settlement finality protection in the UK pursuant to the Temporary Designation Regime (TDR) by the Bank of England.

CC&G carries out the central counterparty function by taking on the counterparty risk from the execution of the contracts, acting as a buyer towards each seller and as seller towards each buyer, becoming the guarantor of the final settlement of the contracts, ensuring delivery/receipt of securities versus cash, also in case of default of the original counterparty.

CC&G has in place an Interoperability Arrangement with LCH SA covering trades on Italian Government bonds executed on MTS cash EBM, Repo and BrokerTec.

Outside the Italian jurisdiction, CC&G guarantees only Italian Government bonds (both cash and repo) traded on BrokerTec, which is an electronic trading platform for fixed income instruments. CC&G, in addition to the compliance with the European regulatory framework, shall fulfill the requirements provided by the Italian Civil Code and other specific Italian legislations, under the supervision of Banca d'Italia and Consob. CC&G's activities are governed by the provisions detailed in [Principle 1](#) and by

the General Terms and Conditions (Part I and Part II) which are drafted, according to the Italian Civil law, in the form of general conditions to grant uniform and non discriminatory conditions to all of CC&G members.

The General Terms and Conditions Part I apply to CC&G but also to other Italian legal entities of the Euronext N.V. (Borsa Italiana and Monte Titoli) therefore they are expressed in general terms which should then be applied in the context of the services further described in other contractual documents (General Terms and Conditions – Part II, the Rulebook and the Instructions) for each company.

The Rulebook and the General Terms and Conditions are published on CC&G corporate website.

The above mentioned provisions and rules grant a high degree of certainty because CC&G operates according the above mentioned rules and general conditions only and under the supervision of Banca d'Italia and Consob.

Upon amendments of the Rulebook and the General Terms and Conditions, CC&G shall inform the clients of such amendments by posting the text thereof on its website at least fifteen calendar days before the effective date of the amendments. In such communication CC&G shall specify the time within which the clients may exercise the right of withdrawal. In no circumstances may such time be less than ten calendar days from the date of the communication.

2.4 System design and operations

Euronext Clearing acts as buyer towards the seller and vice versa, becoming the guarantor of the final settlement of the contracts.

Novation occurs either at the time of the conclusion of a contract on the market, where Euronext Clearing is the only central counterparty, or when CC&G receives the contracts concluded on the market, where the central counterparty service for that market is operated jointly with a linked CCP.

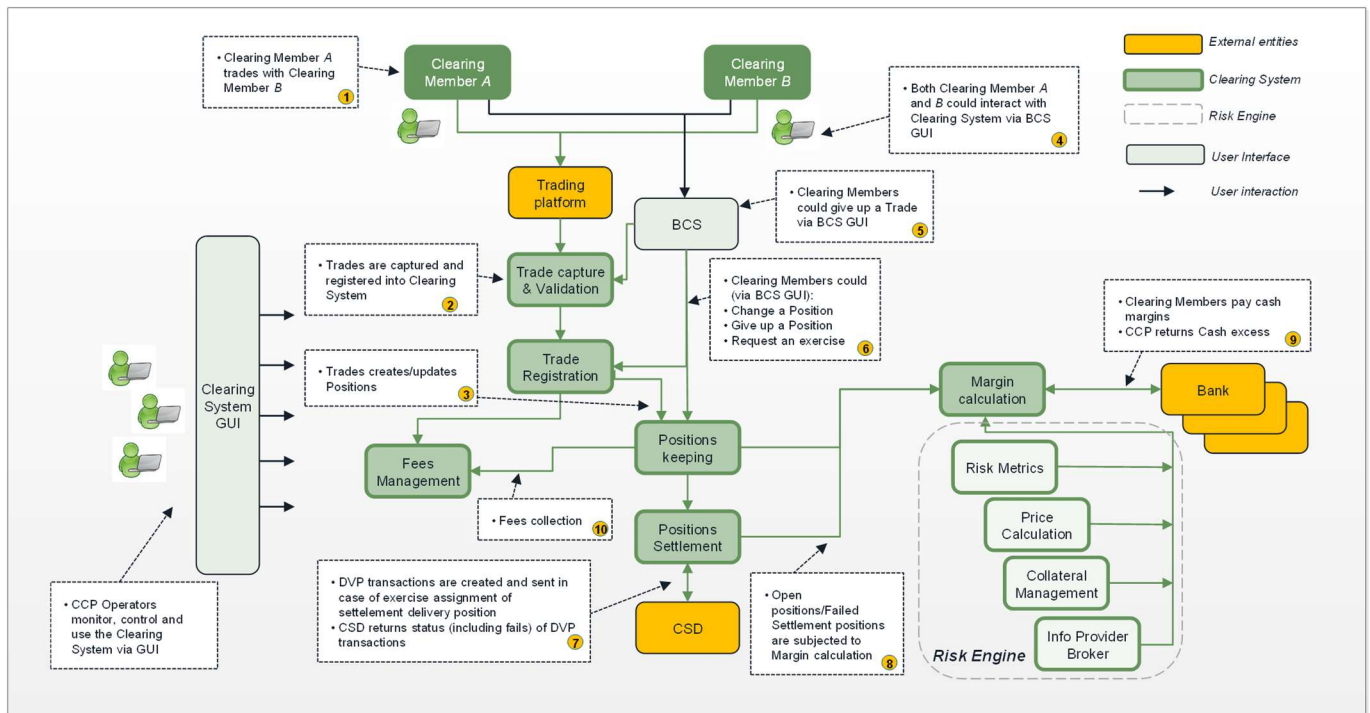


Figure 3

Euronext Clearing is connected to markets through an automatic process that ensure Straight-Through-Processing and trade acquisition on real time. Trades are immediately netted with open positions (netting by novation).

As outlined in Figure 3, CC&G relies on the trading platforms which take the responsibility to send the trade executed to the Clearing System. Each flow exchanged between the trading and the Clearing platform is based on a robust protocol which has the aim of verifying that all trades are sent according to a progressive sequence in order to avoid missing any trade.

CC&G calculates members' exposures and prices on real time and is empowered to call intraday margins during the day.

Daily and intraday margin calls are automatically debited through Central Bank accounts in Target 2.

Euronext Clearing is classified as Ancillary System of Target 2 (also named "T2"), the cash payment system, and its payment instructions are processed as highly urgent through Swift ISO15022 messages; T2 system promptly informs Euronext Clearing in real time of the payment instructions status using the same media.

In order to enhance its own reliability and service quality, Euronext Clearing has adopted the standard ISO 22301:2012, the internationally acknowledged best practice in Business Continuity governance. Euronext Clearing obtained in 2016 the Certificate of Registration for its Business Continuity Management System in compliance to such ISO standard. In the first half of 2021 this certification has been upgraded to ISO22301:2019.

Euronext Clearing is committed to continuously enhancing cyber security best practices at all levels, developing a wide range of measures aimed at protecting data and networks from attack, damage or unauthorized access. Relevant achievements in such context include the ISO27001:2013 Certification, obtained in 2017, covering the Information Security Management, and the membership to CERTFin (the Italian Financial CERT), governed by ABI, the Italian Banking Association and Banca d'Italia.

Members are connected to Euronext Clearing through its web-based infrastructures (BCS and ICWS) so to ensure that they are able, on real time, to monitor their activity, download daily and intraday data files and provide instructions, when needed.

Euronext Clearing is connected to CSDs ensuring Straight-Through-Processing.

The settlement instructions related to ICSDs are sent through Swift ISO15022 messages.

The ICSDs have the responsibility to confirm the reception of the messages, the management of each settlement instruction and to update the status of the settlement instruction by informing Euronext Clearing in real time, using Swift ISO15022 messages.

Positions are continuously monitored by Euronext Clearing until the effective settlement occurs.

In case settlement does not occur within the given deadline, CC&G takes the appropriate corrective actions (e.g. buy-in execution, cash compensation, etc.).

3. Principle-by-principle summary narrative disclosure

PRINCIPLE 1: LEGAL BASIS

An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.

Summary Narrative

KEY CONSIDERATION 1

The legal basis should provide a high degree of certainty for each material aspect of an FMI's activities in all relevant jurisdictions.

Cassa di Compensazione e Garanzia is required by Italian Law to be duly authorised by Banca d'Italia to perform the clearing services in its capacity of central counterparty according to the procedure contemplated by article 17 of Regulation (EU) 648/2012 (hereinafter named also "EMIR"). In compliance with the above mentioned regulatory requirement, on 20th May 2014 CC&G received from Banca d'Italia the authorisation to provide central counterparty services under EMIR.

The key aspects of CC&G's clearing activities - that require a high degree of certainty including novation, netting, default procedures, collateral arrangements, enforcement of CCP rules vis-à-vis its participants, finality of transfers of funds and financial instruments, insolvency of the CCP, and the determination of CCP conflicts of laws - are defined in detail in CC&G's Regulations (hereinafter also "Rulebook", "Rules" or "Regulations"). Furthermore, CC&G operates within a sound and certain legal framework, as further described below.

CC&G, as well as the legal and contractual framework for its services, is regulated under Italian law and therefore, the most relevant jurisdiction for the material aspects of its activity is the Italian one.

CC&G's is subject to provisions contained in the Italian Civil Code and its activities are governed according to the following provisions:

- Legislative Decree no. 58 of 24th February 1998 as subsequently amended (hereinafter, "Financial Law");
- Legislative Decree no. 210 of 12th April 2001 enacting Directive 98/26/CE as subsequently amended (hereinafter, "Finality Law");
- Legislative Decree no. 170 of 21st May 2004 enacting Directive 2002/47/CE on financial collateral as subsequently amended (hereinafter "Collateral Law");
- Banca d'Italia and Consob Regulation governing central counterparties, central securities depositories and central securities maintenance of 13th August 2018 (Consolidated Post-Trading Regulation);

- EMIR and implementing regulations;
- Regulation (EU) no. 23/2021 of the European Parliament and of the Council which establishes a framework for CCP Recovery and Resolution;
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- Regulation (EU) no. 909/2014 of the European Parliament and of the Council on improving securities settlement in the European Union and on central securities depositories;
- Regulation (EU) no. 600/2014 of the European Parliament and of the Council (MiFIR Regulation) and European Commission Delegated Regulation No. 2017/2154 supplementing MiFIR with regards to regulatory technical standards on indirect clearing arrangements (also named "*Indirect Clearing RTS*");
- Regulation (EU) 2015/2365 of the European Parliament and of the Council with regard to regulatory technical standards specifying the details of securities financing transactions (SFTs) to be reported to trade repositories (also named *SFTR*);
- Rules provided in CC&G's Regulations evaluated by Banca d'Italia and Consob and related Instructions; and
- General Conditions (including Part I, Part II and related Annexes).

The Italian regulatory framework provides a sound and robust legal basis as regards each material aspect of the central counterparty (hereinafter also "CCP") activities. Such legal basis governs novation, netting, default procedures, collateral arrangements, enforcement of CCP rules vis-à-vis its participants, finality of transfers of funds and financial instruments, insolvency of the CCP, the determination of CCP conflicts of laws.

CC&G is supervised by Banca d'Italia, with reference to the stability and the reduction of systemic risk, and by Consob, with respect to transparency and investor protection.

Italian law supplements EMIR provisions in providing the Supervisory Authorities with extensive regulatory, informative and enforcement powers vis-à-vis CC&G.

Furthermore, as of January 2019, CC&G has been included in the list of third country CCPs offering clearing services and activities in the UK under the Temporary Recognition Regime (TRR) by the Bank of England. Also, CC&G has been included in the list of EEA systems taken to receive settlement finality protection in the UK pursuant to the Temporary Designation Regime (TDR) by the Bank of England.

Pursuant to CC&G's Regulations, CC&G acts as central counterparty vis-à-vis its direct clearing members (which may, in turn, act on behalf of a Trading Client) from the moment when a contract is concluded on the market. The CCP is automatically and immediately interposed in a transaction at the moment the buyer and seller agree on the terms thereof.

In case of contracts concluded on a market whereby CC&G operates jointly with a Special Clearing Member under an interoperability agreement, CC&G shall assume the role of central counterparty from the time CC&G receives the contract concluded on the market by the clearing member.

In order to provide an overall certainty to the system, CC&G defines, within its Regulations, the main processes as follows:

- the acquisition of the transfer order through the management company and registration of the identification data of the concluded contract on the market by the clearing member;
- the clearing and determination of the relevant net balances of the contractual positions;
- the calculation of the margins and payments due to default funds;
- the settlement of the margins, including intraday margins, payments due to default funds, and amounts charged;
- the final settlement of contractual positions;
- the management of the failed contractual positions;
- the management of any default procedure.

In accordance with article 2 of Finality Law, transfer orders, netting, and any payments and transfers deriving therefrom are binding among the clearing members of a system (which includes CC&G) and - in the event of insolvency proceeding against a clearing member - they shall be binding on third parties, including the relevant Authority responsible for the insolvency proceedings, provided that the transfer orders: (a) were entered into the system before the moment of opening of the insolvency proceedings; (b) have been entered into the system after the moment of opening of the insolvency proceedings and are carried out on the day of any such opening if the system operator can prove that he was not aware, nor should have been aware, of the opening of such proceedings.

In relation to collateral arrangements, legal certainty is granted by the Collateral Law, which applies to collateral arrangements in a very broad sense, including pledges, transfers of title for security purposes and repurchase agreements. According to article 9 of the Collateral Law, collateral and the related financial collateral arrangement cannot be declared unenforceable on grounds that the collateral provision occurred on or after the beginning of an insolvency procedure. Furthermore, article art. 79-septies of the Financial Law expressly confers protection to margins and other amounts acquired by a central counterparty as guarantee for fulfilment of its obligations from its participants, providing that such amounts may not be subject to executive or precautionary actions on the part of the creditors of the single participants or of the CCP, also in case of the opening of insolvency procedures. The guarantees acquired may be used only as contemplated by Regulation (EU) no. 648/2012. The opening of an insolvency procedure against a participant does not prejudice the adoption and effectiveness of the measures contemplated under Article 48 of the aforesaid regulation by the central counterparty. Such measures cannot be declared ineffective in virtue of the application of other legal provisions.

According to Article 7 of the Finality Law, in the event of an insolvency proceeding being opened against a participant in a system, the rights and obligations arising from, or in connection with, the participation of that participant shall be determined by the law governing that system. In light of the above, the only law to be considered as applicable to determine the rights and the obligations of a clearing member vis-à-vis the system (and vice versa) upon the opening of an insolvency proceeding is the Italian law as law of the system, regardless of whether the *lex concursus* is a different one.

This shall also hold true in connection with the law applicable to the right of the clearing member to receive (and the corresponding obligation of the system operator to give back) the positive balance following a close-out of the clearing member positions.

KEY CONSIDERATION 2

An FMI should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulations.

Rules, procedures and contracts are drafted in the terms typically used in market practice and thus clear and understandable for all concerned parties. Any amendments to CC&G's Rules are approved by the Board of Directors of CC&G (hereinafter named also the "BoD" or the "Board") after being submitted to Banca d'Italia and Consob for their evaluation. In order to disclose and share the proposals regarding the regulatory changes, CC&G also consults the main associations and clearing members to review and incorporate their comments and suggestions. Clearing members are thus informed in this context and they are able to raise any request for clarification or for further information.

CC&G's contractual framework is regulated by Italian law. Applicable laws and regulations are carefully monitored by CC&G and any matter requiring additional analysis or interpretation is further verified with external law firms issuing legal opinions, where necessary.

The Italian legal framework (in particular, Financial Law, Finality Law and the Collateral Law) ensures the enforceability of CCP rules, procedures and contracts, should a CCP participant default or become insolvent. Thus, the actions taken under such default rules are final and may not be stayed, avoided or reversed.

KEY CONSIDERATION 3

An FMI should be able to articulate the legal basis for its activities to relevant authorities, participants, and, where relevant, participants' customers, in a clear and understandable way

CC&G regularly describes the legal basis for its activities to relevant Authorities, its clearing members, and even the general public. CC&G's Regulations and technical documentation are accessible also in English language on the Company's website. Besides, CC&G provides answers to relevant questionnaires regarding the post-trading industry that, giving an overview of the system, contribute to the knowledge of its legal framework. CC&G's contractual framework makes explicit reference to the applicable laws and regulations, where necessary, and includes provisions clearly stating which are the governing documents of each service.

Laws and regulations, published on the Italian official journal (named "Gazzetta Ufficiale"), are also available in Italian and English on Authorities' websites.

KEY CONSIDERATION 4

An FMI should have rules, procedures, and contracts that are enforceable in all relevant jurisdictions. There should be a high degree of certainty that actions taken by the FMI under such rules and procedures will not be voided, reversed, or subject to stays.

As described in Key Considerations 1, 2 and 3, the participation to CC&G's services is governed by Italian law and EU rules and regulations aimed to establish a common set of rules for EU CCPs and

members participating to their systems. These rules are accepted by the participants by subscription of the membership agreements with CC&G.

Where a legal entity (i.e., a bank or investment firm), intending to join CC&G, is subject to a non-EU legislation, it may also acquire the status of general or individual clearing member provided that - in the context of a recognition procedure of CC&G in the State of origin of such clearing member, with the involvement of the Banca d'Italia and Consob - the following conditions are met:

existence of provisions in the State of origin which are equivalent to those applicable in Italy with respect to the supervision of banks and brokerage companies;

the State of origin applies provisions which are equivalent to those contained in the EMIR Regulation with respect to clearing;

the State of origin has in place equivalence arrangements with respect to access to the central counterparty;

appropriate agreements are in place between the Banca d'Italia, Consob and the competent authorities of the State of origin.

Moreover, such entity is required to provide a legal opinion given by a lawyer qualified to practice in the country in which the entity is domiciled. The said legal opinion must attest that no impediments exist to the substantive observance of the provisions of the CC&G Rules, the laws and other relevant regulation (e.g. Finality Law) in relation to the obligations arising from the membership to CC&G. Where the entity that intends to join the system is a non-EU bank or Investment firm, the opinion must also certify that the entity applying is authorised and actually carries out banking activities or provides services equivalent to investment services and activities in the state of origin, alternatively, the license must be provided (see Art. B.2.1.2, paragraph 12 and 13 CC&G Regulations).

Thanks to this set of rules and procedures no court in any relevant jurisdiction had ever declared any of CC&G rules and procedures unenforceable.

With the ratification of the withdrawal agreement between the European Union and the United Kingdom pursuant to Article 50 TEU, the United Kingdom ceased, from midnight of 31st of January 2020, to be part of the European Union. In order to maintain the continuity of the legal framework, the withdrawal agreement introduced a transitional period under which European Union law continued to apply in the territory of the withdrawing country until 31st December 2020.

Furthermore, European Commission Decision of 21st of September 2020 (Commission Implementing Decision (EU) 2020/1308), adopted pursuant to Article 25 (6) of EU Regulation 648/2012 (EMIR), established the temporary equivalence of the legal and regulatory framework, as well as the supervisory arrangements concerning clearing applicable in the United Kingdom starting from the 1st of January 2021 and for a period of 18 months.

With reference to the above, CC&G has been engaging with Bank of England and its national competent Authorities (Banca d'Italia and Consob) with reference to the application process for its recognition as a non-UK CCP in order to continue operating in the United Kingdom (UK), following the UK's withdrawal from the European Union (EU). On 24th January 2019 CC&G was included by the Bank of England in the list of third country CCPs that will offer clearing services and activities in the UK under the Temporary Recognition Regime (TRR) as set out under the Central Counterparties Amendments, etc., and Transitional Provision (EU Exit) Regulations 2018. The TRR will enable eligible non-UK CCPs to provide clearing services and activities in the UK for up to three years from the commencement of the TRR, extendable by the UK's HM Treasury in increments of twelve months. Furthermore, CC&G has engaged with the Bank of England and its national competent Authorities with reference to the process to obtain Settlement Finality temporary designation for the securities settlement system it operates to continue to benefit from UK settlement finality protection. On 24th January 2019 CC&G has also been included by the Bank of England in the list of operators of the EEA systems which have indicated their intention to enter into the temporary designation regime on exit day. CC&G will hence receive settlement finality protection in the UK for up to three years, extendable by HM Treasury in increments of twelve months.

Given the particular nature of the circumstances described, in order to ensure operational continuity for members based in the United Kingdom, in December 2020 the Instructions accompanying the Rules of CC&G have been supplemented in relation to the maintenance of the membership requirements for the system. The rulebook amendment established that, for Clearing Members based in the UK as of 31st of December 2020, the conditions and requirements foreseen in the rulebook shall be deemed to have been met for a period of 18 months starting from 31st of December 2020. This period of 18 months may be renewed by CC&G, conditioned upon the fact that the potential extension does not imply risks to financial stability and, in any event, on the condition that no divergent legislative policy developments will emerge in the United Kingdom.

KEY CONSIDERATION 5

An FMI conducting business in multiple jurisdictions should identify and mitigate the risks arising from any potential conflict of laws across jurisdictions.

In addition to what already stated in the [Key Consideration 4](#), in case of a link with another CCPs, central depositories and/or settlement systems, the legal risk is duly identified and analysed by Euronext Clearing, also requesting ad-hoc legal opinions provided by external law firms.

The aforesaid legal opinions, provided by the respective local law firms, aim at assessing the compliance of the rules governing each system with the ones governing the other system.

No conflict-of-laws issues have arisen so far, also taking into account that the most relevant jurisdiction whereby Euronext Clearing is currently conducting business is Italy.

PRINCIPLE 2: GOVERNANCE

An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.

Summary Narrative

KEY CONSIDERATION 1

An fmi should have objectives that place a high priority on the safety and efficiency of the fmi and explicitly support financial stability and other relevant public interest considerations.

CC&G is supervised by Banca d'Italia, with reference to the stability and the reduction of systemic risk, and by Consob, with respect to transparency and investor protection. Italian law provides the two above-mentioned Authorities with extensive regulatory, informative and enforcement powers vis-à-vis CC&G.

The Board of Directors is responsible for the strategic guidance and supervision of the Company's overall business activities as well as of the risk management framework, so that the risks assumed in the framework of the Company's business activities are consistent with the strategic guidelines. Top and senior management is responsible for the alignment of CC&G's operational processes and procedures to the aforesaid guidelines.

Among its main objectives, CC&G, through the mitigation of counterparty risk and the provision of sound risk management, ensures the correct and smooth functioning of the regulated markets and, by doing so, contributes to the protection of Euronext Clearing members, their clients and the markets served, supporting the stability and efficiency of the financial system.

CC&G's main objectives, also mentioned in the CC&G's Regulations, specifically place high priority on safety and efficiency by ensuring:

- the maintenance of an efficient physical and logical data protection related to the system;
- the adoption of recovery, re-activation and restoration procedures for data processing to ensure the service continuity;
- the mitigation of the counterparty risk of its clearing members by acting as buyer towards every seller and vice versa becoming the guarantor of the final settlement of the contracts;
- the quality of settlement netting process, position keeping, collateral management and Straight-through Processing (also named "STP") post-trading functionalities.

Furthermore, in order to assess whether the aforesaid objectives have been achieved, CC&G adopts:

- the Risk Register, set up according to the guidelines defined in the Enterprise Risk management framework, in order to ensure the mapping, the periodical assessment of the relevant risks for CC&G and the overall safety of the operational process;

- a governance control framework, whereby the second and third level controls aim, inter alia, at assessing the compliance of the Company with the goals set and reporting the results to the Board of Directors, Board of Statutory Auditors and top management.

As an entity authorized to operate as CCP and due to its role as systemically important market infrastructure, Euronext Clearing contributes to support, in cooperation with the other FMIs, the financial stability through:

- the adoption of a clear organizational structure with well-defined, transparent and consistent lines of responsibility, effective processes to identify, manage, monitor and report the risks to which it is or might be exposed, and adequate internal control mechanisms;
- three levels of protection achieved through the membership requirements, the margin system and the set of financial resources to absorb losses and to be resilient in case of clearing members' failure in extreme but plausible market conditions;
- constant monitoring of CCP capital requirements and the related risk exposure.

The support of public interest considerations, which for Euronext Clearing consists in protecting clearing members and other relevant stakeholders, is ensured by a range of measures, in particular:

- Sales and Relationship Management team is composed of 2 resources that cover services offered by Euronext Clearing. The team actively engages regular meetings with domestic and international clients and prospects to ensure high level of satisfaction on services offered, presentation of roadmap and new services and main industry trends;
- establishment of a Post Trade Participant Committee (also "PTPC") with all its domestic clients and the attendance of the Authorities as observers - with the aim of: (i) evaluating clearing members' operational needs and implementing the related new services; (ii) identifying new initiatives in order to increase post trade efficiency of guaranteed transactions (iii) present roadmap;
- set-up of an International Client Committee with the participation of all non-Italian clients with the same scope of the PTPC;
- the undertaking of consultation processes in the circumstance of amendments to CC&G's Regulations, in case of implementation of new regulations or new services;
- meetings shall be arranged, upon occurrence, with Banca d'Italia, Consob and Ministry of Economy and Finance, depending on the specific subject;
- the involvement of the Risk Committee, if the topic is within its remit, in order to provide a mandatory non-binding opinion.

KEY CONSIDERATION 2

An FMI should have documented governance arrangements that provide clear and direct lines of responsibility and accountability. These arrangements should be disclosed to owners, relevant authorities, participants, and, at a more general level, the public.

Euronext Clearing employs and maintains:

- i. sound corporate governance structures and practices, in line with the organisational requirements provided under the EMIR Regulation (please refer to Art. 26).

With regards to the aforesaid organisational requirements, CC&G's governance arrangements include clear and detailed documents for the functioning of the Board of Directors and of the management structure.

The composition, roles and responsibility of the BoD, as provided by the Italian Company Law, are further described in Key Consideration 3. The Board of Directors, inter alia, has the task to appoint the Chief Executive Officer (hereinafter named also "CEO"), the General Manager, the Deputy General Manager and the Director of Finance, granting specific powers to each of them, specified in an ad-hoc document approved by the Board.

Whilst, roles and responsibilities of management are clearly defined and represented in the organizational chart (approved by the Board) and in the Organizational Manual.

ii. decision-making procedures, delegation mechanisms and well-defined, transparent and consistent lines of responsibility and communication;

iii. measures and procedures to mitigate and effectively manage potential conflicts of interest related to the activities performed as well as those that may arise as a result of the belonging of the Company to the Group;

iv. suitable organisational measures to guarantee the separation of the operational business areas from the second and third level control functions, which operate independently; in fact, the Chief Risk Officer (hereinafter referred to as "CRO"), the Chief Compliance Officer (hereinafter named also "CCO") and the Head of Internal Audit are appointed by the Board of Directors and report directly to the Board itself;

v. solid and efficient internal control structure based on the "three lines of defence" model where (i) Line staff is responsible for first-level controls, targeting operational processing, (ii) the CCO and the CRO functions are responsible for second-level controls (in line with EMIR requirements), (iii) Internal Audit function is providing reliable, objective and reasonable assurance on the adequacy and effectiveness of, inter alia, the system of internal controls;

vi. efficient systems and effective procedures ensuring the members' compliance with CC&G Regulations and the smooth functioning of the systems and services provided;

vii. adequate administrative and accounting policies and procedures compliant with the applicable laws, providing a truthful description of the company's equity, economic and financial situation;

viii. adequate IT systems for the complexity and range of services provided, ensuring high levels of security such as data integrity and confidentiality of the information, also in compliance with Reg. (EU) 2016/679 (GDPR - General Data Protection Regulation). CC&G has adopted the standard ISO27001:2013 as well, with the aim of enhancing cyber security best practices at all levels, developing a wide range of techniques aimed at protecting data and networks from attack, damage or unauthorized access.

The operational business areas are independently governed by the Company while the supporting functions, such as HR, Finance, Legal, Internal Audit, Regulation, Property, Communications, Company Secretary are provided by other Group companies by the means of specific intercompany arrangements. With reference to the accountability, according to the Italian Company Law, the Board

of Directors is responsible for the strategic guidance and supervision of the Company's overall business activities.

All Board members are jointly and severally liable vis-à-vis the Company for the damages caused by the breach of their duties, with the exception for those tasks which are specifically attributed to one or more executive Directors. However, such liability would arise only for those Directors who, being aware of facts detrimental to the company, did not do what they could have done to avoid the occurrence of such facts or to neutralise or reduce the detrimental consequences thereof.

Accordingly, not only executive Directors (i.e. those Directors to whom powers or tasks are delegated by the Board) but also non-executive Directors (i.e. those Board members to whom no powers or tasks are delegated) may, in principle, incur in liability due to the breach of their duties. However, liability may be excluded for those Directors who, being without fault, have had their dissent timely annotated in the Board of Directors book and have given prompt notice thereof to the Chairman of the Board of Statutory Auditors.

However, both executive Directors and non-executive Directors, in managing the Company, must fulfil the duties provided by the Italian Civil Code and the CC&G's By-Laws. They shall operate in an informed manner and with the "care required by the nature of their office and their specific competences".

Directors are also required to act avoiding to implement transactions in relation to which they may have a potential or real conflict of interest, and in particular in the event that such transactions may cause a prejudice to the company.

Conversely, the accountability of the management, responsible for the day-to-day operations, is ensured by the oversight and coordination of the General Manager. Regular reporting on the relevant activities and financial information is provided to the Board.

Major decisions taken by the Board of Directors, impacting the Euronext Clearing operations and its members or the Company's governing rules (CC&G's Regulations and related Instructions) as well as relevant changes in governance arrangements, are shared and disclosed by the Company to its members via public consultation processes and subsequently published on the Company's website and ad-hoc notices, if relevant. Also the Authorities are kept timely informed of these decisions.

All key documents concerning the governance arrangements are filed in the Company Register and are, therefore, disclosed to the public. These include, inter alia, Articles of Association, By-Laws, functions of the Board, framework of delegated powers, composition of the Board of Directors and Board of Statutory Auditors, information regarding the audit company, Shareholders' register, copy of relevant resolutions concerning mergers, stock dividends, capital increases.

Euronext Clearing provides extensive disclosure of its main governance arrangements on the company's website, in particular:

information concerning the Group Structure;

- By-Laws;
- Information concerning the Board of Directors;

- Information related to Risk Committee;
- Organizational Chart;
- Remuneration framework;
- Investment Principles.

KEY CONSIDERATION 3

The roles and responsibilities of an FMI's board of directors (or equivalent) should be clearly specified, and there should be documented procedures for its functioning, including procedures to identify, address, and manage member conflicts of interest. The board should review both its overall performance and the performance of its individual board members regularly.

CC&G adopts the traditional system of administration and control, whereby corporate management is under the responsibility of the Board of Directors and overall control activities are assigned to the Board of Statutory Auditors.

The Board of Directors is responsible for the strategic guidance and supervision of the Company's overall business activities, as well as of the risk management process, so that the risks assumed in the framework of the Company's business activities are consistent with the strategic guidelines. Within the Board, non-executive and independent Directors are directly committed to task where any potential conflict of interests may arise, such as risk management and internal controls, remuneration, financial reporting.

The Board is entrusted with all the powers for the ordinary and extraordinary management of the Company in accordance with the provisions of law, rules and By-Laws and has the faculty to do all such acts considered necessary or useful to achieve the company purpose.

Roles and responsibility of the Board are clearly established in the Italian Company Law and specified in CC&G's By-Laws and in the Board's Terms of Reference. Within Board's Terms of Reference, *inter alia*, are defined the rules governing the functioning of the Board, such as the conduct and rules of meetings, the reserved matters and the powers of Directors, the rules of Directors' interests and the Board self evaluation process.

CC&G has established several Committees and procedures that ensure the accountability to the stakeholders. Among the advisory committees to the Board, a Risk Committee and a Remuneration Committee have been constituted, in accordance with EMIR.

Internal management committees also assist in the decision making processes with regard to core business matters such as: margins, default funds, operational risk, membership and investments,.

The Company has established a Risk Committee which could comprise between six and twelve members, including representatives of its clearing members, independent members of the Board and representatives of its clients, so that none of the groups of representatives shall have a majority in the Committee. Members of the Committee are appointed by the Board of Directors of CC&G.

The Risk Committee is an advisory committee to the Board. It shall give the Board of Directors its mandatory non-binding opinion on any arrangements that may impact the risk management of the Company acting as central counterparty and not on decisions concerning its daily operation activity. In particular, the Committee shall advise with respect to the followings:

- a. the features of the risk models adopted, including those concerning the interoperability agreements with other central counterparties, any material revisions or adjustments to such models, their methodologies and the liquidity risk management framework;
- b. the internal policy framework for defining the types of extreme but plausible market conditions and its reviews implemented in order to determine the minimum size of default fund, proceeding with the assessments set forth under the Regulation (EU) No 153/2013 articles 29 (3) and 31;
- c. the policy for the management of default procedures;
- d. the liquidity plan adopted by the Company, in accordance with Regulation (EU) No 153/2013 article 32 ;
- e. the criteria for accepting clearing members;
- f. the criteria adopted for the clearing of new classes of instruments;
- g. the outsourcing of functions;
- h. the policy for the use of derivatives contracts, for the purpose of article 47 of EMIR.

Further information are available within the Terms of Reference of the Risk Committee published on the Company's website.

The Board has set up a Remuneration Committee (hereinafter named also "RemCo") with consultative and proposing functions, composed by at least three Directors of the Company. Members of the Remuneration Committee are the Vice Chairman and two Independent Directors.

The activities of the Remuneration Committee are established in a specific "Terms of Reference", approved by the Board and published on the Company's website, which sets up its functioning procedures with regard to the entrusted duties. The Committee is responsible for submitting recommendations, for approval of the Board of Directors, on the design and development of the remuneration policy, the oversight of its implementation by senior management and the review of its practical operations on a regular basis, so that the incentives underlying the remuneration system are consistent with the management of business, risks and assets of CC&G.

Role and responsibilities of the Audit Committee are assigned to the Board of Statutory Auditors. The Board of Statutory Auditors is peculiar of the Italian corporate governance system; it is composed of three independent members directly appointed by Shareholders. It also acts as Audit Committee and, according to the Italian Corporate Law, is entrusted with the responsibility of supervising a wide set of aspects, ranging from the compliance with the law and the Company By-laws, to the efficiency of the internal control system, the internal audit system and the risk management system; audit of the annual accounts; the independence of the auditor/audit company, in particular with regard to the provision of services other than auditing to the company subjected to the statutory audit of the accounts.

Each member shall satisfy the requirements of integrity, professionalism and independence required by law.

For what concerns the conflicts of interest management, it shall be highlighted that the Company conducts its business according to the principle that it should prevent any conflicts of interest arising, must manage any actual or potential conflicts of interest fairly and effectively both between itself and its customers, suppliers and partners and between one customer, suppliers or partners and another. Board members and employees are expected to be able to identify conflicts relating to their responsibilities in receiving or providing services to third parties and demonstrate that any close personal relationships that might create the impression of a conflict of interest are appropriately managed to avoid an actual conflict arising. Moreover and according to the Italian Company Law, Board members are expected also to disclose any interest that they may have, on their own or on behalf of third parties, with respect to certain transactions of the Company, when they are submitted to the Board for resolution.

In addition to the "Conflict of Interest Policy" established at Group level, the Company has adopted, pursuant to EMIR provisions, an Euronext Clearing "Policy for CCP Conflicts of Interest Management", subject to an annual review and approval by the CC&G Board.

In October 2019 the above mentioned Policy has been updated to comply with the new requirements set forth by the CCP-specific regulatory provisions foreseen by "ESMA Guidelines on CCP Conflict of interest management" aiming at ensuring common, uniform and consistent application of EMIR and CCP RTS. The ESMA Guidelines apply, in particular, in relations to the conflict of interest definition and rules and procedures the CCP shall set up to address conflicts of interest.

The Policy, *inter alia*, identifies the categories of conflicts, the internal organisational arrangements to prevent the aforesaid risk of conflicts and defines the procedures to be implemented to effectively manage and solve any conflict that may occur.

Moreover, CC&G adopts a "Code of Conduct", which is intended to guarantee the independent, efficient and correct performance of the business activity, either to mitigate and manage potential conflict of interest situations and to punish behaviours breaching the system transparency, the clients protection, and the orderly execution of the services. The core values that underpin the Code of Conduct are independence, impartiality, confidentiality, honesty, loyalty, fairness, and professional competence, and all interested parties must abide by them.

For what concerns Board performance review, CC&G Board of Directors periodically carries out a process of evaluation on the composition and functioning of the overall body as well as on the Directors' individual performance.

Evaluations are intended to assess the effectiveness of the Board in the fulfillment of its main responsibilities, as well as assist Directors in objectively assessing their own contribution to the effective governance of the Company, with a view to improving the Board's collective and individual performance.

Responses to the surveys, reported in a aggregated form, are reviewed and discussed within the Board itself. Any possible action arising from the discussion are tracked and periodically reviewed by the Board in order to ensure continuous improvement in the way the Board conducts its business and the Board members contribute to the effective governance of the Company.

KEY CONSIDERATION 4

The board should contain suitable members with the appropriate skills and incentives to fulfil its multiple roles. This typically requires the inclusion of non-executive board member(s).

CC&G Board of Directors, appointed by the Shareholders' Meeting, is currently composed of seven members. Directors remain in office for three years – unless the Shareholders' Meeting, that proceeds with the appointment, establishes a shorter period – and they may be re-elected.

Directors shall have expertise, integrity and independence requirements in order to hold their office. Also the General Manager is required to fulfil the same integrity and professional requirements set out for Directors. The lack of the requirements shall cause the lapse from the office.

The Board of Directors of CC&G assesses the integrity and professional requirements of its members following the appointment by the Shareholders' Meeting, every three years. The Board also assesses the integrity and professional requirements of the General Manager, after his appointment and, then, regularly every three years, at the same time of the assessment of the Directors' requirements. The minutes of the relevant Board meetings are sent to the Supervisory Authorities.

The assessment is carried out on the basis of the information provided by Directors themselves or available to the Company (self-declaration and Curriculum vitae provided by Directors) and according to the guidelines set forth by Decree of Treasury No 471/1998. In particular, the examination of the requirements is conducted separately for each of the persons concerned and with each of them abstaining in their own case. The resolution is analytical and therefore mentions the grounds on which the assessments were based. Moreover, the minutes show, for each person concerned, the documents taken into consideration in order to attest the fulfillment of the requirements established by law.

The Board of Directors is currently made up of seven members, three of which are independent members and two non-executive members. The Director of Finance and the CEO are executive Directors entrusted with managing powers by the Board.

Compensation for non-executive members and independent members is flat and not linked to the business performance of CC&G. The non-executive members and the independent members who are also members of Board Committees or member of the Risk Committee of Euronext Clearing have an additional fee for the special assignment.

The composition of the Board of Directors is the following:

Role	Executive / Non Executive
Chairman	Non Executive
Vice Chairman and Director of Finance	Executive with delegated powers
General Manager and CEO	Executive Group Manager
Director	Executive Group Manager
Director	Non Executive Independent
Director	Non Executive Independent
Director	Non Executive Independent

Three members of the Board of Directors of CC&G are Independent Directors, according to the definition of "independent member" provided for by EMIR, according to which an independent director means a member of the Board who has no business, family or other relationship implying a conflict of interests regarding the CCP or its controlling shareholders, its management or its clearing members, and who has had no such relationship during the five years prior to his appointment as a Board member.

The Board evaluates, the independence of its non Executive Directors. While setting out the guidelines to assess the Directors independence, the Board considered any circumstance that is subject to influence the independent judgement of the Director as it could lead to a conflict of interest regarding the Company or its controlling shareholders, its management or its clearing members, having regard more to the substance than to the form.

The assessment of independence of Directors is carried out on the basis of the information provided by Directors themselves (self-declaration) or available to the Company and according to the guidelines set forth by the Board itself. In particular, the evaluation of the requirements is conducted separately for each of the individuals concerned and the outcome, including the documents taken into consideration, is recorded in the resolution.

KEY CONSIDERATION 5

The roles and responsibilities of management should be clearly specified. An FMI's management should have the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of the FMI.

The roles and responsibilities of CC&G's Chairman, Vice Chairman, CEO and Finance Director are set by CC&G Board of Directors in line with the guidelines foreseen in the By-Laws. In addition, the BoD

has nominated a General Manager. Senior Managers are entrusted with delegated powers for specific matters within their respective roles.

The system of delegated powers has remained substantially unchanged from the previous Report. The system of delegated powers for ordinary administration has been updated according to the evolution of the organizational structure by the Board of Directors held on 9th of July 2021. The framework of delegated powers is mainly unchanged compared to the powers conferred by the previous Board of Directors, except for the powers of the Vice Chairman that have been modified consistently with the role covered by Giorgio Modica as Finance Director of the Company.

CC&G, by selecting members of its management, ensures an appropriate hiring process to guarantee that they possess the appropriate mix of experience, skills and integrity. Each member of the management team is responsible for day-to-day activities, ensuring the efficient performance of the respective business area.

The management is accountable for its performance through evaluation of the achievement of the strategic objectives, financial targets and individual performance, and linking compensation to performance.

Within its remit, the CC&G Remuneration Committee puts forward proposals, for approval of the Board, on remuneration matters, such as (i) the annual variable compensation pool of CC&G, (ii) the compensation of the CEO and/or the General Manager; (iii) the remuneration of Head of Internal Audit, Chief Risk Officer and Chief Compliance Officer, where employed by the Company.

CC&G's Code of Conduct is applicable to all employees and contractors, describing the expectation of conducting business in accordance with applicable laws and regulations with the highest best in class capabilities.

KEY CONSIDERATION 6

The board should establish a clear, documented risk-management framework that includes the FMI's risk-tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies. Governance arrangements should ensure that the risk-management and internal control functions have sufficient authority, independence, resources, and access to the board.

The Board of Directors has the final responsibility and accountability for managing the CC&G's risk. In this respect, the Board is responsible for defining, determining and documenting an appropriate Risk Appetite Framework (also hereinafter the "RAF") for the Company, monitoring its implementation, in accordance with strategic objectives; defining the risk management policies of the Company, periodically reviewing them.

In addition CC&G's Board approves the the "Enterprise Risk Management Framework" (ERMF), adopted for the identification, assessment, management and monitoring of risks as they arise.

Moreover, the Board also sets its own risk appetite and risk limits framework, in accordance with the Group Risk Appetite Framework. The Chief Risk Officer, supported by Risk Policy Office, is involved in the definition of the RAF and periodically assesses its adequacy.

While exercising its supervising function, the Board, at least on a quarterly basis, receives Risk Reports from the Chief Risk Officer (the so called "Risk Journal").

CC&G structure is based on the "three lines of defense" model:

(i) Line staff responsible for first-level controls, targeting operational processing. The managers are in charge of assessing the risks related to the different business areas and of monitoring the actions identified to mitigate them on ongoing basis;

(ii) The Compliance Function and the Risk Function responsible for second-level controls (in line with EMIR requirements) respectively led by the Chief Compliance Officer and by the Chief Risk Officer. In particular:

- the CRO implements the risk management framework including the policies and the procedures established by the Board of Directors aiming at identify, assess and measure the relevant risk which CC&G is exposed to and - together with the managers of CC&G - sets the actions to mitigate such risks and monitor their adequacy and efficiency;
- the CCO ensures the identification and management of the overall non-compliance risk of CC&G and its employees to the applicable laws and regulations (including EMIR and CC&G Regulations) by assessing, inter alia, the compliance of CC&G internal procedure framework and other organizational measures and monitoring its implementation.

(iii) Internal Audit Function providing reliable, objective and reasonable assurance to Board members and Top Management on the adequacy and effectiveness of the system of internal controls.

CC&G governance arrangements ensure that the risk management and internal control functions have sufficient authority, independence, resources, and access to the Board:

- Reporting lines for risk management, compliance and internal audit are separate from those for the other operations of the Company: CRO and CCO have a direct reporting line to the Board of Directors (also through informative flows and direct participation); Head of Internal Audit hierarchically reports to the Board of Directors with a secondary reporting line to the CEO;
- The Board approves the activity plans prepared on an annual basis by the Chief Risk Officer, Chief Compliance Officer and Head of Internal Audit and examines the periodical reports prepared by such functions, in order to monitor the adequacy of the internal control system and the consistency of CC&G activities to the Risk Appetite Framework approved. The Board may make specific requests concerning the respective activity plans;
- The Board appoints and revokes, upon the proposal of the CEO and after consulting the Board of Statutory Auditors, the CRO, the CCO and the Head of Internal Audit; determines the respective duties and, upon the proposal of the Remuneration Committee, sets their remuneration, in line with the Company's remuneration policy.

KEY CONSIDERATION 7

The board should ensure that the fmi's design, rules, overall strategy, and major decisions reflect appropriately the legitimate interests of its direct and indirect participants and other relevant stakeholders. Major decisions should be clearly disclosed to relevant stakeholders and, where there is a broad market impact, the public.

The legitimate interests of participants and relevant stakeholders are taken into account in the context of amendments to CC&G's Regulations due to relevant changes in the functioning of the services and systems or in the regulatory framework.

In such instance, Euronext Clearing seeks the views of interested stakeholders through its public consultations, the Company's website, seminars and regular meetings. Moreover, Post Trade Participant Committee has been established by Euronext Clearing for Italian clients and another international-dedicated Committee for clients based outside of Italy, with the aim of evaluating any operational needs of its clearing members and implementing new relevant services, identifying new initiatives in order to increase post trade activities'efficiency of guaranteed transactions, and verifying the members' satisfaction for the services provided.

PRINCIPLE 3: FRAMEWORK FOR THE COMPREHENSIVE MANAGEMENT OF RISKS

An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.

Summary Narrative

KEY CONSIDERATION 1

An FMI should have risk-management policies, procedures, and systems that enable it to identify, measure, monitor, and manage the range of risks that arise in or are borne by the FMI. Risk-management frameworks should be subject to periodic review.

Euronext Clearing identifies, measures and monitors risks through different tools. In particular:

- Euronext Clearing has a set of policies describing rules and guidelines to be followed and all activities performed by the Company, which bear material risks, are disciplined by specific internal procedures;
- Euronext Clearing manages risks arisen in its business activity through a structured set of committees. The first four below-mentioned committees support the CEO decisions whereas the (External) Risk Committee is advisory to the Board as well as the Remuneration Committee:
 - (Internal) Risk Committee;
 - Operational Risk Committee;
 - Investments Committee;
 - Membership Committee;
 - (External) Risk Committee;
 - Remuneration Committee.

Euronext Clearing adopts also an internal control system which is structured in order to assure correct information and adequate control of all the Company's activities, paying particular attention to the areas deemed to represent a potential risk. The composition and functioning of the internal control system is outlined in detail in Principle 2, Key consideration 6.

As part of internal control system, the Risk Policy Office is in place with the purpose of further supervising Euronext Clearing activities. In particular, the Risk Policy Office is in charge of several tasks including:

- performing second level controls on Euronext Clearing investment activities: these controls aim at an independent assessment of compliance with investment policies, EMIR Regulation and procedures;
- performing an independent internal validation on Risk Management models;
- filling in the "Risk Register" on a quarterly basis, whereby general business, financial and operational risks are monitored and reported to Operational Risk Committee and Board of Directors.

The Risk Appetite Framework is reviewed on an annual basis and shared with the Board of Directors at least once per year and more frequently when needed. The framework is also shared with relevant Authorities at request.

The assessment of operational risks is also performed by the BCP Manager and validated by the top management, taking into account the recommendations of Internal Auditors, External Auditors and CC&G Statutory Auditors. The Business Continuity Plan contains a bottom-up methodology to identify all the operational risks, the related processes/activities and the consequent preventive and contingency measures.

KEY CONSIDERATION 2

An FMI should provide incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the FMI.

Euronext Clearing provides incentive to its participants to contain risks mainly through its margin methodology and by the institution of a Default Fund (hereinafter defined also "DF").

Margins are determined based on the exposure of the client. Higher exposures will correspond to higher margins required. Participants are therefore discouraged to take excessive risks for which they would have to post margins and Euronext Clearing monitors concentration on an ongoing basis. Moreover, the Company sets up a Default Waterfall in which the first resources to be absorbed are the margins and payment to Default Fund of the defaulter. Thus, margins posted by defaulting participants and proportional to their exposure would be used as a first recourse in case of need. This helps to reduce the moral hazard between the CCP and its clients.

The total amount of DF is allotted among all participants, based on the average initial margins deposited in the previous reference period by each participants. The Contribution Quota of each participant to the DF is determined by the ratio between the average of initial margins of the participant and the total average of the initial margins. This DF is therefore proportional to the exposure borne by each participant.

Moreover, the treatment of "fail positions" represents a disincentive for all participants to take risks. For Bond, Equity and Derivatives asset classes, all "fail positions" are margined keeping these positions segregated from the ordinary ones. Moreover, for the Bond section, "fail positions" are margined one by one, independently from other positions in the same class therefore no reduction or offsetting between positions is allowed.

KEY CONSIDERATION 3

An FMI should regularly review the material risks it bears from and poses to other entities (such as other FMIs, settlement banks, liquidity providers, and service providers) as a result of interdependencies and develop appropriate risk-management tools to address these risks.

With reference to investments, Euronext Clearing applies limits according to the Company's Investment Policy. Controls include characteristics of investments (duration, concentration, Value at Risk, etc.) and deposit accounts (counterparty ratings, domiciles, etc.).

Regarding material risks arisen from service providers, Euronext Clearing applies the Group Outsourcing Policy, which defines rules to be followed in all outsourcing arrangements; in particular the Policy establishes appropriate controls and processes to ensure the quality as well as the effective provision of the outsourced services.

All material risks borne by Euronext Clearing are assessed in the Internal Risk Committee, at least on a monthly basis.

Euronext Clearing applies several practices and mitigation measures to reduce risks for its clients. The Company operates only in selected markets and develops specific methodologies according to the market section. Moreover, Euronext Clearing applies strict membership requirements which mitigate counterparty risks for both Euronext Clearing and its clearing members.

The Company has also in place a Business Continuity Plan that is intended for the identification, assessment and reduction of operating risks, with special regard to risks involving technological systems, personnel and organization.

As far as material risks borne from the interoperable CCP (LCH. SA), Euronext Clearing has set up an Interoperability Arrangement which defines rules for the joint business.

Euronext Clearing, in compliance with EMIR/ESMA regulations, has agreed with LCH SA the specific actions to be taken in order to manage potential defaults or events in which the CCP's financial resources are exhausted.

KEY CONSIDERATION 4

An FMI should identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. An FMI should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, an FMI should also provide relevant authorities with the information needed for purposes of resolution planning.

Euronext Clearing has a Recovery Plan in accordance with the guidance provided by the "CPMI-IOSCO report on recovery of financial market infrastructures" published in October 2014 and with the principles for financial markets infrastructures (PFMIs) produced by CPMI – IOSCO and published in April 2012 which provide the comprehensive framework in terms of best practices for CCP risk management.

The purpose of the Company Recovery Plan is to provide information and procedures necessary to enable Euronext Clearing to continue providing its critical services even in the remote case its viability as a going concern is threatened. The Recovery Plan is also designed to allow Euronext Clearing, its clearing members and other relevant stakeholders to cope with such extreme circumstances and to increase the possibility that the most appropriate tool to deal with a specific stress will be used, thereby reducing the risk that effectiveness of recovery actions may be hindered by uncertainty.

Euronext Clearing has preliminarily identified, among its services, the ones that can be classified as "critical", based on the relevance of the service both from the market participants' perspective and for the smooth functioning of the markets served by the CCP. Thereafter, Euronext Clearing has defined

a set of potential scenarios that may prevent it from being able to provide its critical services as a going concern. The potential scenarios which may threaten the Company's viability have been identified on the basis of the major risks to which Euronext Clearing is exposed, which are namely:

- credit risk;
- liquidity risk;
- investment risk;
- general business risk; and
- operational risk.

According to the above described risks, Euronext Clearing has identified the major types of scenarios that may potentially prevent Euronext Clearing from being able to meet its obligations, provide its critical operations and services as a going concern, which fall into the following categories:

- i. Defaulting losses;
- ii. Liquidity shortfalls;
- iii. Non-defaulting losses.

On the basis of the identified scenarios, Euronext Clearing has included in the Recovery Plan the description of the scenario, the events that are likely to trigger that scenario, the set of preventive controls in place at Euronext Clearing for monitoring such events, the financial/operational impact of the scenario on the CCP and clearing members and the specific recovery measures and steps that Euronext Clearing is expected to take when the scenario occurs which aim at controlling and managing the exposure of those who would bear the losses and liquidity shortfalls and at creating appropriate incentives for Euronext Clearing clearing members, its shareholder and relevant stakeholders to control the amount of risk that they bring or they incur in the system and to monitor Euronext Clearing risk management activities.

PRINCIPLE 4: CREDIT RISK

An FMI should effectively measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions.

Summary Narrative

KEY CONSIDERATION 1

An FMI should establish a robust framework to manage its credit exposures to its participants and the credit risks arising from its payment, clearing, and settlement processes. Credit exposure may arise from current exposures, potential future exposures, or both.

Euronext Clearing manages its credit risk through tight membership requirements in terms of supervisory capital as well as technical and organisational requirements. The fact that every participant is compliant with all these requirements reduces the credit risk of the CCP itself.

In addition, Euronext Clearing monitors on an ongoing basis the creditworthiness of its Participants looking at a number of riskiness indicators. Some participants are inserted in a so called "watch list" and their creditworthiness status is periodically brought to the attention of the Internal Risk Committee which may decide to apply appropriate risk mitigation actions (such as e.g. credit margin add-ons).

Euronext Clearing covers participants' exposures by requiring conservative margins and default fund contributions.

All payments and transactions are settled in Target2, thus no specific framework is required to manage credit risk arising from cash payments. With regards to the securities settlement, it is performed within the International and Domestic Central Securities Depositories through the common form of Delivery versus Payment, which ensures protection against credit risk.

Euronext Clearing manages its credit risk towards all participants by putting in place sound risk management processes/practices, with appropriate controls (three levels of defense) and accurate policies driving the daily operations. Margins and Default Fund parameters/calculations are designed in such a way that the Company credit risk is reduced to minimum levels. Moreover, Euronext Clearing governance procedures of the default fund and Euronext Clearing waterfall structure have been implemented to ensure appropriateness and to mitigate credit risk towards participants.

The CCP measures and monitors its current exposure daily by analyzing participants positions and margins posted.

Moreover, Euronext Clearing routinely calculates intra-day margins, based on real-time positions and real-time prices at least twice during the trading day. In case of significant uncovered exposures (stemming from large price variations and/or large variation of the net positions), intraday margins are collected in order to reduce the exposure of the Participants vis-à-vis Euronext Clearing. In order to identify exactly the "significant uncovered exposures", specific thresholds have been established by Euronext Clearing Internal Risk Committee.

Stress Tests performed by Euronext Clearing aim at quantifying additional resources (Default Fund) beyond margin requirements necessary to cope with extreme but plausible variations of the risk factors, larger than those covered by the Initial Margining system.

The purpose of Stress Tests is the determination – according to the stress scenario applied every time – of the "Non Collateralized Exposure" (also hereinafter "NCE") for each Clearing Member, that is the amount that the Participant would be required to deposit at Euronext Clearing as a consequence of the new (initial and variation) margin call after the hypothesized price variations.

KEY CONSIDERATION 2

An FMI should identify sources of credit risk, routinely measure and monitor credit exposures, and use appropriate risk-management tools to control these risks.

Euronext Clearing:

- assesses all clearing members compliance with membership requirements on an ongoing basis and clearing members are obliged to periodically provide certain financial information for this purpose, as defined in the Euronext Clearing Rulebook;
- monitors on an ongoing basis its clearing members creditworthiness, looking at a wide set of riskiness indicators and defining mitigation actions, if appropriate;
- identifies the source of credit risk arising from its participants by deeply analysing the markets it guarantees and by defining various margining methodologies based on the main characteristics of the instrument guaranteed;
- measures the credit risk arising from its participants by computing initial and intraday margins via diversified methodologies, tailor-made to the instrument to which they apply;
- uses Margin systems and stress test systems to calculate, manage and monitor credit risk from participants;
- accepts as collateral only cash or government bonds issued by countries with low credit risk and applies conservative haircuts and concentration limits.

The payments between clearing members and Euronext Clearing are managed in Central Bank money and the settlement is performed within the International and Domestic Central Securities Depositories.

KEY CONSIDERATION 4

A CCP should cover its current and potential future exposures to each participant fully with a high degree of confidence using margin and other prefunded financial resources (see Principle 5 on collateral and Principle 6 on margin). In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. In all cases, a CCP should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount of total financial resources it maintains.

Each clearing member pays margins to cover the theoretical costs of liquidation, which Euronext Clearing would incur in the event of a Member's default in order to close its current position.

Margins are calibrated to conservative percentages of confidence levels (up to 99.99%), assuming appropriate holding periods and using market prices from sufficiently long look-back periods.

The adequacy of margins is evaluated on a daily basis via backtesting and consequent coverage ratios.

As an additional protection, four Default Funds - one for the Equities and Equity Derivatives Sections, one for the Energy Derivatives Section, one for the Agricultural Commodities Section and one for the Bonds Section - are managed by Euronext Clearing with the aim of covering losses in excess of margins associated with sharp volatility, price and interest rate movements.

Euronext Clearing sets the amount of the Default Fund of at least the first two most exposed Clearing Members in line with the Non-Collateralized Exposure which is the amount that the member would be required to deposit at Euronext Clearing as a consequence of the new (initial and variation) margin call after the hypothesized price variations. Currently Euronext Clearing sets more stringent Coverage Target for each Section than the Cover 2, in particular Cover 4 for the Fixed Income Section and Cover 3 for the remaining Sections.

The Default Fund amounts are calculated as a result of daily Stress Tests.

Euronext Clearing has considered a set of severe market conditions under which the NCE is calculated. In particular, historical scenarios or potential future scenarios based on assumptions regarding market trends, are able to capture increases in volatility or reductions in the liquidity of the financial instruments cleared, embedding in such way the impact on the market of liquidating the positions of insolvent Participants.

The contribution to the Default Fund of each Direct Member is adjusted at least on a monthly basis proportionally to the average Initial Margin paid in the previous month.

Procedures and manuals are available regarding each of the services that outline the key methodologies adopted for the calculation of initial margin, variation margin and default funds to cover credit exposures to each clearing member. All such models are independently validated at least annually.

In case of a Member's default, subject to subsequent recovery actions against the party in default, where the default procedure is triggered, Euronext Clearing allocates the losses and costs sustained in the following order:

- a) to the initial margin of the defaulting clearing member;
- b) to the contribution to the related default fund section of the defaulting member;
- c) to CC&G own resources, up to the amount published on Euronext Clearing website ("CC&G's first skin in the game");
- d) to the contributions to the default fund of the other clearing members of the section concerned, pro-rata to the payments made and limited to the losses and costs incurred in relation exclusively to the contractual positions of the section concerned
- e) to CC&G's additional voluntary capital buffer ("*CC&G's second skin in the game*");
- f) to the additional resources paid by the Clearing Members pursuant to Article B.4.2.5 of the Rulebook pro-rata to their contribution to the Default Fund of the Section concerned.

Any remaining losses following the actions set out under the preceding points will be allocated by Euronext Clearing pro-rata to the Clearing Members to the Section concerned up to a maximum amount equal to 50% of the contribution under Article B.6.2.3 letter f) of the Rulebook.

Euronext Clearing maintains frameworks detailing how each risk is managed according to the CCP's Risk Appetite Framework and the ERMF. These frameworks are subject to a thorough review at least annually by Risk Management Office and the Risk Committee and are approved by the CC&G Board.

KEY CONSIDERATION 5

A CCP should determine the amount and regularly test the sufficiency of its total financial resources available in the event of a default or multiple defaults in extreme but plausible market conditions through rigorous stress testing. A CCP should have clear procedures to report the results of its stress tests to appropriate decision makers at the CCP and to use these results to evaluate the adequacy of and adjust its total financial resources. Stress tests should be performed daily using standard and predetermined parameters and assumptions. On at least a monthly basis, a CCP should perform a comprehensive and thorough analysis of stress testing scenarios, models, and underlying parameters and assumptions used to ensure they are appropriate for determining the CCP's required level of default protection in light of current and evolving market conditions. A CCP should perform this analysis of stress testing more frequently when the products cleared or markets served display high volatility, become less liquid, or when the size or concentration of positions held by a CCP's participants increases significantly. A full validation of a CCP's risk-management model should be performed at least annually.

Stress Tests performed by Euronext Clearing aim at quantifying additional resources (Default Fund) beyond margin requirements necessary to cope with extreme but plausible variations of the risk factors, larger than those covered by the Initial Margining system.

The purpose of the Stress Test is the determination – according to the stress scenario applied at each time – of the “Non Collateralized Exposure” for each Clearing Member.

The Non Collateralized exposure is calculated as algebraic sum of the amounts needed to:

- mark-to-the-market open positions at the post stress hypothesized values: such amount therefore represents the losses Euronext Clearing would suffer in case of liquidation of the insolvent's positions;
- re-establish guarantees for the same open positions: such amount represents a new Initial Margin to be deposited and it hence provides an indication of the further losses Euronext Clearing would suffer in case of adverse market movements during the liquidation of the insolvent's positions.

The Non-Collateralized Exposure is calculated under the assumption that Participants have deposited an amount of collateral - in cash or securities – equal to or greater than the amount calculated by Euronext Clearing as Initial Margin and assuming that the securities actually deposited are also subject to stressed market conditions.

The CRO monthly reports the Stress Tests results, elaborated by Risk Management, to the Internal Risk Committee, enabling it to evaluate possible changes (increasing or decreasing) to Default Fund . In particular, where the results of Stress Tests highlight that the Non Collateralized Exposure of the first “n” (“n” being the specific cover determined for each Section, which is at least equal to two) Clearing Members is no longer covered by the Default Fund, the members of Internal Risk Committee are consulted by Risk Management in order to decide on the needed amount increase to be applied to the Default Fund.

After the CEO's approval, upon advice of the Internal Risk Committee, the increased value of Default Fund is then communicated to participants and updated on the company's website and the corresponding Contribution Quota are recalculated.

The Default Fund framework considers extreme but plausible variations of the risk factors, larger than those covered by the initial margining system, but reasonably possible because based on historical scenarios or potential future scenarios founded on assumptions regarding market trend.

Stress Scenarios adopted provide for the shocking of risk factors varying according to the different Sections cleared. The framework identifies all market risks to which Euronext Clearing would be exposed following the default of one or more clearing members, just to mention a few:

- price risk for the following financial instruments: Equities, Equity Derivatives, Energy Derivatives and Agricultural Commodities Derivatives;
- Interest rate risk for bonds.

The above scenarios are applied both to products guaranteed and collateral.

Euronext Clearing analyses its Stress Test scenarios, models and underlying parameters, based on reverse stress test (performed on a quarterly basis).

Euronext Clearing performs reverse Stress Tests in order to appraise the soundness of its stress test programme and identifies the market conditions under which the default fund is no longer sufficient to cover the most exposed Clearing Members.

Reverse stress testing, performed at least quarterly, consists in a re-processing of the Stress Tests using a "trial and error" approach up to identify the conditions where available resources are no longer sufficient to cover the Non-Collateralized Exposure of the "n" most exposed Clearing members. In particular, for each running, the type of shock to be performed is defined through recursive increases up to the reaching of the "break even point" (e.g. +25 bp, +50 bp, +75 bp etc.) Reverse stress testing is applied to stressed scenarios for which a possibility to define parametrically the size of the shock exists, (e.g. "n-basis points variation", " $\Delta\%$ variation of the security price", "1,2 times the Margin interval", etc.), or, as an alternative, by applying a multiplier (e.g. "n" times the scenario "historical Yield increase") to the results (prices) deriving from the ordinary scenario selected. The iterative procedure stops when, for each stressed scenario, the breakeven point has been reached, i.e. NCE for the first "n" Clearing Members is higher than the current amount of the Default Fund. CC&G uses Reverse Stress Tests to assess if all extreme but plausible market conditions are properly included in the stress test programme. In details, if the shock corresponding to "break even point" (i.e. the NCE for the first "n" Clearing Members is higher than the current amount of the default fund) deviates slightly from the starting point of the ordinary scenario to which is applied, it may suggest that stress test scenarios should be revised. Stress testing scenarios are periodically reviewed by the Risk Management team to ensure that the scenarios applied are appropriate and in line with market characteristics. Significant changes to stress scenarios are submitted to the Internal Risk Committee, to the External Risk Committee for a non binding opinion and to the Board for the final approval.

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

It is also worth mentioning that, whereas the EMIR regulation requires CCPs to ensure that a combination of margin, default fund contributions and other financial resources is 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, Euronext Clearing satisfies this condition only with the Default Fund, so it ensures Default Fund and waterfall's adequacy.

KEY CONSIDERATION 6

In conducting stress testing, a CCP should consider the effect of a wide range of relevant stress scenarios in terms of both defaulters' positions and possible price changes in liquidation periods. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions.

Stress Tests are performed on actual members positions and guarantees posted. Stress test scenarios, as per defined below, include all relevant peak historic price volatilities (e.g. Lehman's default, Brexit) since CC&G uses long term history series (up to 30 years).

Euronext Clearing uses a range of stress scenarios, based on the characteristics of the market section it applies to. The Stress Tests are executed, at least on a daily basis, separately for the Equity Derivatives Sections, for the Energy Derivatives Section, for the Agricultural Commodities Derivatives Section and for the Bonds Section. Stressed Scenarios adopted are either Historical or Hypothetical (in alignment with Regulatory Requirements), and foresee the shocking of risk factors varying according to the different Sections cleared. The simulations consist in re-evaluation of the positions, aiming at highlighting Market Conditions for which the resources available for Euronext Clearing are not sufficient to cover the Non Collateralized Exposure for the most exposed Members.

Complete details, regarding methodologies, parameters and assumptions on the stress test scenarios employed for each section may be found in the "Stress Test Methodologies" manuals published on the Euronext Clearing's website under the section Risk Management/ Methodologies.

KEY CONSIDERATION 7

An FMI should establish explicit rules and procedures that address fully any credit losses it may face as a result of any individual or combined default among its participants with respect to any of their obligations to the FMI. These rules and procedures should address how potentially uncovered credit losses would be allocated, including the repayment of any funds an FMI may borrow from liquidity providers. These rules and procedures should also indicate the FMI's process to replenish any financial resources that the FMI may employ during a stress event, so that the FMI can continue to operate in a safe and sound manner.

EMIR Regulation requires CCPs to ensure that a 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 the CCP has the largest exposures under extreme but plausible market conditions. CC&G satisfies this condition only by using the default fund, so it ensures default fund and waterfall's appropriateness.

As Euronext Clearing has established more than one default fund for the different asset classes cleared (Sections), the total Skin-in-the-game is allocated to each of the Sections in proportion to the size of each default fund. It is separately indicated in Euronext Clearing balance sheet and used for defaults arising in the different market segments to which the default funds refer to.

In case of a Member's default, subject to subsequent recovery measures against the party in default, where the default procedure is triggered, Euronext Clearing allocates the losses and costs suffered based on the loss allocation order defined by the Default Waterfall, set out in [Principle 4, Key Consideration 4](#) and further described in [Principle13, Key Consideration 1](#).

PRINCIPLE 5: COLLATERAL

An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.

Summary Narrative

KEY CONSIDERATION 1

An FMI should generally limit the assets it (routinely) accepts as collateral to those with low credit, liquidity, and market risks.

Euronext Clearing has defined a comprehensive policy on collateral in order to monitor the assets that could be accepted as collateral.

In order to cover Initial Margins, clearing members can deposit cash or bonds. In order to cover the Contribution Quota to the Default Fund only cash is admitted.

The following Government/European Supranational Bonds are accepted as collateral:

- issued by issuers with low credit risk evaluation based on an internal methodology, so called Sovereign Risk Framework (hereinafter also named "SRF"), updated on an ongoing basis. The list of countries, reviewed regularly, is approved by the CEO with the support of the Internal Risk Committee;
- traded on MTS markets³. These features guarantee a low riskiness of securities accepted as collateral, as long as the Countries' list is continuously monitored and reviewed on the basis of a consolidated methodology;
- For cash collateral, the policy establishes that the reference currency is Euro, therefore it is possible to fully manage liquidity risk criteria on collateral eligibility and policies are approved by the CEO with the support of the Internal Risk Committee and they are reviewed at least annually.

As long as CC&G accepts only Government/European Supranational Bonds (therefore not issued by clearing members) as collateral, there is no specific wrong-way risk. The fact that the bonds accepted as collateral are, in part, the same bonds guaranteed by Euronext Clearing, is taken into account in the determination of more conservative haircuts on Italian Government Bonds (by applying a multiplier to the haircut).

³ In addition, Euronext Clearing also accepts as collateral the BTP Italia (Italian Government Bond linked to Italian inflation) and the BTP Futura (Italian step-up Government Bond), traded on markets other than MTS. Specific limits on such securities are applied as well as on European Supranational bonds.

KEY CONSIDERATION 2

An FMI should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.

CC&G calculates haircuts on the basis of the analysis of the yield curves of the accepted Countries.

For each yield curve, the confidence levels (at least 99.00%) and holding periods (minimum 3 days) used are based on the result of the SRF analysis. Haircuts are calculated over different look-back periods ranging from 6 months to 10 years, plus one for the whole time series starting from the introduction of Euro (where available). The most conservative value among the different combinations of holding periods and look-back periods is selected, in order to determine the value of the haircut.

Haircuts are applied, on the basis of the duration of the bond, on the clean price of the bond.

The collateral deposited by Participants is revalued at current market prices each evening, as well as intraday. Participants receive reports (end of day snapshot) containing the details of the deposited securities with information of prices and haircuts applied in the valuation process (and, if the case, the application of limits). C&G reserves the right to use a different price if it is considered more representative of market conditions.

KEY CONSIDERATION 3

In order to reduce the need for procyclical adjustments, an FMI should establish stable and conservative haircuts that are calibrated to include periods of stressed market conditions, to the extent practicable and prudent.

In order to limit procyclicality, Euronext Clearing calculates Haircuts over the whole time series of the instrument since 1999 where available (thus including a 20 year historical look-back period), by applying a confidence level of at least 99% and considering the minimum liquidation period of three business days.

Euronext Clearing applies a buffer of 25% only to those instruments whose time series are shorter than 10 years.

Haircuts are defined on yield curves data history of at least 10 years (going back to 1999), thus reducing the impact of pro-cyclical effects.

KEY CONSIDERATION 4

An FMI should avoid concentrated holdings of certain assets where this would significantly impair the ability to liquidate such assets quickly without significant adverse price effects.

Euronext Clearing implemented a set of concentration limits on collateral so as to ensure an appropriate level of collateral diversification.

In order to guarantee collateral diversification, Euronext Clearing sets two different concentration limits at account level:

1. the ratio between securities deposited as collateral from a single Clearing Member and its Initial Margins has to be smaller or equal than 50%;
2. the ratio between the value of securities issued by a distinct country deposited from a single Clearing Member and its Initial Margins has to be smaller or equal than 45%.

Euronext Clearing also establishes ad hoc Risk Limits for specific eligible securities, such as BTP Italia, BTP Futura and EU Sure Bonds. These limits are expressed in terms of maximum notional amount that can be posted for every specific security.

The valuation of collateral is performed automatically during the end of daily batch and intraday. Bonds deposited by Participants are automatically checked in order to verify that the eligibility criteria are met. Whatever the amount (total and by country) of the securities deposited by a Participant, the maximum guarantee value is determined on the basis of the above mentioned limits. Overrun limits are still maintained but they are not considered in the determination of the guarantee value of the deposited collateral.

KEY CONSIDERATION 5

An FMI that accepts cross-border collateral should mitigate the risks associated with its use and ensure that the collateral can be used in a timely manner.

Euronext Clearing accepts only Euro denominated EU securities that are traded on MTS market, so as to ensure high levels of liquidity.

In addition, Euronext Clearing also accepts as collateral the BTP Italia (Italian Government Bond linked to Italian inflation) and the BTP Futura (Italian step-up Government Bond), traded on markets other than MTS. Specific limits on such securities are applied as well as on European Supranational bonds.

KEY CONSIDERATION 6

An FMI should use a collateral management system that is well-designed and operationally flexible.

Euronext Clearing systems allow:

- daily (and intraday) computation of guarantees and calculation/execution of margin calls via various automatic procedures, depending on the market section they refer to;
- daily management of withdrawals, liquidation of collateral, deposit and substitutions. Deposits are managed via automatic, real-time procedures. Withdrawals and substitutions are processed on a daily basis by Euronext Clearing systems.

PRINCIPLE 6: MARGIN

A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.

Summary Narrative

KEY CONSIDERATION 1

A CCP should have a margin system that establishes margin levels commensurate with the risks and particular attributes of each product, portfolio, and market it serves.

Initial Margins are calculated and called on a daily basis to cover the theoretical costs of liquidation, which Euronext Clearing would incur in the event of a Member's default, in order to close his open positions in a market scenario, within a maximum price variation range called "Margin Interval". The Margin Interval, specific for each financial instrument, is regularly reviewed and back tested.

For the calculation of Margin Intervals, different confidence levels and holding periods are used, depending on the type and level of liquidity of the product. Euronext Clearing calculates historical volatility over different time horizons. It is worth noting that the final result is based on the highest result obtained. In principle, Euronext Clearing adopts time series longer than 12 months. CC&G takes into account all the prices/yield from the listing of the instrument (back to 1991 where available for prices and back to 1999 for yield). Such long time series ensure the inclusion of stressed market conditions, characterized by high volatility. Only for IDEX section Euronext Clearing adopts a 1-year time series.

The holding period (also named "HP") applied depends on the instrument type/section cleared. The minimum HP applied is 2 days. For Equity Cash instruments and IDEX section Euronext Clearing applies an holding period of 1 day and 2 Days. For Equity Derivatives and AGREX section the holding period adopted is of 1 day, 2 days and 3 days. For bonds, the holding periods (ranging from 3 to 5 days) depend on the Band resulting from the SRF analysis.

For the determination of the adequate confidence interval, Euronext Clearing considers the risk characteristics of financial instruments it clears, such as volatility, duration, level of pricing uncertainties, liquidity. However, all financial instruments cleared by Euronext Clearing as central counterparty are listed; therefore, the margining models of Euronext Clearing do not need to embed pricing uncertainty factors. As a general principle, various confidence intervals are applied to time series according three main dimensions: types of financial instrument, lookback period for the calculation of historical volatility, liquidation period (holding period). Furthermore for all the most relevant asset classes the confidence interval is higher than the minimum EMIR requirement, in order to also take into account the effect of possible difficulties in closing out the positions. Euronext Clearing adopts a confidence level of at least 99.00% for the minimum holding period (2 days) and minimum look back period (1 year) required.

Variation/Mark to market Margins are determined by Euronext Clearing on a daily basis and calculated for each Contractual Position registered on each of the accounts or sub-accounts indicated until the last trading day of the contract.

Moreover, Euronext Clearing regularly calculates intra-day margins, based on real-time positions and real-time prices using the same margining methodologies and parameters as for the overnight calculations. In case of significant uncovered exposures (stemming from large price variations and/or large variation of the net positions), intraday margins are collected in order to reduce the exposure of the Participants vis-à-vis Euronext Clearing. In order to identify unambiguously the “significant uncovered exposures”, specific thresholds have been established by Euronext Clearing Internal Risk Committee.

Margins are calculated using efficient, reliable and accurate systems: MARS methodology (Margining System) for Cash Equities and Equity Derivatives products, MVP methodology (Method for Portfolio Valuation) for Bonds, MMEL methodology (Margins Methodology for Electricity Derivatives) for Energy Derivatives and MMEG methodology (Margins Methodology for Agricultural Derivatives) for Agricultural Derivatives.

Each methodology has been defined based on the characteristics of the market section it refers to. These are tailor-made methodologies.

CC&G has fully documented the margin methodologies for all of its clearing services. In addition, all margin models are annually reviewed following either material changes or the introduction of a new model.

Complete details, regarding methodologies, parameters and assumptions for margin calculations employed for each section are fully disclosed in the manuals published on Euronext Clearing website under the section Risk Management/ Methodologies.

KEY CONSIDERATION 2

A CCP should have a reliable source of timely price data for its margin system. A CCP should also have procedures and sound valuation models for addressing circumstances in which pricing data are not readily available or reliable.

Euronext Clearing bases its pricing exclusively on observed market prices or quotes for the following asset classes:

- Index futures;
- Equity dividend futures;
- Energy futures;
- Commodity futures;
- Equities;
- Government Bonds;
- Corporate Bonds.

For the following financial instrument types pricing models are being employed:

- Stock options;
- Index options,
- Single stock futures.

Options: Settlement prices for both stock and index options are being obtained by means of the Black and Scholes for European options and the Cox-Ross-Rubinstein model for American options. The main input for this model is the volatility of the stochastic process that describes the assumed behavior of the value of the underlying instrument. Information for the value of the former is obtained, where available, from market quotes, but when no volatility quotes are available for a particular combination of strike and option maturity, the required volatility is determined through the use of an estimated polynomial describing the so-called smile.

Futures: Pricing for futures is performed using the analytical formula based on no-arbitrage arguments and takes into account expected future dividends.

KEY CONSIDERATION 3

A CCP should adopt initial margin models and parameters that are risk-based and generate margin requirements sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. Initial margin should meet an established single-tailed confidence level of at least 99 percent with respect to the estimated distribution of future exposure. For a CCP that calculates margin at the portfolio level, this requirement applies to each portfolio's distribution of future exposure. For a CCP that calculates margin at more-granular levels, such as at the subportfolio level or by product, the requirement must be met for the corresponding distributions of future exposure. The model should (a) use a conservative estimate of the time horizons for the effective hedging or close out of the particular types of products cleared by the CCP (including in stressed market conditions), (b) have an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products, and (c) to the extent practicable and prudent, limit the need for destabilising, procyclical changes.

Euronext Clearing calculates Margin Intervals over different look-back periods ranging from 6 months to 10 years, plus one for the whole time series starting from 1991 (where available). Generally, the coverage levels applied to longer time brackets is lower than those applied to shorter ones, in order to limit the impact on margin levels of price variations occurred in a distant past no longer representative of the actual economic conditions.

In relation to Close-out periods:

- for Cash Equities and IDEX, one and two day holding periods are analysed;
- for Equity Derivatives and AGREX, one, two and three days holding periods are considered;
- for Bonds, the holding period depends on results of the Sovereign Risk Framework.

In order to limit procyclicality, as reported above, Euronext Clearing calculates Margin Intervals over the whole time series of the instrument since 1991 where available (thus including a 10 year –

pursuant to Art.28, para c) of Commission Delegated Regulation (EU) No 153/2013 - historical look-back period), by applying at least a confidence level of 99% and considering the liquidation period as provided for in Art.26 of Commission Delegated Regulation (EU) No 153/2013 (two business days). Euronext Clearing applies the required buffer of 25% - Art. 28, para a) of Commission Delegated Regulation (EU) No 153/2013 - only to those instruments whose time series are shorter than 10 years.

Please refer to Key Consideration 1 for a complete description and breakdown of margin calculations by product cleared.

KEY CONSIDERATION 4:

A CCP should mark participant positions to market and collect variation margin at least daily to limit the build-up of current exposures. A CCP should have the authority and operational capacity to make intraday margin calls and payments, both scheduled and unscheduled, to participants.

Variation/Mark to Market Margins are determined by Euronext Clearing on a daily basis by marking to market all positions on the basis of daily settlement prices. They are calculated for each contractual position registered on each of the accounts or sub-accounts indicated until the final settlement of the contract.

Euronext Clearing routinely calculates intra-day margins, based on real-time positions and real-time prices at least once during the trading day, using the same margining methodologies and parameters as for the overnight calculations. In case of significant uncovered exposures (stemming from large price variations and/or large variation of the net positions), intraday margins are collected in order to reduce the exposure of the Participants vis-à-vis Euronext Clearing. In order to identify unambiguously the "significant uncovered exposures", specific thresholds have been established by Euronext Clearing Internal Risk Committee.

Operationally, clearing members are directly debited on Target 2.

KEY CONSIDERATION 5

In calculating margin requirements, a CCP may allow offsets or reductions in required margin across products that it clears or between products that it and another CCP clear, if the risk of one product is significantly and reliably correlated with the risk of the other product. Where two or more CCPs are authorised to offer cross-margining, they must have appropriate safeguards and harmonised overall risk-management systems.

Although Euronext Clearing margin methodologies provide the possibility to calculate margins for integrated portfolios (so called "Product Groups") comprising highly correlated financial instruments, at the moment, no Product Group has been identified on the equity and equity derivatives section, so no margin reduction is applied. Moreover, Euronext Clearing calculates Initial Margins for integrated portfolios relating to the same underlying asset/risk factor (interest rate for Bonds), i.e. "Class Groups". For the Energy Derivatives Section the margin methodology (MMeL) has the possibility to apply a portfolio margining through the Product Groups, that comprise contracts belonging to two or more Classes Groups (e.g. futures on different delivery periods and/or maturities) for which CC&G has verified significantly correlated price trends. Euronext Clearing can modify the number and the composition of Product Groups if the correlations among prices vary over time.

Detailed calculations of how cross margining offsets are defined may be found in the manuals about margin methodologies published on Euronext Clearing website.

No cross-margining among CCPs is allowed.

KEY CONSIDERATION 6

A CCP should analyse and monitor its model performance and overall margin coverage by conducting rigorous daily backtesting – and at least monthly, and more-frequent where appropriate, sensitivity analysis. A CCP should regularly conduct an assessment of the theoretical and empirical properties of its margin model for all products it clears. In conducting sensitivity analysis of the model’s coverage, a CCP should take into account a wide range of parameters and assumptions that reflect possible market conditions, including the most-volatile periods that have been experienced by the markets it serves and extreme changes in the correlations between prices.

▪ Back Tests

Euronext Clearing performs a daily back test in order to evaluate the appropriateness of its Margin coverage. Furthermore, as required by regulation, Euronext Clearing performs Back Testing analysis both at instrument level and at portfolio level.

Back Test performed at instrument level is based on the comparison between price variations over a time horizon of n days and the Margin Interval applied to the Instrument k (or the Class k in which the Bond is included). In case the greatest price variation (in absolute value) among those calculated by analyzing different holding periods turns out to be higher than the Margin Interval, a breach is counted.

Portfolio Back Testing provides the comparison between the amount of Initial Margins calculated on positions open at t and the gains and losses that would apply in case Euronext Clearing was to close out all positions over a hypothesized horizon of N days under the assumptions of full portfolio close out on each of the N days of the liquidation period. Daily Gains and Losses caused by the closing out of positions open at time t are calculated by referring to end-of-the-day market prices for each day of liquidation period. The number of breaches, i.e. the number of cases where losses exceed the amount of Initial Margins for the Participants/accounts, must be within the confidence interval defined in the risk appetite framework.

▪ Sensitivity tests

Euronext Clearing performs monthly sensitivity test to assess the adequacy of margining parameters.

Sensitivity tests are run to assess the adequacy of the margin model and of the parameters used as inputs. The shocks defined for the sensitivity test concern:

- changes in the Confidence Levels, compared to the Confidence Level normally used;
- changes in the holding period (also named “HP”), compared to the value usually adopted for the margins calculation;
- $\Delta\%$ of the price for n securities issued by the Clearing Members whose simultaneous default is assumed (Default CM). Securities to which the shock has to be applied and size of the shock are defined by Risk Management at each test. The new price of securities will affect the derivatives prices having those securities as underlying.

The sensitivity test consists of the following phases:

1. Definition of all the shocks to be performed;
2. Re-run of the Margin and stressed Margins calculation procedures as many times as the number of sensitivity tests defined;
3. Definition of:
 - absolute and percentage difference between the Margins after the sensitivity test and pre-test Margins. This difference is calculated for each sensitivity test performed either at section or at clearing member level;
 - Non-Collateralized Exposure. Stress Scenarios adopted are the same in ordinary calculations as in those related to Stress Tests.

KEY CONSIDERATION 7

A CCP should regularly review and validate its margin system.

Parameters used in margins calculations and the model itself are periodically reviewed based on tests results. Risk Management regularly submits back tests and sensitivity tests results to Internal Risk Committee in order to evaluate the recalibration of Margin Intervals and/or changes to margining parameters (confidence intervals and/or holding periods).

Back tests and sensitivity tests results and a summary report on the changes to Margin Intervals are regularly presented to the External Risk Committee by the CRO, in order to seek advice in the review of margin models.

If the model does not perform as expected, i.e. the observed coverage level of Initial Margin turns out to be lower than the intended one, Risk Management proposes the appropriate review to its Margin model to Internal Risk Committee.

Moreover, if a small change in the margin parameters (confidence level or holding period) results in a significant increment in Initial Margin value after sensitivity test, then it means that margin parameters have to be amended such as to produce more robust results.

An independent office - the Risk Policy Office - is in charge of performing the Internal Model Validation of all Euronext Clearing Risk Models, which is conducted on an annual basis and whenever a new model is introduced or an existing model is subject to a material change.

The model validation of the main margining methodologies covers the following macro-areas:

- **Framework soundness:** Assessment of conceptual soundness, adequacy and completeness of the framework and compliance to the reference Regulation;
- **Replica and Validation of the model components:** Replica and validation of Margining Systems/Stress Test methodologies for each asset class in all their components (Input, Calculation and Output); **Model Benchmarking:** Evaluation of model performance against market best and leading practices.

In particular, a dedicated web-based tool (MoVE: Model Validation Engine) has been developed in order to analyze in an automated way all the components of the main margining models. This tool allows to:

- Replicate the existing margining methodologies in a parallel environment (independent from the production one): this allows to confirm whether production algorithms are working as expected or if some bugs are present;
- Calculate margins through different margining methodologies currently used in the industry: several benchmark models have been implemented, including Historical VaR, Monte Carlo VaR, Parametric VaR and Expected Shortfall. Benchmark models provide a valuable tool in evaluating the performance of CC&G's margin models against market best practices;
- Perform a number of input data validation assessments, including regulatory adequacy (compliance with minimum regulatory holding periods, lookback periods, confidence levels), gap analysis (identification of missing data in time series), freshness analysis (identification of static prices in time series), swings analysis (identification of spikes in time series);
- Perform additional analysis, including sensitivity tests (in order to check the system stability, analysing the impact of small changes in input data) and Initial Margins simulations.

Additional ad-hoc analyses are performed every year, according to specific needs and market conditions (e.g. procyclicality analyses).

Every year, the model validation process is summarized in a number of reports that include all suggestions and issues found. Each report is marked with a color depending on the outcome of the validation (RED, AMBER, GREEN). Detailed findings are assessed according to their severity and impact.

PRINCIPLE 7: LIQUIDITY RISK

An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.

SUMMARY NARRATIVE

KEY CONSIDERATION 1

An FMI should have a robust framework to manage its liquidity risks from its participants, settlement banks, nostro agents, custodian banks, liquidity providers, and other entities.

Euronext Clearing has in place a Liquidity Plan to manage the risk arising from financial needs not covered by adequate liquid resources or from Stressed Market Conditions arising from the default of the two Clearing Members having the highest exposure towards Euronext Clearing.

A complete governance structure has been defined to ensure a correct management of the liquidity risk.

The Liquidity Plan is submitted to the Internal Risk Committee for a first assessment. The Internal Risk Committee analyzes and validates preliminary any request of amendments of Liquidity Plan.

The Liquidity Plan is approved by the Board of Directors upon the non binding opinion of the External Risk Committee.

The Risk Management Department monitors, on a daily basis, the liquidity limits defined in the Liquidity Plan, in accordance with the Risk Appetite Framework, which is in turn approved by the Board and defines the guidelines necessary to ensure an appropriate and efficient managing of the above-mentioned risk.

The Liquidity Plan is reviewed at least annually.

Euronext Clearing has in place a control system that ensures the separation between control and operative functions. The controls are performed on different levels in order to ensure a fully adequacy of liquidity management framework. Moreover, in order to timely implement any corrective action, the first level controls are performed real time.

The CCP monitors its sources of liquidity risk via the "Liquidity Risk Tool". This tool takes into account the liquidity needs of all relevant departments within CC&G (clearing, settlement, finance, treasury, etc.) under different market scenarios and determines the amount of liquidity resources available.

KEY CONSIDERATION 2

An FMI should have 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.

Euronext Clearing leverages on a proprietary technical framework to manage liquidity risk in its systems. All procedures to be followed if liquidity risk arises are defined in the CC&G Liquidity Plan. As stated in this document, CC&G daily assesses the liquidity needs stemming from the settlement of cash in Standard and Stressed Market Conditions. Different scenarios have been identified:

- 1) Standard Market Conditions – moderate severity;
- 2) Standard Market Conditions – high severity;
- 3) Stressed Market Conditions – moderate severity;
- 4) Stressed Market Conditions – high severity.

Euronext Clearing maintains a minimum level of liquidity at all times ensuring that available resources will be sufficient to cover liquidity needs with ordinary efforts.

The minimum level of prompt liquidity is based on the analysis of historical series of liquidity needs using predetermined confidence levels and look back periods.

These limits are reviewed at least annually or when breaches are identified by Risk Management Department as to ensure their adequacy.

Euronext Clearing monitors on a daily basis the level of liquid assets and the liquidity needs via the Liquidity Tool. The outcome is reported in daily reports.

In particular, in Standard Market Conditions the reports show the liquidity needs stemming from Euronext Clearing ordinary activities and the amount of available liquidity resources.

The liquidity tool considers all assets within Euronext Clearing and separates them based on their level of liquidity.

With regards to Stressed Market Conditions, the daily reports show the value of liquidity needs stemming from the default of the two Clearing Members (including their affiliates) having the highest exposure to Euronext Clearing and the available liquid resources which can be used for the coverage of liquidity needs.

It is worth noting that all resources are re-evaluated according to stress prices and applying ECB haircuts.

In case of need, Euronext Clearing shall mainly use the below means in order to generate liquidity:

- Financing Repos;
- Refinancing at Central Bank;
- Credit lines;

- Partial sell off of portfolio securities.

Euronext Clearing invests its cash in the following way:

- Deposits at Central Bank;
- Deposits at specified credit institutions selected on the basis of the credit worthiness based on internal rating model;
- Overnight and non-overnight investment repos;
- Outright portfolio of Government and Supranational Bonds.

It is worthwhile noting that Euronext Clearing has in place different concentration limits with regards to credit lines, triparty repo transactions and the outright portfolio in order to mitigate the liquidity risk.

Moreover, Euronext Clearing monitors the risk arising from its liquidity provider using an Internal Rating Model and performs a periodic monitoring of the providers by analyzing their main risk indicators, such as external rating downgrades/upgrades.

In addition, in order to ensure efficient management of liquidity risk, CC&G has several tools in place:

- At least 50% of posted collateral from a clearing member needs to be in cash;
- Maintenance of appropriate liquid resources, or promptly liquid so as to fulfill Euronext Clearing needs on an on-going basis, as well as in stressed market conditions;
- Euronext Clearing monitors and assesses thoroughly the liquidity of the assets accepted as collateral (Countries with low credit risk/only EUR/mainly government bonds,etc.).

Furthermore, the Liquidity Tool determine also the liquidity needs arising in the scenario in which the Company's Clearing Members swap cash deposited as margins with securities up to the maximum amount allowed by Euronext Clearing (currently 50%).

KEY CONSIDERATION 4

A ccp should maintain sufficient liquid resources in all relevant currencies to settle securities-related payments, make required variation margin payments, and meet other payment obligations on time with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation to the ccp in extreme but plausible market conditions. In addition, a ccp that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should consider maintaining additional liquidity resources sufficient to cover a wider range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would generate the largest aggregate payment obligation to the ccp in extreme but plausible market conditions.

Euronext Clearing liquidity monitoring always considers the liquidity needs that would be generated in the event of default of the two largest clearing member groups, including affiliates and investment

exposures, in extreme but plausible market conditions, to ensure that sufficient liquidity resources are maintained to cover this requirement.

In particular, it ensures sufficient liquid resources to:

4. settle securities-related payments;
5. make required variation margin payments;
6. meet payment obligations on time,

by maintaining an appropriate level of liquid assets, as defined in [Key Consideration 2](#), that allows a daily and efficient control of all liquidity needs.

In case of liquidity shortfall, other resources can be activated according to the timescales defined by the Liquidity Plan in order to support the liquidity needs (i.e. by selling liquid bonds in the portfolio, by refinancing at Central Bank, by activating financing repo transactions).

KEY CONSIDERATION 5

For the purpose of meeting its minimum liquid resource requirement, an FMI's qualifying liquid resources in each currency include cash at the central bank of issue and at creditworthy commercial banks, committed lines of credit, committed foreign exchange swaps, and committed repos, as well as highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, even in extreme but plausible market conditions. If an FMI has access to routine credit at the central bank of issue, the FMI may count such access as part of the minimum requirement to the extent it has collateral that is eligible for pledging to (or for conducting other appropriate forms of transactions with) the relevant central bank. All such resources should be available when needed.

Euronext Clearing determines its minimum liquid resource requirement by using risk indicators aligned with the methodologies set out in the Liquidity Plan defined in compliance with EMIR/ESMA requirements.

The measurement of Liquidity Risk allows a daily check on Euronext Clearing liquidity position in Standard Market Conditions as well as Stress Market Conditions and provides indications about drifts from the expected values in order to set up appropriate corrective actions.

The main risk indicators are defined on the basis of the ratio between:

- the amount of daily liquidity needs, stemming from the main operational activities of Euronext Clearing and the volume of the Company liquid resources available through cash deposited at Central Bank and banking institutions, and repo and securities;
- the volume of Euronext Clearing liquid resources, including the countervalue of the securities received by Members, applying haircuts, and unsecured credit lines.

CC&G maintains sufficient liquid resources, based on a Liquidity Plan, in support of an effective management of investments.

The qualifying liquid resources are⁴:

- Cash deposited at a Central Bank;
- Cash deposited at specified Credit Institutions (Unsecured Deposits are deposited with commercial banks which, under EMIR, are limited to a maximum of 5% of the whole Repo volumes);
- Credit lines;
- Repurchase Agreements (i.e. Reverse Repo);
- Highly marketable financial instruments in portfolio (i.e. Government And Supranational bonds);
- Access to a Central Bank (intraday and, where granted by ECB overnight deposits, in case of a systemic event).

KEY CONSIDERATION 6

An FMI may supplement its qualifying liquid resources with other forms of liquid resources. If the FMI does so, then these liquid resources should be in the form of assets that are likely to be saleable or acceptable as collateral for lines of credit, swaps, or repos on an ad hoc basis following a default, even if this cannot be reliably prearranged or guaranteed in extreme market conditions. Even if an FMI does not have access to routine central bank credit, it should still take account of what collateral is typically accepted by the relevant central bank, as such assets may be more likely to be liquid in stressed circumstances. An FMI should not assume the availability of emergency central bank credit as a part of its liquidity plan.

Collateral accepted by Euronext Clearing as collateral for investments or as non-cash collateral for margin is acceptable as collateral at the relevant central bank.

Euronext Clearing puts in place several repo and reverse repo arrangements with different counterparties in order to have access to liquid resources. Euronext Clearing has also access to several collateralised, as well as uncollateralised, credit lines. In addition, the portfolio is based on highly liquid financial instruments with a high credit quality and low levels of market risk.

Furthermore, in order to settle securities in currencies different from Euro, currently only USD, Euronext Clearing has in place a multicurrency credit facility.

KEY CONSIDERATION 7

An FMI should obtain a high degree of confidence, through rigorous due diligence, that each provider of its minimum required qualifying liquid resources, whether a participant of the FMI or an external party, has sufficient information to understand and to manage its associated liquidity risks, and that it has the capacity to perform as required under its commitment. Where relevant to assessing a liquidity provider's performance reliability with respect to a particular currency, a liquidity provider's potential access to credit from the

⁴ Cash collected with the intraday margin calls at day t is excluded from the computation of liquid resources.

central bank of issue may be taken into account. An FMI should regularly test its procedures for accessing its liquid resources at a liquidity provider.

Euronext Clearing uses several liquidity providers having in place credit line agreements with primary Commercial Banks (having therefore access to credit at the central bank).

For the purpose of mitigating the risk linked to the obligations undertaken by credit institution, a maximum operational limit is established, as well as a concentration limit per credit line, as defined in the CC&G Investment Policy. On a half-yearly basis Euronext Clearing performs test on credit lines granted in order to verify their effectiveness.

Euronext Clearing evaluates the creditworthiness of each liquidity provider, on the basis of an Internal Rating Model, as defined in [Key consideration 2](#) which is subject to review at least on a monthly basis.

A minimum level of creditworthiness is set in Euronext Clearing Investment Policy.

Furthermore, in order to settle securities in currencies different from Euro, currently only USD, Euronext Clearing uses the multicurrency credit facility.

KEY CONSIDERATION 8

An FMI with access to central bank accounts, payment services, or securities services should use these services, where practical, to enhance its management of liquidity risk.

Euronext Clearing manages liquidity primarily through highly collateralized instruments (e.g: for final purchase of the outright portfolio as well as Repurchase Agreements) or/and, to a residual extent, cash deposits at commercial banks with an high credit standing determined on the basis of an Internal Risk Model, not worst than Class 4. Furthermore, cash that is not being safely placed, through reverse repo transactions, is deposited at the Central Bank.

Euronext Clearing has access to the central bank Autocollateral in T2S and is entitled to access to intra day Central Bank's lending facilities. Furthermore, the ECB may decide granting access to the overnight Central Bank's lending facilities in order to manage systemic risk.

Euronext Clearing currently uses Central Bank services only for the Euro currency.

KEY CONSIDERATION 9

An FMI should determine the amount and regularly test the sufficiency of its liquid resources through rigorous stress testing. An FMI should have clear procedures to report the results of its stress tests to appropriate decision makers at the FMI and to use these results to evaluate the adequacy of and adjust its liquidity risk-management framework. In conducting stress testing, an FMI should consider a wide range of relevant scenarios. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions. Scenarios

should also take into account the design and operation of the FMI, include all entities that might pose material liquidity risks to the FMI (such as settlement banks, nostro agents, custodian banks, liquidity providers, and linked FMIs), and where appropriate, cover a multiday period. In all cases, an FMI should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount and form of total liquid resources it maintains.

Euronext Clearing performs daily stress test on all liquidity resources via the "Liquidity Tool". The scenario of "Stressed Market Conditions" is performed simulating the default of the two Clearing Members having the highest exposure, in terms of liquidity, to CC&G. The main liquidity needs in the Stressed Market Conditions scenario include the countervalue of securities withdrawals done by the Company in place of the Clearing Members for which the default is simulated and the liquidity needs determined in the Standard Market Conditions scenario in order to take into account the need to ensure the continuity of the activities for the other members.

The Liquidity Tool determines the total amount of liquid resources available to Euronext Clearing in order to cover the needs. The resources include⁵:

- Cash deposited at Central Bank;
- Cash deposited at authorized Credit Institutions;
- Credit lines;
- Cash countervalue of the securities held for investment;
- Cash countervalue of securities delivered by Clearing Members for coverage of Initial Margins;
- Cash countervalue of the securities withdrawn in place of the defaulting Clearing Members.

In order to reflect the turmoil on the market, the assets available to cover the liquidity needs are determined according to stress prices (derived from Bond stress test scenarios) and by applying ECB haircuts.

The Liquidity Tool determines the Stress Liquidity Coverage Ratio (also named as "LCR") defined as the ratio between the stressed liquidity assets and liquidity needs.

KEY CONSIDERATION 10

An FMI should establish explicit rules and procedures that enable the FMI to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations on time following any individual or combined default among its participants. These rules and procedures should address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations. These rules and procedures should also indicate the FMI's process to replenish any liquidity resources it may employ during a stress event, so that it can continue to operate in a safe and sound manner.

⁵ Cash collected with the intraday margin calls at day t is excluded from the computation of liquid resources

In compliance with EMIR rules, Euronext Clearing has implemented a specific procedure aimed at monitoring and managing liquidity risk. The Liquidity Plan defines a set of guidelines and policies designed to monitor the liquidity risk and to manage adequately the available liquid resources.

In order to set an adequate level of liquid resources, the Liquidity Plan entails two different scenarios for Euronext Clearing: (i) activities in Standard Market Conditions; and (ii) activities in Stressed Market Conditions, as arising from the default of clearing members, ensuring the fulfillment of Euronext Clearing liquidity obligation in both market conditions. In this last scenario, the portfolio is evaluated with a conservative approach using stressed prices.

In order to address uncovered liquidity shortfalls, the Liquidity Plan considers the following measures aimed at ensuring Euronext Clearing solvency under ordinary course of business and under stress conditions:

- the provision of credit lines by commercial banks;
- triparty repos with commercial banks;
- intra-day financing from central banks;
- partial sell off of portfolio securities

With respect to stressed market conditions, the Stress Coverage Ratio is a measure of Euronext Clearing ability to meet its liquidity needs under stressed conditions. It is equal to the Total Liquidity resources, divided by Total Liquidity needs for the same time period. This ratio can be interpreted as the number of times Euronext Clearing could withstand its payment obligations while managing the simultaneous default of its two most exposed Clearing Members, taking into account that the defaulters may also act as settlement agents of non-defaulting Clearing Members.

In sum, the Liquidity Plan has the following goals:

- to ensure the solvency of Euronext Clearing both in normal market conditions and in stressed market conditions by maintaining appropriate levels of liquid resources to meet liquidity needs;
- to comply with regulatory requirements;
- to define efficient processes for the management of risk and liquidity controls.

PRINCIPLE 8: SETTLEMENT FINALITY

An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.

Summary Narrative

KEY CONSIDERATION 1

An FMI's rules and procedures should clearly define the point at which settlement is final.

CC&G's Regulations clearly define the moment upon which an order shall be final. In this respect, Transfer Orders related to the guaranteed financial instruments shall be considered as effected and entered into the system operated by CC&G, and CC&G shall assume the role of central counterparty (Art. B.1.1.1 CC&G Regulations):

- a. from the time of conclusion of a contract on the market by a clearing member, where CC&G is the only central counterparty for such market. A Transfer Order shall be understood as effected and entered into the system, and the general clearing member shall assume the role of counterparty of Trading Client and CC&G shall assume the role of counterparty of the general clearing member from the time of conclusion of a contract on the market by a Trading Client;
- b. from the time CC&G receives the contract concluded on the market by the clearing member where the central counterparty service for that market is operated jointly by CC&G and a Special Clearing Member. A transfer order shall be understood as effected and entered into the system, and the General Clearing Member shall assume the role of counterparty of Trading Client and CC&G shall assume the role of counterparty of the General Clearing Member from the time CC&G receives the contract concluded by the Trading Client on the Market. It is assumed that from the time the contract is concluded on the market, CC&G guarantees the receipt except where reasons for failed or incorrect receipt in the System are out of CC&G control. From the time a contract is received on the Market between a Member of the system and a trader that participates in a Central Counterparty Guarantee system managed by a Special Clearing Member by virtue of the necessary agreements between all the interested parties, the Transfer Order shall be understood as effected and entered into the System, and CC&G shall assume the role of Central Counterparty against the Special Clearing Member and the Clearing Member (Article B.1.1.1. of CC&G Regulations).

KEY CONSIDERATION 2

An FMI should complete final settlement no later than the end of the value date, and preferably intraday or in real time, to reduce settlement risk. An LVPS or SSS should consider adopting RTGS or multiple-batch processing during the settlement day.

Euronext Clearing assumes the role of Central Counterparty (i.e. final settlement) in real-time whereby the trades are processed STP assuring a prompt acquisition into the Clearing System. Agreements with markets determine the control procedures for the completeness and accuracy of data and the procedures by which Euronext Clearing assumes on its own, through Transfer Orders and according to the rules of the System, the Contractual Positions arising from trades concluded on the Markets.

Members are informed of the final settlement in real time through Euronext Clearing cutting edge web-based system BCS that enables them to monitor their activity in real time.

In the markets where Euronext Clearing is the only central counterparty, clearing members are also informed of the final settlement by the market when they receive the trade confirmation.

Euronext Clearing sends the settlement balances to primary regulated SSS6 on value date -1. Settlement occurs in night batch or intraday, in real time.

KEY CONSIDERATION 3

An FMI should clearly define the point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a participant.

CC&G has been indicated by the Italian Supervisory Authorities as a designated system pursuant to Article 10 of Settlement Finality Directive. According to CC&G Rules, Article 2 of Finality Law shall apply to the transfer orders. Upon the acquisition by CC&G of the transfer order, the said transfer order shall be considered effective vis-à-vis the participants of a system and enforceable vis-à-vis third parties in the event of insolvency proceedings, provided that the Transfer Orders:

- a. were entered into the system before the moment of opening of the insolvency proceedings;
- b. have been entered into the system after the moment of opening of the insolvency proceedings and are carried out on the day of any such opening if the system operator can prove that he was not aware, nor should have been aware, of the opening of such proceedings. Furthermore, after the acquisition by CC&G of the transfer order, such order becomes irrevocable pursuant to the Finality Law (Article B.1.1.1, paragraphs 4 and 5 of CC&G Rules).

⁶ Monte Titoli and Euroclear Bank, including its bridge with Clearstream Banking Luxembourg.

PRINCIPLE 9: MONEY SETTLEMENTS

An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money.

Summary Narrative

KEY CONSIDERATION 1

An FMI should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks.

CC&G conducts all its money settlement in Central Bank money through Target 2, the Trans-European Automated Real-Time Gross Settlement Express Transfer system, pursuant to the ECB/2007/2 of 26th April 2007.

CC&G acts as an Ancillary System in Target 2 and consequently has the power to direct debit its clearing members and its payments are considered critical in Target 2 and have the highest priority (highly urgent).

All money settlements are elaborated by the Clearing System, communicated to clearing members and sent to Target 2 in automatic real time Straight-Through-Processing (STP).

The above process ensures an efficient and safe margins collection.

KEY CONSIDERATION 2

If central bank money is not used, an FMI should conduct its money settlements using a settlement asset with little or no credit or liquidity risk.

Not applicable, since Euronext Clearing conducts all its money settlement in Central Bank money through Target 2.

KEY CONSIDERATION 3

If an FMI settles in commercial bank money, it should monitor, manage, and limit its credit and liquidity risks arising from the commercial settlement banks. In particular, an FMI should establish and monitor adherence to strict criteria for its settlement banks that take account of, among other things, their regulation and supervision, creditworthiness, capitalisation, access to liquidity, and operational reliability. An FMI should also monitor and manage the concentration of credit and liquidity exposures to its commercial settlement banks.

Not applicable, since Euronext Clearing conducts all its money settlement in Central Bank money through Target 2.

KEY CONSIDERATION 4

If an FMI conducts money settlements on its own books, it should minimise and strictly control its credit and liquidity risks.

Not applicable, since Euronext Clearing conducts all its money settlement in Central Bank money through Target 2.

KEY CONSIDERATION 5

An FMI's legal agreements with any settlement banks should state clearly when transfers on the books of individual settlement banks are expected to occur, that transfers are to be final when effected, and that funds received should be transferable as soon as possible, at a minimum by the end of the day and ideally intraday, in order to enable the FMI and its participants to manage credit and liquidity risks.

Euronext Clearing uses Central Bank money for settlement purposes.

PRINCIPLE 10: PHYSICAL DELIVERIES

An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.

Summary Narrative

KEY CONSIDERATION 1

An FMI's rules should clearly state its obligations with respect to the delivery of physical instruments or commodities.

Euronext Clearing guarantees contracts with physical delivery on financial instruments and commodities (durum wheat).

All the financial instruments underlying contracts guaranteed by Euronext Clearing are dematerialized. Physical settlement takes place in Securities Settlement Systems⁷ in book-entry form. These financial instruments are outside the range of Principle 10 that concerns the delivery of an asset in physical form (i.e. financial instruments in paper form)⁸.

As far as the commodities are concerned, Euronext Clearing adopted models that eliminate for Euronext Clearing risks and costs associated with the storage and delivery of commodities. In these models, in facts, CC&G does not itself ensure the physical delivery, as explained further below.

For derivatives on durum wheat, physical delivery is conducted directly between clients of the clearing members; Euronext Clearing guarantees only a cash compensation in case of fails in such process.

This means that physical deliveries as meant by Principle 10 are not performed by Euronext Clearing, therefore, Principle 10 is not applicable to Euronext Clearing.

KEY CONSIDERATION 2

An FMI should identify, monitor, and manage the risks and costs associated with the storage and delivery of physical instruments or commodities.

Principle 10 is not applicable to Euronext Clearing since all the financial instruments underlying the contracts guaranteed by Euronext Clearing are dematerialized and as far as commodities are concerned, the Company itself does not ensure the physical delivery.

Please refer to [Key Consideration 1](#) for further details.

⁷ Monte Titoli, Euroclear Bank and Clearstream Banking Luxembourg depending on the asset and on the choice of the clearing member.

⁸ See explanatory note of Principle 10.

PRINCIPLE 12: EXCHANGE-OF-VALUE SETTLEMENT SYSTEMS

If an FMI settles transactions that involve the settlement of two linked obligations (for example, securities or foreign exchange transactions), it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.

Summary Narrative

KEY CONSIDERATION 1

An FMI that is an exchange-of-value settlement system should eliminate principal risk by ensuring that the final settlement of one obligation occurs if and only if the final settlement of the linked obligation also occurs, regardless of whether the FMI settles on a gross or net basis and when finality occurs.

Euronext Clearing is not an exchange-of-value settlement system.

The exchange of value of contracts guaranteed by Euronext Clearing is conducted by the Securities Settlement System (also named "SSS") where the settlement occurs.

Euronext Clearing uses primary regulated SSS⁹, compliant with the CPMI-IOSCO and conducts legal and risk analysis on them to ensure they provide Delivery Versus Payment (also defined "DVP") and Receive Versus Payment (also defined "RVP") and that final settlement of one obligation occurs if and only if the final settlement of a linked obligation also occurs.

⁹ Monte Titoli and Euroclear Bank, including its bridge with Clearstream Banking Luxembourg.

PRINCIPLE 13: PARTICIPANT DEFAULT RULES AND PROCEDURES

An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

Summary Narrative

KEY CONSIDERATION 1

An FMI should have default rules and procedures that enable the FMI to continue to meet its obligations in the event of a participant default and that address the replenishment of resources following a default.

CC&G's Regulations clearly describe the conditions under which an event of default occurs to a clearing member both from a financial and operational perspective.

CC&G's Regulations provide that a clearing member shall be considered in default:

- a. in the event and at the time of non-fulfilment or partial fulfillment: (i) to pay margins to CC&G, (ii) to deposit payments to the default funds; (iii) to final cash-settlement of contractual positions in the derivatives sections; (iv) to settle the amounts due for the adjustment of contractual positions in fail; (v) to attest the complete or partial covering of sales positions or the settlement of contractual positions in the agricultural commodity derivatives section, or to settle the amounts due for the adjustment of contractual positions in fail; (vi) to cover losses, deposit of amounts due, and costs arising from the execution of the buy-in or sell-out procedures;
- b. when a market insolvency of the clearing member is declared; and
- c. in the event of overshooting of the position limits.

CC&G has detailed procedures in place to be followed where a clearing member is in default. The default procedure takes into account the specificities of the asset classes and it indicates for every action the department in charge for the clear attribution of actions and roles. The actions to be carried out under the default procedures are not strictly automatic since CC&G retains a discretion margin on the appropriate measures to be adopted.

As further described in [Principle 14](#) Key Consideration 3, once a default is declared, CC&G shall:

- i. transfer to a designated clearing member the contractual positions and collateral recorded in the segregated client accounts and in the gross omnibus segregated client;

transfer to the designated clearing member the contractual positions and collateral recorded in the client omnibus accounts and in the net omnibus segregated client;

if the necessary documentation has been received by CC&G: for more details about the portability please refer to [Principle 14, key consideration 3](#).

In relation to the non-transferred contractual positions, CC&G shall: (i) appoint a clearing member to close the contractual positions on the market; (ii) request the exclusion from the pre-settlement service or from the settlement services or from the collateral management service of the operations relating to the contractual positions that refer to the defaulting party, without prejudice of the rules of functioning of such services on entry and irrevocability of the transmission orders pursuant to Directive 98/26/EC; (iii) clear the contractual positions and failed contractual positions relating to the defaulting member; (iv) appoint a broker to negotiate the contracts necessary to enable settlement of balances resulting from the clearing activities referred to in the preceding sub-paragraph.

Exceptionally, but applicable only to non-transferred contractual positions pertaining to the Agrex and IDEX sections, the Rulebook foresees that in the event of severe illiquidity of the reference market, CC&G will implement, as an exception to the general principle of market settlement, a cash settlement of these un-transferred positions, after assigning them, on a random basis, to another member or other members with opposite positions.

On this regard, in February 2021 CC&G adopted a specific Rulebook amendment, extending the scope of application of the procedure depicted in the previous paragraph also towards certain contractual positions of the IDEM section, relating to Single Stock Dividend Futures and Futures on FTSE MIB Dividend Index.

Notwithstanding the above described procedure, Euronext Clearing can adopt any other measures considered necessary for managing the default in order to limit the effects on the market and on the other members.

In the event of clearing member's default, as far as the resources used to manage it are concerned, Euronext Clearing Default Management Process allows the allocation of the losses and costs sustained by the Company by the following waterfall resources set out in CC&G Rulebook:

to the initial margin of the defaulting clearing member;

to the contribution to the related default fund of the defaulting member;

to CC&G's skin in the game, i.e. the assets of CC&G within the limits established with a specific notice pursuant to article 35 of the (EU) Del. Reg. No. 153/2013, implementing article 45 of EMIR Regulation;

to the contributions to the default fund of the other clearing members of the section concerned, pro rata to the payments made and limited to the losses and costs incurred in relation exclusively to the contractual positions of the section;

to CC&G's additional voluntary capital buffer ("CC&G's second skin in the game");

to the additional resources paid by the Clearing Members pursuant to Article B.4.2.5 pro rata to their contribution to the Default Fund of the Section concerned;

Any remaining losses following the actions set out under the preceding points will be allocated by CC&G pro rata to the Clearing Members to the Section concerned up to a maximum amount equal to 50% of the payment of the additional resources pursuant to Article B.4.2.5 of the CC&G Rulebook.

The measures designed to address any remaining loss caused by a clearing member's default not covered by Margins, Default Fund and First Skin in the Game include the following measures which are already part of Euronext Clearing default management process and can be considered as recovery tools.

1) CC&G's voluntary second skin in the game

As a further loss allocation measure in addition to EMIR default waterfall requirements, Euronext Clearing has introduced a voluntary second tranche of the "skin in the game" to encourage the CCP operator to carry out sound risk management. In 2015, in order to enhance Euronext Clearing resiliency under a potential recovery scenario, Euronext Clearing has amended the method to quantify the "second skin in the game" adopted by Euronext Clearing in addition to the first skin in the game required under the EMIR framework (see article B.6.2.3 letter e) of CC&G's Rules).

2) Request for payment of additional resources (assessment)

The assessment is the request by Euronext Clearing to the non-defaulting participants of additional resources in case of the occurrence of an event of default of a participant in order to ensure that the resources of the default fund are always sufficient to cover the losses resulting from one or more defaults before the complete exhaustion of resources of the default fund.

The condition for activating the assessment request is the use of the resources of the default fund established under Article B.4.2.2 of CC&G Rules as a result of losses incurred by CC&G to manage the default procedure of a participant that would affect an amount equal to or greater than 30% of the resources of the pre-funded default fund concerned (under Article B.4.2.5 of CC&G's Rulebook). The assessment power is capped to an amount equal to the contribution of each participant to the default fund and the trigger is set in a way that enables more requests of limited amount up to the said limit.

The assessment may therefore be required by Euronext Clearing also in a phase preceding the complete exhaustion of the default fund resources due to the losses incurred by Euronext Clearing with reference to the first default or in case of multiple defaults, for example, if, a new default occurs after the first default but before a new default fund has been established in accordance with the Section below.

3) Establishment of a new default fund

In case, following an event of default of a Clearing Member, the resources of the Default Fund fall below the Minimum Value of the Default Fund, Euronext Clearing will request the Clearing Members other than the defaulting Clearing Member to establish a new Default Fund.

The new default fund is an independent and ring-fenced fund which is intended to cover losses incurred in the management of default procedures relating to default events which arise after the first one. The trigger for the request for the establishment to a new default fund is represented by a reduction of a certain amount of the default fund resources. This amount is represented by a sufficient amount to cover to default of the two most exposed clearing members towards Euronext Clearing as well as any additional participants belonging to the same group of those on the basis to the results of the latest available stress tests, as provided pursuant to Article 53, paragraph 1 of (EU) Del. Reg. No. 153/2013 ("Cover 2").

With reference to the timing and to the quantum to be paid, the establishment is required in two distinct stages: (i) in the first stage, the establishment will be required until the minimum value of the Cover 2 is reached; (ii) in the second stage, no more than 30 days after reaching the Cover 2 threshold, CC&G will recalculate the amount of the new default fund established in its Risk Appetite Framework. As a result of such recalculation, CC&G will require non-defaulting clearing members to pay the remaining amount of the new default fund, when due.

4) Loss allocation following default management procedure

CC&G has also considered appropriate to address the situation in which, following the allocation of losses and costs on the resources under CC&G's default waterfall, uncovered losses are still resulting.

In the event such remote circumstance takes place, CC&G will proceed to distribute the potential resulting losses to non defaulting participants, pro rata, based on the contribution to the default fund among the participants of the section concerned up to a maximum amount equal to 50% of the contribution under Article B.6.2.3 letter f) of the Rulebook.

The described loss distribution mechanism is a recovery measure aimed at allowing the CCP to carry out its critical services on a going concern and to avoid as much as possible the closure of either a section or of the service.

KEY CONSIDERATION 2

An FMI should be well prepared to implement its default rules and procedures, including any appropriate discretionary procedures provided for in its rules.

CC&G's Regulations and procedures allow Euronext Clearing to take timely action to contain losses and to quickly meet its obligations in the event of a default. Euronext Clearing maintains and regularly updates its effective and clearly defined rules and procedures to manage a clearing member's default. CC&G's Regulations and default procedures provide reasonable discretion to the CCP in managing a default by design in order to provide Euronext Clearing with flexibility to manage each unique default scenario.

As a last resort measure, CC&G is entitled to adopt the service closure procedure, which is a mechanism which may be adopted for risk containment reasons. To this end, CC&G may consider, by way of example, the following elements for the closure of a Section: the relevance of the mitigation of counterparty risk for Clearing Members, the number of Clearing Members, the amount of guaranteed countervalues.

Under the closure of the central counterparty service for a given section, CC&G:

- i. requests the exclusion from the pre-settlement service or the settlement services of the transactions deriving from the contractual positions related to the section concerned;
- ii. requests the market operator to suspend trading on the market concerned;
- iii. proceeds with the cash settlement of the contractual positions at a price determined according to reasonable commercial conditions.

KEY CONSIDERATION 3

An FMI should publicly disclose key aspects of its default rules and procedures.

Euronext Clearing default rules are contained within CC&G's Regulations and are publicly available on the Company's website.

KEY CONSIDERATION 4

An FMI should involve its participants and other stakeholders in the testing and review of the FMI's default procedures, including any close-out procedures. Such testing and review should be conducted at least annually or following material changes to the rules and procedures to ensure that they are practical and effective.

As part of the testing of its default procedures, Euronext Clearing performs internal simulation exercises assessing the default of one or more Clearing Members in the various business lines and verifying the effectiveness and efficiency of the default procedures.

The simulation is carried out at least annually, according to the internal procedure that provides the relevant guidelines to be followed.

Clearing Members, clients, market infrastructures, CSDs, interoperable CCP and any other interested external party are informed about the simulation test and its conclusion. CC&G may involve in the test execution, on a case-by-case basis, and where relevant, one or more clearing members or other parties.

Besides, Euronext Clearing provides ad-hoc informative reports to local Authorities in relation to the details of the simulation exercises.

PRINCIPLE 14: SEGREGATION AND PORTABILITY

A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions.

Summary Narrative

KEY CONSIDERATION 1

A CCP should, at a minimum, have segregation and portability arrangements that effectively protect a participant's customers' positions and related collateral from the default or insolvency of that participant. If the CCP additionally offers protection of such customer positions and collateral against the concurrent default of the participant and a fellow customer, the CCP should take steps to ensure that such protection is effective.

Euronext Clearing offers the following segregation arrangements compliant with EMIR and MiFIR:

- Omnibus Client segregation - Article 39, paragraph 2 of EMIR, that protects a Clearing Member's Clients' positions and related assets from the default or insolvency of that Clearing Member;
- Individual Client segregation - Article 39, paragraph 3 of EMIR, that protects the individual segregated Client positions and assets against the default of the Clearing Member and the default of other Clearing Member Clients;
- Net Omnibus Indirect Client segregation – that, only in respect of the Derivatives Sections and in accordance with the Indirect Clearing RTS (MiFIR), protects positions and assets of the Clearing Member's Indirect Clients - that opted for the Net Omnibus Segregation - from the default or insolvency of that Clearing Member and/or of the relevant Client;
- Gross Omnibus Indirect Client segregation – that, only in respect of the Derivatives Sections and in accordance with the Indirect Clearing RTS (MiFIR), protects positions and assets of the Clearing Member's Indirect Clients – that opted for the Gross Omnibus Segregation – from the default or insolvency of that Clearing Member and/or of the relevant Client.

CC&G's segregation arrangements are laid down in Article B.3.1.2, Article B.4.3.2 and Chapter B.6.2 of the CC&G's Regulations.

They provide that, in compliance with EMIR 48 paragraphs 5 and 6 and MiFIR, CC&G triggers the procedures for the transfer of the assets and positions held by the defaulting clearing member for the accounts of the Client and/or Indirect Clients to another Clearing Member designated by the Clients, and without the consent of the defaulting clearing member when the other clearing member has previously entered into a contractual relationship with the Clients and/or the Indirect Clients by which it has committed itself to do so.

Segregation and portability arrangements are offered, for Clients, for all the assets and services provided by Euronext Clearing cash markets, while, for Indirect Clients, only for derivatives markets.

Moreover, the Article 79-septies of the Consolidated Financial Law expressly grants a protection with respect to the application of Clients segregation and portability arrangements under EMIR. In particular, it provides that the opening of an insolvency procedure with respect to a Clearing Member

does not impair the adoption and enforceability of any measures provided under Article 48 EMIR with respect to the management of the contractual positions of the insolvent Clearing Member and aimed at porting those positions and collateral or to the redemption of those to the Clients. Moreover, such measures cannot be declared void by the application of any other applicable provisions.

Where the entity that intends to join the System is subject to the national legislation of a state which is not part of the European Union, it must provide a legal opinion given by a lawyer qualified to practice in the country in which the entity is domiciled.

The said legal opinion must attest that no impediments exist to the substantive observance of the provisions of these Regulations, the relevant Instructions, and the laws or other regulations concerning obligations arising from participating to the Euronext Clearing System.

KEY CONSIDERATION 2

A CCP should employ an account structure that enables it readily to identify positions of a participant's customers and to segregate related collateral. A CCP should maintain customer positions and collateral in individual customer accounts or in omnibus customer accounts.

The positions and assets of the Clients and Indirect Clients of a General or Individual Clearing Member (hereinafter also "CM") are segregated from the positions and assets of the House account of such CM and can, upon request, be segregated from the positions and assets of other Clients and Indirect Clients.

CM can choose between Omnibus Segregated Client Accounts and Individually Segregated Client Accounts for Clients or Trading Clients (hereinafter also "TCs") who opted for an individual segregation.

In addition, for Indirect Clients and only for Derivatives Sections, CM can choose between Net Omnibus Segregated Accounts and Gross Omnibus Segregated Accounts.

Such segregation is assured by a separate registration in Positions and Assets Accounts at CC&G.

Positions Accounts

As indicated in Article B.3.1.2 of the Rulebook, positions of Clearing Members are registered in Position Accounts segregated from each other.

Proprietary Positions are registered in a House Account, while those related to clients are registered in a Main Omnibus Account (hereinafter also "MOA") and, optionally, in Additional Omnibus Accounts (hereinafter also "AOAs") and Individual Segregated Accounts (hereinafter also "ISAs").

Positions of Trading Clients may be registered within the MOA or into AOAs or ISAs.

Positions related to Indirect Clients can be registered in Net Omnibus Segregated Accounts (hereinafter also "NOSAs"), or into Gross Omnibus Segregated Accounts (hereinafter also "GOSAs").

Assets Accounts

The Assets Account structure is laid down in Article B.4.3.2 of the Rulebook.

Assets collected as margins with respect to each of the segregated Positions Accounts – i.e., House Account, Omnibus Segregated client Accounts and Individually Segregated client Accounts, Net Omnibus Segregated Accounts and Gross Omnibus Segregated Accounts – are registered in a specific segregated Asset Account.

Registration of assets in the Assets Accounts

Margins in cash are collected through direct debit in Target2 (see Articles B.4.3.1 and B.4.3.2 of the Rulebook).

Daily adjustment and intraday margins are called only in cash.

The cash and the securities received are automatically registered in the Assets Account according to the margin call details or the recipient account specified in the deposit message.

Default fund contributions are collected through direct debit through Target2 and are automatically registered into the House Account according to Article B.4.3.2 of the Rulebook.

Default fund contributions are only in cash.

Margin calls

Euronext Clearing calculates separately margins for the Clearing Member positions registered in:

- the House Account;
- each Omnibus Segregated client Account;
- each Individually Segregated client Account;
- each Net Omnibus Segregated Account.

Margins are called if there is a shortfall in any Asset Account, with respect to the margins as calculated on the basis of the positions registered in the account or accounts corresponding to that Asset Account. This applies to both daily and, subject to specific thresholds, intra-day margin calls.

This implies that Euronext Clearing calls and collects margins that are adequate to cover the risk stemming from the positions registered in each account kept in accordance with Article 39 with respect to specific financial instruments, in line with Article 41, paragraph 4, first period, of EMIR.

Netting of Positions, usage of Assets and losses

Positions held in a given Positions Account are not netted with positions held in other Positions Accounts in the every day activity. However, in case of Clearing Member's default, such rule (no netting of position among positions account) applies only to the segregate positions accounts: i.e. House Account; Main Omnibus Account; Additional Omnibus Segregated Accounts (AOAs), Individually

Segregated client Accounts (ISAs), Net Omnibus Segregate Accounts (NOSAs), Gross Omnibus Segregated Accounts (GOSAs).

This means that positions registered in the TC's accounts of the Main Omnibus account are commingled with the other positions of the Main Omnibus Account.

Assets held in a given Asset Account and covering the positions recorded in the corresponding segregated Positions Account are not exposed – also in case of a clearing member's default - to losses connected to other segregated Positions Accounts.

KEY CONSIDERATION 3

A CCP should structure its portability arrangements in a way that makes it highly likely that the positions and collateral of a defaulting participant's customers will be transferred to one or more other participants.

CC&G's portability arrangements are laid down in Article B.6.2.1 of the Rulebook. They provide that, in compliance with Emir Article 48 c. 5 and 6 and MiFIR, CC&G triggers the procedures for the transfer of the assets and positions held by the defaulting Clearing Member for the account of the Client and/r Indirect Clients to another Clearing Member designated by the Client, on the Client's request and without the consent of the defaulting Clearing Member when the other clearing member has previously entered into a contractual relationship with the Client by which it has committed itself to do so.

More in detail:

- for the portability of assets and positions held by the defaulting Clearing Member in the Clients' omnibus account, in order to facilitate the acquisition of clients agreement on a back-up Clearing Member, the CC&G Rulebook provides that the Clearing Member itself shall obtain from its Clients the right to enter in an agreement with a back-up Clearing Member on their behalf (Article B.2.5.1 of the Rulebook).
- If such agreement is received by CC&G prior to the Clearing Member default, CC&G performs the transfer of the assets and positions of the omnibus account.
- If the transfer is not possible, CC&G will close the positions of the account. For this purpose, the assets of the account are used. The remaining assets will be returned to the Clearing Member, specifying that they refer to the omnibus account (Article B.6.2.3, of the Rulebook).
- For the portability of assets and positions held by the defaulting Clearing Member in the Individually Segregated Accounts and in the Gross Omnibus Segregated Accounts, the default procedure applied by CC&G is laid down in Article B.6.2.1 of the Rulebook, whereby it is stated that if the portability agreement between the Client and the back-up Clearing Member:
 - has been notified to CC&G prior to the default of the Clearing Member (see Article B.2.4.1 of the Rulebook), CC&G performs the transfer of the assets and positions soon after the Clearing Member's default;
 - has been notified to CC&G during the 5 days following the default; CC&G performs the transfer when the agreements are received; in the period between the default and the transfers, the segregated Clients of the defaulting Clearing Member become "interim Members" of the CCP and they are requested to pay margins to CC&G, in order to allow a proper risk management of their positions (see Article B.6.2.1, paragraph 1, letter c) and Article B.2.4.2 of the Rulebook).

- If the transfer is not possible, CC&G will close out the positions of the account, for such purpose the assets of Clients and Indirect Clients are used. The remaining assets will be returned to the Client as interim Member (also defined as “*Member Pro-Tem*”, see Article B.6.2.3 of the Rulebook).

KEY CONSIDERATION 4

A CCP should disclose its rules, policies, and procedures relating to the segregation and portability of a participant’s customers’ positions and related collateral. In particular, the CCP should disclose whether customer collateral is protected on an individual or omnibus basis. In addition, a CCP should disclose any constraints, such as legal or operational constraints, that may impair its ability to segregate or port a participant’s customers’ positions and related collateral.

The level of protection offered by the types of accounts provided by Euronext Clearing is outlined in the CC&G Rulebook, which indicates that Clients’ assets and positions shall be held in “Omnibus Accounts” or in “Individually Segregated Accounts” and that Indirect Clients’ assets and positions shall be held in “Net Omnibus Segregated Accounts” or in “Gross Omnibus Segregated Accounts” (Article B.3.1.2, paragraph 1, for positions and Article B.4.3.2 for assets). The CC&G Rulebook is expressly accepted by the Members as part of the application procedure by signing the “Request for Services” form.

In addition to the abovementioned form of disclosure, Euronext Clearing makes available on its website a detailed description of the accounts’ structure and of the main legal implications of the different level of segregations.

PRINCIPLE 15: GENERAL BUSINESS RISK

An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

Summary Narrative

KEY CONSIDERATION 1

An FMI should have robust management and control systems to identify, monitor, and manage general business risks, including losses from poor execution of business strategy, negative cash flows, or unexpected and excessively large operating expenses.

The guidelines for the management of risks adopted by Euronext Clearing are defined by the Board of Directors and are outlined in the document Euronext Clearing Enterprise Risk Management Framework.

The framework, outlining the objectives of the Company in terms of risk management, enables the management to have an acceptable risk level in pursuing its strategy and to identify the relevant responsibilities. It formalizes the policies, processes and best practices in place to manage, identify and monitor all risks to which the Company is exposed.

In terms of general business risk, the potential negative impact on profits and capital as a result of a failure to achieve strategic objectives may be caused by unforeseen changes in the market and regulatory environment, potential losses from administration and operation activities, exposure to economic cycles, client behaviour and technological changes. Adverse scenarios have been considered to manage possible increase of expenses or decline of revenues, and the impact is weighted into the Euronext Clearing Capital Calculation as per (EU) Delegated Regulation 152/2013, Article 5.

To avoid potential losses from administration and operation activities, a robust control system has been implemented within Euronext Clearing. This framework, articulated in three lines of defense, ensures a full segregation between control functions and operational functions:

First level: First level controls are carried out by dedicated Business and Corporate Units, fully separated from the risk taking units;

Second level: in compliance with EMIR rules, Euronext Clearing – as mentioned above - has established internal permanent second level control functions, which operate independently from the operational Business Units and provide independent challenge to the first line on risk management; they assess related risks and report any material issues to the Board;

Third Level: Third level controls are performed by Italy Internal Audit Department, which provides independent assurance to the Board and other key stakeholders over the effectiveness of the systems of controls and the Risk Framework.

Moreover, to mitigate the risk of failure in strategic objectives, Euronext Clearing prepares an annual budget and a three-year strategic plan with bull and bear scenarios to monitor and manage possible negative impacts.

Euronext Clearing also performs a quarterly review of its budget to ensure that the underlying assumptions are still valid and have not been invalidated by new market conditions or changes in its own financial situation or strategic objectives.

Furthermore, to meet client expectation and prevent reputational risks, a service review is periodically carried out by Euronext Clearing on the CCP's clients so as to identify any possible issue, any request for service enhancements or new services. In urgent cases, due to specific requests or problems, clients are consulted more frequently.

Moreover, when a main technical release or a new service is launched, Euronext Clearing organises meetings with the clients in order to present the new features of the services, collect feedbacks, schedule tests and define go-live dates.

KEY CONSIDERATION 2

An FMI should hold liquid net assets funded by equity (such as common stock, disclosed reserves, or other retained earnings) so that it can continue operations and services as a going concern if it incurs general business losses. The amount of liquid net assets funded by equity an FMI should hold should be determined by its general business risk profile and the length of time required to achieve a recovery or orderly wind-down, as appropriate, of its critical operations and services if such action is taken.

On a daily basis, Euronext Clearing calculates and verifies its compliance to Capital requirements, in line with (EU) Del. Reg. No.152/2013. EBA Regulation, article 2 requires CCPs to hold capital, including retained earnings and reserves, which shall be at all times sufficient to cover total exposure to the following risks:

- winding down or restructuring;
- credit, counterparty and market risks non covered by specific financial resources as set out in Articles 41 to 44 of EMIR Regulation;
- operational and legal risks;
- business risks.

KEY CONSIDERATION 3

An FMI should maintain a viable recovery or orderly wind-down plan and should hold sufficient liquid net assets funded by equity to implement this plan. At a minimum, an FMI should hold liquid net assets funded by equity equal to at least six months of current operating expenses. These assets are in addition to resources held to cover participant defaults or other risks covered under the financial resources principles. However, equity held under international risk-based capital standards can be included where relevant and appropriate to avoid duplicate capital requirements.

As mentioned above, Euronext Clearing has formalised a Recovery Plan in accordance with CPMI-IOSCO Report of October 2014 and with the Principles for Financial Markets Infrastructures (PFMIs) produced by CPMI - IOSCO and published in April 2012 so that it can continue to provide its critical services when the viability as a going concern is threatened.

As an authorised CCP under EMIR, Euronext Clearing is obliged to have sufficient own funds for a winding down or the restructuring of its own business. Therefore, an appropriate time period for winding down/restructuring of its own business was estimated.

In particular, Euronext Clearing has identified the appropriate time span for winding down its activities through internal assessments of the average maturity of the contracts between the Company and its clearing members.

Euronext Clearing updates its estimate of the appropriate time span for winding down or restructuring its activities whenever there is a significant change in the assumptions underlying the estimation and submits this updated estimate to the competent authority for approval.

In case of winding down, Euronext Clearing shall first assess the correct scenario to be applied, considering the default of members and the possibility – with all Company resources – to recover or not the impacted business given the time and resources constraints.

In order to assess the most appropriate time span for winding down, Euronext Clearing has conducted internal evaluations. In particular, the following criteria have been taken into account:

the average time to maturity of the portfolios of derivatives and repurchase agreements (characterized by longer maturities than other contracts);

the contractual terms in force, governing the relationship between Euronext Clearing, as provider of clearing services, and its clearing members.

Operating expenses as per last financial results approved by Shareholder's meeting, in order to evaluate type of costs that affect the correct time span.

Euronext Clearing Own Funds are separated from other resources and annually approved by the Shareholders in charge of defining the amount of CCP Regulatory Capital.

Service Closure Procedure of CC&G's Sections

As a last resort measure, CC&G is entitled to adopt the service closure procedure, which is a mechanism which may be adopted for risk containment reasons. To this end, Euronext Clearing may consider, by way of example, the following elements for the closure of a Section: the relevance of the mitigation of counterparty risk for Clearing Members, the number of Clearing Members, the amount of guaranteed countervalues.

Under the closure of the central counterparty service for a given section, CC&G:

- i. requests the exclusion from the pre-settlement service or the settlement services of the transactions deriving from the contractual positions related to the section concerned;
- ii. requests the market operator to suspend trading on the market concerned;
- iii. proceeds with the cash settlement of the contractual positions at a price determined according to reasonable commercial conditions.

KEY CONSIDERATION 4

Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the FMI to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions.

As outlined above, Euronext Clearing manages its general business risk and holds sufficient liquid resources to cover potential business losses.

Euronext Clearing invests the amount of Own Funds, part of CC&G's Regulatory Capital, in highly liquid financial instruments with minimal market and credit risks.

In addition, Euronext Clearing has in place committed credit lines that can provide additional liquidity to CC&G, upon request.

Moreover, Euronext Clearing deposits a part of its liquid resources at Commercial banks with high credit standing (as per Internal Rating Model, as defined in [Principle 7 Key Consideration 2](#)).

KEY CONSIDERATION 5

An FMI should maintain a viable plan for raising additional equity should its equity fall close to or below the amount needed. This plan should be approved by the board of Directors and updated regularly.

In the context of the Recovery Plan, Euronext Clearing has developed a plan to address the occurrence of any non-defaulting losses impacting CC&G's capital requirements under EMIR.

In accordance with Delegated Regulation (EU) No. 153/2013, in the event the amount of capital held by Euronext Clearing is lower than 110% of the capital requirements (the "notification threshold"), the Company shall immediately notify Banca d'Italia and Consob and keep it updated at least weekly, until the amount of capital held by the CCP returns above the notification threshold.

That notification to the competent authorities shall be made in writing and shall contain the following elements: (i) the reasons for the CCP's capital being below the notification threshold and a description of the short-term perspective of the CCP's financial situation; and (ii) comprehensive description of

the measures the CCP intends to adopt to ensure the on-going compliance with the capital requirements.

In the event of non-defaulting losses impacting Euronext Clearing capital requirements, going below its notification threshold, CC&G's Board may be convened to adopt appropriate resolutions (which may include the request to shareholders of a payment in capital account or the proposal for an increase of share capital to restate the minimum regulatory capital).

PRINCIPLE 16: CUSTODY AND INVESTMENT RISKS

An FMI should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets. An FMI's investments should be in instruments with minimal credit, market, and liquidity risks.

Summary Narrative

KEY CONSIDERATION 1

An FMI should hold its own and its participants' assets at supervised and regulated entities that have robust accounting practices, safekeeping procedures, and internal controls that fully protect these assets.

CC&G applies strict criteria for the selection of custodian in order to protect its own and its participant's assets.

As far as financial securities are concerned, such criteria require CC&G to hold its own and its participants' securities exclusively with regulated European CSDs notified pursuant to Article 10 of the Settlement Finality Directive (98/26/EC).

Accordingly Euronext Clearing hold its own and its participants' securities at Monte Titoli, the Italian CSD.

Monte Titoli, being a supervised and regulated entity notified according to Article 10 of the Settlement Finality Directive (98/26/EC), has strong processes, systems, and credit profiles and has robust accounting practices, safekeeping procedures, and internal controls that fully protect its own and its participants' assets.

Pursuant to Article B.4.3.1 of CC&G's Rules, the financial instruments provided by participants are deposited in segregated securities accounts held by CC&G with Monte Titoli. The financial instruments, which are under-recorded on behalf of the participants, are held by Monte Titoli under a "deposito regolare" regime, given that the ownership of the assets remains with CC&G and are protected under article 79-septies of the Italian Consolidated Financial Law and EMIR (Regulation(EU) No. 648/2012).

The largest part of cash is deposited at Central Bank, mitigating counterparty, liquidity and credit risk. The cash may also be deposited with authorized credit institutions; each commercial bank is required to meet a minimum rating score (determined according to the Internal Rating Model, as defined in Principle 7 Key Consideration 1) and it is assessed against creditworthiness and reliability on an ongoing basis (such deposits are protected under article 79-septies of the Italian Consolidated Financial Law and EMIR -European Regulation No. 648/2012). Furthermore, a maximum operational limit, based on the Internal Rating score assigned, is established with each Credit Institution.

KEY CONSIDERATION 2

An FMI should have prompt access to its assets and the assets provided by participants, when required.

CC&G Rules clearly indicate that all clearing members' assets held in custody are title transferred to CC&G pursuant and for the effect of the Legislative Decree 21 May 2004 no. 170 and its rights on such assets in the management of a default. The legal soundness is confirmed by an independent external legal opinion.

Euronext Clearing ensures it has prompt access to its assets by maintaining custody arrangements with high quality CSDs and custodians, as determined under its strict policy. The Company mitigates its custody risk by using only supervised and regulated entities.

Moreover Euronext Clearing have agreements with those entities to support enforcement of its interest or ownership rights in assets held in custody.

As established by Article 79-septies of the Italian Consolidated Financial Law and Emir, the participants' assets acquired by Euronext Clearing cannot be subject to executive or precautionary actions on the part of the creditors of the single participants or of the subject which manages the central counterparty, also in the case of the opening of insolvency procedures.

The access to participants' assets is guaranteed not only in normal cases but also in case of a Clearing Member's insolvency.

Currently Euronext Clearing is connected only with a collateral location in the same time zone: Central European Time zone (CET).

KEY CONSIDERATION 3

An FMI should evaluate and understand its exposures to its custodian banks, taking into account the full scope of its relationships with each.

Euronext Clearing has no exposure to any Custodian Banks, all securities are deposited at CSDs.

KEY CONSIDERATION 4

An FMI's investment strategy should be consistent with its overall risk-management strategy and fully disclosed to its participants, and investments should be secured by, or be claims on, high-quality obligors. These investments should allow for quick liquidation with little, if any, adverse price effect.

Euronext Clearing invests initial margin and contribution to the Default Funds deposited by the members in accordance with a defined Investment Policy, subject to at least an annual review and approved by the CC&G Board of Directors. The key principles of the Investment Policy are published on the Company's website. According to the Risk Appetite Framework defined by the Board, the investment portfolio is made up of highly liquid financial instruments with a high credit quality and low levels of market risk.

Euronext Clearing sets appropriate limits on the level of credit, liquidity and market risk exposures. The monitoring of all risks and the verification of the adequacy of the limits and procedures in place ensure a safe management of the investments.

In order to consider its overall exposure, Euronext Clearing has defined strict guidelines to be followed in order to manage all risk types: country risk, issuer risk, credit and counterparty risk, market risk, liquidity risk. For each risk a specific set of limits is defined so as to ensure a proper mitigation.

The liquidity risk is managed in order to avoid possible losses in case of adverse market conditions, Euronext Clearing maintains enough liquid resources to cover ongoing needs and, at the same time, to limit the likelihood of a sell-off of its portfolio assets.

Furthermore the investment policy allows to invest cash only in financial instruments with the following characteristics:

1. ECB eligibility;
2. availability of reliable price data which are published on a regular basis;
3. availability of an active outright sale or Repos market.

PRINCIPLE 17: OPERATIONAL RISK

An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.

Summary Narrative

KEY CONSIDERATION 1

An FMI should establish a robust operational risk-management framework with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks.

The main international, national, and/or industry standards, considered in the formulation of the operational risk framework include, inter alia, CPMI-IOSCO standards, ESMA/EBA guidelines and Banca d'Italia and Consob recommendations.

In order to be compliant with the overall regulatory framework, Euronext Clearing operational risk is managed through a range of tools encompassing policies, procedures, controls and the Risk Register.

Furthermore, Euronext Clearing has its own "Enterprise Risk Management Framework", which formalizes the procedures and the practices in place to provide an assessment and a clear overview of all risks to which CC&G is exposed.

In particular, in order to efficiently manage and analyze operational risks, the so-called Risk Register is updated at least on a quarterly basis and it is focused on:

- identification and description of the measures adopted to mitigate the risks;
- subsequent evaluation of residual risks, defining a "Risk Score" for each risk (calculated as the product between the likelihood and the impact of the risky event);
- set of *Key Risk Indicators* for each specific area;
- description of each incident occurred, the respective lessons learnt, the undertaken remediation actions and the relevant risk affected;
- update on Projects' risks.

The above collected information are analysed, challenged and reported periodically to CC&G Operational Risk Committee and to the BoDs.

Euronext Clearing operational risk management framework includes also the Business Continuity Plan, which outlines a list of measures to be implemented in order to mitigate both internal and external risks.

The framework is internally reviewed on an annual basis or more frequently, when needed, and approved by the Board of Directors. The framework is also shared with relevant Authorities, upon request.

With regards to the Project Management (hereinafter also "PM"), the Group and Euronext Clearing policies encompass extensive Tests Planning, Design and Execution before go-live in order to minimize the possibility of system failure in production.

Test strategy is defined during the Project Design Phase and graduated vis-à-vis the project features (Budget, Project duration, financial and reputational risks arising from potential production issues, etc.).

Moreover, projects status is updated during regular Project Progress Meetings/Project Steering Committee meetings and potential risks are managed by the adoption of appropriate mitigation actions. The implementation of actions is monitored at PM level in order to check their timeliness and effectiveness.

Projects risks, firstly identified by project managers, are evaluated and analyzed on a quarterly basis by the Operational Risk Committee.

As part of the operational risk mitigation in relation to the Human Resources policies, there is a structured recruitment process based on pre-determined selection criteria, feedback and other information. Training provided to staff is divided into:

- Specialist individual training provided by international training centres;
- Shared competency training through cross functional training courses, including foreign languages, performance management skills, project management and risk-specific sessions;
- Academy courses on financial regulatory and market developments.

Career progression and succession planning are conducted at Group level for key roles taking into account the applicable risk and replacement time.

Euronext Clearing has adopted a performance management system. The main criteria for the performance evaluation include: general performance indicators across the business, main delivery against the business strategy, achievements against their objectives.

The Performance Evaluation Process is launched at the start of each financial year with the goal settings which is updated and reviewed along the year. The overall evaluation is completed by the end of the fiscal year.

KEY CONSIDERATION 2

An FMI's board of Directors should clearly define the roles and responsibilities for addressing operational risk and should endorse the FMI's operational risk-management framework. Systems, operational policies, procedures, and controls should be reviewed, audited, and tested periodically and after significant changes.

The Board of Directors is responsible for supervising the risk management process so that the risks assumed in the framework of the Company's business activities are consistent with the strategies. Moreover, the Board defines the risk appetite and establishes the guidelines to manage the risks which can interfere with or prejudice achieving the company purposes or erode critical corporate assets. The Board is responsible for assessing the adequacy of the operational risk management process and approves the ERMF. In this respect, it reviews, on a quarterly basis the Risk Profile of the Company where Operational risks and incidents are identified in order to adopt appropriate measures to manage them. Moreover, a dynamic framework of KRIs is adopted, in order to take pro-active measures to reduce risks.

The operational risk management framework is audited by Internal Audit on the basis of the audit plan presented for approval to the Board of Directors.

Euronext Clearing Internal Audit Function puts in place a 3-year audit plan.

The 3-year audit cycle and one-year Audit Plan are designed using the following overarching principles of coverage:

- All high and medium inherent risk entities/processes are ranked in terms of their Audit risk composite rating resulting from the analysis of all data used in the evaluation of the universe
- All audits are prioritized primarily by inherent risks and secondarily by the control assessment
- All group entities and processes are considered for inclusion in the cycle and the audit plan
- All material control or process weaknesses from the previous year audits ("Unsatisfactory" audits) are being followed-up on
- All major acquisitions are audited within 12 months of deal completion (18 months for smaller ones)
- All major new projects either in terms of spending or strategic significance for the Group (IT and non-IT) are reviewed prior to their go-live or soon after go-live
- All mandatory regulatory audits are included in the plan
- All key processes (either entirely or their major components) are audited within the 3-year cycle with higher risk processes audited more often.

A measure of the coverage of the audit plan is submitted to CC&G Board of Directors twice a year to evaluate the adequacy and effectiveness of internal control system.

KEY CONSIDERATION 3

An FMI should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives.

In relation to operational, technological and continuity risks, identified and measured through the operational risk framework, Euronext Clearing adopts and implements various measures and controls in order to minimize the level of residual risk and to ensure that the reliability objectives are achieved.

In particular, Euronext Clearing core systems are classified as "Enterprise Model" which corresponds to the highest ranking in terms of "Reliability, Availability, and Serviceability" ("RAS classification").

According to RAS definition, a state-of-the-art mainframe system shall provide "high availability" and fault tolerance. Redundant hardware components in critical paths, enhanced storage protection, a controlled maintenance process, and system software designed for unlimited availability, all help to ensure a consistent, highly available environment for business applications in the event that a system component fails. Such an approach allows the system to minimize the risk of having a single point of failure undermine the overall RAS of a computer system.

The downtime is close to zero due to redundancy of hardware components.

Moreover, most of technical skills are kept inside the company, and software development is completely insourced.

Database are distributed on alternative sites through advanced mirroring solutions, and all critical processes have Recovery Time Objective (also named "RTO") less than 2 hours and Recovery Point Objective (also named "RPO") close to zero. Euronext Clearing is then able to contemplate and manage all scenarios proposed by Banca d'Italia.

Network services are provided by the Group. The contractual agreement ensures very high service level standards (i.e. approx. 99,00% service availability).

Moreover, in accordance with Chapter V of ESMA provisions, Euronext Clearing has identified the critical business functions, services and activities that the Company is expected to resume in a time span not higher than two hours.

In order to enhance its own reliability and service quality, Euronext Clearing has adopted the standard ISO 22301:2012, the internationally acknowledged best practice in Business Continuity governance. CC&G obtained in 2016 the Certificate of Registration for its Business Continuity Management System in compliance to such ISO standard and in 2021 this certification has been upgraded to ISO 22301:2019.

The key components, *inter alia*, of the Company operational risk management framework include:

- *Enterprise Risk Management Framework*, in which Euronext Clearing methodologies for assessing and representing all risks are identified;
- "*Business Continuity Plan* (also named "BCP"), which aim is to ensure that, in case of significant downgrading of operational performance, all CCP's critical functions are recovered within two hours. In the Plan contingency measures are defined in order to cover a wide range of circumstances, from unavailability of a single resource, internal or external, or a site impracticability;.

- “*Business Impact Analysis*” (also named “*BIA*”) is the document where are i) classified the general level of severity of the processes and of the activities in detail; ii) identified vital and critical processes that require an insurance of a prompt action to guarantee their continuity in order not to affect or damage the exchanges, the settlement services and Client’s activities; iii) identified and recorded the resources needed to carry out vital and critical activities and to match activities-resources; iv) defined the possible risk scenarios and classified its events.
- “*Disaster Recovery Plan*” (also named “*DRP*”) seeks to limit the consequences of a disruptive event, that makes the system unavailable, in whole or in part.

The framework is reviewed internally on an annual basis and more frequently when needed and approved by the Board of Directors. The framework is also shared with the relevant Authorities upon request.

KEY CONSIDERATION 4

An FMI should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives.

Euronext Clearing IT systems are based on a uniform architectural technology and on a set of custom applications, developed by the internal IT department; in order to assess the adequacy of system and of the processing capacity, Euronext Clearing performs both stress tests in a test environment and, on an annual basis, regular testing (i.e. systems check, call cascade, escalation processes, a cross training exercise, etc.).

Furthermore, CC&G uses specific tools for the IT systems performance analysis and for supporting their continuous monitoring, such as:

- The System Service Tool, used for monitoring the system framework, especially for hardware components;
- The Performance tool is used for monitoring the use of resources. The tool gathers system resource data on which basis reports on availability and capacity monitoring are issued. These Performance Analysis Reports also provide valuable trend data in order to anticipate future system needs. Performance and capacity analysis details will be available to local IT provider support teams, allowing them to provide better assistance during annual assessments.

An impact analysis is conducted during the initial phase of the new projects, based on the estimates, in order to forecast any CPU, Disk space or network resource increase.

Euronext Clearing central systems are scalable. The adopted architecture allows dynamic resources transfer (CPU, memory, physical adapter) and virtual processors allocation. The internal system hypervisor can be automatically available, when needed. In case of extreme workload the system administrator can manually balance the extension of processors. Moreover, available idle CPUs can be easily activated via software key.

KEY CONSIDERATION 5

An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.

In order to avoid the exposure of physical sites from disruptive events or natural disaster, Euronext Clearing adopted robust measures aiming to ensure an appropriate level of security and reliability.

For this purpose, Euronext Clearing performed a detailed analysis, identifying the risk scenarios able to affect critical processes and describing the “contingency measures” to be adopted, in order to guarantee the continuity of the processes or at least to mitigate any issues caused.

The general types of risk scenarios, considered by Euronext Clearing, are:

- natural risks, earthquakes, floods, epidemics;
- technological risks, fires, electricity interruption, hardware, software and magnetic/optic supports malfunctioning, broadcasting interruption;
- human risks, terrorism, civilian disorders, computer virus attacks and infections, intrusions, improper use of reserved data, loss of key people.

The results of the above-mentioned assessment have been taken into account in the implementation of a sound and efficient security framework.

For what concerns the physical security, and in particular the access to the offices and to the data centers, the Company adopted internal procedures for managing the risk of having the infrastructures damaged. Therefore an electronic badge is necessary to enter into the Euronext Clearing sites, that are always protected during working hours by internal staff at the reception. Every visitor is registered and provided with a badge to be always shown. Moreover, also the access to Euronext Clearing data center is limited to only those authorized employees with specific permissions.

Euronext Clearing implemented also various measures to ensure high level standards for information security (i.e. back up).

Euronext Clearing also formalized a process governed by a an internal procedure for managing disruptive events, such as incidents or any kind of anomaly, and the related classification and prioritization.

The IT security risk is monitored/managed by Euronext Clearing staff through controls relying on a high security level supplied by the operative system. Security level is assigned depending on the information and the communication, and access to accounts/databases is secured against unauthorized access.

In order to enhance cyber security best practices at all levels, Euronext Clearing has adopted the standard ISO27001:2013, developing a wide range of measures aimed at protecting data and networks from attacks, damages or unauthorized accesses.

KEY CONSIDERATION 6

An FMI should have a business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a wide-scale or major disruption. The plan should incorporate the use of a secondary site and should be designed to ensure that critical information technology (IT) systems can resume operations within two hours following disruptive events. The plan should be designed to enable the FMI to complete settlement by the end of the day of the disruption, even in case of extreme circumstances. The FMI should regularly test these arrangements.

As provided by the “Banca d’Italia Guidelines on Business Continuity for Financial Market Infrastructures” published on May 2014, Euronext Clearing shall be considered among operators who provide services defined as “relevant” for the stability of financial systems. The services to be restarted within two hours from the declaration of the event, in order to grant the completion of daily working activities, are identified within the Guidelines. In order to be compliant with the regulatory provisions, Euronext Clearing has developed the Business Continuity Plan, which defines the contingency measures the Company shall put in place to be able to face a wide range of events, from the unavailability of a single resource, internal or external, to a total site unavailability.

In the Business Continuity Plan the following relevant activities, carried out by Euronext Clearing with the aim to ensure continuity for all critical business functions, are described in detail:

- *business continuity management*: permanent process for prevention and planning, it involves all the areas affected by the Euronext Clearing continuity requirements that means application development, technological and architectural management; these activities are performed by the Business Continuity Management Team (BCMT);
- *crisis management*: *ad hoc* process which is activated after disaster events, putting into effects, depending on the case, appropriate contingency measures and, if it is necessary, declaring a crisis status. The Crisis Management normally requires the set up of a “Crisis Committee”, whereas in Euronext Clearing both activities are carried out by the BCMT.

In case of emergency, the BCMT, acting as “Crisis Committee” is in charge of:

- i) gathering information on any malfunctions;
- ii) deciding whether to adopt emergency measures and/or to report to the market.

Euronext Clearing performs periodic tests on its Business Continuity Plan (BCP) and verifies that the time needed for restoring the critical activities (RTO) is always within the two hours.

Euronext Clearing performs at least one annual test with all its participants. A market notice is sent by the Membership team in advance to inform the clients and it includes, at minimum, the test execution guide and the feedback details. In addition, Euronext Clearing performs IT recovery exercises involving Monte Titoli, as critical service provider, in order to verify the resilience of the X-TRM platform within a disaster scenario.

All market functionalities are verified, simulating the operations performed during an usual business day.

Euronext Clearing has adopted a Disaster Recovery Plan ("DRP"), which use is limited to a case of disaster or IT systems unavailability, in order to support extended crisis. The referred Plan has the aim to minimise any consequences of a condition that makes the system unusable, in whole or in part.

In order to be compliant with the PFMI and ESMA provisions ensuring the business continuity, Euronext Clearing manages two secondary sites that could host operational activities in case of a crisis, one in the same city where the Company head office is located and the other one 500 km far from it. Both locations are managed by operational and systems management personnel. Due to the continuous alignment of the systems in the two locations, a prompt restart (less than 2 hours) is ensured if one of the two centers goes out of service.

Euronext Clearing relies on a Business Continuity Platform staffed with all the needed equipment to enable internal users to execute the daily activities on Euronext Clearing systems in the event the main site is unavailable.

The Board approves the BCP plan at least once in a year. The annual test program involves simulation exercises on our systemic processes.

Furthermore, Euronext Clearing is a member of CODISE, the unit for business continuity created in 2003, responsible for crisis management coordination in the Italian financial marketplace. It is chaired by Banca d'Italia and includes representatives of CONSOB and the systemically important financial institutions. A test including major disruption and wide-scale scenario is performed on annual basis.

KEY CONSIDERATION 7

An FMI should identify, monitor, and manage the risks that key participants, other FMIs, and service and utility providers might pose to its operations. In addition, an FMI should identify, monitor, and manage the risks its operations might pose to other FMIs.

Euronext Clearing has its own Enterprise Risk Management Framework, which is designed to consistently identify and assess the risks to which the Company is exposed (both financial and non financial, i.e. operational risks), in order to manage them in an efficient manner and to take informed risk related decisions.

The above-mentioned specific risks (including the interdependencies with other FMIs) are then thoroughly managed in the BIA document, whereby the operational processes are i) classification of the general level of severity of the processes and of the activities in detail; ii) identification of vital and critical processes that require an insurance of a prompt action to guarantee their continuity in order not to affect or damage the exchanges, the settlement services and Client's activities; iii) identification of the resources needed to carry out vital and critical activities and to match activities-resources; iv) definition of the possible risk scenarios and classification of its events.

Both Enterprise Risk Management Framework and BIA are periodically reviewed and updated.

Due to the high peculiarity of its business, Euronext Clearing uses a limited number of suppliers in relation to the following IT activities: infrastructural management, hardware supply, facility management, application development and network management. The CTO area is in charge of IT suppliers contracts. The critical services provider activities shall meet the reliability and contingency

requirements, which are clearly stated in the contracts and guaranteed by the service levels agreements (also named as "SLA") which provide for regular monitoring.

All IT suppliers or service providers are duly mapped by Euronext Clearing. This mapping identifies the person in charge of the contract, both on the customer's and supplier's side.

Legal agreements with IT relevant suppliers must be compliant with the contractual standards defined by Euronext Clearing. In particular, service level agreements shall be duly defined and regularly monitored.

PRINCIPLE 18: ACCESS AND PARTICIPATION REQUIREMENTS

An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.

Summary Narrative

KEY CONSIDERATION 1

An FMI should allow for fair and open access to its services, including by direct and, where relevant, indirect participants and other FMIs, based on reasonable risk-related participation requirements.

Euronext Clearing, as a part of the Euronext Group, offers its post-trading services in an equitable, transparent and non-discriminatory manner and allows fair and open access to its services ensuring an efficient risks management.

Within its Regulations, Euronext Clearing has designed the requirements the clearing members shall be compliant with, in order to become a member of the System. These requirements are clear, transparent and related to the risks, actual or prospect, the member may pose to the Company.

Each legal entity intending to join the System shall satisfy the legal, financial and operational requirements.

Euronext Clearing has created a web-based communication tool in order to simplify the membership process and to make more direct and efficient the communication flow between Euronext Clearing and the clearing members.

The access to the System is subject to Euronext Clearing Membership Committee; this Committee is an advisory committee to the CEO on any decision regarding (i) the analysis, evaluation and acceptance of the membership requests to the Guarantee System, (ii) the assessment of the alignment to the membership requirements and related decisions, (iii) the analysis, evaluation and acceptance of any changes of the membership status.

CC&G Regulations establish procedures for the participation to the System, in an equitable, transparent manner, of Special Clearing Member (i.e. interoperable CCP), management companies (trading venues using CC&G services for the guarantee of their trades) and third party providers.

KEY CONSIDERATION 2

An FMI's participation requirements should be justified in terms of the safety and efficiency of the FMI and the markets it serves, be tailored to and commensurate with the FMI's specific risks, and be publicly disclosed. Subject to maintaining acceptable risk control standards, an FMI should endeavour to set requirements that have the least-restrictive impact on access that circumstances permit.

Euronext Clearing, with the aim of balancing the open access and an effective risk management, has designed a safeguarding system based on three levels of protection:

- Membership requirements
- Margin system
- Additional resources

The provision of membership requirements shall be considered as the Euronext Clearing first line level of protection, establishing which parties can be admitted to the system. Clearing Members must meet minimum Supervisory Capital requirements. Each Member must also meet requirements related to the organizational structure, technological and information technology systems.

As already stated in the [Key Consideration 1](#) of this Principle, Euronext Clearing has identified the following risk-based requirements:

- in accordance to legal requirements, it is possible to join Euronext Clearing as a Clearing Member, either General or Individual (becoming a counterparty of Euronext Clearing), or as a Trading Client (becoming the counterparty of a General Clearing Member). The role of General and Individual Clearing Member may be acquired by Banks and Investment Firms authorized in Italy to provide investment services or authorized under mutual recognition; the other entities admitted to trading may participate as Trading Client only;
- for what concerns financial requirements, Euronext Clearing establishes a differentiated financial requirement safeguard system depending on the membership profile, on the Section of participation and in case the Clearing Member is acting as GCM, the Supervisory Capital will depend on the number of cleared TCs. A breakdown for increasing supervisory capital requirements is established based on the number of Trading Clients cleared (for GCMs) and in terms of cleared asset classes. Please refer to the dedicated section on the Company's website for further details;
 - in relation to the operational requirements, Euronext Clearing has stated that, in order to be admitted to the Clearing System, Clearing Members have to demonstrate to have an organizational structure, a technological and IT system that guarantee the ordered, continuous and efficient management of activities arising from membership to the System. Clearing Members must also maintain adequate recovery, prompt reactivation and restoration procedures for data processing.

In order to guarantee an effective proportion between the required requirements and specific risks, Euronext Clearing defines different requirements justified in terms of counterparty risk (size and type of activities, depending on the number of cleared TC) and volumes.

In order to ensure the consistency between risks and membership requirements, CC&G Rulebook is constantly reviewed and updated in line with the applicable legal and regulatory framework.

CC&G Regulations, its amendments and all information related to the membership process, are disclosed on the Company's website.

KEY CONSIDERATION 3

An FMI should monitor compliance with its participation requirements on an ongoing basis and have clearly defined and publicly disclosed procedures for facilitating the suspension and orderly exit of a participant that breaches, or no longer meets, the participation requirements.

Euronext Clearing constantly monitors the fulfillment of the membership requirements through the receipt of timely and accurate information, in order to take any corrective actions. In particular, according to the CC&G Regulations, the Clearing Members have the obligation of providing Euronext Clearing with the following information:

- maintenance of an organizational structure and a technological and information technology systems that guarantee the smooth, continuous and efficient management of the relations and activities arising from the membership of the system;
- failure to maintain legal and financial requirements;
- failure to maintain the supervisory capital requirements; or any loss in the Supervisory Capital or in the net capital equals or higher than the 30%;
- loss of effect of any contractual agreement between both the General Clearing Member and its Trading Clients or the Clearing Member and its Settlement Agent;
- updated list of clearing reference names (at least two for each section), considering that at least one of the aforesaid references must be available during the course of each Market business day.

Euronext Clearing monitors the maintenance of these Membership Requirements through the assessment of the information, listed in the Annex B.1.1.4 to CC&G Instructions, updated by Members, in case of any change. In case of communication delay or breach of Supervisory Capital requirements, Euronext Clearing informs the Supervisory Authorities and may establish risk containment measures, including an increase of the Initial Margins or the suspension from the System. Euronext Clearing defines a maximum period for the restoration of this financial requirements.

The maintenance of membership requirements and Members' obligations are described in Chapter B.2.1.5, whereby the failure in maintaining those requirements and the potential actions to be taken, in terms of suspension and exclusion, are outlined in Chapters B.2.2.2 and B.2.2.4 of CC&G Regulations.

The relevant information and details related to the maintenance of the membership requirements are publicly disclosed on the Company's website.

PRINCIPLE 19: TIERED PARTICIPATION ARRANGEMENTS

An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.

Summary Narrative

KEY CONSIDERATION 1

An FMI should ensure that its rules, procedures, and agreements allow it to gather basic information about indirect participation in order to identify, monitor, and manage any material risks to the FMI arising from such tiered participation arrangements.

Only Clearing Members are obliged to comply with Euronext Clearing Membership requirements; nonetheless, Euronext Clearing has a contractual relationship with the Trading Client.

The latter by signing a Request for Services, accepts the Euronext Clearing regulatory and contractual framework. The Trading Client has also to subscribe an Outline Agreement with a General Clearing Member, the sole responsible for the clearing activities of the Trading Client.

The Trading Client applies via an online membership tool where it has to communicate to Euronext Clearing a minimum set of information: the company ownership, any participation in other CCPs and, for Euronext Clearing review and filing of the admission request and the latest financials.

The Trading Clients are bound to keep the above mentioned information always updated and advise Euronext Clearing upon changes or amendments. The GCM has to communicate the operational and technical information for each of its TC. In order to mitigate the risks stemming from these tiered participation arrangements, the GCMs have higher Supervisory Capital requirements, depending on the number of cleared TCs.

KEY CONSIDERATION 2

An FMI should identify material dependencies between direct and indirect participants that might affect the FMI.

Euronext Clearing, in order to identify material dependencies between Clearing and Trading Clients that can affect it, analyses the ownership structure of Clearing Members.

Clearing Members have to communicate the ownership structure at the time of the admission and, subsequently, when a change in the ownership structure takes place.

Also, in the Request for Services, the Clearing Member has to communicate the holding or Banking Group to which it belongs. Changes in the holding group have to be communicated in due time.

All group links between clearing members are tracked in the static data of Clearing System, by means of specific grouping identification codes and regularly monitored.

KEY CONSIDERATION 3

An FMI should identify indirect participants responsible for a significant proportion of transactions processed by the FMI and indirect participants whose transaction volumes or values are large relative to the capacity of the direct participants through which they access the FMI in order to manage the risks arising from these transactions.

Euronext Clearing identifies and classifies progressively the membership profile of its Members in CC&G's static data, whereby each Clearing Member is identified by its participation in the relevant CCP sections, its membership profile in each CCP Section and the relationship between GCMs and TCs.

In order to allow its Clearing members to monitor their risk for Clearing Member and Trading Client, Euronext Clearing allows Clearing Members to open one or more individual segregated accounts, for the registration of positions and assets of individual clients in a segregated mode, and one or more omnibus accounts, for the registration of positions and assets of specific groups of clients.

Within one of the omnibus accounts, Members can record the positions of Trading Clients separately, in a House account and in a Client account.

Euronext Clearing tracks the volumes of each Clearing Member and it may always identify grouped volumes at Direct Clearing Member level as well as at Trading Client level.

GCMs may always ask for the suspension of their TCs in specific cases described by CC&G Regulations.

KEY CONSIDERATION 4

An FMI should regularly review risks arising from tiered participation arrangements and should take mitigating action when appropriate.

Euronext Clearing includes in the regular policy and procedure framework review the specific risks arising from tiered participation arrangements.

PRINCIPLE 20: FMI LINKS

An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks.

Summary Narrative

KEY CONSIDERATION 1

Before entering into a link arrangement and on an ongoing basis once the link is established, an FMI should identify, monitor, and manage all potential sources of risk arising from the link arrangement. Link arrangements should be designed such that each FMI is able to observe the other principles in this report

According to the terms set out in the agreements signed between the two CCPs, each CCP would be exposed to losses exclusively in case of default of one of its own participant and not in the case of default of a participant of the other CCP (“no-spillover effect”).

Euronext Clearing and LCH SA are both exempted from contributing to the other CCP’s Default Fund; in fact, if CCPs were to contribute to Default Funds, each CCP would be exposed to losses arising from the insolvency of a participant of the other CCP in violation of the “no-spillover effect”.

Notably, it has been agreed to perform common regular reviews of the risk parameters, in order to maintain the Margins and additional Margins at appropriate levels and to ensure that margin parameters and the determination of margin methodology and subsequent enhancements are performed solely by mutual agreement.

In order to cover the losses in excess of initial and variation margins, in the extremely remote event of a default of a CCP, the two CCPs deposit with each other an additional layer of non-mutualistic guarantee: the Additional Margin.

Moreover, in case of default of the linked CCP, Euronext Clearing applies the following “default waterfall”:

- Guarantees deposited by the linked CCP;
- Dedicated assets of CC&G;
- Loss sharing through reduction of pay outs;
- Any remaining losses are allocated to CMs pro-rata based on Default Fund contributions.

KEY CONSIDERATION 2

A link should have a well-founded legal basis, in all relevant jurisdictions, that supports its design and provides adequate protection to the FMIs involved in the link.

The interoperability between Euronext Clearing and LCH SA is regulated by two agreements pursuant to which each CCP becomes a clearing member of the system operated by the other CCP.

According to the design of the link, each CCP is a special category of clearing member of the other CCP; therefore Italian laws and Euronext Clearing contractual rules apply to LCH SA for its membership (Special Clearing Member) of Euronext Clearing, and French laws and contractual rules apply to Euronext Clearing for its membership of LCH SA.

The legal basis which supports the design of the interoperability arrangements is provided by Title V of EMIR, which, as European regulation is directly applicable into the Italian and French jurisdiction. With respect to interoperability arrangements, Articles 52 to 54 of EMIR lay down, among others, the requirements on risk management, the provision of margins between CCPs and approval of interoperability arrangements.

Legal opinions provided by Italian and French law firms assessed that the interoperability agreements are compliant with the EMIR provisions.

In particular, the Italian legal opinion states that:

- the netting arrangements between Euronext Clearing and LCH are valid and enforceable;
- the rules of Euronext Clearing concerning the moment of entry of transfer orders into its System and the moment of irrevocability have been defined in accordance with article 52(1) of EMIR;
- no cross-border legal issues arise as a result of the Agreement with particular regard to the default procedure adopted by Euronext Clearing in the event of LCH SA default and the enforceability of collateral agreements;
- the procedures adopted by Euronext Clearing for the management of a default of LCH SA are valid and enforceable;
- the provisions of the Italian agreement in connection with the defaulting rules are enforceable;
- the interoperability arrangement does not impact on the ability of Euronext Clearing to comply with the requirements provided for by EMIR on a standalone basis with particular reference to prefunded financial resources, including margins.

KEY CONSIDERATION 7

Before entering into a link with another CCP, a CCP should identify and manage the potential spill-over effects from the default of the linked CCP. If a link has three or more CCPs, each CCP should identify, assess, and manage the risks of the collective link arrangement.

In order to ensure that both interoperating CCPs operate in an orderly manner and that each CCP is, as far as is possible, insulated from the risk of contagion of adverse effects flowing from any event affecting the other CCP, the interoperating CCPs undertake to co-operate through dialogue and consultation to the greatest practicable extent. The interoperable arrangements provide that in order to avoid contagion between them in case of default of a clearing member or the interoperable CCP the parties should follow a specific procedure attached to the interoperable agreements. In particular:

- i. each interoperating CCP is exempted from the requirement to contribute to their respective default funds, so that under no circumstances an interoperating CCP may suffer losses arising from events that are beyond its control, such as the default of a Clearing Member of the other interoperating CCP (so called “no-spillover effect”);

- ii. each Party shall call from the other Party an “additional Margin” of equal amount, to be deposited only in cash (euro) and to be used exclusively in case of an event of default affecting the other Party. The Additional Margin is reviewed daily.

Moreover, each interoperable CCP provides that, should Additional Margins be insufficient to cover the losses incurred as a consequence of the default of the other one, such an excess will be partially covered by the Clearing Members of the non-defaulting CCP, by means of a loss-sharing clause as set out in each interoperating CCP’s Rulebook.

KEY CONSIDERATION 8

Each CCP in a CCP link arrangement should be able to cover, at least on a daily basis, its current and potential future exposures to the linked CCP and its participants, if any, fully with a high degree of confidence without reducing the CCP’s ability to fulfil its obligations to its own participants at any time.

As mentioned above (please see [Principle 20 Key Consideration 1](#)), Euronext Clearing ensures to cover current and potential exposure via the payment of initial margins as well as Additional Margins. Additional Margins are effectively non-mutualised margins called from the interoperable CCP. The purpose of those margins is twofold:

- increase the inter CCP protection;
- liaise the above mentioned margins to the daily cash calls volatility, so that the liquidity requirements from one CCP are pre-funded.

PRINCIPLE 21: EFFICIENCY AND EFFECTIVENESS

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves

Summary Narrative

KEY CONSIDERATION 1

An FMI should be designed to meet the needs of its participants and the markets it serves, in particular, with regard to choice of a clearing and settlement arrangement; operating structure; scope of products cleared, settled, or recorded; and use of technology and procedures.

Euronext Clearing has in place adequate processes for taking into account the needs of its participants and the markets it serves.

Euronext Clearing liaises regularly with its clients, by organizing workshops and meetings in order to inform them of developments, new services, changes and amendments in the clearing service offering.

In compliance with EMIR regulations, the appointed clients participate also to the External Risk Committee meetings arranged by Euronext Clearing.

Clearing Members may opt for the cash and securities settlement arrangements they prefer, by directly participating in the TARGET2 and/or T2S settlement platform; also, they have the option to directly deposit securities for initial margins coverage purposes or to avail themselves of a deposit agent.

The IT infrastructure provides several options to enable the participants, the ISV and/or service providers, to feed their applications with clearing information, based on both data retrieving and Application to Application (also A2A) methodology.

KEY CONSIDERATION 2

An FMI should have clearly defined goals and objectives that are measurable and achievable, such as in the areas of minimum service levels, risk-management expectations, and business priorities.

Euronext Clearing is committed to promote and offer its services in an equitable, transparent and non-discriminatory manner and on the basis of rules, criteria and procedures aimed at assuring security and equal treatment among market infrastructures and members.

With regards to goals and objectives meeting the requirements of its members and markets served, Euronext Clearing follows the below mentioned standards and best practices in order to ensure an enhanced effectiveness in relation to core operational processes.

With reference to minimum service levels, Euronext Clearing, according to Chapter V of Delegated Regulation (EU) No 153/2013 of 19th December 2012 and to the “*Banca d’Italia Guidelines on Business Continuity for Financial Market Infrastructures*” published on May 2014, is committed to ensure the most reliable and resilient clearing services; for this purpose the Company ensures that those services, identified as “critical”, shall be resumed within two hours from the declaration of an incident or a disruptive event.

For what concerns the risk-management expectations, in gauging its financial resources, Euronext Clearing adopts, upon formal approval and regularly review by the (Internal) Risk Committee, a more conservative approach compared to the minimum requirements set by the international Regulation. Moreover, the Default Funds cover a larger number of banking groups than the minimum number required by the mentioned Regulation.

Within the planning process of new services, Euronext Clearing follows Group standards outlined in the Project Management Policy.

In relation to the above-mentioned goals, the Board of Directors, within the definition of its strategic guidelines, ensures that the objectives, in term of effectiveness, are measurable and achievable by the annual formal approval of the relevant documentation related to the Business Continuity Plan, the ERMF, the Risk Appetite Framework and the major new service developments.

Furthermore, the achievement of goals and objectives is ascertained through a regular assessment and review carried out, *inter alia*, by relevant Corporate Bodies and Functions:

- second level control functions (CRO, Risk Policy, CCO);
- third level control function (Italy Internal Audit);
- Internal Risk Committee;
- Membership Committee;
- Operational Risk Committee;
- Board of Directors.

It must be noted that: i) Business Continuity simulations are scheduled and performed on an annual basis; ii) Disaster Recovery simulations are performed twice a year. The simulations results are duly reported to the Board of Directors.

KEY CONSIDERATION 3

An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.

Euronext Clearing reviews, on a periodic basis, its efficiency and effectiveness, in particular:

- Minimum service levels are evaluated taking into account ad-hoc guidelines and the procedures in which the key elements are defined to handle any operational risk incident with regards to identification, mitigation actions and reporting to internal and external parties. Furthermore, Euronext Clearing evaluates its efficiency and effectiveness by arranging regular meetings with its members and markets whereby they provide feedbacks on the level of services received and

suggestions for improvements. The key outcomes are recorded in the meeting minutes and the highlights are presented to the Euronext Clearing Management Committee;

- Euronext Clearing has a number of KRI in place to monitor its efficiency and effectiveness (depending on the KRI the update is on ongoing basis or at least quarterly) that are reported to all the relevant stakeholders (top management, Committees, Board). Besides the objectives related to operational performance, the reporting also addresses any operational incident.
- Business priorities, such as progress of key projects, are monthly monitored and documented in Euronext Clearing projects roadmap. Dedicated meetings are arranged on a case-by-case basis and when deemed necessary, in particular to review and approve significant deviations from the original project schedule.

PRINCIPLE 22: COMMUNICATION PROCEDURES AND STANDARDS

An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.

Summary Narrative

KEY CONSIDERATION 1

An FMI should use, or at a minimum accommodate, internationally accepted communication procedures and standards.

Euronext Clearing, in order to facilitate effective communication between itself and its Members, CSDs and other CCPs and, at the same time, to improve the quality and efficiency of clearing and settlement transactions, adopts standardized communication media and protocols.

The following schema represents the structure of the clearing system. The characteristic of the Euronext Clearing system is to manage all the asset classes, trades, positions and other relevant information within one integrated central system, that means that all the core functionalities rely, depending on their peculiarity, on dedicated modules. This solution, using normalized and centralized information, avoid any overlapping or need of duplicated data management.

Furthermore, this IT architectural framework facilitated the initial implementation and the maintenance of all the EMIR functionalities since data and processes are always available and real time updated.

The Monitoring System allows to control and verify the status of the system, applications and data relying on the consolidated and normalised structure.

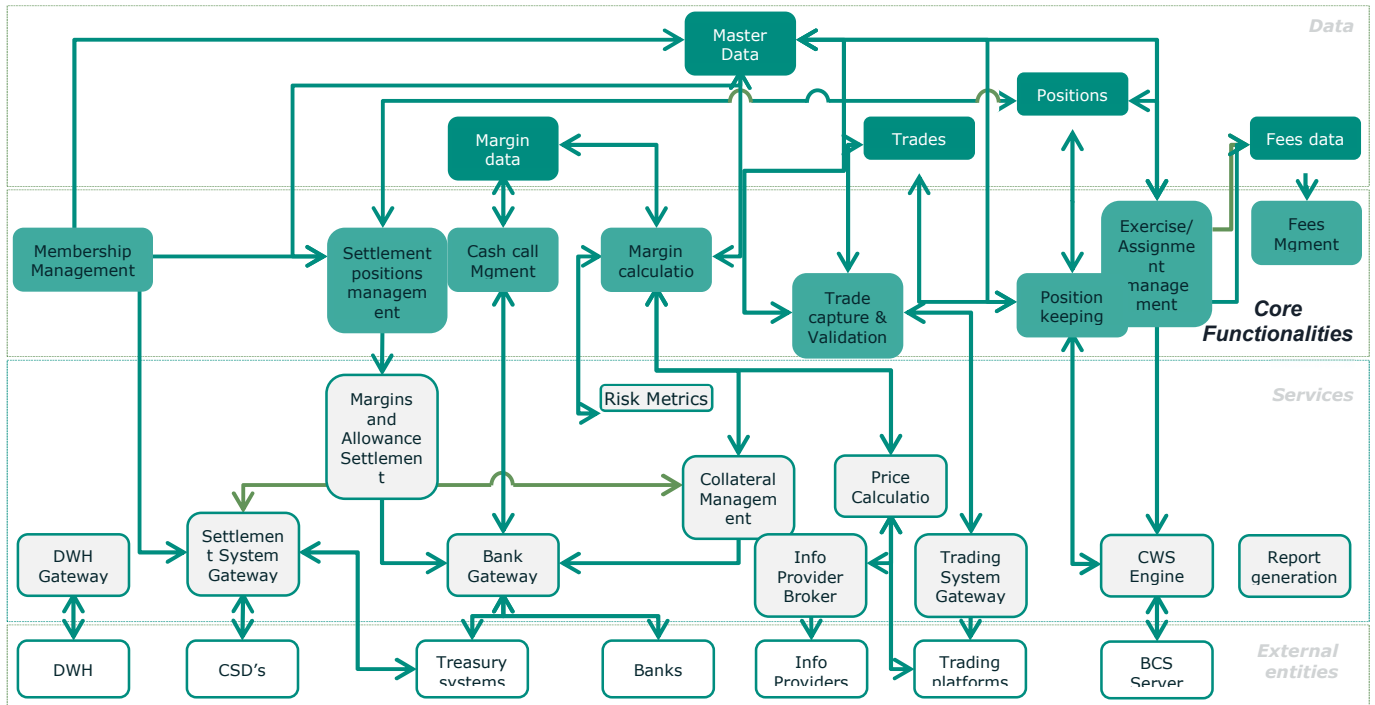


Figure 4

Referring to the use of an internationally accepted communication standards, all the products cleared by Euronext Clearing can be identified through an ISIN code and all counterparties are identified using standardized code such as BIC Code, or ABI code. CC&G is already LEI (Legal Entity Identifier) compliant.

The connections with the Trading Platforms are based on IBM MQ-Series, that represents one of the most reliable solution providing communication mechanisms between applications on different platforms.

Clearing reports and data files are available on internet web site (ICWS). The participants can download them just after a digital certificate subscription to Trust Authority, and traffic is secured by HTTPS protocol.

All the interaction between CC&G and its members are managed with the Straight-through Processing (STP), relying on the ISO Swift messages as far as the Cash movement is concerned, since CC&G is allowed to execute direct Debit and direct Credit on the Central Bank participant account.

Euronext Clearing uses the SWIFT ISO15022 as main communication standard to domestic and International CSDs.

Euronext Clearing provides its Members with real time data, BCS Services, whereby data and functions are available through the BCS Web Front End and the BCS APIs. The BCS APIs allow the Member's own software solution to be connected with the Clearing application in Application-to-Application mode.

Furthermore, Members rely on readable flows, based on XML protocols and ASCII format, to reconcile the most relevant data (such as trades, positions, margins, fees).

Public data such as Price, Product Information, Risk Parameters are available daily and can be downloaded through the CC&G website also in FTP mode.

PRINCIPLE 23: DISCLOSURE OF RULES, KEY PROCEDURES, AND MARKET DATA

An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.

Summary Narrative

KEY CONSIDERATION 1

An FMI should adopt clear and comprehensive rules and procedures that are fully disclosed to participants. Relevant rules and key procedures should also be publicly disclosed.

Euronext Clearing discloses its rules and procedures on the Company's website and ensures that the overall documentation is clear, comprehensive, updated and compliant with the International, European and National regulatory framework.

Euronext Clearing provides current and prospective members with the disclosure of the relevant documentation in order to allow them to assess and understand the risks they incur by participating in the clearing system. CC&G Regulations set forth the rules and the key procedures followed in ordinary operations and in exceptional events such as, *inter alia*, procedures for default management, procedures for the physical and logical protection of data relating to the System, procedures of recovery, re-activation, and restoration for data processing that ensure the continuity of the service.

CC&G Regulations are regularly reviewed and updated, if needed, following an internal process which involves:

- consultation process with the main associations and clearing members, in order to share the proposed changes and take into consideration relevant comments;
- evaluation of changes by the Supervisory Authorities;
- receipt of a mandatory non-binding opinion of the Risk Committee, if the topic is within its remit;
- final approval by the Board of Directors.

Upon approval, Euronext Clearing informs its Members by releasing a Market Notice published on the Company's website in the pertinent section and in addition by sending via e-mail the said Notice to the Members.

In addition, Euronext Clearing has adopted a set of internal organisational measures to facilitate the practical implementation of the key procedures outlined in the CC&G Regulations. The named Regulations, the Instructions and their Annexes, together with the General Terms and Conditions for the supply of services and the other contractual documentation, shall be considered as the legal and regulatory framework governing the overall activities and services provided Euronext Clearing and available on the Company's website.

KEY CONSIDERATION 2

An FMI should disclose clear descriptions of the system's design and operations, as well as the FMI's and participants' rights and obligations, so that participants can assess the risks they would incur by participating in the FMI.

In order to allow a comprehensive understanding of the risks related to the clearing system, Euronext Clearing discloses on the Company's website all the relevant information concerning the system design and operations, including a high level description of the IT architecture, connectivity requirements, operational manuals and forms.

Moreover, the Risk Management framework described on the same website provides Members with extensive information on, *inter alia*, Margin Calculation Methodologies, Margin Parameters, Collateral Parameters, Default Fund Parameters.

Lastly, also the legal and regulatory framework in which Euronext Clearing operates is fully disclosed and available on the website, whereby Clearing Members may retrieve adequate information concerning their rights and obligations in relation either to the membership requirements (i.e. supervisory capital, technical and organizational criteria) and operational activities.

KEY CONSIDERATION 3

An FMI should provide all necessary and appropriate documentation and training to facilitate participants' understanding of the FMI's rules and procedures and the risks they face from participating in the FMI.

In order to enhance this comprehensive understanding Euronext Clearing meets its prospect clients, in order to provide an overview on the central counterparty system functioning.

Euronext Clearing provides its Members with all necessary and appropriate documentation and training to facilitate the understanding of the rules and procedures and the risks stemming from participation to the clearing system.

Moreover it is possible to attend ad-hoc training activities, through the Academy, that is the Borsa Italiana training hub for both individuals and companies in Italian and international financial markets. Euronext Clearing provides its members with training session covering all the relevant topics related to the CCP system, such as, *inter alia*, the Euronext Clearing margining system for different products cleared.

KEY CONSIDERATION 4

An FMI should publicly disclose its fees at the level of individual services it offers as well as its policies on any available discounts. The FMI should provide clear descriptions of priced services for comparability purposes.

Euronext Clearing publicly discloses, not only to clearing members but also to the broader public, the fees schedule for the services provided and any available discount or ad-hoc incentives with related detailed information, including the applicable conditions and the validity period.

The fee structure is composed of an annual membership fee, in addition to clearing fees divided per asset class and technological infrastructure fees.

Euronext Clearing notifies the clearing members of the amendments to the price list and the discounts by official market notices on the Company's website. As provided within the General Conditions, any changes to fees, except for those in the client's favor, shall be communicated with an advanced notice.

In addition, Euronext Clearing publicly discloses the price list of its technological infrastructure which includes the Internet Clearing Work Station (ICWS) and Bit Clearing Station (BCS).

KEY CONSIDERATION 5

An FMI should complete regularly and disclose publicly responses to the CPSS-IOSCO disclosure framework for financial market infrastructures. An FMI also should, at a minimum, disclose basic data on transaction volumes and values.

In order to be compliant with and to prove its adherence to the CPMI-IOSCO Principles for FMIs, Euronext Clearing publishes on its website the present disclosure. The aforesaid document will be subject to review at least once every two years and following any material changes occurred.

In order to ensure transparency in relation of key quantitative information, Euronext Clearing discloses on its Company's website all the quantitative data defined by the "CPMI-IOSCO Public quantitative disclosure standards for central counterparties", overarching a wide range of quantitative information related to the CC&G members, transaction volumes and values, data on financial resources, etc.

Besides, Euronext Clearing provides disclosure of the services offered, the fee schedules at the level for the individual service offered, including any incentives program or discounts available and the current CC&G's members list by asset class.

In order to enhance the Company compliance with the overall regulatory framework and in particular with the European Regulation, Euronext Clearing makes available to the public additional information outlining the key governance elements and bodies (including the Shareholders Meetings, the Board of Directors, the Risk Committee, the Remuneration Guidelines, the Investment Principles, the main governance Policies, etc.).

4. List of publicly available resources

COMPANY'S WEBSITE

MEMBERSHIP REQUIREMENTS

GOVERNANCE

OPERATION MANUALS AND FORMS

RULES AND REGULATIONS

**CPMI-IOSCO PUBLIC
QUANTITATIVE DISCLOSURES**

RISK MANAGEMENT

NOTICES

**CC&G TECHNOLOGICAL
INFRASTRUCTURE**

FEE SCHEDULE

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EURONEXT CLEARING



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