

clear to trade



Eurex Clearing AG

Assessment of Eurex Clearing AG's compliance against the CPMI-IOSCO Principles for financial market infrastructures (PFMI) and disclosure framework associated to the PFMIs

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1. Executive Summary

In April 2012, the Committee on Payment and Settlement Systems (CPSS)¹ and the Technical Committee of the International Organization of Securities Commissions (IOSCO) published the report "Principles for financial market infrastructures" (PFMI). In December 2012, CPSS and IOSCO published a report containing the "Disclosure framework for financial market infrastructures" (disclosure framework) and the "Assessment methodology for the principles for FMIs and the responsibilities of authorities" (assessment methodology).

EUREX Clearing Aktiengesellschaft (Eurex Clearing AG, "Eurex Clearing") performed an update of its 2017 assessment of its compliance with the CPMI-IOSCO PFMI in accordance with the CPMI-IOSCO assessment methodology². Based on the results of this updated assessment Eurex Clearing is of the opinion that it fully observes the CPMI-IOSCO PFMI.

Eurex Clearing is one of the leading global central counterparties (CCPs), assuring the safety and integrity of markets while providing innovation in risk management, clearing technology and client asset protection. It clears a broad scope of products — both on- and off-exchange — under a single framework in Europe and accepts a wide spectrum of eligible collateral. The offering comprises flexible trade management functions, advanced risk management services, efficient collateral and delivery management tools. Eurex Clearing delivers a comprehensive value chain of clearing services with our high-quality, cost-efficient and state-of-the-art clearing and risk management systems.

Eurex Clearing is a credit institution under the German Banking Act and fulfils the requirements under the European legislation, in particular Capital Requirements Regulation (CRR) / Capital Requirements Directive (CRD) and Banking Recovery and Resolution Directive (BRRD), and the respective German legislation, namely Solvency Regulation (SolV), the Liquidity Regulation (LiqV), the Recovery and Resolution Act (SAG), as well as the provisions relating to large loans under the Large Exposures and Million Loans Reporting Regime (GroMiKV).

On 10 April 2014, Eurex Clearing received a permission from the German Federal Financial Supervisory Authority to perform clearing services pursuant to Article 17 of Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (European Market Infrastructure Regulation, EMIR). The authorisation as EMIR-compliant CCP also determines Eurex Clearing as a qualifying CCP under CRR/CRD. On 1 February 2016, Eurex Clearing was registered with the Commodity Futures Trading Commission (CFTC) as a Derivatives Clearing Organisation (DCO) for clearing swaps for US Clearing Members and their customers in accordance with the Commodity Exchange Act. Furthermore, Eurex Clearing has been recognized as Recognised Clearing House by the Monetary Authority of Singapore (MAS) on 14 September 2018, as Foreign Central Counterparty by the Swiss Financial Market Supervisory Authority

¹ On 1 September 2014 the Committee on Payment and Settlement Systems (CPSS) was renamed to Committee on Payments and Market Infrastructures (CPMI).

² Eurex Clearing assessed its compliance against all PFMI except PFMI 11 and PFMI 24 which are not applicable to CCPs.

(FINMA) on 29 March 2018 and as Financial Instrument Clearing Organization by the Japanese Financial Services Agency (JFSA) on 12 March 2020. Additionally, Eurex Clearing has been exempted from the requirement to be recognized as a clearing agency in Ontario by the Ontario Securities Commission on 14 July 2017.

Summary of major changes since the last update of the disclosure

This is the updated version of Eurex Clearing's 2017 assessment against the CPMI-IOSCO PFMI. Major changes since the last update are highlighted with respect to the respective Key Consideration (KC):

Principle 1 – Legal basis

Changes to the assessment against Principle 1 were made to adequately reflect Eurex Clearing's status as a derivatives clearing organization ("DCO") with the U.S. Commodity Futures Trading Commission as well as the FCM Regulations which have been developed by Eurex Clearing as a separate rulebook applicable to U.S. FCM Clearing Members only.

Principle 2 – Governance

Changes to the assessment against Principle 2 were made to reflect the adjustments of various committees (KC 2 and KC 3).

Principle 3 – Framework for the comprehensive management of risks

No material changes.

Principle 4 – Credit risk

No material changes.

Principle 5 – Collateral

No material changes.

Principle 6 – Margin

No material changes.

Principle 7 – Liquidity risk

Changes to the assessment against Principle 7 were made to adequately reflect Eurex Clearing's access to central bank accounts.

Principle 8 – Settlement finality

No material changes.

Principle 9 – Money settlements

Changes to the assessment against Principle 9 were made to reflect changes in the admitted payment banks per currency (KC 1) as well as the acceptance criteria for payment banks (KC 2).

Principle 10 – Physical deliveries

No material changes.

Principle 11 – Central securities depositories

Not applicable to Eurex Clearing, no changes.

Principle 12 – Exchange-of-value settlement systems

No material changes.

Principle 13 – Participant default rules and procedures

No material changes.

Principle 14 - Segregation and portability

Changes to the assessment against Principle 14 were made to reflect the restructuring of the categories of direct and indirect clients as well as changes to and the renaming of some of the offered clearing models (KC 1-4).

Principle 15 – General business risk

No material changes.

Principle 16 – Custody and investment risk

No material changes.

Principle 17 – Operational risk

No material changes.

Principle 18 – Access and participation requirements

Changes to the assessment against Principle 18 were made to reflect changed capital requirements per Clearing License (KC 2).

Principle 19 – Tiered participation arrangements

Changes to the assessment against Principle 19 were made to reflect changes to Eurex Clearing's relationship to its Clearing Members and clients, as tri-partite agreements are no longer required under the Elementary Clearing Model (KC 1).

Principle 20 – FMI links

Changes to the assessment against Principle 20 were made to provide an updated overview of FMIs linked to Eurex Clearing (KC 1).

Principle 21 – Efficiency and effectiveness

No material changes.

Principle 22 – Communication procedures and standards

No material changes.

Principle 23 – Disclosure of rules, key procedures, and market data

Changes to the assessment against Principle 23 were made to reflect also legal disclosures (KC 2).

Principle 24 – Disclosure of market data by trade repositories

Not applicable to Eurex Clearing, no changes.

2. General background on Eurex Clearing

General description of the FMI and the markets it serves

Eurex Clearing's aim is to assure the safety and integrity of markets while providing innovation in risk management, clearing technology and client asset protection. Eurex Clearing provides central counterparty clearing services for the derivatives markets Eurex Exchange (listed derivatives) as well as EurexOTC Clear (over-the-counter (OTC) interest rate and FX derivatives), for the cash market Frankfurt Stock Exchange (equities, bonds, ETFs and other ETPs), for securities financing transactions conducted via the multilateral trading systems of Eurex Repo GmbH, and for securities lending transactions conducted via selected third-party flow providers. It operates in a number of currencies including Euro, Swiss Francs, US Dollars and Pounds Sterling.

Overview on served markets and product groups:

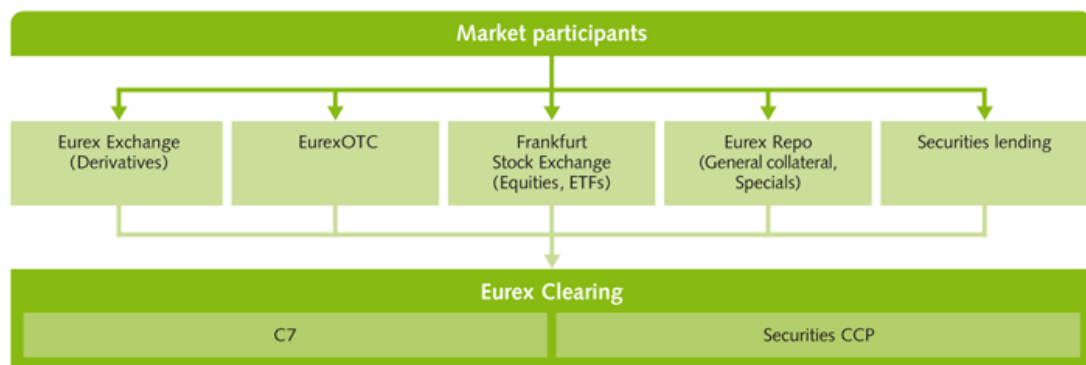


Figure 1: Eurex Clearing's served markets and product groups

- Eurex Exchange is one of the largest global derivatives exchanges with a product suite comprising the most actively traded and liquid market in EUR-denominated equity index and fixed income derivatives; as well as a broad offering in single equity products, alternative asset classes and commodities.
- With its service EurexOTC Clear for OTC interest rate, inflation and FX derivatives, Eurex Clearing has fully integrated execution with clearing and collateral management of OTC and listed derivatives in a single CCP within one single legal and operational framework. EurexOTC Clear offers clearing services for a broad range of standardised interest rate OTC derivatives in various currencies, OTC derivatives in inflation-indices, OTC FX swaps, forwards as well as cross-currency swaps for the currency pairs Euro vs. US Dollar and Pound Sterlings vs. USD.

For its OTC IRD business, Eurex Clearing is furthermore connected to the following external Approved Trade Sources:

- MarkitSERV Ltd
 - Bloomberg Trading Facility LTD
 - Bloomberg Trading Facility BV
 - Bloomberg SEF LLC
-

- Bloomberg Tradebook Singapore PTE LTD
- Tradeweb EU BV
- Tradeweb SEF LLC
- Cash equity trading is undertaken via the FWB® Frankfurter Wertpapierbörse (the Frankfurt Stock Exchange) – both Xetra® and floor, cleared by Eurex Clearing as CCP and settled in Clearstream Banking Frankfurt and Clearstream Banking Luxembourg. Cash transactions are settled in Euro and Swiss Francs via Central Banks and in US Dollars and Pounds Sterling via commercial banks.
- Eurex Repo ranks among the leading electronic markets for secured funding and financing and is the market place for the collateralised money market in Swiss Francs and Euros as well as for the GC Pooling® offering. It also serves as a flow provider for the securities lending business. Repo trading is undertaken via Eurex Repo, cleared by Eurex Clearing as CCP and settled in Clearstream Banking Frankfurt, Clearstream Banking Luxembourg and Euroclear Bank.

For its repo business, Eurex Clearing is furthermore connected to the following external Approved Trade Sources:

- NEX BrokerTec Europe Limited
- CME Amsterdam B.V.
- The Lending CCP offers clearing services for loans in equities, ETFs and fixed income securities, initially covering European markets. For the Lending CCP service, cash collateral (EUR and USD) and non-cash collateral are eligible.

Eurex Clearing serves 211 Clearing Members located in 21 countries worldwide (as of 31 December 2019) and manages a collateral pool of approximately EUR 55,9 billion (monthly average in 2019). In 2019, Eurex Clearing processed approximately 2.1 billion transactions. Transaction volumes in the EurexOTC Clear service show a strong increase over the last years.

in millions	2017	2018	2019
Number of transactions	1,797	2,077	2,055
Value of transactions (EUR)	165,283,000	169,363,464	173,174,500
EurexOTC Clear - Notional Value (EUR)	1,274,191	7,373,964	13,111,500
Total Margin Collateral Value (EUR)	47,913	48,547	57,697
Default Fund (EUR)	3,193	3.245	3.829
Number of Clearing Members	194	198	211
of which: Foreign Clearing Member	132	138	149

Figure 2: Eurex Clearing volumes

More statistics on Eurex Clearing's participant base are provided in the quarterly CPMI-IOSCO public quantitative disclosure on the "AggregatedDataFile" tab, where one can find:

- Number of General Clearing Members (18_1_1_1),
- Number of Direct Clearing Members (18_1_1_2),
- Number of Basic Clearing Members (18_1_1_3),
- Number of central bank participants (18_1_2_1),
- Number of bank participants (18_1_2_3),
- Number of other participants (18_1_2_4),
- Number of domestic participants (18_1_3_1), and
- Number of foreign participants (18_1_3_2).

The list of cleared products, descriptions of services offered and a broad range of basic and performance statistics is constantly updated and available on the Eurex Clearing website (www.eurexclearing.com).

Eurex Clearing has documented and established governance arrangements that provide for clear responsibility and accountability for both the Eurex Clearing Executive Board and Supervisory Board. These arrangements are disclosed to relevant stakeholders at different granularity.

The composition of the Supervisory Board, its committees as well as the composition and structure of senior management, represented by the Executive Board, is published on the Eurex Clearing website in the corporate governance section. The roles and responsibilities of the board, the committees and senior management are laid down in arrangements that comply with Part 4, Section 1 and 2 of the Stock Corporation Act (Aktengesetz, AktG).

Legal and regulatory framework

Eurex Clearing is a stock corporation (Aktiengesellschaft) formed and incorporated under the laws of Germany and founded on 9 March 1998. It is a wholly owned subsidiary of Eurex Frankfurt AG (Eurex Frankfurt), a German stock corporation which is itself wholly owned by Deutsche Börse AG, a German stock corporation listed at the Frankfurt Stock Exchange.

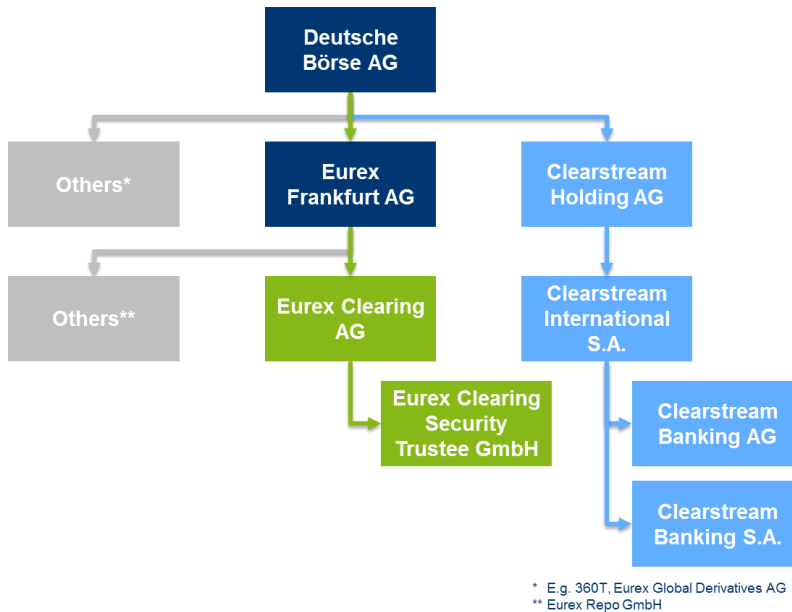


Figure 3: Shareholder structure of Eurex Clearing

Eurex Clearing's objective is to ensure full compliance with regulatory standards for CCPs. Methodologies and risk management practices are regularly reviewed.

Eurex Clearing's rules are stipulated in the Clearing Conditions which are part of the general terms and conditions. Eurex Clearing reserves the right to amend the Clearing Conditions at any time; those amendments and additions are announced via electronic circular to Clearing Members and Disclosed Direct Clients at least fifteen (15) business days prior to the effective date fixed in the relevant notice. The Clearing Conditions of Eurex Clearing are available to the public via the Eurex Clearing website (www.eurexclearing.com).

Eurex Clearing is a CCP in accordance with the Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (European Market Infrastructure Regulation, "EMIR") as approved by German Federal Financial Supervisory Authority on 10 April 2014. Eurex Clearing is listed in the European Securities and Markets Authority's register of central counterparties authorised to offer services and activities in the European Union in accordance with EMIR (https://www.esma.europa.eu/sites/default/files/library/ccps_authorized_under_emir.pdf). On a national level, the legal framework is further based on Section 32 KWG enabling Eurex Clearing to perform its services as a CCP.

System design and operation

Eurex Clearing safeguards market integrity and also offers customers ways to streamline their business. The core functions increase overall efficiency and promote standardisation in the clearing and settlement industry. From trade capture to risk management and on to delivery management, Eurex Clearing offers the complete value chain.

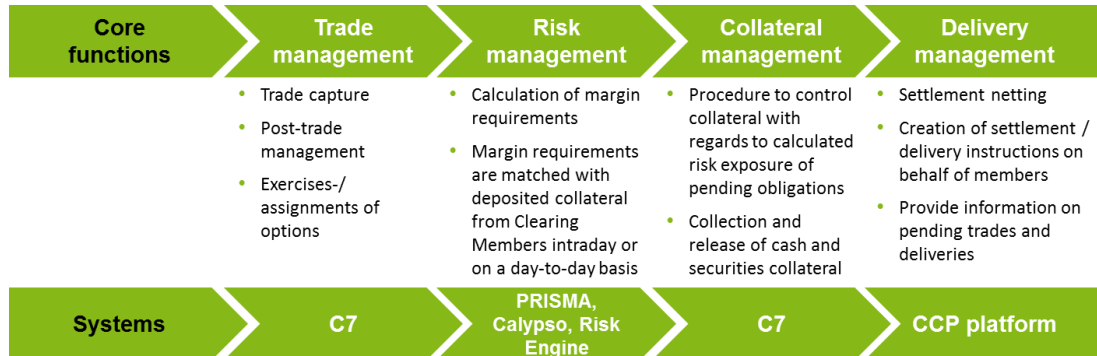


Figure 4: Clearing value chain of Eurex Clearing

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.

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.

Summary narrative

Eurex Clearing has a legal basis providing a high degree of certainty for each aspect of its activities.

Eurex Clearing is a CCP in accordance with the Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (European Market Infrastructure Regulation, EMIR) as approved by the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht* - "BaFin") on the 10 April 2014. Eurex Clearing is listed in the European Securities and Markets Authority's (ESMA) register of central counterparties authorised to offer services and activities in the European Union in accordance with EMIR (a full list of all CCPs is available under https://www.esma.europa.eu/sites/default/files/library/ccps_authorized_under_emir.pdf). Furthermore, Eurex Clearing also holds a German banking licence for the provision of the services as a central counterparty (*zentraler Kontrahent*), deposit taking business (*Einlagengeschäft*), lending business (*Kreditgeschäft*) and own account trading not relating to a client (*Eigengeschäft*) pursuant to Section 32 of the German Banking Act (*Kreditwesengesetz* – "KWG").

In the U.S., Eurex Clearing is a registered derivatives clearing organization ("DCO") with the U.S. Commodity Futures Trading Commission. Thus, Eurex Clearing is subject to and complies with the CFTC's DCO Core Principles. Eurex Clearing is allowed to clear proprietary swap transactions for U.S. Clearing Members for their own account and client accounts.

Eurex Clearing's services are regulated in its clearing conditions ("Clearing Conditions") and FCM Regulations ("FCM Regulations"). Eurex Clearing participants are required to comply with the Clearing Conditions (FCM Regulations for U.S. FCM Clearing Members respectively). The Clearing Conditions are governed by German civil law and are structured as general terms and conditions (*Allgemeine Geschäftsbedingungen*) within the meaning of Sections 305 et seqq. of the German Civil Code (*Bürgerliches Gesetzbuch*). Chapter 1 of the Clearing Conditions contains general provisions. Chapter II to IX contain the specific provisions which are applicable to the relevant markets. The FCM Regulations are subject to the laws of the United States and of the State of New York.

Eurex Clearing's operations are governed by a clearing agreement entered into by itself and its participants. The Clearing Conditions and the clearing agreements (attached to the Clearing Conditions as Appendices) as well as the FCM Regulations

are publicly available on the website of Eurex Clearing. The Clearing Conditions form part of the clearing agreements and regulate all significant features of Eurex Clearing's operations and are enforceable against its participants by virtue of the contractual relationship.

Regarding the clearing services used, all Clearing Members have to submit themselves under German law once they sign Eurex Clearing's clearing agreement. The Clearing Conditions state that unless provided otherwise, the rights and obligations – including non-contractual – arising out of these Clearing Conditions shall be governed by the substantive laws (Sachrecht), excluding German private international law, of Germany (Chapter I, Part 1, Number 17.1.1 and 17.1.2). Thus, in case of any law suits between Eurex Clearing and its members regarding the fulfilment, non-fulfilment, non-performance, etc. of obligations in the context of the clearing services to be provided by Eurex Clearing or arising out of the transactions cleared by Eurex Clearing, German law, which contains conflict of law rules, will primarily apply.

The German legal framework provides a robust basis for the relevant legal issues. It is in line with the European legal framework after the implementation of European directives such as the Directive 98/26/EC of the European Parliament and of the Council on settlement finality in payment and securities settlement systems (Settlement Finality Directive) and the Directive 2002/47/EC of the European Parliament and of the Council on financial collateral arrangements (Collateral Directive) into German law. Eurex Clearing has participants from EU member states, Switzerland, Norway, Singapore and the USA. EU regulations are directly applicable for participants from the EU area. Switzerland has adopted a similar regime.

Before Eurex Clearing accepts a participant from a specific country for the first time, it mandates a local law firm to analyse the enforceability of the Clearing Conditions under the local laws in case of a default or an insolvency of the Clearing Member. Eurex Clearing will only accept a Clearing Member from a new country if the Clearing Conditions are enforceable.

There are two legal structures how cleared transactions are established between the CCP and its participants, namely open offer and novation. Open offer is foreseen by the Clearing Conditions for transactions concluded on Frankfurt Stock Exchange, Eurex Deutschland and Eurex Repo. OTC Transactions as well as Repo transactions from external Approved Trade Sources and securities lending transactions transmitted to Eurex Clearing for clearing will be established by novation. The novation route requires the fulfilment of certain novation criteria set by Eurex Clearing in the Clearing Conditions.

The relevant point of time for the establishment of Transactions with Eurex Clearing via open offer is the confirmation of the matching of the orders and quotes entered into the order books of the relevant trading platform. The novation is confirmed by Eurex Clearing directly.

Netting arrangements

Netting procedures are included in the Clearing Conditions and are based on the set-off-principles under Sections 387 et seqq. of the German Civil Code.

Collateral arrangements

The Clearing Conditions provide for collateral arrangements. One has to differentiate between the different clearing models. Generally, the Clearing Member has to fulfil its margin requirement by the delivery of collateral in the form of cash and securities. Under the Omnibus Clearing Model, collateral in the form of cash is granted in the form of a full title transfer, whereas collateral in the form of securities is provided by way of pledging the securities in favour of Eurex Clearing. This holds true also for FCM Clearing Members under the U.S. Clearing Model and Basic Clearing Members under a Basic Clearing Member Clearing License. Under the Individual Segregated Account Model (ISA), cash collateral is provided via title transfer and collateral in the form of securities via pledge or title transfer.

Regarding the pledge of securities and based on general legal principles (in particular the *lex rei sitae* principle), the laws of the jurisdiction where the relevant central securities depository system (CSD) is located, in which the relevant security is deposited, will prevail. If the pledged security is maintained with Clearstream Banking AG, German law is applicable regarding pledged securities that are located in Germany as far as the *right in rem* is concerned. If the pledged security is maintained with Clearstream Banking S.A., Luxembourg law will govern the pledge. If the security is maintained with SIX SIS Ltd., the pledge will be governed by Swiss law. Legislation of the European Union, in particular Settlement Finality Directive and the Collateral Directive, increases the degree of legal certainty.

Regarding margin requirements and collateral, Eurex Clearing additionally needs to fulfil the requirements stipulated by Article 41 and 46 of EMIR in connection with the applicable provisions under Regulation (EU) No. 153 / 2013.

Default procedures

Eurex Clearing's default rules include rules for (i) the default of a Clearing Member, FCM Client and Basic Clearing Member, (ii) the default of a Clearing Agent under the Basic Clearing Member Provisions and a FCM Clearing Member under the U.S. Clearing Model Provisions, and (iii) Eurex Clearing's default.

Eurex Clearing's default procedures comply with requirements set out by Articles 42 (Default fund), 45 (Default waterfall) and 48 (Default procedures) of EMIR.

Finality of transfers of funds and financial instruments

The finality of transfers of funds and financial instruments is ensured by the involved Central Securities Depositories and the use of central bank monies.

Further details on the Settlement finality and on Money settlements can be found in Eurex Clearing's answer to Principle 8 and 9, respectively.

	<p>Within the European Union harmonized rules were implemented in each single member state so that "<i>in the event of insolvency proceedings being opened against a participant in a system (e.g. Eurex Clearing), the rights and obligations arising from, or in connection with, the participation of that participant shall be determined by the law governing that system</i>" (EU Directive 98/26/EC "Settlement Finality Directive"). As a result German law applies between Eurex Clearing and its Clearing Members pursuant to Section 340 paragraph 1 and 3 of the German Insolvency Code (Insolvenzordnung – InsO). Section 340 paragraph 3 InsO does not differentiate between CCP participants domiciled in EU member states and CCP participants not domiciled in EU member states.</p>
	<p><i>Key Consideration 2:</i></p> <p><i>An FMI should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulations.</i></p>
Summary narrative	<p>Eurex Clearing ensures that its rules, procedures and contractual arrangements are clear, comprehensive, in writing and in compliance with EMIR, U.S. law as well as all other applicable regulatory and supervisory requirements. Eurex Clearing's compliance function has the responsibility to detect any risk of non-compliance with the obligations under EMIR by Eurex Clearing and its employees, including the relevant regulatory and implementing technical standards.</p> <p>Eurex Clearing's rules, procedures, contractual arrangements and any accompanying material are accurate and up-to-date. The respective policies ensure that where certain expertise necessary to fulfil the requirements is not available internally, the compliance function may obtain the expertise or technical means of third parties outside the Deutsche Börse Group.</p> <p>Certain documents applicable to all parties, like the Clearing Conditions and the FCM Regulations, are publicly available via Eurex Clearing's website, others are available for participants only and can be found in the member section on the website. The competent authority has access to all documents.</p> <p>Furthermore, Eurex Clearing identifies and analyses the soundness of the rules, procedures and contractual arrangements of Eurex Clearing on an ongoing basis.</p> <p>Eurex Clearing has in place adequate rules to make amendments to the Clearing Conditions and the FCM Regulations. Before the amendments enter into force, the relevant changes are published within a specific publication period and each affected customer (including Clearing Members, Basic Clearing Members and FCM Clearing Members) has the right to object to amendments. The steps to be taken after such objection depend on the individual circumstances of the case. In case of an objection, discussions will take place with the respective Clearing Member to get this issue resolved.</p> <p>Under certain requirements, amendments to the Clearing Conditions are introduced to the EMIR Risk Committee. Eurex Clearing's EMIR Risk Committee advises the Supervisory Board and the Executive Board on any arrangements that may impact the risk management of Eurex Clearing, such as a significant change in its risk model, the default procedures, the criteria for accepting Clearing Members, the clearing of</p>

	<p>new classes of instruments or outsourcing. It is composed of members of the Supervisory Board of Eurex Clearing, representatives of Clearing Members and representatives of clients.</p> <p>Pursuant to Art 49 (1) EMIR, Eurex Clearing is further required to obtain the validation of its competent authorities and ESMA before adopting any significant change to its risk models and parameters.</p>
<p><i>Key Consideration 3:</i></p> <p><i>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.</i></p>	
Summary narrative	<p>Eurex Clearing has established its documentation in a clear and understandable way. Certain documents applicable to all parties, like the Clearing Conditions, are publicly available via the Eurex Clearing website, others are available for participants only and can be found in the member section on the website. The competent authority has access to all documents.</p> <p>Furthermore, Eurex Clearing provides information on its regulatory framework, business continuity measures, financials, company profile and governance on its website.</p>
<p><i>Key Consideration 4:</i></p> <p><i>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.</i></p>	
Summary narrative	<p>Eurex Clearing has rules, procedures and contracts in place that are enforceable in all relevant jurisdictions.</p> <p>Regarding the clearing services used, all Clearing Members (except FCM Clearing Members) submit themselves to German law once they sign the clearing agreements.</p> <p>The granting of a clearing license requires that Eurex Clearing has obtained all licenses and approvals that are required for the provision of clearing services towards the applicant in the relevant jurisdiction. These legal opinions are updated on a regular basis.</p> <p>Before accepting a Clearing Member in a new jurisdiction, Eurex Clearing mandates a local law firm to analyse the enforceability of the Clearing Conditions under national law. Currently, Eurex Clearing had commissioned and reviewed such enforceability opinions for all EU Member States where Eurex Clearing has Clearing Members, Switzerland, Norway, Singapore and the United States of America. Depending on market demands, Eurex Clearing may commission further enforceability opinions.</p> <p>Only in case of a positive outcome of these legal assessments, Eurex Clearing accepts Clearing Members from the relevant jurisdictions.</p>
<p><i>Key Consideration 5</i></p> <p><i>An FMI conducting business in multiple jurisdictions should identify and mitigate the risks arising from any potential conflict of laws across jurisdictions.</i></p>	

Summary narrative	<p>Eurex Clearing's key objective is to ensure safety and integrity of financial markets. As a leading international CCP conducting business in multiple jurisdictions, Eurex Clearing is fully aware of the risks arising from any potential conflict of laws across jurisdictions. Subsequently, Eurex Clearing identifies and mitigates those risks to the extent possible.</p> <p>Before accepting a Clearing Member in a new jurisdiction, Eurex Clearing mandates a local law firm to analyse the enforceability of the key principles of Eurex Clearing's clearing models under national law. Currently, Eurex Clearing had commissioned and reviewed such enforceability opinions for all EU Member States, Switzerland, Norway, Singapore and the United States of America. Depending on market demands, Eurex Clearing may commission further enforceability opinions.</p> <p>This mirrors the requirements stipulated by Eurex Clearing's Compliance Policy: whenever uncertainty exists regarding the enforceability of the main principles of the Clearing Conditions, the Chief Compliance Officer of Eurex Clearing shall obtain reasoned and independent legal opinions and analysis in order to address properly such uncertainty.</p> <p>When Eurex Clearing receives an indication of potential conflicts of law issues, the identified issues will be analysed. If necessary, Eurex Clearing will contact local law firms to provide legal opinions. The Chief Compliance Officer is responsible to monitor and, on a regular basis, assess the adequacy and effectiveness of the measures put in place to identify and analyse potential conflicts of law issues and the developed rules and procedures to mitigate legal risk resulting from such issues.</p> <p>As an example, Eurex Clearing has published legal opinions of external law firms providing statements in relation to the risk weighting of CCP-related derivative transactions pursuant to Articles 303 to 306 of the Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (CRR).</p> <p>Eurex Clearing AG provides such opinions with respect to German law, English law, and French law (CRR opinions). Depending on further demands by the market, Eurex Clearing AG may provide additional CRR opinions under the laws of other jurisdictions.</p> <p>Such CRR opinions are provided for the benefit of Clearing Members and their customers to reduce their regulatory own funds requirements stipulated by the CRR. The CRR opinions include statements regarding the validity and enforceability of certain provisions under the Clearing Conditions to the extent such provisions are relevant to Articles 295 to 298 and 303 to 306 of the CRR. In particular, Article 296 (2) (b) CRR (relating to netting arrangements) and Article 305 (2) (c) (regarding CCP-related derivative transactions) require written and reasoned legal opinions confirming the effectiveness of certain provisions in the event of legal challenge in the laws of the Clearing Members' and their clients' jurisdiction. The CRR opinions serve both purposes.</p>
Assessment of principle:	

Observed

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.

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.

Summary narrative

Eurex Clearing's aim is to assure the safety and integrity of markets while providing innovation in risk management, clearing technology and client asset protection.

Eurex Clearing's strategic objectives include the effective protection of customer positions and deposited collateral through reductions in counterparty risk and offering cost-efficient risk and trade management. This is achieved via ongoing improvement of services, functionalities and the integrated, comprehensive product range for Clearing Members and their clients.

In order to foster fair and efficient markets, Eurex Clearing's objective is to ensure full compliance with regulatory standards for CCPs and, as far as applicable, the relevant standards for credit institutions. Furthermore, Eurex Clearing ensures compliance with existing and upcoming regulations.

To ensure the safety and efficiency of its operations, Eurex Clearing offers fully automated and straight-through post trade services to the derivatives markets. Therefore, Eurex Clearing has an adequate information technology system and ensures that the information and corresponding facilities are available when needed (availability), the information is accurate and complete when used (integrity), and the information is only accessible to the authorised entities (confidentiality).

Additionally, Eurex Clearing has an Internal Control System (ICS) in place as a key management instrument and comprises principles, procedures and measures implemented by Deutsche Börse Group management for all its entities. It is designed to achieve the corporate objectives, in particular to ensure the effectiveness and efficiency of the operating business, the correctness and reliability of internal and external accounting and to comply with laws and other regulations that apply to the company.

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.

Summary narrative	<p>Eurex Clearing has documented governance arrangements that provide for clear responsibility and accountability. These arrangements are disclosed to relevant stakeholders at different granularity.</p> <p>Eurex Clearing is a wholly owned subsidiary of Eurex Frankfurt AG, which is a wholly owned subsidiary of Deutsche Börse AG. Details of the shareholder structure are provided in the corporate governance section of the Eurex Clearing website.</p> <p>Governance arrangements that provide for clear responsibility and accountability are established for both the Eurex Clearing Executive Board and Supervisory Board. The composition of the Supervisory Board, its committees as well as the composition and structure of the Executive Board, is published on the Eurex Clearing website in the corporate governance section. The roles and responsibilities of the boards and committees are laid down in arrangements that comply with Part 4, Section 1 and 2 of the Stock Corporation Act (Aktengesetz, AktG), §§ 76 – 116.</p> <p>Within Eurex Clearing, responsibilities of each department are clearly defined. Eurex Clearing has nominated a Chief Risk Officer, Chief Compliance Officer and Chief Technology Officer in line with EMIR.</p> <p>Eurex Clearing has adequate processes in place that ensure accountability to stakeholders. First of all, news updates on the Eurex Clearing website (Public and Member Section) complemented by regular reporting of information ensure that stakeholders are well-informed. Furthermore, Eurex Clearing is in continuous dialogue with its customers. To facilitate this, Eurex Clearing hosts a number of committees to inform and integrate members from all market segments. Eurex Clearing has initiated the following committees to inform and integrate members from different market segments into the decision-making process for changes and new developments to the services offered by Eurex Clearing:</p> <ul style="list-style-type: none">• Eurex Clearing has an EMIR Risk Committee in place that is set up in accordance with Article 28 EMIR. The task of the EMIR Risk Committee is to advise the Supervisory Board and the Executive Board on any arrangements that may impact the risk management of the CCP, such as a significant change in its risk model, the default procedures, the criteria for accepting Clearing Members, the clearing of new classes of instruments or the outsourcing of functions. It is composed of independent members of the Supervisory Board of Eurex Clearing, representatives of Clearing Members and representatives of clients. The competent supervisory authorities are entitled to attend meetings of the EMIR Risk Committee without voting rights and to be informed about the activities and decisions of the EMIR Risk Committee.• The Eurex Derivatives Clearing Committee has been established to provide Clearing Members with detailed information regarding potential changes in the area of listed and OTC derivative products including the introduction of new listed or OTC derivative products. Also, amendments to the functional architecture and processes of Eurex Clearing with respect to listed and OTC derivatives are discussed.• The Securities Clearing and Settlement Committee has been established to provide Clearing Members with detailed information regarding potential changes
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in the area of equity, bonds and repo (excl. GC Pooling) products and the introduction of new equity, bonds and repo products. Also, amendments in the area of delivery management for equity, bonds and repo (excl. GC Pooling) products and the settlement account infrastructure are addressed.

- The Fixed Income Product Committee has been established to consult with and make recommendations to the Management Board of Eurex Clearing on matters relating to the clearing of Fixed Income Derivatives. The Fixed Income Product Committee consists of IRD Partnership Program Participants. The committee meets a minimum of three times per year and is followed by a meeting of the FIC Advisory Committee to review the output.
- The FIC Advisory Committee has been established for the purpose of consulting with and making recommendations to the Executive Boards of Eurex Clearing AG and Eurex Frankfurt AG with respect to the Fixed Income and Currencies (FIC) matters related to the general FIC strategy as well as product and service expansions in Fixed Income and Currencies with particular focus on certain growth products. The committee consists of up to 10 members appointed by the Eurex Clearing Executive Board, where each committee member represents one selected participants group. Members are nominated to the committee based on their performance in the Eurex Clearing Partnership Program for a two-year term.
- The Repo Board Advisory Committee has been established for the purpose of consulting with and making recommendations to the Executive Boards of Eurex Clearing AG and Eurex Repo GmbH with respect to the the Special and GC Repo strategy and other important matters regarding Eurex Repo.
- Eurex Clearing establishes Default Management Committees (DMC) to involve its Clearing Members and to ensure the availability of the best possible knowledge and expertise in case of a default. The DMC is a panel that is continuously defined, but only temporarily convened, to assist Eurex Clearing with regards to any relevant matter of the Default Management Process (DMP) of one or more Liquidation Groups. In addition, DMCs are participating in the regular default simulation exercises. DMC member institutions are eligible Clearing Members that are actively clearing with Eurex Clearing and each DMC member institution nominates a DMC member and a deputy. Members of the DMC will be traders who will advise on and execute the agreed hedging strategies as coordinated by Eurex Clearing.

More detailed information regarding the Eurex Clearing Committees is available on the Eurex Clearing website.

Accountability to Clearing Members and customers is further ensured by the complaints handling process. The Complaints Procedure Manual describes how a person who has a complaint arising in connection with the performance of, or failure to perform, any of Eurex Clearing's obligations as defined in the Clearing Conditions of Eurex Clearing and/or with the performance, or failure to perform, any regulatory requirements that need to be fulfilled by Eurex Clearing (Complaint) may file the Complaint, and how that Complaint will be investigated and resolved.

	<p>Eurex Clearing discloses to its Clearing Members and other market participants its rules, procedures, and policies on its website:</p> <p>a) Information regarding its governance arrangements:</p> <ul style="list-style-type: none"> (i) On its website, Eurex Clearing publicly discloses the information regarding the corporate governance such as the organisational structure and annual reports, including objectives and strategies, (ii) Furthermore, key elements of the Remuneration Policy are published on the Eurex Clearing website containing amongst others the principles, components, total amount of the variable remuneration, variable remuneration scheme and information on the split of fixed and variable remuneration of senior risk management and risk takers, (iii) Eurex Clearing publishes its key financial information including its most recent audited financial statements, <p>b) Information regarding its rules and procedures:</p> <ul style="list-style-type: none"> (i) Default management procedures as well as the Investment Policy, (ii) Business Continuity Policy, (iii) In addition, Eurex Clearing discloses information on the risk methodologies, risk parameters, and other calculations (e.g. detailed scenario calculations). <p>Material changes in its governance arrangements, objectives, strategies and key policies as well as in its applicable rules and procedures will be publicly disclosed via the website.</p>
<p><i>Key Consideration 3</i></p> <p><i>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.</i></p>	
<p>Summary narrative</p>	<p>The roles and responsibilities of Eurex Clearing’s Executive Board and Supervisory Board are clearly specified and documented. As outlined previously, the interaction with customers and other stakeholders is properly ensured.</p> <p>With respect to roles and responsibilities the Articles of Incorporation of Eurex Clearing as well as existing rules and procedures define the composition, roles and responsibilities of the Supervisory Board and Executive Board as well as of any established board committees.</p> <p>The responsibilities of the “Board” are allocated to the Supervisory Board and the Executive Board as appropriate in accordance with Article 3, paragraph 5 of Commission Delegated Regulation (EU) No 153/2013 of 19 December 2012 supplementing EMIR.</p> <ul style="list-style-type: none"> • As part of conducting the business of Eurex Clearing in accordance with §76 AktG, the Executive Board establishes the objectives and strategies for Eurex Clearing. The Supervisory Board approves the company strategy and planning as well as important corporate decisions.

	<ul style="list-style-type: none">• Consistent with §111 AktG, the most important function of the Supervisory Board is to oversee the work of the Executive Board. Furthermore, the Supervisory Board appoints the members of the Executive Board.• The Compensation Review Committee supervises the reasonableness of the remuneration system of the Executive Board including the design and further development of the Remuneration Policy. It shall also oversee the compensation for selected senior Control Functions and Risk Takers as well as the determination of the aggregate remuneration of the members of the Executive Board. Furthermore it shall support the Supervisory Board in the monitoring of the reasonableness of the remuneration system regarding employees below the Executive Board. The Committee is composed of at least three Supervisory Board members.• The Nomination Committee shall identify candidates to fill vacancies in the Executive Board and to prepare the proposals for the election of members of the Supervisory Board, as well as to assess the composition and performance of the Executive Board and the Supervisory Board in their entirety and to assess the knowledge, skills and experience of individual members of the Executive Board and the Supervisory Board periodically, at least annually. The Committee is composed of at least three Supervisory Board members.• As stated in the Rules of Procedure of the Executive Board, the members of the Executive Board conduct the business of Eurex Clearing in accordance with the laws, the Articles of Incorporation, the Rules of Procedure, the Business Distribution Scheme and their service agreements.• As described in the Business Distribution Plan, the Executive Board establishes and oversees the Risk Management.• The Audit and Risk Committee, as derived from the Supervisory Board, performs the oversight of the compliance and internal control function. The Committee deals, on the one hand, with audit matters particularly related to the preparation of the annual budget, the accounting process, internal and external audits, compliance and control systems. The committee discusses and examines the annual financial statements and the auditor's report on the annual financial statements in detail and reports the results to the Supervisory Board and recommends e.g. that the Supervisory Board approves the annual financial statements. On the other hand, the Audit and Risk Committee addresses risk matters, inter alia advises the Supervisory Board on the institution's current and future risk appetite and risk strategy and examines whether the incentives provided by the remuneration system take into account the risk, capital and liquidity structure of Eurex Clearing. The Committee consists of at least three members who are elected by the Supervisory Board.• The oversight of outsourcing arrangements is ensured by the Executive Board, who must approve the Outsourcing Policy. In addition, the Executive Board is responsible to approve the risk and performance evaluation scheme and to decide on the outsourcing classification in context of this risk and performance evaluation scheme for intended and existing outsourcing relations.
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	<ul style="list-style-type: none">• Consistent with established policies, EMIR compliance is assessed by the Chief Compliance Officer and is reported to the Eurex Clearing Executive Board. <p>Eurex Clearing has also implemented effective arrangements for identifying and managing potential conflicts of interest between Eurex Clearing, including its managers, employees, or any person with direct or indirect control or close links on the one hand, and its Clearing Members and other customers known to Eurex Clearing on the other hand. In order to define rules and procedures with regard to conflicts of interest, Eurex Clearing has implemented the Eurex Clearing AG Conflicts of Interest Policy. This policy applies to all employees and external service providers who work for Eurex Clearing.</p> <p>Internal Audit reviews the effectiveness of measures taken in the business areas and also assesses the effective operation of the Internal Control System.</p>
<p><i>Key Consideration 4</i></p> <p><i>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).</i></p>	
Summary narrative	<p>Eurex Clearing board members all have long-standing experience in the public and private sector of the financial industry and an international background. The diversity of appropriate skills is well suited to fulfil the various roles in overseeing and conducting the business of one of the largest and most diverse CCPs globally.</p> <p>The Supervisory Board of Eurex Clearing always has at least one third independent board members. Eurex Clearing's EMIR Risk Committee according to EMIR Article 28 is chaired by an independent member of the Supervisory Board. Other committees of the Supervisory Board (Audit and Risk Committee, Compensation Review Committee and Nomination Committee) also comprise independent members of the Supervisory Board. As a European CCP, Eurex Clearing is in continuous compliance with the requirements of EMIR, which stipulates high standards on the composition of the boards of a CCP.</p> <p>In addition, the procedures for the appointment of board members and senior management follow and are in compliance with the German Stock Corporation Act.</p> <p>In accordance with §101 (1) 1 AktG the shareholders' meeting (Hauptversammlung) appoints the Supervisory Board members of Eurex Clearing. Members of the Supervisory Board must be of good repute, reliable and need to proof their theoretical and practical knowledge in the respective business area to be able to evaluate, to supervise and to control the business of Eurex Clearing. All these legal requirements can be deemed to provide a financial market infrastructure (FMI) with a management with appropriate experience.</p> <p>As provided by §84 (1) 1 AktG the Executive Board members of Eurex Clearing are appointed by the Supervisory Board. In the run-up to the appointment by the shareholders' meeting and the Supervisory Board, respectively, Eurex Clearing applies procedures to ensure the suitability of members of the management body (Executive Board). Members of the Executive Board need to prove their theoretical and practical knowledge as well as their leadership experience in the respective</p>

	<p>business areas. According to §32 of the KWG, Eurex Clearing is obliged to provide the national competent authority with evidence about the professional qualification of the Executive Board members.</p> <p>The national competent authority has assessed and recognised the trustworthiness and professional qualification of all members of the Executive Board in accordance with §33 (2) KWG.</p> <p>Additionally, the AktG provides several rules about the duty of care and the responsibility of the members of the Management Board (§90-93 AktG) which have to be fulfilled.</p> <p>Based on all legal requirements a suitability assessment is performed before a new member takes up his or her new assignment / position in the Supervisory Board or Executive Board. The suitability assessment is also performed on an on-going basis for existing Supervisory and Executive Board members. The Supervisory Board will take the decision on the suitability upon the recommendation of the Nomination Committee.</p> <p>Furthermore, based on Guidelines established by the European Banking Association (EBA) on the assessment of the suitability of members of the management body and key function holders on the one hand and the requirements of the CRD on the other hand, both the Executive Board and the Supervisory Board approved respective policies for the assessment of the suitability.</p>
<p><i>Key Consideration 5</i></p> <p><i>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.</i></p>	
Summary narrative	<p>As outlined in Key Consideration 4 of this Principle, Eurex Clearing operates under a two-tiered board structure comprising a Supervisory Board and an Executive Board as management body. The Eurex Clearing Executive Board is responsible for the daily business operations and consists of five members. The Eurex Clearing Executive Board developed a business distribution plan to ensure that roles and responsibilities are clearly defined for a properly functioning of the business organisation.</p> <p>Eurex Clearing's Supervisory Board oversees the work of the Executive Board and appoints its members as well as approves important corporate decisions and company planning.</p> <p>The assessment of the suitability of members of the management body follows along the line of the regulatory requirements and the policies and procedures as outlined in Key Consideration 4 of this Principle.</p>
<p><i>Key Consideration 6</i></p> <p><i>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</i></p>	

that the risk-management and internal control functions have sufficient authority, independence, resources, and access to the board.

Summary narrative

Eurex Clearing has a sound framework for the comprehensive management of all material risks. In this regard Eurex Clearing has established documented policies, procedures and systems to identify, monitor and manage such risks.

The Chief Risk Officer is responsible for the implementation and management of the Risk Management Framework. The Risk Management Framework includes the policies and procedures established by the Executive Board. The Chief Risk Officer also ensures that the framework is revised annually or if any material change is deemed necessary.

The Risk Management Framework, which also comprises the risk strategy, is based upon Eurex Clearing's business strategy and regulates the extent of risk taken within the various business activities carried out by Eurex Clearing. The risk framework determines the conditions for risk management, control and limitation. Eurex Clearing gives considerable attention to its risk mitigation process and ensures that appropriate measures are taken to avoid, reduce and transfer or intentionally accept risk. It is ensured that the appropriateness of the risk management and controlling systems is reviewed and tested continuously.

Eurex Clearing's comprehensive Risk Management Framework is composed of objectives, measures, and tools defined at the level of Eurex Clearing and that of Deutsche Börse Group. The risk framework assigns the Executive Board of Eurex Clearing as the ultimate responsible owner for managing the risks. The Executive Board ensures that the risk framework is integrated into the business activities throughout Eurex Clearing entirely and that adequate measures are in place to implement the strategies, policies and procedures.

The Risk Management Framework of Eurex Clearing provides complete, timely and consistent information about risk. The risk-related information enables the risk to be identified, notified, assessed, controlled and reported appropriately. Risks are openly and fully reported to the responsible level of management.

Consistent with the German Minimum Requirements for Risk Management (MaRisk), Eurex Clearing makes sure that employees and their deputies have the knowledge and experience required by their duties, competencies and responsibilities. Suitable measures are taken to ensure that the employees have the appropriate qualifications (AT7 MaRisk).

The organisational structure is set up so that the segregation of duties between departments offers sufficient independence. The separation of the functions trading/front office and back-office processing & control is ensured through a clear allocation of responsibilities at Executive Board level. The clear separation of responsibilities is also ensured in the event of deputisation.

The risk management department of Eurex Clearing is led by the Chief Risk Officer, who is also a member of the Executive Board. This setup ensures that there is a clear separation in the reporting lines between risk management and other operations of Eurex Clearing.

	<p>The internal audit function of Eurex Clearing (Internal Audit) is responsible for assessing the organisation's framework of risk management, control and governance processes, and for determining whether:</p> <ul style="list-style-type: none">• risks are adequately identified and mitigated by appropriate controls,• significant financial and operational information is accurate and reliable,• resources are used efficiently and are adequately protected, and• the organisation is in compliance with internal policies and procedures, as well as applicable laws and regulations. <p>An Internal Audit Policy is in place that defines the role and responsibilities of the internal audit function within Eurex Clearing as well as their relationship with auditees, executive management and supervisory functions. The policy is reviewed on a regular basis.</p> <p>Internal Audit is a properly staffed independent function, free of influence by any element in the organisation, including matters of audit area, scope, procedure, frequency, timing or report content. In order to ensure independence, where applicable, the internal audit function reports directly to the Executive Board of Eurex Clearing. As required, Internal Audit also reports to the Audit and Risk Committee of the Eurex Clearing Supervisory Board.</p> <p>Internal Audit uses a risk-based approach in defining specific areas of the organisation to audit. If necessary, the executive management may request additional audits to be performed as well as ad-hoc assurance services.</p> <p>The Executive Board of Eurex Clearing is ultimately responsible for the risk strategy of Eurex Clearing. The Executive Board ensures that the risk strategy is integrated into the business activities throughout Eurex Clearing and that adequate measures are in place to implement the strategies, policies and procedures. Risk awareness and a corresponding risk culture are encouraged, amongst other things, through appropriate organisational structures and responsibilities, adequate processes and the knowledge of the employees. The appropriateness of the risk management and controlling systems are reviewed continuously.</p> <p>Eurex Clearing regularly reviews and validates its risk models. Therefore, a model validation framework, which comprises a documentation of all testing programs, processes and report structures is in place. The processes clearly define the roles and responsibilities, metrics, thresholds and actions.</p> <p>Eurex Clearing commits itself to the validation of new risk models by an independent party prior to the launch of the new model. For the ongoing revision and improvement of the model, Eurex Clearing regularly seeks the advice of the EMIR Risk Committee. Any major changes and adjustments are presented to the EMIR Risk Committee and approved by the Executive Board of Eurex Clearing.</p> <p>The annual revision also includes a benchmark analysis where current market standards and common practices are recognised.</p>
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	All validation results have to be presented appropriately to the management on a regular basis. Moreover, results will be made available for Clearing Members without breaching confidentiality.
<i>Key Consideration 7</i> <i>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.</i>	
Summary narrative	<p>Eurex Clearing continuously strives to enhance its products and services that help create safer markets for all participants. This is done jointly in constant dialogue with its customers. To facilitate this, Eurex Clearing hosts a number of committees to inform and integrate members from all our market segments into the consultation process. For a detailed description of the committees see Key Consideration 2 of this Principle.</p> <p>Stakeholders receive important information through the annual report including the management report, strategic objectives of Eurex Clearing, financial statement, etc. The annual report is available on the Eurex Clearing website.</p> <p>Furthermore, news updates on the Eurex Clearing website (Public and Member Section for Members only) complemented by extensive reporting ensures that stakeholders are well-informed.</p> <p>Eurex Clearing has set up a Conflicts of Interest Policy that outlines measures to be taken for identifying and managing potential conflicts of interest between Eurex Clearing, including its managers, employees, or any person with direct or indirect control or close links on the one hand and its Clearing Members and their clients known to Eurex Clearing on the other hand, and includes the procedures aiming to resolve possible conflicts of interest.</p> <p>In order to properly handle complaints, Eurex Clearing established a Complaints Procedure Manual, which describes how a person who has a complaint arising in connection with the performance of, or failure to perform, any of Eurex Clearing's obligations as defined in the Clearing Conditions of Eurex Clearing and/or with the performance, or failure to perform, any regulatory requirements that need to be fulfilled by Eurex Clearing (Complaint) may file the Complaint, and how that Complaint will be investigated and resolved. (See also Key Consideration 2 of this Principle)</p> <p>Major decisions made by the Executive Board or Supervisory Board are disclosed to the relevant stakeholders by publishing circulars, press releases and other information on Eurex Clearing's website.</p>
Assessment of principle: <i>Observed</i>	

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.

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.

Summary narrative

Eurex Clearing has a sound framework for the comprehensive management of all material risks. In that regard, documented policies, procedures and systems to identify, monitor and manage such risks have been established.

Eurex Clearing takes great care to mitigate risk and ensures that appropriate measures are taken to avoid, reduce and transfer or intentionally take on risk. The aim is to make use of suitable safeguards and control measures such as guidelines and procedures, the segregation of functions, the principle of dual control, limit restrictions and also business continuity management to reduce the probability, frequency and level of potential losses from the corresponding risk cases for Eurex Clearing.

The Executive Board of Eurex Clearing is responsible for the company's Risk Management Framework. Specialized departments identify risks and report them in a timely manner to the Chief Risk Officer.

Eurex Clearing calculates risk-bearing capacity as its main risk management tool and uses a standardised approach – value-at-risk (VaR) – for measuring and reporting all major risks. It uses VaR to calculate its required economic capital at a confidence level of 99.98 % and compares it to its risk-bearing capacity in order to be able to cover financially extreme events in the next twelve months. The regulatory own funds are used as the risk-bearing capacity in its economic capital model. For control purposes, Eurex Clearing regularly calculates the ratio of economic capital to risk-bearing capacity, or "utilisation of risk-bearing capacity", as an indicator that is also used in its recovery plan.

The goal of the concept is to make sure that the different risks from the business are adequately covered by Eurex Clearing's equity, i.e. that capital adequacy is given. Furthermore, it allows for a comprehensive overview of general risk tolerance and to facilitate the prioritisation of risk measures. This is used in addition to other performance indicators to determine the capital needed for business operations so that even extreme and unexpected losses can be covered.

Eurex Clearing's Risk Strategy specifies a methodological concept and a process to ensure adequacy of the available risk-bearing capacity and, thus, the limitation, reporting and monitoring of risk. Eurex Clearing views its available risk-bearing capacity (for management purposes) from a liquidation perspective.

This Risk Strategy is based upon Eurex Clearing's business strategy and regulates the extent of risks taken within the various business activities carried out by Eurex Clearing. It determines conditions for risk management, control and limitation. Eurex

Clearing pays considerable attention to its risk mitigation process and ensures that appropriate measures are taken to avoid and reduce or intentionally accept risk. The appropriateness of the risk management and controlling systems is to be validated continuously.

The Risk Strategy differentiates between three major risk types that are managed and controlled with distinct methods.

These risk types are:

- *financial risk,*
- *operational risk, and*
- *business risk.*

In its risk management, Eurex Clearing has a holistic approach and considers the risk it bears from its relationship with its Clearing Members, clients or other entities.

While project risk can be a key risk driver, it will materialise as business risk, financial risk and operational risk and its relevant sub-risks which are captured in the risk inventory. The impact of project risk is thus quantified and limited as part of business risk, financial risk and operational risk.

In this capacity, Eurex Clearing uses a comprehensive Risk Management Framework composed of objectives, measures, and tools defined at the level of Eurex Clearing. The Risk Management Framework ensures that all risks are recorded, assessed and controlled, and that a consolidated report on these risks is submitted to the Executive Board of Eurex Clearing.

Risks are openly and fully reported to the responsible level of management. The responsible management body is informed fully and timely about Eurex Clearing's risk profile, relevant risk(s) as well as about relevant losses. The internal reporting and communication is contemplated by external reporting, i.e. interim and annual reports.

Risk management policies, procedures and systems are developed by the risk management department of Eurex Clearing, reviewed by internal stakeholders, consulted with the EMIR Risk Committee and approved by the Executive Board of Eurex Clearing.

Additionally, Internal Audit is responsible for assessing the organisation's framework of risk management, control and governance processes, and for determining whether:

- risks are adequately identified and mitigated by appropriate controls,
- significant financial and operational information is accurate and reliable,
- resources are used efficiently and are adequately protected, and
- the organization is in compliance with internal policies and procedures, as well as applicable laws and regulations.

Risk management policies, procedures and systems are reviewed annually and designed to account for fluctuations in risk intensity. Eurex Clearing's Risk

	<p>Management Framework is designed to cope with various stressed market situations and is not a static framework.</p> <p>Changed environments and market practices will be reflected and included in the framework via regular or ad hoc review cycles, if necessary.</p>
<p><i>Key Consideration 2</i></p> <p><i>An FMI should provide incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the FMI.</i></p>	
Summary narrative	<p>Eurex Clearing ensures that Clearing Members are able to properly manage and contain the risks they pose to the CCP. This is achieved, first, by providing Clearing Members with sufficient information regarding the CCP's risk management, and, secondly, Clearing Members receive nearly real-time information on margin requirements in order to help them to properly manage and contain the risks posed to Eurex Clearing.</p> <p>Margin requirements adequately protect Eurex Clearing's customers against credit risk without tying up excess capital. Margining encompasses the entire process of measuring, calculating and administering the collateral that must be put up to collateralise open positions. The provision of collateral is required to ensure that all financial commitments related to the open positions of a Clearing Member or its clients can be offset within a very short period of time. Eurex Clearing calculates margin requirements in real-time to ensure that it has an overview of the members' current profit and loss situations as well as an estimation of the future risk exposures. The margining method accounts for portfolio constellations like product concentrations, which affects the portfolio's liquidity situation. By also generating adequate offsets, members are incentivised to hold balanced portfolios.</p> <p>Eurex Clearing further provides services to its Clearing Members to ensure an effective intraday control of their own and their client's trading activities, e.g.:</p> <ul style="list-style-type: none">• Realtime order and trade information,• Advanced Risk Protection,• Trading Stop Button,• Position/trade transfer between members,• Incremental Risk Check for IRS. <p>Eurex Clearing has established a Member Compliance Framework to assess Clearing Members' compliance with the participation requirements set out by Eurex Clearing. In addition, an important part of Eurex Clearing's Risk Management Framework is the development and monitoring of Clearing Members' creditworthiness through internal and external credit ratings.</p> <p>Eurex Clearing also assesses the participants' operational capability. Members must provide proof of the technical and functional connection, the use of appropriate technical equipment (back-office facilities) and sufficiently qualified back-office personnel.</p> <p>In addition, the Clearing Conditions of Eurex Clearing set out various incentive measures to ensure that the Clearing Members monitor and manage the timely</p>

	<p>fulfilment of their obligations and, thus, monitoring the risk they pose towards Eurex Clearing.</p> <p>Eurex Clearing has in place adequate processes for ensuring accountability to its participants. Furthermore, Eurex Clearing helps its Clearing Members in understanding Eurex Clearing’s rules and procedures. Eurex Clearing informs and involves its members in designing its policies and systems. This is achieved through participation of members and clients in the EMIR Risk Committee where all relevant changes to services, products, risk management policies and systems are presented and discussed. In addition, members and clients have to be consulted on changes to the Clearing Conditions whenever changes to the risk management shall be implemented.</p> <p>Eurex Clearing has further published a margin calculator, which allows an estimation of the potential margin requirement for a portfolio and can be accessed from its website. In addition, Eurex Clearing publishes model descriptions for its risk models. Both ensure that participants can determine which effect their trading behaviour can have on the associated margin requirements.</p> <p>Eurex Clearing establishes Default Management Committees to involve its Clearing Members and to ensure the availability of the best possible knowledge and expertise in case of a default. The DMC is a panel that is continuously defined, but only temporarily convened, to assist the CCP with regards to any relevant matter of the Default Management Process (DMP) of one or more Liquidation Groups. In addition, DMCs are participating in the regular default simulation exercises. DMC member institutions are eligible Clearing Members that are actively clearing with Eurex Clearing and each DMC member institution nominates a DMC member and a deputy. Members of the DMC are traders who will advise on and execute the agreed hedging strategies as coordinated by Eurex Clearing.</p>
<p><i>Key Consideration 3</i></p> <p><i>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.</i></p>	
<p>Summary narrative</p>	<p>Eurex Clearing is exposed to risks resulting out of its activities as central counterparty and its treasury activities as well as to exposures arising from cash held in nostro accounts. To consider these risks on a consolidated basis, Eurex Clearing takes the multiple roles a Clearing Member may have with Eurex Clearing into account and combines the resulting risk to one exposure figure towards the respective counterpart.</p> <p>System interdependencies are considered by defining mission critical units, business functions and related systems for Eurex Clearing. Additionally, risk analyses and the Business Continuity Management (BCM) Plans take into account external links and interdependencies with financial infrastructures and functions or services that have been outsourced to third-party providers.</p> <p>Concentration and wrong way risks are monitored daily. Similarly, stress tests of Eurex Clearing’s liquid and total financial resources are performed on a daily basis.</p>

	<p>Tests of the business continuity plans are conducted regularly, at least annually and can be either announced or are triggered unannounced.</p>
<p><i>Key Consideration 4</i></p> <p><i>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.</i></p>	
<p>Summary narrative</p>	<p>In order to address operational risks, Eurex Clearing has a Business Continuity Management Plan in place. This plan is in place to ensure Eurex Clearing’s ability to plan for and respond to incidents and business disruptions in order to continue business operations at an acceptable predefined level. It particularly addresses the unavailability of all the resources required to operate: systems, workspace, staff, external dependencies and suppliers. More details on the Business Continuity Management Plan can be found in various Key Considerations of Principle 17.</p> <p>In addition, Eurex Clearing takes into account dependencies on external providers, including utilities services, when assessing risks in the scenario analysis.</p> <p>Eurex Clearing determined and documented the potential procedure and time period necessary to wind-down or restructure its business including a description of the underlying assumptions.</p> <p>Eurex Clearing also prepared and annually updates its recovery plan in accordance with the Minimum Requirements for the Design of Recovery Plans (Mindestanforderungen an die Ausgestaltung von Sanierungsplänen: MaSan), the national implementation of the European Banking Recovery and Resolution Directive (Sanierungs- und Abwicklungsgesetz: SAG), respective EBA Guidelines and in coordination with the German Supervisory Authorities. The main goal of the plan is to identify recovery options that strengthen the financial and operational robustness of Eurex Clearing in potential stress situations.</p> <p>To identify whether a recovery situation has occurred, Eurex Clearing has stipulated conservative recovery indicators along the following observation dimensions:</p> <ul style="list-style-type: none"> • Capital; • Liquidity; • Operational Capacity; • Profitability. <p>These observation dimensions capture the impact of financial and operational risk drivers. For each indicator a recovery limit is defined, indicating that a triggering event has occurred in the respective observation dimension and early warning triggers are established, which form part of the regular risk monitoring and reporting.</p>
<p>Assessment of principle:</p> <p><i>Observed</i></p>	

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.

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.

Summary narrative

Eurex Clearing has established a comprehensive Risk Management Framework which is described in detail in Principle 3 in order to identify, manage and control risks arising from Eurex Clearing's activities. Thereby the framework takes into account the overall risk exposures to individual counterparties from different types of relationships the counterparties may have with Eurex Clearing and consists of several policies outlining Eurex Clearing's approach to manage the risks it faces:

- Counterparty credit risk,
- Liquidity risk,
- Market risk,
- Model risk,
- Concentration risk, and
- Operational risk.

Arising credit exposures are collateralised and limits are in place to maintain the credit risk within acceptable parameters.

Consistent reporting is in place to monitor Eurex Clearing's exposures. The framework is reviewed annually to reflect changing environments and market practices. Before updates are implemented, a review and impact analysis of the required changes by all affected stakeholders is conducted to ensure an alignment with the overall risk framework of Eurex Clearing.

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.

Summary narrative

To safeguard the overall integrity of the CCP and to protect the mutualising Default Fund, Eurex Clearing has implemented a Risk Management Framework to identify sources of credit risk as well as to measure and monitor credit exposures. The identification and measurement of credit exposure considers the following five dimensions:

- Types of relationships with counterparties,
- Grouping of counterparties to enable e.g. single legal entity view, geographic view,
- Definitions of exposures from each type of relation,
- Duration of the exposure (when the exposure begins and ends), and
- Level of collateralisation (secured or unsecured exposure).

Credit risk is generally defined as the loss, which Eurex Clearing would suffer if a counterpart failed to meet its contractual obligations also taking into account the probability of default.

In the course of its business activities Eurex Clearing is exposed to credit risk arising from a number of different sources which is efficiently managed and mitigated through the robust Risk Management Framework. A counterpart may have different relationships with Eurex Clearing directly or with parts of the Deutsche Börse Group. These relationships result in different exposure categories which are defined as the following:

- CCP activities: credit exposures arising from Clearing Members' portfolios
- Treasury activities such as:
 - Unsecured Placements
 - Secured Placements
 - Derivatives
- Nostro accounts (Cash Balances):
 - Commercial banks and Securities Settlement Systems used for CCP payment infrastructure
 - Commercial banks used for other purposes

Eurex Clearing's risk management models were developed and are applied to determine appropriate collateral levels and to mitigate and control credit exposures. These models are frequently validated and adjusted, if necessary, to appropriately capture and mitigate the risk Eurex Clearing is facing.

Credit risks are mitigated by:

- a) Realtime risk management, including intraday calls for additional margin collateral.

	<p>b) Using preferably central bank money where possible to settle cash payments. In case where no access to central bank money is available, only counterparts with highest credit quality are acceptable. In addition, placements at these institutions are limited and concentration limits are in place.</p> <p>c) Using Delivery-versus-Payment instructions in order to settle any securities deliveries or Free-of-Payment instructions for collateralisation purposes.</p> <p>d) Monitoring of members' collateral pool as well as its portfolio of transactions outstanding with the CCP with regard to concentration and wrong way risk limits.</p> <p>Eurex Clearing determines concentration limits at the level of:</p> <ul style="list-style-type: none">• individual issuers;• type of issuer;• type of asset;• each Clearing Member. <p>Concentration limits are determined in a conservative manner taking into account all relevant criteria including:</p> <ul style="list-style-type: none">• financial instruments issued by issuers of the same sector or geographic region,• the level of credit risk of the financial instrument or of the issuer based upon an internal assessment by the CCP. <p>All limits and thresholds are outlined and defined in Eurex Clearing's Risk Management Framework and in parts also available on the website.</p>
	<p><i>Key Consideration 3</i></p> <p><i>A payment system or SSS should cover its current and, where they exist, potential future exposures to each participant fully with a high degree of confidence using collateral and other equivalent financial resources (see Principle 5 on collateral). In the case of a DNS payment system or DNS SSS in which there is no settlement guarantee but where its participants face credit exposures arising from its payment, clearing, and settlement processes, such an FMI should maintain, at a minimum, sufficient resources to cover the exposures of the two participants and their affiliates that would create the largest aggregate credit exposure in the system.</i></p>
	<p>Not applicable.</p>
	<p><i>Key Consideration 4</i></p> <p><i>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</i></p>

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.

Summary narrative

Eurex Clearing guarantees the fulfilment of every transaction in every market for which services are provided. To ensure this commitment, a multi-level security system is set up, called lines of defense or default waterfall. While the mainstay of this safety system is the margin, which Clearing Members have deposited as collateral for open positions, the lines of defense consist of several additional layers of safety nets. In the event of a default, these layers are applied in the order that is outlined in the diagram below. These lines of defence are defined in detail in Eurex Clearing's Risk Management Framework. Information on the lines of defense are also available on the webpage of Eurex Clearing.

Supporting figures for Eurex Clearing's capacity of its lines of defense are also available in the quarterly CPMI-IOSCO public quantitative disclosure in the "AggregatedDataFile" tab, where one can find:

- Eurex Clearing's dedicated amount to the Default Fund (4_1_1),
- required aggregated prefunded participant contributions (4_1_4),
- posted aggregated prefunded participant contributions (4_1_5),
- part of Eurex Clearing's additional contribution that is committed by its parent company to address participant defaults (4_1_7),
- aggregated participant contribution committed to replenish the Default Fund (4_1_9), and
- available other resources committed by Eurex Clearing (4_1_10).

Eurex Clearing maintains a pre-funded Default Fund that is calibrated to cover the losses resulting from the default of the two Clearing Members and its affiliates with the largest exposures in extreme but plausible scenarios. Eurex Clearing defines "extreme but plausible" such that in 99.9% of all cases potential losses will be covered with collateral and post-default backings (collateral of defaulting member, Default Fund contribution of defaulting Clearing Member/ Default Fund contributions of non-defaulting Clearing Members) based on scenario simulation. Scenarios include historical events as well as hypothetical scenarios based on CCP opinions. In addition, Eurex Clearing has access to further financial resources, namely dedicated own reserves of Eurex Clearing which are utilised after the defaulting Clearing Member's contribution but before the mutual Default Fund and the remaining capital of Eurex Clearing.

Furthermore, Eurex Clearing has the possibility to require Clearing Members to replenish the Default Fund up to two times of their initial requirement (assessment). Simultaneously with the assessments, Eurex Clearing would provide further dedicated amounts.

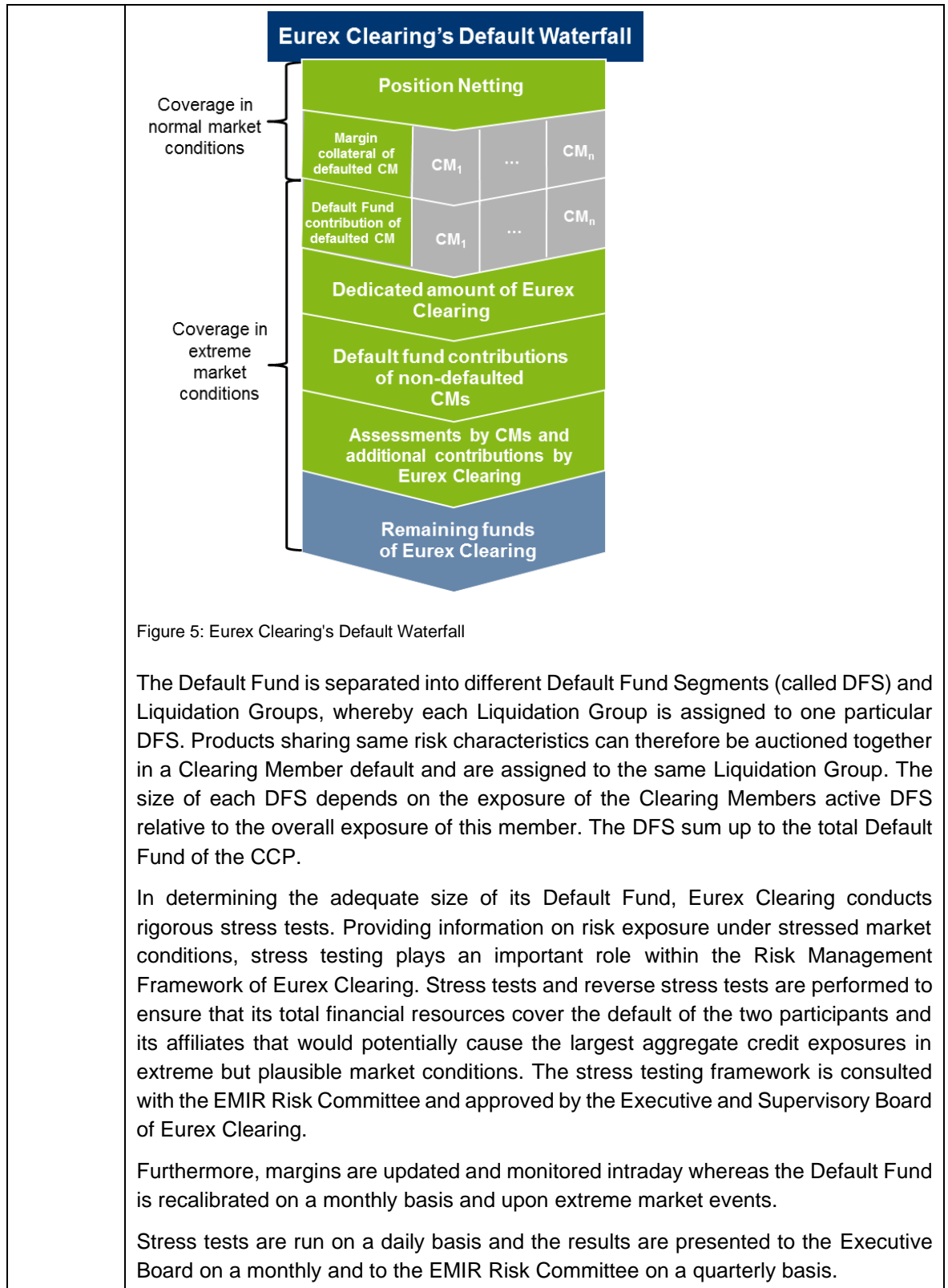


Figure 5: Eurex Clearing's Default Waterfall

The Default Fund is separated into different Default Fund Segments (called DFS) and Liquidation Groups, whereby each Liquidation Group is assigned to one particular DFS. Products sharing same risk characteristics can therefore be auctioned together in a Clearing Member default and are assigned to the same Liquidation Group. The size of each DFS depends on the exposure of the Clearing Members active DFS relative to the overall exposure of this member. The DFS sum up to the total Default Fund of the CCP.

In determining the adequate size of its Default Fund, Eurex Clearing conducts rigorous stress tests. Providing information on risk exposure under stressed market conditions, stress testing plays an important role within the Risk Management Framework of Eurex Clearing. Stress tests and reverse stress tests are performed to ensure that its total financial resources cover the default of the two participants and its affiliates that would potentially cause the largest aggregate credit exposures in extreme but plausible market conditions. The stress testing framework is consulted with the EMIR Risk Committee and approved by the Executive and Supervisory Board of Eurex Clearing.

Furthermore, margins are updated and monitored intraday whereas the Default Fund is recalibrated on a monthly basis and upon extreme market events.

Stress tests are run on a daily basis and the results are presented to the Executive Board on a monthly and to the EMIR Risk Committee on a quarterly basis.

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.

Summary narrative

Stress tests apply stressed parameters, assumptions, and scenarios to the models used for the estimation of risk exposures to make sure Eurex Clearing's financial resources are sufficient to cover those exposures under extreme but plausible market conditions.

By applying a wide range of scenarios reflecting stresses across all the relevant products and risk types, stress testing aims to verify that the sum of the collateral pledged of an individual defaulting member plus Eurex Clearing's dedicated own reserves as determined in accordance with the requirements set out in Article 35 Delegated Regulation (EU) No 153/2013 plus the total amount of the Default Fund is sufficient to cover the potential losses of the two Clearing Members and their customers with largest exposure under extreme but plausible market conditions. The extreme but plausible conditions are defined at a confidence level of 99.9% in accordance with the Risk Management Framework. Within this context, it is assumed that worst-case stress losses may not necessarily result out of the same scenario for the two considered Clearing Members, i.e. that the two defaults may occur not on exactly the same day. In order to assess the impact of a Clearing Member's default on the other Clearing Members, Eurex Clearing also considers feedback effects in its stress tests.

Reverse stress testing supplements the results by determining hypothetical and extreme scenarios under which the total financial resources of Eurex Clearing are not sufficient anymore, leading to a default of the CCP. The resulting scenarios reveal to the management information about the vulnerability of the CCP.

While the actual Default Fund size is calibrated on a monthly basis, the coverage of the Default Fund is validated on a daily basis. This is done by comparing the actual "cover-2" requirement against the calibrated Default Fund size.

Additional information regarding Eurex Clearing's credit stress testing programme can be obtained from its quarterly CPMI-IOSCO public quantitative disclosure. Among others, the following relevant information on different tabs ("AggregatedDataFile", "CCP_DataFile_4_4a") is provided:

- required coverage for Eurex Clearing's stress test of its total pre-funded default resources (4_4_1 on "AggregatedDataFile"),
- per clearing service, the assumed number of business days required to close out a default when calculating credit exposures that must potentially be covered by the Default Fund (4_4_2 on "AggregatedDataFile"),
- aggregated largest estimated stress loss in excess of Initial Margin of any two Clearing Members including affiliates and transactions cleared for indirect clients on one day over the past 12 months under extreme but plausible market conditions (4_4_7 on "CCP_DataFile_4_4a"),
- aggregated largest observed stress loss in excess of Initial Margin of any two Clearing Members including affiliates and transactions cleared for indirect clients on one day over the past 12 months (4_4_10 on "CCP_DataFile_4_4a").

In addition to stress tests, Eurex Clearing performs default management fire drills on a regular basis (please also see Principle 13, Key Consideration 4). The stress test results are incorporated in the reporting to senior management to make sure that the outcomes are considered in the overall risk management and that senior management's attention is focused on the sources of potential stresses in the decision making process:

- Daily stress test report to the Chief Risk Officer (CRO)
- Monthly stress test report to the Executive Board
- Quarterly Risk Report to the Executive Board, Supervisory Board, Audit and Risk Committee and EMIR Risk Committee

Additional event-driven analyses are performed and reported depending on the market situation. A full review of the stress testing framework is done at least annually, especially with respect to its appropriateness for the Default Fund sizing, and presented to the Executive Board, Supervisory Board and EMIR Risk Committee.

In addition, the stress testing model is validated on an annual basis by the internal Model Validation function.

Throughout the year, the independent Model Validation function uses a number of instruments to regularly validate the conceptual soundness of the frameworks and adequacy of the risk models. At the end of the year, an annual comprehensive validation is performed along the model landscape. In the annual validation report, all validation results obtained throughout the year are summarized and combined with a fundamental review of the methodology and the model parametrization. This yields an overall review of model performance and appropriateness.

The adequacy of the Initial Margin is primarily validated by portfolio backtesting, which compares the Initial Margin with the actually realised profits and losses. The results are assessed using statistical tests. Validation at parameter level is performed by means of a parameter sensitivity analysis to determine the margin model's response to changes in model parameters. Results from backtesting and parameter sensitivity analysis are regularly reported to the EMIR Risk Committee in a form that does not breach confidentiality.

	<p>A model assumption materiality analysis reveals the materiality of assumptions made in margining models and is used as a tool to identify potential focus areas for further model improvement. The stressed period validation is used to analyse if the applied stressed periods within the Stress VaR component of the initial margin are reasonable.</p> <p>While portfolio backtesting is performed daily, the intervals for the validation of the other margining components differ between weekly, monthly and quarterly. The validation schedule allows for timely action in case the analysis results suggest that the model does not perform as expected.</p>
<p><i>Key Consideration 6</i></p> <p><i>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.</i></p>	
<p>Summary narrative</p>	<p>Eurex Clearing identifies, measures and considers relevant risk factors specific to the contracts it clears. A detailed overview about the risks Eurex Clearing faces, how these risks can be measured, which risk factors are considered for each type of risk and how these risk factors are taken into account in the stress test scenarios is provided in the different documents within the Risk Management Framework.</p> <p>At the start of each month (together with the monthly reporting to the Executive Board) or if market conditions or other circumstances require this, Eurex Clearing verifies whether any scenarios, assumption or parameters need to be amended.</p> <p>In general, historical and hypothetical scenarios are in place to reveal the risk exposures under stressed market conditions of all Clearing Members.</p> <p>Historical scenarios are regularly reviewed using quantitative and qualitative analyses, taking the materiality of the cleared products into account. The shifts used for these scenarios are the worst relative returns that occurred around a respective historic date over the stress period of risk.</p> <p>Hypothetical scenarios are designed to account for the largest risk factor movements over the stress period of risk with a confidence level of 99.9%. These forward-looking scenarios simulate extreme risk factor movements for all cleared asset classes and products simultaneously by combining selected constellations of up and down moves across asset classes. However, the scenarios are kept plausible by adhering to consistent risk factor movements and pricing principles within each asset class.</p> <p>There exist two different types of hypothetical scenarios, which can be distinguished by the type of shift:</p> <ul style="list-style-type: none"> • Relative shifts move the corresponding risk factor by a defined relative value, e.g. 15%. This is analogous to the preceding description of the historical scenarios and is independent of the current market situation.

	<ul style="list-style-type: none"> • σ-multiplier shifts move the corresponding risk factor by a relative value that depends on the current volatility level of the risk factor. This approach accounts for the current market situation such that shifts increase if current volatility increases. <p>In addition, absolute shifts are used for interest rate products to adequately cover low interest rate environments.</p> <p>Correlation stress scenarios are special hypothetical scenarios that additionally stress the correlations between single risk factors. Stress scenarios that are designed on asset class level imply high correlations between risk factors when shifting them in the same direction and with the same magnitude. By relaxing the assumption of parallel shifts – direction and/or magnitude – additional hypothetical scenarios that stress the correlation are introduced.</p> <p>Market liquidity stress simulates low market liquidity under extreme market conditions and estimates potential additional losses during liquidation. In particular, the Initial Margin components that account for market liquidity risks are stressed by assuming stronger adverse price moves than considered within margining. The stressed margin component is counted as additional stress loss on top of all historical and hypothetical scenarios.</p>
<p><i>Key Consideration 7</i></p> <p><i>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.</i></p>	
<p>Summary narrative</p>	<p>Eurex Clearing guarantees the fulfilment of every transaction in every market for which services are provided. To ensure this commitment, a multi-level security system is set up, called “lines of defence” or default waterfall. Details regarding the default waterfall are outlined in Eurex Clearing’s assessment against Key Consideration 4 of this Principle.</p> <p>To ensure an appropriate size of Eurex Clearing’s Default Fund, Clearing Members are required to provide further contributions to the Default Fund (assessments). If the total Default Fund is realised as a result of a Clearing Member default, the non-affected Clearing Members are obliged to replenish the relevant Default Fund up to the relevant contribution requirement applicable to it. To ensure limited exposures of Clearing Members to Eurex Clearing, further contributions of non-affected Clearing Members are subject to a liability cap. The liability cap for each non-affected Clearing Member shall be two times the originally applicable contribution requirement to the relevant Default Fund for such non-affected Clearing Member within 20 rolling business days, i.e. the overall liability of the Clearing Member is limited to three times its prefunded Default Fund contribution. The required pre-funded Default Fund contribution for each member is determined on a monthly basis.</p>

	<p>Eurex Clearing will reinstate its dedicated own resources within one month after it has fallen under the minimum requirement stipulated in Art. 35, Commission Delegated Regulation (EU) No 153/2013. Where a subsequent default of one or more Clearing Members occurs before Eurex Clearing has reinstated the dedicated own resources, only the residual amount of the allocated dedicated own resources will be used in order to comply with the requirements stipulated in Art. 45, EMIR.</p> <p>Moreover, Eurex Clearing has prepared a recovery plan in accordance with the Minimum Requirements for the Design of Recovery Plans ("Mindestanforderungen an die Ausgestaltung von Sanierungsplänen", MaSan) , the national implementation of the European Banking Recovery and Resolution Directive (Sanierungs- und Abwicklungsgesetz: SAG), respective EBA Guidelines and in coordination with the German Supervisory Authorities. The main goal of the plan is to identify recovery options that strengthen the financial and operational robustness of Eurex Clearing in potential stress situations.</p> <p>In its recovery plan, Eurex Clearing thoroughly outlines the recovery measures that inter alia strengthen the capital basis, the liquidity position and the operational capacity of the CCP in potential stress situations. Impact analyses have been performed and the implementation process for the recovery options are laid out in detail.</p>
<p>Assessment of principle:</p> <p><i>Observed</i></p>	

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.

Key Consideration 1

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

Summary narrative

Eurex Clearing accepts a wide spectrum of eligible collateral. In order to accept financial instruments as eligible collateral, they must satisfy a number of collateral acceptance criteria such as low credit risk, low market risk and high liquidity. Eurex Clearing does not accept commercial bank guarantees or central bank guarantees. Clearing Members can satisfy margin and Default Fund requirements by depositing cash or securities.

Own issues or instruments issued by issuers closely interrelated to the Clearing Member or to Deutsche Börse Group (close links) are not accepted as collateral. Only in cases where the instrument is itself secured with high quality assets and in case the issuer of such instrument has sufficient credit quality, an exception from this rule can be granted. Eurex Clearing defines these "close links" as a direct or indirect ownership or control via voting rights between a parent undertaking and a subsidiary, in which an ownership of 50% or more of the voting rights or capital of an undertaking or a control agreement exists.

The credit risk of each instrument eligible as collateral shall be verified by a comprehensive internal credit assessment. In general, only issuers with an investment grade rating are eligible as collateral. Margin collateral received from GC Pooling cash providers, which reuse principal collateral of the repurchase transaction vis-à-vis the CCP, carries a different credit risk profile than securities posted as general margin collateral. Credit and liquidity risk of these securities remain with the original cash taker and, thus, these securities are cash equivalent. Cash and securities can be eligible collateral as long as there are sufficient price feeds and the haircuts can be determined in line with Eurex Clearing's Risk Management Framework.

Additional concentration and wrong way risk limits apply in order to ensure sufficiently diversified collateral pools, which can be liquidated without significant market impact in case of a liquidation.

Eurex Clearing publishes a list with the admissible collateral securities on its website. Once an asset becomes ineligible, Eurex Clearing's participants are generally given a short transition period to substitute it appropriately. After this transition period the ineligible security will be disregarded when assessing whether the margin requirement of a participant is met.

Key Consideration 2

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

Summary narrative

Consistent with market standards, Eurex Clearing is valuing its collateral on a daily basis. Eurex Clearing manages the risks with regard to the valuation of collateral on an adequate basis by additionally marking-to-model when marking-to-market is not possible due to a lack of current market price data.

Eurex Clearing calculates theoretical prices for all bonds. The theoretical pricing is based on mathematical valuation models which determine the present value of all expected cash flows of the security. The present values of the cash flows are computed by applying bond-specific discount curves.

Prices obtained as outlined above are used for valuation at Eurex Clearing if no current market prices are available for bond assets. However, if a current market price is available, it is preferred. The eligibility of all instruments that have not received a valid market price during the last three months is revisited.

Eurex Clearing applies a haircut methodology distinguishing the collateral type of the deposited collateral (bond, equity, ETFs, cash currency). In addition, Eurex Clearing maintains currency haircuts for foreign currency collateral (securities and cash).

Haircut backtesting on single ISIN level is in place to validate the adequacy of haircuts on cash and non-cash collateral on a monthly basis. For the purpose of single parameter backtesting, the haircuts are compared to the market returns of the time horizon that they aim to cover. All realised returns exceeding the model parameter are counted as outliers and their frequency is assessed using statistical inference techniques. Furthermore, the input parameters for bond collateral are validated by means of a yield shift validation to ensure that the applied yield shifts used to calculate the haircuts are appropriate.

Results on the haircut tests performed by Eurex Clearing can be found in the quarterly CPMI-IOSCO public quantitative disclosure on the "AggregatedDataFile" tab:

- Target confidence level when calculating the haircut (5_3_1),
- Assumed holding/liquidation period per accepted asset (5_3_2),
- Applied look-back period for the haircut backtest (5_3_3), and
- Number of days during the look-back period on which the decrease in value during the assumed holding/liquidation period exceeded the haircut on an asset (5_3_4).

Haircuts applied by Eurex Clearing recognize the fact that collateral may need to be liquidated in stressed market conditions. Therefore, market risk, credit risk and liquidity risk are important components while determining the appropriate haircuts. In addition, the haircuts are calibrated on a very high and therefore conservative confidence level (99.9 %) to cover extreme market conditions. Furthermore, securities' haircuts are calibrated to ensure sufficient coverage over a five-day liquidation period even in stressed market conditions. The dynamic haircut methodology reflects the individual risk and the inherent risk profiles of different

	<p>collateral assets and takes into account the actual volatility of the respective instrument. Prudent minimum haircuts are an appropriate measure to prevent and control procyclical effects of haircuts to the extent that Eurex Clearing's soundness and financial security is not negatively affected.</p>
<p><i>Key Consideration 3</i></p> <p><i>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.</i></p>	
Summary narrative	<p>Haircuts applied by Eurex Clearing recognise the fact that collateral may need to be liquidated in stressed market conditions. The haircuts are calibrated to achieve a very high and therefore conservative confidence level (99.9 %) for extreme market conditions, i.e. 99.9 % of the expected price changes are below the applied haircut.</p> <p>Furthermore, securities' haircuts are calibrated to ensure sufficient coverage over a five-day liquidation period even in stressed market conditions. The dynamic haircut methodology reflects the individual risk and the inherent risk profiles of different collateral assets and takes into account actual volatility of the respective instrument. The model parameters of the collateral haircut determination are validated regularly and adjusted, if necessary. Moreover, prudent minimum haircuts are an appropriate measure to prevent and control procyclical effects of haircuts to the extent that Eurex Clearing's soundness and financial security is not negatively affected.</p>
<p><i>Key Consideration 4</i></p> <p><i>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.</i></p>	
Summary narrative	<p>To safeguard the overall integrity of the CCP and to protect the mutualising Default Fund, Eurex Clearing conducts an internal credit assessment of all counterparties and performs continuous monitoring of credit, concentration and wrong way risks. This enables Eurex Clearing to guarantee fulfilment of all obligations towards counterparties even under extreme market conditions. Therefore, it is essential for Eurex Clearing to monitor all risks arising from the trading portfolios of counterparties on the one hand and from the collateral deposited to secure such portfolios on the other hand.</p> <p>Within the context of concentration risk, two essential aspects are addressed by Eurex Clearing's Risk Management Framework: The clustering of risk exposures and the overall portfolio diversification of risk exposures. In order to evaluate these risks in a comprehensive manner, rules are applied on Clearing Member and CCP level to ensure a firm view on both levels. The clustering of risk exposures is assessed via thresholds to the overall exposure with respect to issues, issuers, sovereigns, supranational organisations and sectors in an absolute manner. Portfolio diversification of risk exposures is assessed via relative thresholds with respect to the overall portfolio composition and its proportional exposure to sovereigns, supranational organisations and sectors.</p>

Eurex Clearing assumes a portfolio or collateral pool to be concentrated if the exposure of a particular position exceeds the aggregated market demand during the anticipated liquidation period. Hereby, market demand depends on market capacity and on the credit quality of the particular security or instrument.

If a counterparty has defaulted, Eurex Clearing guarantees a safe and smooth wind-down of such counterparty's portfolio – with the lowest possible market impact.

If, as a consequence of a counterparty's default, Eurex Clearing has to liquidate large positions of collateral, such liquidation may cause losses due to a lack in liquidity. Similar losses can arise if the portfolio of the defaulted counterparty is concentrated in certain instruments, and Eurex Clearing is confronted with a lack in liquidity when winding down the respective portfolio. To avoid such losses, Eurex Clearing defined dedicated concentration risk thresholds which are applicable to all counterparties. The concentration risk thresholds are available at Eurex Clearing's website: <http://www.eurexclearing.com/clearing-en/risk-management/credit-concentration-wrong-way-risk>.

Wrong way risks are addressed by the exclusion or the restricted usage of certain issues for a specific member to post as collateral. Monitoring or even preventing wrong way risk constellations in a Clearing Member's collateral pool is of great importance since the value of the collateral is negatively impaired in case the respective Clearing Member is in default. While determining risk adequate haircuts, it is assumed that the recovery rate of collateral is not related to the credit quality of the Clearing Member itself. Therefore, the usage of such collateral has to be restricted in case there is such a linkage.

Whenever it is possible to prevent certain wrong way risk constellations, such as the collateralization with own issues and close links, it is prohibited. In all other cases, dedicated wrong way risk thresholds are defined, enabling Eurex Clearing to take additional steps to minimise such risk. These thresholds are applicable to a counterparty's collateral pool and the counterparty's notional exposure.

In this context, Eurex Clearing sets thresholds that consider the home country of the counterparty and the home country of the issuers within the counterparty's collateral pool and portfolio. In addition, Eurex Clearing has introduced an automatic ex-post check to identify close link securities in order to exclude these collaterals from being provided as margin, Default Fund contributions and substitutes for company equity capital collateral. As outlined above, Eurex Clearing defines a close link as a direct relationship between members (Clearing Members, Disclosed Direct Clients) and issuers of a security. A member is directly linked with an issuer by participation, i.e. by ownership, directly or by way of control, of 50 % or more of the voting rights or capital of a company or by control, i.e. by the relationship between a parent company and a subsidiary, or a similar relationship between the member and a company.

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.

Summary narrative

Eurex Clearing offers direct provisioning of security collateral in designated Securities Settlement Systems (SSS), ideally with access to the European System of Central Bank (ESCB) facilities. These SSSs provide the necessary collateral management and custody services for Eurex Clearing and its participants. Security collateral is provided through the security collateral locations ((I) CSDs) Clearstream Banking AG (CBF), Clearstream Banking S.A. (CBL) and SIX SIS Ltd.

Cash collateral is provided through Eurex Clearing's correspondent banks, i.e. the margin amount is deposited at the respective cash collateral location as announced by Eurex Clearing to the participant: EUR in central bank money at the central bank in TARGET2, CHF in central bank money at Swiss National Bank, GBP and USD in commercial bank money at selected payment banks where no central bank access is available. Commercial bank money is only accepted according to the payment finality rules in the Clearing Conditions.

Collateral processing takes place in a straightforward manner via standardised interfaces, which mitigate operational and market risks.

Moreover, Eurex Clearing's risk management requirements towards the respective collateral locations / systems ensure that the allocation of securities is in line with eligibility criteria of collateral, with the valuation parameters, concentration limits and under wrong way risk considerations.

Any collateral location has to ensure legal certainty based on dedicated regulations (e.g. Financial Collateral Directive³) regarding the first ranking of legal rights of Eurex Clearing to access the collateral in a timely manner. Eurex Clearing has prompt access to the financial instruments when required, i.e. first ranking in terms of legal rights and immediate access to the posted collateral of any type at any time. This applies also in the event of a participant's default, irrespective of the legal concept, i.e. pledge / title transfer. Legal certainty is given for any of these aspects under the German Insolvency Code and is required for foreign insolvency laws, in each case to be confirmed by legal counsels. The legal certainty and operational set-up of any collateral location needs to provide the possibility for Eurex Clearing to freeze all allocated collateral in a dedicated account at any time, in particular in the event of a participant defaulting or deeming insolvent. This secure mechanism for the safety of the CCP ensures that collateral cannot be moved by the participants and can only be used by Eurex Clearing starting at the decision point in time until Eurex Clearing releases the collateral for the collateral provider or third parties.

³ Directive 2002/47/EC of the European Parliament and of the Council of 6 June 2002 on financial collateral arrangements.

Key Consideration 6

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

Summary narrative

The scope of Eurex Clearing's collateral management service comprises the connection of designated collateral locations, the acceptance of a broad range of eligible collateral, collateral valuation and composition for the Eurex Clearing standard collateral pools (i.e. margin, Default Fund, company capital) across all relevant systems, transparency through intraday reports and monitoring functionalities, as well as highest protection through asset segregation and portability in line with regulatory requirements. These services are provided by the dedicated collateral management system infrastructure of Eurex Clearing and by the respective collateral locations' applications.

Participants can choose to open securities accounts either at CBF, CBL or at SIX SIS. The securities accounts in the settlement systems are maintained on participants' behalf with the securities pledged or transferred by title to Eurex Clearing.

The collateral to cover the requirements of Eurex Clearing can be managed in triparty collateral management systems, i.e. in CBF's collateral management system Xemac® or in CBL's collateral management system CmaX®. Automated facilities of Xemac® allow for optimal use of collateral, which is offering clients more efficient, real-time asset management. Collateral can also be managed in connection with the money market operations of the Deutsche Bundesbank, GC Pooling® of Eurex Repo, and bilateral transactions among Xemac® customers. Similar features apply in using CBL's triparty collateral management service through the CmaX® system. In addition, the security collateral can be monitored and managed directly in the settlement system of the respective service provider, also using functionalities of Eurex' systems.

Eurex Clearing aims to provide best in class, diversified collateral management services that create maximum value for its customers and simultaneously ensure the integrity of the CCP. For that matter Eurex Clearing regularly adjusts its collateral management practices and procedures including the services developed by and requested from the CMS service providers (Clearstream Banking Frankfurt, Clearstream Banking Luxembourg).

The collateral management function is sufficiently staffed to ensure smooth operations even during times of market stress.

Assessment of principle:

Observed

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.

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.

Summary narrative

Eurex Clearing has a margin system in place, imposes margin calls and collects margins to limit its credit exposure from its Clearing Members.

In general, margining encompasses the entire process of measuring and calculating a Clearing Member's risk exposure. The provision of collateral is required to ensure that all financial commitments related to the open positions of a Clearing Member can be offset within a very short period of time.

Eurex Clearing currently offers the two different margin methodologies: Risk Based Margining (RBM) and Portfolio Risk Management (PRISMA). RBM is based on product-specific Margin Classes. Margin offsets between Margin Classes are granted if the correlations between different Margin Classes are stable and have a minimum value of 50 %. In the course of the next years, it is planned to replace RBM fully with Eurex Clearing's portfolio-based risk management methodology PRISMA. Eurex Clearing PRISMA is already covering all exchange-traded and OTC derivatives in scope of Eurex Clearing.

PRISMA is an advanced Value-at-Risk based model, which considers each member's entire portfolio and has the advantage of accounting for hedging and cross-correlation effects through determining the margin requirement on a portfolio level as opposed to a product-by-product view. The various model components are designed for the risk calculation to be adequate and stable, ensuring that the concept withstands new shocks and changes to the financial markets and flexibly adapts to changes in the risk environment.

A member's total margin requirement, whether parts of it have been calculated with RBM or PRISMA, is the amount that is equivalent to such member's risk exposure at the target confidence level. Since members are required to cover their margin requirements with collateral, the counterparty risk exposure decreases by the value of the collateral provided, after collateral haircuts have been applied. Therefore, exposure of Eurex Clearing towards a Clearing Member with respect to current valuation, potential valuation changes over the margin period of risk at a given target confidence level and beyond is mitigated by core business processes such as calculating and charging backwards- and forward-looking margin as well as Default Fund contribution and ensuring their ongoing coverage.

The margin requirement provides a transparent view of the Exposure at Default (EaD) with a high level of confidence and represents the anticipated liquidation costs. Overstating the margin requirement would unnecessarily tie up liquidity of the Clearing Member, while a not properly secured position represents a potential threat

to the contract fulfilment and the integrity of the CCP and the Clearing Member community.

The margin requirements of each Clearing Member are calculated intraday on a near to realtime basis. If the potential future price risks of a Clearing Member increases beyond the amount of collateral provided, Eurex Clearing issues an intraday margin call towards that Clearing Member to be covered latest within one hour. The calculation of the future risk exposure assumes worst case price changes within the assumed liquidation period and on a given confidence level.

In addition to the forward-looking margin component, also the backward-looking component (current exposure) is measured. This includes Variation Margin, Premium Margin and Current Liquidating Margin. Variation Margin applies to future-style derivatives and swaps, can be covered intraday by eligible collateral and is settled in the currency of the product in cash at the end of the day. Premium Margin and Current Liquidating Margin reflect the value of premium-style options and spot market products as well as securities financing transactions, respectively. Premium Margin and Current Liquidating Margin can be covered by any eligible margin collateral. If a Clearing Member holds a position that results in a Premium Margin or Current Liquidating Margin Credit (e.g. long option positions), this credit can be used to offset margin debits of other positions but is not paid out.

Margin requirements are recalculated intraday and at the end of each day. Shortfalls are covered by margin calls. If a Clearing Member holds a net collateral surplus at the end of the day, excess cash collateral can be refunded upon request of the Clearing Member.

The margin methodology is designed to avoid potential procyclical effects. RBM uses minimum margin parameters to ensure stability. PRISMA uses scenarios that ensure prudent forward-looking properties and stability of the model. It encompasses an adaptation procedure for scenarios from being "historical backward-looking" to "forward-looking" by means of dynamic volatility scaling. The latter is further enhanced by employing volatility floors.

Eurex Clearing ensures that Clearing Members are able to properly manage and contain the risks associated with their cleared business: Firstly, by providing Clearing Members with sufficient information regarding the CCP's risk management (Please refer to the website: <http://www.eurexclearing.com/clearing-en/risk-management/>).

Secondly, the margin requirements help Clearing Members to properly understand and manage the risks associated with their cleared business. Eurex Clearing calculates and distributes margin requirements near to realtime to ensure a continuous measurement of members' current positions and potential future exposures.

Thirdly, a set of different Margin Calculators is publicly available and designed to help members to calculate and simulate their Eurex Clearing margin requirements. Enabling members to simulate the impact of different portfolios, portfolio structures and trading behaviour on the margin requirement allows for full transparency and predictability of the margin model, and thereby further supports members' individual risk management. (Further information on the Margin Calculators of Eurex Clearing

can be found on the website: <https://www.eurexclearing.com/clearing-en/risk-management/marginalcalculators>)

As outlined above, Eurex Clearing currently applies two margin methodologies, Risk Based Margining and Portfolio Risk Management.

RBM

When determining the RBM margin requirement, the exposure is calculated by margin parameters that measure price fluctuations over time. Price fluctuations are measured by the return volatility of the underlying closing prices for equity or equity-like products and by changes in yields for fixed income instruments. Furthermore, in order to maintain margins at appropriate levels at any time except for the most extreme events, Eurex Clearing aims to consider different levels of product liquidity. The risk resulting from low or illiquid products is considered by the application of a liquidity factor. Eurex Clearing reviews the liquidity of products on a regular basis.

Additionally, Eurex Clearing considers risk reducing effects by its concept of Margin Classes and Margin Groups.

Two or more Margin Classes whose underlying instruments exhibit a stable and high correlation (minimum 50 %) can be combined in a Margin Group. Within a given Margin Group, cross margining is again possible, i.e. the offsetting of equal but opposite risks.

PRISMA

Eurex Clearing PRISMA calculates combined risks covering all derivatives markets cleared by Eurex Clearing. Cleared products that share similar risk characteristics are assigned to so-called Liquidation Groups, allowing for a more comprehensive and consistent coverage and thereby offsetting of risk factors.

The concept of Liquidation Groups mitigates the fact that the overall portfolio of a Clearing Member typically feature heterogeneous structures, sizes and/or complexities. Acknowledging this and due to the general handling principles laid out in the Default Management Process, it is assumed to be suboptimal to liquidate an entire member portfolio in one single transaction. Therefore, Liquidation Groups allow for a reasonable partitioning of Clearing Member portfolios into groups that can be dealt with efficiently and quickly in a situation of a member default. The constituents of a Liquidation Group can be hedged by Eurex Clearing, priced by Clearing Members and also auctioned within a reasonable period of time. The composition of Liquidation Groups is reviewed on a regular basis and adjusted if deemed necessary.

General principles for Liquidation Groups are:

- Liquidation Groups are pre-defined (they exist irrespective of a Clearing Member's default).
- Portfolio margin offsets are only granted within these pre-defined Liquidation Groups.

Liquidation Groups are further divided into Liquidation Group Splits:

- A Liquidation Group Split has a dedicated margin period of risk.

	<ul style="list-style-type: none"> • A Liquidation Group Split has a dedicated confidence level. <p>Initial Margin as the forward-looking margin component estimates the future potential losses over the margin period of risk independently for all Liquidation Group Splits of a Clearing Member. It takes into account potential correlation and netting effects for positions within a given split. The Initial Margin figure of a Clearing Member is afterwards aggregated across different Liquidation Group Splits and position risk accounts. It consists of two main subcomponents:</p> <ul style="list-style-type: none"> • The market risk component, based on a risk factor full revaluation approach, covers potential losses from market movements during the margin period of risk. • The liquidity risk adjustment covers potential losses from realizing bid-ask spreads and adverse price movements expected when having to liquidate a portfolio in a Clearing Member default event. <p>The market risk component further includes a correlation break adjustment to account for variations in correlations, a compression model adjustment to account for pricing uncertainties as well as a countercyclical component to prevent large margin calls in stressed periods.</p> <p>Margin requirements together with Eurex Clearing’s Default Fund are designed to ensure a confidence level of 99.9 %.</p>
<p><i>Key Consideration 2</i></p> <p><i>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.</i></p>	
<p>Summary narrative</p>	<p>Eurex Clearing strictly prefers reliable sources to obtain timely price data such as data provided by regulated markets. The general approach is to mark any exposure to market, if such data is available, reliable and timely. Under circumstances in which such criteria are not met, theoretical pricing along with statistical measures are in place to ensure best price estimates. The latter are naturally product dependent and comprise of standard option pricing models, discounted cash flow models for fixed income securities and multi-curve pricing for OTC derivatives to name selected examples.</p> <p>Models and the Risk Management Framework of Eurex Clearing are subject to yearly independent validations.</p>
<p><i>Key Consideration 3</i></p> <p><i>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,</i></p>	

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.

Summary narrative

Eurex Clearing's margining process is a multifaceted and time-critical process that takes into account a variety of factors in order to calculate margins that adequately protect Clearing Members, their customers, the CCP and therefore the marketplace as a whole. Simultaneously, Eurex Clearing sets appropriate levels that do not tie up excess capital.

The amount of collateral, which must be deposited, is calculated on the basis of the total risk exposure of all accounts the Clearing Member is responsible for. The total risk exposure is determined from the price risk of the derivative, repo, securities lending and cash positions held in the accounts. The risk reducing effect of combinations of positions is taken into consideration in this calculation, in which equal but opposite risks within each account are offset against each other.

Eurex Clearing aims to have sufficient margin collateral to cover a member's default loss in all but the most extreme market circumstances.

Eurex Clearing defines "all but extreme market circumstances" such that the potential loss in case of a Clearing Member default does not exceed the margin requirement in 99 out of 100 cases (99 % confidence level), except for OTC derivatives for which a confidence level of 99.5 % is applied. The potential loss will be covered by collateral provided for margin requirements from the defaulting Clearing Member. Losses beyond the margin requirement will be absorbed by the other lines of defense, such as Clearing Members' Default Fund contributions.

A risk model cannot focus on margining alone but also needs to consider the impact of the additional protective mechanisms like admission criteria, intra-day margining, model validation, stress testing, clearing and default management. Additionally, risk must be measurable and chargeable within appropriate timeframes to prevent losses accumulating.

The following points summarise the guidelines for Eurex Clearing's margining methodology:

- The risk model must be in line with the Risk Management Framework, including appropriate inclusion into the lines of defense.
- The first priority in a risk model is the financial integrity and security of the CCP, granting offsets or adherences to market practice are important but secondary considerations.
- The model must be transparent, comprehensible and replicable given the respective input parameters.
- The methodology must be technically and operationally feasible.

- The calculated results need to be considerably stable in order to avoid potential procyclical effects.
- In case any of the aforementioned conditions fail, the launch of the product in question will not be proceeded with.

Risk Based Margining is a systematic risk-oriented model to estimate future losses. While the methodology may vary between products, applied methods will satisfy a number of criteria to ensure objectives of security and efficiency as well as consistency across products. The following assumptions (list not exhaustive) apply:

- A statistical confidence level of 99 % is assumed for all products margined with RBM.
- The standard time to liquidate a portfolio is assumed to be 2 days.
- Eurex Clearing applies a product-specific liquidity factor.

The Eurex Clearing PRISMA margin methodology is based on a complete view of each Clearing Member's portfolio that takes advantage of cross-correlation effects. It determines the Initial Margin requirement on a portfolio level as opposed to a product-by-product view.

The methodology is designed for the adequate and stable computation of Initial Margin figures, thus creating a forward-looking risk model that is able to cope with a high degree of uncertainty in the financial markets and yet at the same time is sufficiently flexible to be able to adapt to changes in the risk environment.

The model calculates combined risks across all markets cleared by Eurex Clearing. Cleared products that share similar risk characteristics are assigned to so-called Liquidation Groups, allowing for a more comprehensive and consistent coverage and thereby offsetting of risk factors.

The following assumptions apply:

- The market risk component and the liquidity risk component are calculated using profit and loss distributions for the Liquidation Group Splits based on a set of different scenario prices for the underlying instruments.
 - The CCP standard time to liquidate the portfolio is assumed to be between 2 and 5 days, depending on product type and associated complexity.
 - Liquidation Group Splits contain products sharing similar risk characteristics and, thus, can be liquidated together.
 - Portfolio margining is possible within Liquidation Groups; margin offsets across Liquidation Groups is not possible.
 - Eurex Clearing applies a portfolio-specific liquidity risk adjustment.
 - Position and price changes are monitored near-to-realtime.
-

The liquidation period is the assumed maximum time frame that is needed for the execution of the Default Management Process. The assumption is Liquidation Group Split-dependent and must be covered by the margin requirement calculated. If products with a shorter liquidation period are cross-margined with products with a longer liquidation period, the longer liquidation period of the two respective Liquidation Group Splits is assumed for both.

PRISMA accounts for market risk via the market risk component. Changing correlations between products in the portfolio margining process are considered by the correlation break adjustment. Another important input factor for PRISMA is the compression model adjustment. This component compensates for pricing uncertainties, which can in general be attributed to methodological simplifications for reasons of stability and tractability. Liquidity risk is considered by the liquidity risk adjustment. For both margin methodologies the liquidation period is determined following the below described steps.

The holding period is the number of days Eurex Clearing assumes to need for liquidating a respective Liquidation Group Split. In general, the holding period is set between 2 and 5 days. The number of days has been established by the guidance of three sources:

The first source is an internal estimation of the overall Default Management Process and every step has been analysed with respect to how time consuming it is expected to be.

- After a default is legally confirmed (end of grace period / automatic trigger), the positions are transferred to an internal Eurex Clearing account.
- Furthermore, the Default Management Team applies preliminary measures and supporting interfaces (e.g. sensitivity calculations or identifying portfolio concentrations). Besides, it may be necessary to convene a Default Management Committee for assisting Eurex Clearing in developing a hedging strategy.
- In any case (with or without advice of the DMC), Eurex Clearing might execute hedges. It is possible that hedges are adjusted later on in order to adapt to changing market conditions.
- Independent sales can be conducted after hedging and should be finished within one day.
- The auction starts after hedging and should be finished within an additional day.
- An asset class resolution is triggered if the auction fails and takes at maximum one day.

All described process steps lead to the determination of the holding period per Liquidation Group.

The second estimation source is taken directly from the market (e.g. involvement of the EMIR Risk Committee) and aligned with regulatory requirements.

Third, Eurex Clearing conducts, at least yearly, default simulations in which the assumed time frames of the Default Management Process are challenged and validated on an ongoing basis.

In addition, the assumed holding periods turned out realistic on the basis of historic Clearing Member defaults.

In RBM, the margin requirement is determined by a margin parameter. Therefore, historical volatility is used to estimate future volatility. The estimate of future volatility is referenced to different historical reference periods of market data. The reference period defines the number of past market parameter observations that are taken into account to estimate future volatility.

The margin parameter's reactivity relies on the maximum value resulting from the exponentially weighted moving average (EWMA) volatilities based on the below reference periods:

- 30 days,
- 250 days,
- full observation period since inception of the product (equally weighted).

Accounting for the full observation period since inception of a product ensures that the full range of market conditions, including periods of stress, is captured.

The PRISMA methodology uses a risk factor-based simulation approach to calculate the Value at Risk of the market risk component. Scenario prices of instruments are attained by simulating risk factor scenarios that are subsequently used as inputs for theoretical pricing along a full revaluation approach.

Three sets of risk factor scenarios are simulated:

- Filtered historical scenarios are simulated based on historically observed risk factor returns that are normalized and subsequently adapted to the most recent volatility regime.
- Stress period scenarios are simulated by taking historical returns from periods of significant financial distress.
- Event risk scenarios that induce specific shocks to particular risk factors sensitive to events that are not sufficiently observed in the history.

Eurex Clearing reviews the liquidity of products on a regular basis.

In PRISMA a liquidity risk adjustment is applied. It is designed to account for the widening of bid-ask spreads and adverse price movements that might occur as part of the liquidation of potentially very large positions resulting from a Clearing Member default.

In general, Eurex Clearing's margin calculations are designed to be considerably stable in order to avoid potential procyclical effects. In case Eurex Clearing revises the parameters of its margin model, it will take into account any potential procyclical effects of such revision.

	<p>For RBM, an appropriate countercyclical component is ensured through setting a minimum margin parameter. The minimum margin parameters are based on long-term histories of respective products or benchmark instruments and are complemented by expert judgement.</p> <p>For PRISMA, a stress period Value at Risk is introduced as a countercyclical component, which ensures the adequacy of the market risk component in calmer market regimes and enhances margin stability. It is calculated from scenario prices, each stemming from a period of significant financial distress. The number of stress period scenarios used is at least 25% of the total sample used to calculate the market risk component.</p> <p>The quarterly CPMI-IOSCO public quantitative disclosure provides detailed information on Eurex Clearing’s Initial Margin models. As an example, a non-exhaustive overview of provided data given in the “AggregatedDataFile” tab are:</p> <ul style="list-style-type: none"> • Total Initial Margin required per clearing service (6_1_1), • name of margin methodology used per clearing service (6_4_3), • one-tailed target confidence level per clearing service (6_4_5), • look-back period used per clearing service (6_4_7), and • adjustments considered per clearing service (6_4_9). <p>Wrong-way risks may arise if there is an unfavourable interrelatedness between a Clearing Member’s credit risk (Clearing Member as issuer), its portfolio value and/or the value of its collateral pool.</p> <p>Wrong-way risks are addressed in a reasonable but prudential fashion. Whenever it is possible to prevent certain wrong-way risk constellations, such as the collateralization of security financing transactions with own issues and issues from close links, it is prohibited. In all other cases, for example if instruments issued by entities allocated to the same sector and/or located in the same country shall be used for such purposes, thresholds are defined.</p>
	<p><i>Key Consideration 4</i></p> <p><i>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.</i></p>
<p>Summary narrative</p>	<p>Eurex Clearing has the authority and capability to request and to pay out Variation Margin as well as to conduct intraday margin calls. First, it is important to distinguish between the purpose of Variation Margin payments and margin calls. Using Variation Margin, profits and losses that arise due to the price fluctuations of open positions are offset daily. When option positions are mark-to-market, calculation of the appropriate credits and debits depends on how the value of a call or put position changed during the trading day. The mark-to-market procedure ensures that each position is re-valued at the daily settlement price. The difference between today’s and the previous day’s settlement price is offset by daily compensating payments. Therefore, the essential effect of marking positions to market is the “extraction” of potential liquidation profits or losses, such that on the last trading day only the</p>

	<p>difference between the daily settlement price of the previous day and the final settlement price of all open positions has to be calculated. In the case of options on futures, the final valuation is made at the final settlement price of either the expiration date of the option or the day on which it was exercised.</p> <p>Margin calls, however, are issued when during the continuous intraday monitoring of positions an insufficient collateralization is discovered. This can in general be caused by adverse market movements, which translate into an increase of the margin requirement.</p> <p>Eurex Clearing's authority to conduct intraday margin calls is stipulated in the Clearing Conditions, as is the right to demand supplementary margin.</p> <p>Market movements are continuously monitored by Eurex Clearing's Risk Management department, which issues intraday margin calls or requests supplementary margin, if necessary.</p> <p>Eurex Clearing has sufficient operational capacities to make and complete intraday margin calls. This is ensured also for the extended trading hours of certain products by having operational handshake processes between teams across the globe to ensure operability at all times.</p>
	<p><i>Key Consideration 5</i></p> <p><i>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.</i></p>
Summary narrative	<p>Eurex Clearing allows for offsets in its margining systems RBM and PRISMA.</p> <p>In RBM, investors can reduce their exposure to individual asset risk by holding a diversified portfolio of assets. Diversification may allow for the same portfolio return with reduced risk.</p> <p>Eurex Clearing considers risk-reducing effects by its concept of Margin Classes and Margin Groups. Two or more Margin Classes, whose instruments are correlated with respect to their risk structure, are combined in a Margin Group. Within a given Margin Group, the offsetting of equal but opposite risks is possible.</p> <p>With PRISMA, Eurex Clearing only grants margin offsets within predefined groups of products: firstly, to avoid any risk of margin shortfalls during the liquidation procedure due to previously granted offsets on portfolio level and, secondly, to ensure that cross-product offsets are not out-weighted by additional liquidity margins. With the introduction of Eurex Clearing PRISMA, the Default Management Process is on (sub-)portfolio level rather than on position level.</p> <p>These sub-portfolios are called "Liquidation Groups" respective "Liquidation Group Splits" and comprise products that are anticipated to be auctioned together in case of a Clearing Member default. Portfolio margining is only possible for products that are assigned to the same Liquidation Group Split. However, assignment of certain products to the same Liquidation Group Split alone does not suffice to grant offsets</p>

between these products. Only restricted offsets are granted within one Liquidation Group Split, whereas 'restriction' is achieved by the inclusion of model adjustments, especially correlation break adjustments. Thereby, PRISMA ensures that Eurex Clearing is not exposed to any potential risk from the margin reduction by incorporating into the margining only those offsets that are consistent with the Default Management Process.

The set of Liquidation Groups and their Splits is equally defined for all members on CCP level and is therefore unrelated to the size, the trading strategy or the positions of a particular Clearing Member to be liquidated. Liquidation Groups and Splits are fixed over time unless the composition is adjusted in the framework of regular reviews. The definition of Liquidation Groups and Splits is based on the following considerations:

- Standard liquidation process: Products that follow the standard liquidation process with an auction as central element can be assigned to the same Liquidation Group. Products that utilize a different liquidation process cannot be assigned to the same Liquidation Group.
- Proximity of products: Products within one Liquidation Group and Split allow for objective proximity. Proximate products own a set of common risk factors. This criterion represents market standard and business understanding including the consideration of required clearing licenses and settlement infrastructures. The correlations of common risk factors implicitly link the products within one Liquidation Group.
- Hedge-ability: Products are assigned to the same Liquidation Group and Split if they can be hedged together.
- Price-ability: Products of a Liquidation Group and Split can be priced by Clearing Members in a limited period of time. The price-ability is verified during the regular default simulations. Furthermore, it is subject to the auction format and hedging strategy.

The Liquidation Group and Split composition is reviewed internally and in default simulations on a regular basis. However, to ensure the integrity of the CCP, the final decision regarding the definition of Liquidation Groups and Splits remains with Eurex Clearing as the responsible CCP in case of a Clearing Member default.

The Eurex Clearing Executive Board decides on the assignment of new products to already existent Liquidation Groups or whether a new Liquidation Group will be set up.

In addition, Eurex Clearing monitors the cases where portfolio margin requirements result in an offset of 80 % or more compared to the gross margin requirement on product level. Whenever an offset exceeds 80 % of the gross margin requirement, supplementary margin is charged to limit offsets to 80 % of the gross margin requirement.

The margin procedure is subject to a sound stress test program. Also back tests are conducted continuously to ensure that the margin requirement meets the applicable confidence level (99 % for listed and 99.5 % for OTC products).

	Eurex Clearing does not have cross-margin arrangements with other CCPs.
<p><i>Key Consideration 6</i></p> <p><i>A CCP should analyse and monitor its model performance and overall margin coverage by conducting rigorous daily back testing – 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.</i></p>	
<p>Summary narrative</p>	<p>The adequacy of the Initial Margin is primarily validated by daily portfolio backtesting, which compares the market risk component of the Initial Margin with the actually observed profits and losses for each productive portfolio. Model add-ons for liquidity risk are excluded from backtesting. The term portfolio refers to the group of positions, which is subject to portfolio margining. This means that there is no netting of positions in backtesting, which are not subject to portfolio netting in the first place.</p> <p>Backtesting uses statistical tests to assess a) the frequency and b) the severity of outliers, i.e. it uses statistical inference techniques. The test results of the analysis are classified according to a predefined traffic light system and, if necessary, actions are commenced according to the following scheme:</p> <ul style="list-style-type: none"> • Green Light: The results of the analysis/report lie within the normal specifications. No significant model inaccuracies were identified and no further actions are necessary. • Yellow Light: The results of the analysis/report are outside the expected range. A thorough analysis of the results and their implication towards the adequacy of the model/parameterization is necessary. No severe damages are expected in the short-term. • Red Light: The results of the analysis/report show material deficiencies and the validity of the model has to be questioned. An immediate action is necessary to avoid potential severe damages. <p>The margining models contain a number of model parameters. These parameters are periodically determined by calibration to e.g. observed market risk factors or by fundamental analysis.</p> <p>Model parameter sensitivities are used to investigate the response of the margin model to deviations of the model parameters. The deviations are determined either by normal market scenarios as well as stressed historical and hypothetical market scenarios. Furthermore, the stressed market scenarios cover the most volatile periods observed by Eurex Clearing. The parameter sensitivities are calculated monthly for all member portfolios, i.e. all participant positions are considered. The analysis can be performed more frequently or ad-hoc, if required. Sensitivity analysis is also used for the impact analysis of a parameter recalibration.</p>

	<p>For most of the parameters, scenarios corresponding to up- and down shifts are defined. Only if a shift direction does not correspond to a challenge of the model or violates a regulatory constraint it will be disregarded for sensitivity testing.</p> <p>Sensitivities are measured in terms of their relative impact on margins and always compared to historical values. This helps to assess the plausibility of the sensitivity profile of the model given the current market situation.</p> <p>Regular meetings within the CCP's Risk Management division facilitate the discussions on validation outcomes and potential problems at an early stage, so that any required enhancements or fixes can be implemented in good time.</p> <p>If the validation suggests that the model does not perform appropriately, an internal finding is issued and tracked.</p> <p>For the ongoing revision and improvement of the model, Eurex Clearing regularly seeks the advice of the EMIR Risk Committee. Any major changes and adjustments will be presented to the EMIR Risk Committee and approved by the Executive Board of Eurex Clearing.</p> <p>The organizational unit "Model Validation" may trigger a significant model change. The implementation of a significant model change needs to be in accordance with the Model Change Policy and to be approved by the relevant external authorities beforehand. In the meantime, supplementary margin can be charged as outlined in the Clearing Conditions.</p>
<p><i>Key Consideration 7</i></p> <p><i>A CCP should regularly review and validate its margin system.</i></p>	
Summary narrative	<p>Eurex Clearing commits itself to a regular and thorough validation of all risk models along the model landscape.</p> <p>Throughout the year, the organisational unit "Model Validation" uses a number of validation instruments to regularly validate the conceptual soundness of the frameworks and adequacy of the risk models. At the end of the year, an annual comprehensive validation is performed along the model landscape. In the annual validation report, all validation results obtained throughout the year are summarized and combined with a fundamental review of the methodology and the model parametrization. This yields an overall review of model performance and appropriateness, taking into account both the theoretical and empirical perspective.</p> <p>The adequacy of the Initial Margin is primarily validated by portfolio backtesting, which compares the Initial Margin with the actually realised profits and losses. The results are assessed using statistical tests. Validation at parameter level is performed by means of a parameter sensitivity analysis, which is conducted to determine the margin model's response to changes in model parameters. Results from backtesting and parameter sensitivity analysis are regularly reported to the EMIR Risk Committee in a form that does not breach confidentiality.</p> <p>Offset monitoring ensures that portfolio diversification benefits granted by the portfolio margining approach stay within regulatory required limits and that Eurex Clearing is not exposed to further potential risks by the margin reduction. A model assumption</p>

	<p>materiality analysis reveals the materiality of assumptions made in margining models and is used as a tool to identify potential focus areas for further model improvement. The stressed period validation is used to analyse if the applied stressed periods within the Stress VaR component of the Initial Margin are reasonable.</p> <p>While portfolio backtesting is performed daily, the intervals for the validation of the other margining components differ between weekly, monthly and quarterly. The validation schedule allows for timely action in case the analysis results suggest that the model does not perform as expected.</p> <p>Details on Eurex Clearing's Initial Margin backtesting results are provided in the CPMI-IOSCO public quantitative disclosure on the "AggregatedDataFile" tab under:</p> <ul style="list-style-type: none">• Number of times over the past twelve months that margin coverage held against any account fell below the actual exposure of a member account (6_5_1_1),• Number of observations (6_5_2),• Achieved coverage level (6_5_3),• Peak size of uncovered exposure over last 12 months (6_5_4), and• Average size of uncovered exposure over last 12 months (6_5_5).
<p>Assessment of principle:</p> <p><i>Observed</i></p>	

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.

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.

Summary narrative

Eurex Clearing measures, monitors, and manages its liquidity risk according to its Liquidity Risk Management Framework. The Framework has been set up in accordance and compliance with Articles 43 (other financial resources) and 44 (Liquidity risk controls) EMIR and Articles 32 – 34 of Chapter VIII (Liquidity risk controls) of the associated regulatory technical standards⁴ and is updated on a regular basis involving the EMIR Risk Committee and the Eurex Clearing Executive Board. Eurex Clearing's Liquidity Stress Testing Framework is an integral part of the Liquidity Risk Management Framework.

The Liquidity Risk Management Framework addresses potential sources of liquidity risk and describes measures for mitigation. Requirements for monitoring, managing and reporting liquidity are outlined; moreover the framework gives guidance on defined stress tests and describes the coverage of liquidity shortage in contingency events. Within the framework, settlement and funding flows are analysed in all relevant currencies.

For Eurex Clearing, liquidity risks mainly stem from its function as a CCP and related pre-financing activities conducted to ensure settlement efficiency.

As required by EMIR, Eurex Clearing monitors the coverage of a potential simultaneous default of the two Clearing Members to which it has the largest exposures. This scenario constitutes the largest liquidity need for Eurex Clearing. Moreover, a range of market scenarios, which combine all potential risk factors, is monitored. Eurex Clearing aims to maintain sufficient liquid financial resources to cover the liquidity needs in all of its scenarios.

Liquidity exposures towards the following counterparties are therefore considered in liquidity stress testing:

- Clearing members;
- Settlement institutions;
- Nostro Agents (payment banks);

⁴ Commission delegated regulation (EU) No 153/2013 of 19 December 2012 supplementing EMIR

	<ul style="list-style-type: none"> • Treasury unsecured placement counterparties; • Correspondent banks; • Liquidity providers. <p>A monthly liquidity stress test report is provided to the Executive Board, showing, among others, the provision of cash margins and credit facilities by individual Clearing Members as well as liquidity needs in a “cover-2” scenario.</p>
<p><i>Key Consideration 2</i></p> <p><i>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.</i></p>	
<p>Summary narrative</p>	<p>Within the Liquidity Risk Management Framework, settlement and funding flows are identified, measured and monitored in all relevant currencies on an ongoing and timely basis.</p> <p>Throughout the day, payment and settlement systems are used to monitor intraday liquidity and to identify intraday liquidity risk as well as excess cash to be invested and liquidity gaps to be funded using an internally developed system.</p> <p>Currently, Eurex Clearing completes the implementation of an Intraday Liquidity Management Tool that automatically updates information on account balances on a counterparty and currency basis. The tool will enable Eurex Clearing to proactively monitor liquidity in real time, reduce intraday funding costs through enhanced forecasting, monitoring and steering of outgoing and incoming cash flows, and meet increasing demands for regulatory reporting requirements.</p>
<p><i>Key Consideration 3</i></p> <p><i>A payment system or SSS, including one employing a DNS mechanism, should maintain sufficient liquid resources in all relevant currencies to effect same-day settlement, and where appropriate intraday or 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 payment obligation in extreme but plausible market conditions.</i></p>	
<p>Not applicable.</p>	
<p><i>Key Consideration 4</i></p> <p><i>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.</i></p>	

Summary narrative	<p>Eurex Clearing has established liquidity indicators in order to maintain sufficient liquid resources to meet payment obligations on time, with a high degree of confidence and under extreme but plausible market conditions. The key liquidity indicator is set to cover the liquidity risk generated by the default of the two Clearing Members including all affiliates to which it has the largest exposures. In line with industry standards and regulatory requirements, Eurex Clearing applies a range of liquidity scenarios besides the "cover-2" which are outlined in the following.</p> <p>"Cover-2"</p> <p>In line with the so-called "cover-2" requirement in EMIR, Eurex Clearing maintains sufficient financial resources to cover the liquidity risk generated by the default of the two Clearing Members to which it has the largest exposures. Additionally, Eurex Clearing monitors the "cover-2" requirement from the default of entities in the same corporate group as well as settlement institutions.</p> <p>Late funding</p> <p>A member may face difficulties to provide funding to Eurex Clearing due to technical issues. In such a case, Eurex Clearing guarantees to fulfil the respective payment obligations to ensure smooth settlement processing. The scenario assumes a member not functional for a limited period of time. The resulting short-term liquidity requirement of the largest Clearing Member, corporate group as well as settlement institution is monitored.</p> <p>Idiosyncratic stress tests</p> <p>In this scenario, it is assumed that the stress event is company-specific. This could lead to a downgrade of Deutsche Börse AG and, thus, to increased financing costs. It is assumed that the downgrade amounts to more than two notches in severity, leading to margin cash deposit repayments and delay in cash inflows.</p> <p>Market disruption stress tests</p> <p>The scenario focuses on turmoil on the markets, resulting in a member default. Additionally, it is assumed that marketable securities cannot be sold on time and only at lower prices than the fair value due to high volatility or fire sales of securities.</p> <p>Market disruption / idiosyncratic stress tests</p> <p>In order to detect potential liquidity shortfalls in an early state, Eurex Clearing combines the scenarios by simultaneously taking all aspects of liquidity risk into account. The combined scenarios are more conservative and lead to higher liquidity requirements.</p> <p>Sufficient liquidity is required to be able to cover all described liquidity stress test scenarios.</p> <p>The Liquidity Risk Management Framework covers all currencies Eurex Clearing is active in, indicating however, that for Eurex Clearing the Euro is the most important one. Liquidity exposures resulting from the default of a Clearing Member are determined for all relevant currencies, thus all currencies in which payment and settlement obligations may occur. Other sources of liquidity risk resulting e.g. from Eurex Clearing's investment policy may only occur in clearing currencies since</p>
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	<p>collateral is invested in the currency in which collateral was posted by the Clearing Members. Liquidity stress scenarios which go beyond the "cover-2" requirement are therefore calculated in all clearing currencies. Under certain circumstances, for non-Euro currencies, Eurex Clearing is allowed to settle in Euro if needed, which is considered in liquidity stress testing.</p> <p>Eurex Clearing is not clearing products with more-complex risk profiles. It is systemically important in more than one jurisdiction. Eurex Clearing is under supervision of BaFin in Germany, of the Commodity Futures Trading Commission in the United States due to its license as a Derivatives Clearing Organization, has been recognized by the Swiss National Bank and the Swiss banking supervisory authority FINMA as being systemically important to the Swiss market and is a Recognized Clearing House by the Monetary Authority of Singapore.</p>
<p><i>Key Consideration 5</i></p> <p><i>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.</i></p>	
Summary narrative	<p>Eurex Clearing has several qualifying liquid resources available such as cash at central banks and creditworthy commercial banks, committed lines of credit and highly liquid financial instruments.</p> <p>Central Banks:</p> <p>Eurex Clearing safely places Euro, Swiss Franc and British Pound with the relevant central bank money accounts. The funds on the cash accounts can generally be accessed with immediate effect during the payment systems' operating hours. Additionally, Eurex Clearing has access to the monetary operations of the Eurosystem via its account with Deutsche Bundesbank, allowing the CCP to promptly convert ECB eligible collateral into cash. As Eurex Clearing accepts highly liquid and central bank eligible collateral only, the CCP considers these securities to be marketable even under severe stress.</p> <p>Commercial Banks:</p> <p>Eurex Clearing carefully chooses its payment banks. Potential and existing banks are assessed internally based on quantitative and qualitative criteria that, among others, take into account factors like creditworthiness, technical infrastructure, operational effectiveness and operational reliability.</p> <p>Funds held with commercial banks are readily available for intraday transactions. Given the strict assessment criteria, this is also expected for extreme but plausible market conditions.</p> <p>Highly marketable collateral:</p>

	<p>Eurex Clearing, although carefully assessing commercial banks, intends to reduce any unsecured overnight balances with commercial banks to a minimum. Cash shall generally be deposited on a secured basis, i.e. via central bank deposit or via collateralised placements with creditworthy commercial banks. In the latter case, Eurex Clearing accepts only highly liquid financial instruments with minimal credit and market risk.</p> <p>Eurex Clearing maintains prearranged and highly reliable funding arrangements with a wide range of highly rated financial institutions to mobilise the securities if needed. Alternatively, the securities can also be pledged with the central bank to obtain intraday and overnight credit. For both, the mobilisation process allows Eurex Clearing to generate liquidity on an intraday basis. The repo counterparties are internally assessed based on quantitative and qualitative criteria. Eurex Clearing tests the reliability of the counterparties in its capacity to perform repo and reverse repo transactions periodically, at least quarterly.</p> <p>The size of qualifying liquid resources is publicly disclosed in the CPMI-IOSCO quantitative disclosure (http://www.eurexclearing.com/clearing-en/about-us/regulatory-standards) under the tab 'CCP_DataFile_7_1'.</p>
	<p><i>Key Consideration 6</i></p> <p><i>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.</i></p>
Summary narrative	<p>In general, Eurex Clearing has a wide range of qualifying liquid resources at its disposal, which sufficiently cover the respective liquidity needs. The size of qualifying liquid resources as well as liquidity needs is publicly disclosed in the quarterly CPMI-IOSCO public quantitative disclosure (available at the website http://www.eurexclearing.com/clearing-en/about-us/regulatory-standards) especially under tabs 'CCP_DataFile_7_1' and 'CCP_DataFile_7_3'.</p> <p>Supplemental liquid resources are uncommitted credit lines with commercial banks. Eurex Clearing's Liquidity Risk Management Framework requires collateral to be central bank eligible. Thus, supplemental assets would always qualify as being central bank eligible.</p> <p>Supplemental liquid resources in the form of uncommitted credit lines are used in the cause of the day-to-day business. Access to these resources is tested on a regular basis. In times of stress, Eurex Clearing would mobilise any available supplemental liquid resources to cover unforeseen liquidity needs.</p>

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 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.

Summary narrative

As indicated by the public quantitative disclosure, Eurex Clearing usually does not need to use liquidity providers to meet its minimum required qualifying resources. However, Eurex Clearing maintains committed lines of credit with liquidity providers to diversify its sources of funding and to cover its liquidity needs in case not all of its financial resources are immediately available.

Eurex Clearing performs rigorous due diligence in the form of a credit assessment that its liquidity providers have enough capacity to perform according to the liquidity arrangements. The assessment is made annually and/or event-driven. In general, committed lines of credit are maintained only with commercial banks whose core competencies are the provision of such facilities and that hold a minimum rating of "A-" according to the scale by S&P/Fitch or "A3" according to the scale by Moody's. If a commercial bank falls below the minimum rating, a report will be sent to the Executive Board, which then decides to terminate or to maintain the credit facility.

It is expected that these institutions are able to fulfil their payment obligations as they fall due, including in stressed conditions. A supporting indicator for this is the Liquidity Coverage Ratio (LCR), which requires Eurex Clearing's liquidity providers to maintain sufficient high quality liquid assets to cover their net outflows over a 30-day period of stress. Eurex Clearing's liquidity providers maintain a LCR well above the minimum requirement of 100%.

Eurex Clearing periodically, i.e. at least quarterly, tests to access its lines of credit to check reliability of procedures and the speed of access.

As only financial institutions are providing Eurex Clearing's credit facilities, central bank access by those liquidity providers can be assumed.

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.

Summary narrative

Eurex Clearing maintains central bank accounts with Deutsche Bundesbank, Swiss National Bank and Bank of England.

Cash payments in Euro are settled via TARGET2, which is the realtime gross settlement system operated by the Eurosystem. For Swiss Francs, Eurex Clearing maintains a settlement account with SIX Interbank Clearing, who operates the payment system SIC on behalf of the Swiss National Bank. Additionally, as Eurex Clearing is subject to the minimum reserve, it may participate in the Eurosystem's

	<p>monetary instruments. This allows the CCP to access the standing facilities as well as the open market operations.</p> <p>Cash accounts directly held with the Bank of England are not being offered to facilitate clearing related British Pound payments. However, Eurex Clearing has the option that funds provided through commercial banks in British Pound are transferred to the central bank account with Bank of England. For other currencies, e.g. US Dollar, Eurex Clearing uses commercial payment bank services.</p> <p>In general, Eurex Clearing intends to use central banks’ payments and settlement services to the extent possible to avoid any unsecured settlement and liquidity exposures. Furthermore, Eurex Clearing intends to place financial instruments that are not placed with an operator of a securities settlement system, with a central bank that ensures the full protection of its assets and that enables Eurex Clearing to promptly access its assets when needed.</p>
<p><i>Key Consideration 9</i></p> <p><i>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.</i></p>	
<p>Summary narrative</p>	<p>Eurex Clearing’s liquid financial resources are tested over the range of liquidity-specific stress scenarios. The core element is the “cover-2” liquidity exposure, which is monitored on a daily basis as required by EMIR. Eurex Clearing aims to ensure sufficient liquid financial resources to cover the liquidity requirement generated by the default of the two Clearing Members to which it has the largest exposures. In general, all potential risk factors are considered in the various scenarios of the liquidity stress test and multiple roles of a counterpart towards Eurex Clearing (e.g. Clearing Member, settlement institution, treasury counterpart etc.) are taken into account.</p> <p>Stress test results are incorporated in the regular reporting to senior management to ensure that the outcomes are considered in the overall risk management and that senior management’s attention is focused on the sources of potential stresses in the decision making process:</p> <ul style="list-style-type: none"> • Daily stress test report to various recipients within the Treasury and Risk Department as well as the national regulator, • Monthly stress test report to the Executive Board, • Quarterly risk report to the Executive Board, Supervisory Board, Audit and Risk Committee, and EMIR Risk Committee.

	<p>Additional event-driven analyses are performed and reported depending on the market situation.</p> <p>Through the annual stress testing validation, the appropriateness of the stress testing methodology (both credit and liquidity stress testing) with all its components such as scenarios, parameters and assumptions is ensured.</p> <p>Eurex Clearing documents its supporting rationale for, and its governance arrangements relating to the amount and form of its total liquid resources in the Liquidity Risk Management Framework.</p>
<p><i>Key Consideration 10</i></p> <p><i>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.</i></p>	
<p>Summary narrative</p>	<p>Following EMIR, Eurex Clearing is obliged to hold at any time sufficient liquidity to cover a simultaneous default of the two Clearing Members to which it has the largest exposures. A management information system has been established to monitor the liquidity requirement on a daily basis, applying regular as well as stressed market conditions. The liquidity requirement is compared to available liquidity. As part of the contingency funding plan, an early warning as well as a recovery limit trigger is set and monitored daily. Therefore, prior to reaching a contingency situation, options to strengthen the liquidity position have been identified to replenish financial resources.</p> <p>Eurex Clearing’s Treasury has short-term measures in place to support the liquidity position in a stress situation. As an example, credit lines could be drawn upfront to ensure their availability or pre-financing of settlement activities may be managed in order to reduce liquidity requirements to a minimum. If cash resources have been invested through reverse repo deals, the securities received as repo collateral will be mobilised through the pledge facility of the Deutsche Bundesbank.</p> <p>In case of Clearing Member defaults, Eurex Clearing will purchase securities to fulfil the defaulted Clearing Member’s settlement obligation. Prior to liquidation of these securities, they can be pledged to Deutsche Bundesbank or sold in a repurchase agreement to commercial banks to generate liquidity. Repo framework agreements are in place with a broad range of international creditworthy and reliable commercial banks.</p> <p>In principle, during the Default Management Process, liquidity sources are automatically replenished with the liquidation of the portfolio and the defaulted Clearing Member’s collateral. Besides this principle mechanism, Eurex Clearing has defined a diverse set of replenishment measures to strengthen the liquidity position also in stress situations.</p>
<p>Assessment of principle:</p> <p><i>Observed</i></p>	

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.

Key Consideration 1

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

Summary narrative

As part of Eurex Clearing's complete service offering, Eurex Clearing maintains links with a number of Central Securities Depositories (CSDs) offering innovative post-trade services.

Eurex Clearing is responsible for the clearing of transactions and forwards transfer instructions (settlement instructions) to CSDs, also for its Clearing Members for the purpose of settlement. The settlement of transactions is further treated by the settlement systems, which have contractual business relationships with Eurex Clearing. In the moment the CSD settled the transaction, Eurex Clearing will receive the respective settlement confirmation. Once the CSD reports back settlement, Eurex Clearing considers the instruction as settled/final. Thereafter, Eurex Clearing sends a report/confirmation as SWIFT message to its Clearing Members that the settlement is final and the transaction cannot be revoked. In case the instructions could not be settled by the CSD, Eurex Clearing cancels the instruction. In that case, finality is not reached and Eurex Clearing considers those transactions as still pending. Pending transactions will be forwarded for settlement on the next business day.

From a legal point of view, the settlement of delivery obligations takes place when the counterparties to a securities transaction have performed their entire obligations (such as the transfer of rights to a security or effecting a cash payment) so that all reciprocal claims arising from the transaction have been satisfied in full and are consequently extinguished. The Settlement Finality Directive⁵ stipulates that finality as the legal enforceability and irrevocability of instructions occurs when transfer orders are entered into a system. The provisions of the directive are transposed into the German Civil Code and German Insolvency Code, which are primarily applicable pursuant to the Clearing Conditions.

Eurex Clearing has at all times detailed information on the settlement of open payments, transfer instructions or other obligations. The processing of settlements is performed with SWIFT-formatted messages that contain clear references to the beneficiary. This way the key steps are documented using a system that sets the internationally recognised industry standards for settlement.

The central source for information to the exchange participants, Clearing Members and software vendors on the settlement of transactions is the Common Report

⁵ Settlement Finality Directive (98/26/EC) - Directive 98/26/EC of the European Parliament and of the Council of 19 May 1998 on settlement finality in payment and securities settlement systems

Engine, which is Eurex Group’s central solution for trading and clearing report retrieval. In particular, the needs of today on trading level have resulted in the development of a hightech tool that has also improved Eurex Clearing’s capabilities to meet the customers’ increasing demand for the latest risk information on clearing level and settlement level.

Detailed information regarding the settlement of transactions can be found in the Clearing Conditions. The Clearing Conditions as well as other more general information on the settlement processes can be found on the website of Eurex Clearing (<https://www.eurexclearing.com/clearing-en/resources/rules-and-regulations/Clearing-Conditions-53674>).

Eurex Clearing maintains settlement accounts at multiple settlement locations and settles transactions at the location chosen by the respective Clearing Member in the trading location giving rise to the trades. As an example, a member could specify one settlement location for German government bonds and another for Swiss government bonds.

Eurex Clearing gives its customers a broad choice when setting up their account infrastructures. Eurex Clearing supports a variety of Central Security Depositories as can be seen from the following picture.

Eurex Exchange	Eurex Repo	Frankfurt Stock Exchange	Securities Lending
CBF, CBFi/CBL and SIX SIS EUI for deliveries in GB and IE options	CBF, CBFi/CBL, EB	CBF, CBFi/CBL	CBF, ESES, SIX SIS, EUI For fixed income securities: CBFi/CBL, EB

CBF: Clearstream Banking AG, Frankfurt
 CBFi/CBL: Clearstream Banking Frankfurt International/Clearstream Banking SA, Luxembourg
 EUI: Euroclear UK & Ireland
 EB: Euroclear Bank SA
 ESES Euroclear Settlement of Euronext-zone Securities (ESES markets: Euroclear France, Belgium, Netherlands)
 SIX SIS AG: Swiss Central Securities Depository

Figure 6: Choice of account infrastructure

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.

Summary narrative

Eurex Clearing ensures settlement finality on the value date as it creates instructions technically to observe the intended settlement day. The settlement finality is reported via a dedicated settled delivery report.

The delivery obligation in the case of novation or open offer where a participant A sells to or buys from the central counterparty is to be fulfilled on the value date, regardless of whether the CCP is being delivered by or delivering to a participant B.

The Clearing Conditions of Eurex Clearing require Clearing Members to fulfil their delivery and payment obligations resulting from transactions in accordance with the instructions of Eurex Clearing. This also means that each Clearing Member and Eurex Clearing shall ensure, through appropriate instruction of the respective settlement location, that transactions can be processed at the time specified in the relevant Special Clearing Provisions, on the delivery days agreed, respectively.

	<p>The Clearing Members authorise Eurex Clearing, by providing the appropriate power of attorney vis-à-vis the respective settlement location, to give, release and transmit all delivery instructions and to supplement, change or cancel the delivery instructions as required for the timely and correct fulfilment of its delivery and payment obligations against Eurex Clearing arising from transactions in the name of and binding for and against such Clearing Member. The same applies with regard to the corresponding payment instructions.</p> <p>In the event of a failure by a Clearing Member to deliver securities to Eurex Clearing on the applicable delivery date, Eurex Clearing is entitled at the cost of the defaulting Clearing Member to enter into a replacement purchase by way of a transaction with a third party or by way of a buy-in auction. Depending on the cleared market and the asset class, a different fail process applies. Generally, fines for late deliveries will be charged.</p>
<p><i>Key Consideration 3</i></p> <p><i>An FMI should clearly define the point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a participant.</i></p>	
<p>Summary narrative</p>	<p>The Clearing Conditions do not stipulate a certain point in time at which payments and instructions or other obligations cannot be revoked by any participant. Under German law, an express determination of such point in time is not needed. Rather, the irrevocability of declarations of intent is regulated by general principles under German civil law. Pursuant to Section 130 of the German Civil Code (Bürgerliches Gesetzbuch), a declaration of intent becomes effective at the point in time when this declaration is received by the counterparty. However, it does not become effective if a revocation of the declaration of intent is received by the counterparty previously or at the same time (Section 130 para. 1 sentence 2 of the German Civil Code).</p> <p>Based on these principles, Clearing Members are generally not entitled to revoke instructions unilaterally (notwithstanding system functionalities) once entered into the clearing system. The aforementioned principles are supported by the restrictions enlisted in the Clearing Conditions.</p>
<p>Assessment of principle:</p> <p><i>Observed</i></p>	

Principle 9: Money settlement

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 risks arising from the use of commercial bank money.

Key Consideration 1

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

Summary narrative

Eurex Clearing offers its Clearing Members an attractive payment infrastructure and provides access to a broad range of currencies for the fulfilment of payment obligations that arise from the clearing process (e.g. Variation Margin, premiums, fees). For this purpose, Eurex Clearing is connected to a number of central and commercial banks. Central bank connectivity is preferred since payment transactions are settled on a continuous basis, in central bank money and with immediate finality. All settlement and funding flows are monitored on an ongoing and timely basis. Eurex Clearing predominantly settles cash flows in central bank money, i.e. for EUR via TARGET2 and for CHF via the Swiss National Bank. Settlement only takes place in commercial bank money in case Eurex Clearing or the Clearing Members do not participate in the central bank’s payment infrastructure.

Eurex Clearing defines the admissible central and commercial banks and publishes them on its webpage. For an overview on how money settlement is performed in each currency, please see the following figure.



¹ Eurex Clearing generally requires the usage of central bank money for clearing related cash payments in the clearing currencies EUR and CHF (TARGET2 for EUR, Swiss National Bank for CHF). If evidenced that this is not possible, neither directly nor indirectly, access to a Settlement Bank may be granted and the Settlement Bank Fee shall be charged.

Figure 7: Admitted central and commercial banks of Eurex Clearing AG

In addition, for multicurrency cash settlements Eurex Clearing is linked with CLS Bank International (CLS). CLS is the acronym for Continuous Linked Settlement and is the largest multicurrency cash settlement system. The CLS settlement is ensured via a

	<p>CLS third-party service provider. CLS mitigates settlement risk in FX transactions of its participants through the provision of its unique Payment vs. Payment (PvP) settlement service, which has direct links to the real time gross settlement (RTGS) systems of the currencies (i.e. central bank connectivity). As funds in both PvP currencies are available, the instructions settle. The settlement is final and irrevocable.</p>
<p><i>Key Consideration 2</i></p> <p><i>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.</i></p>	
Summary narrative	<p>Eurex Clearing ensures that funds provided through commercial banks are safely placed with the relevant central bank money account of Eurex Clearing or are invested on a secured basis to the extent possible. Eurex Clearing limits any remaining credit and liquidity risks with commercial banks by performing an internal assessment of the bank's creditworthiness as well as of its operational reliability by applying a strict limit framework and by monitoring the cash accounts throughout the day. Furthermore, Eurex Clearing monitors the credit rating of the commercial banks. A sudden change in an agent's credit quality may trigger a re-assessment of the relationship and/or reduction or cancellation of its limit.</p> <p>As also outlined under Key Consideration 1 of this Principle, Eurex Clearing, as part of the clearing process, needs to pay and receive payments to and from the Clearing Members. Other than for payments in Euro and Swiss Franc, Eurex Clearing uses a network of payment and correspondent banks (together called "Banks") to assist with the process. Given Eurex Clearing's reliance on these Banks for the efficient working of the clearing processes, Eurex Clearing has developed criteria for the assessment of these Banks.</p> <p>These criteria will be used to evaluate the Banks before going live and then on a regular basis to ensure compliance of these criteria at all times. This process is in line with the requirement to 'strictly limit cash settlement risks' as stipulated in Article 50 EMIR.</p> <p>Overall, Eurex Clearing's assessment and evaluation of Banks for new currencies are based on the following criteria: creditworthiness, technical infrastructure, operational effectiveness, operational reliability, credit facilities, requirements regarding the bank status, Client Assets Sourcebook (CASS) rule, currency scope, information security risk management, and Anti-Money Laundering processes.</p>
<p><i>Key Consideration 3</i></p> <p><i>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.</i></p>	
Summary narrative	<p>As an authorised CCP under EMIR, Eurex Clearing is required to measure daily the liquidity risk generated by the default of at least the two Clearing Members to which</p>

it has the largest exposure. This is ensured by applying a rigorous Liquidity Stress Testing Framework. Monitoring of this requirement is done through a Management Information System.

In order to assess and monitor commercial settlement banks, Eurex Clearing uses qualitative factors and quantitative factors. Qualitative factors include the operating environment, market position, business model and transparency aspects. Quantitative factors include aspects of liquidity, capitalisation, asset quality and profitability. In addition, Eurex Clearing AG applies a monitoring concept based on the defined criteria to regularly and at least annually ensure compliance of those criteria by the connected Banks. Furthermore, a relationship manager is assigned for each Bank. Results of the monitoring are reported to the Executive Management of Eurex Clearing beyond other relevant stakeholders. In case of non-performance, immediate actions are undertaken and monitored for remediation.

Eurex Clearing's Risk Management Framework ensures adequate controls over credit risk arising from Eurex Clearing activities. Thereby, Eurex Clearing takes into account its overall credit risk exposures to individual counterparties from different types of relationships the counterparties may have with Eurex Clearing to monitor the exposures. To maintain the credit risk exposure within acceptable parameters, credit exposure limits can be set at the counterparty level. Exposures to connected counterparties are treated in a consolidated way. General thresholds are defined based on the rating of the counterparty. Review of the credit limits is undertaken at least yearly or on demand.

Also, as a result of its clearing business, Eurex Clearing's liquidity risk management is based on an analysis of the settlement and funding flows of the clearing process.

For the clearing currencies, central bank access has been granted. For currencies without access to central bank money, Eurex Clearing permits settlement in commercial bank money.

Settlement bank accounts per currency are monitored throughout the day. Cash inflows to the account are intended to be placed on a secured basis via reverse repo transactions backed with high quality collateral. As a result, this concept does not foresee significant unsecured overnight exposures. In order to avoid undue risk concentration in a currency, Eurex Clearing regularly monitors settlement volumes in each currency.

Furthermore, as outlined in Principle 7, the Liquidity Risk Management Framework foresees coverage of multiple relationships that an entity may have with Eurex Clearing. Relevant relationships that shall be addressed are, among others, Clearing Member, settlement bank, and group of companies belonging to the same legal entity.

The Management Information System includes all exposures towards a defaulting Clearing Member in all relevant relationships with Eurex Clearing, i.e. as Clearing Member, settlement bank or nostro agent.

In that respect, a settlement bank is a bank that a Clearing Member uses to perform securities settlement. The liquidity risk is calculated by adding all liquidity risks of the Clearing Members using that particular settlement bank in the respective market, applying netting between the Clearing Members using that settlement bank.

	<p>A nostro agent is a bank that Eurex Clearing holds a cash account with to perform CCP settlement. The associated liquidity risk is the positive end-of-day account balance held at the nostro agent.</p>
<p><i>Key Consideration 4</i></p> <p><i>If an FMI conducts money settlements on its own books, it should minimise and strictly control its credit and liquidity risks.</i></p>	
Summary narrative	<p>Eurex Clearing does not conduct any money settlement on its own books.</p>
<p><i>Key Consideration 5</i></p> <p><i>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.</i></p>	
Summary narrative	<p>Legal agreements with settlement banks are in place and the laws of the relevant jurisdictions support the provisions of transfers and finality (Settlement Finality Directive, German Insolvency Law (Section 116)).</p> <p>Eurex Clearing has various contracts with payment banks in place to ensure the cash settlement. For the payments routed to CLS via a third-party service provider a contractual agreement with Eurex Clearing to prefund any gaps with CLS is in place in order to ensure final settlement and eliminate principal risk. This contractual agreement is in line with expected settlement amounts and assessed on a regular basis on the development of settlement volumes.</p> <p>Funds received are available to Eurex Clearing without any restrictions. The cash is generally transferred to Eurex Clearing free and clear from any rights and claims of the transferring party and of any third party. As such, the cash is transferable immediately, i.e. intraday, when received.</p>
<p>Assessment of principle:</p> <p><i>Observed</i></p>	

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.

Key Consideration 1

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

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.

Summary narrative

Physical Delivery as mentioned in Principle 10 concerns the delivery of an asset, such as an instrument or a commodity, in physical form. For example, the settlement of futures contracts cleared by a central counterparty may allow or require the physical delivery of an underlying financial instrument or commodity.

"Examples of physical instruments that may be covered under this principle [10] include securities, commercial paper, and other debt instruments that are issued in paper form." (p. 70, 2012 CPMI IOSCO PFMI)

In its Clearing Conditions, Eurex Clearing also mentions physical deliveries. Eurex Clearing's assumption is that deliveries of "physical" instruments in this context are to be understood as deliveries of securities held in book-entry form (immobilised or dematerialised) and delivery obligations are fulfilled via book transfer. One example can be found in Chapter II, Part 2, Number 2.7.1 of the Clearing Conditions:

"(2) In case of Single Stock Futures Contracts to be fulfilled by physical delivery (Number 1.6.2 Paragraph 2 of the Contract Specifications for Futures Contracts and Options Contracts at Eurex Deutschland), physical deliveries and payments are made directly between the Clearing Members and Eurex Clearing AG on the second Business Day after the last trading day (Number 1.6.2 Paragraph 1 of the Contract Specifications for Futures Contracts and Options Contracts at Eurex Deutschland).

The physical deliveries are made via a Settlement Location and the payment is made via the account defined by the respective Settlement Location.

All Clearing Members shall ensure their ability to deliver and pay by having adequate positions in the deposit of the respective Settlement Location and credit on the according cash accounts."

The CPMI IOSCO PFMI however explicitly exclude these deliveries as being physical in the sense of Principle 10:

"Immobilised and dematerialised securities, which represent the normal market practice, are covered in Principle 11 on CSDs."

Even in the case of the "Xetra Gold Exchange Traded Commodity (ETC)", where the physical delivery of gold is a possibility, Eurex Clearing does not itself ensure the physical delivery. It is Clearstream Banking Frankfurt, a Deutsche Börse subsidiary,

	<p>that stores the gold in its vault with highest security standards and oversees that each unit of Xetra Gold is at any time covered by one gram of gold. This saves investors the costs of transporting and physically storing the gold. Nonetheless, private investors can obtain the underlying gold in physical form from their bank if desired.</p> <p>This means, that physical deliveries as mentioned by Principle 10 are not performed by Eurex Clearing. Therefore, Eurex Clearing deems Principle 10 as not applicable.</p>
<p>Assessment of principle: <i>Not applicable</i></p>	

Principle 11: Central securities depositories

A CSD should have appropriate rules and procedures to help ensure the integrity of securities issues and minimise and manage the risks associated with the safekeeping and transfer of securities. A CSD should maintain securities in an immobilised or dematerialised form for their transfer by book entry.

Key Consideration 1

A CSD should have appropriate rules, procedures, and controls, including robust accounting practices, to safeguard the rights of securities issuers and holders, prevent the unauthorised creation or deletion of securities, and conduct periodic and at least daily reconciliation of securities issues it maintains.

Key Consideration 2

A CSD should prohibit overdrafts and debit balances in securities accounts.

Key Consideration 3

A CSD should maintain securities in an immobilised or dematerialised form for their transfer by book entry. Where appropriate, a CSD should provide incentives to immobilise or dematerialise securities.

Key Consideration 4

A CSD should protect assets against custody risk through appropriate rules and procedures consistent with its legal framework.

Key Consideration 5

A CSD should employ a robust system that ensures segregation between the CSD's own assets and the securities of its participants and segregation among the securities of participants. Where supported by the legal framework, the CSD should also support operationally the segregation of securities belonging to a participant's customers on the participant's books and facilitate the transfer of customer holdings.

Key Consideration 6

A CSD should identify, measure, monitor, and manage its risks from other activities that it may perform; additional tools may be necessary in order to address these risks.

Summary narrative

As outlined in Key Consideration 1 of Principle 1, Eurex Clearing is an authorised CCP under EMIR and is not a Central Securities Depository. Therefore, Eurex Clearing deems Principle 11 as not applicable.

Assessment of principle:

Not applicable

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.

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.

Summary narrative

Eurex Clearing itself is not an exchange-of-value settlement system but as a central counterparty enters into the trade and becomes the buyer for the seller and the seller to the buyer. The seller needs to deliver the securities to the CCP and the CCP delivers the securities to the buyer. The process is supported by a Delivery-versus-Payment/Receipt-versus-Payment (DvP/RvP) settlement. The booking is performed in the chosen Central Securities Depository. The use of these mechanisms ensures that principal risk is eliminated. These settlement mechanisms are based on standard (SWIFT-format) message types, which ensure the timely and appropriate documentation for the availability of both securities and cash at the same time.

The final settlement of corresponding transactions based on linked obligations is ensured because Eurex Clearing issues delivery instructions in the DvP mode or processes according to the logic that both sides need to be fulfilled before the transaction is confirmed to the customer (Lending CCP service). In order to get accepted, any settlement institution has to meet Eurex Clearing's prerequisites. Selected settlement institutions are equipped with the technical capabilities to fully and timely receive Eurex Clearing's instructions and to accordingly perform the necessary deliveries. At all times, Eurex Clearing requires that all settlement institutions must have such an essential mechanism installed.

All CSDs to which Eurex Clearing instructs a DvP mode have been verified to be able to process DvP instructions. The Clearing Conditions provide the adequate legal framework in Chapter I, Part 1, Number 1.4.2 (Settlement of Transactions in Securities). Furthermore, the Clearing Members provide Eurex Clearing with the appropriate power of attorney and so authorises Eurex Clearing to give delivery instructions in order to facilitate the settlement of the obligations.

Owing to the fact that Eurex Clearing must continue operating and fulfilling its contractual obligations to non-defaulting participants on schedule, all financial transactions are subject to margin (please see Principle 6 for further details on margining) until their settlement has been achieved.

Eurex Clearing offers both gross and net settlement options to its members. Members can mark transactions either for gross or for net processing. This functionality is available for both sell and buy transactions. Transactions can be marked by a gross flag for gross processing either by default or on a single transaction basis, providing the members with further flexibility. Transactions marked for gross processing are therefore not considered in the settlement netting process. For these transactions,

	<p>the delivery process is performed on a gross basis. At Eurex Clearing, more than 99% of all transactions are netted. For more information on limitations of netting due to the segregation of client assets, please see additionally Principle 14.</p> <p>Relevant information on the settlements effected using a certain mechanism is provided in the quarterly CPMI-IOSCO public quantitative disclosure on the "AggregatedDataFile" tab:</p> <ul style="list-style-type: none">• Percentage of settlements by value effected using a DvP settlement mechanism (12_1_1),• Percentage of settlements by value effected using a PvP settlement mechanism (12_1_3),• Percentage of settlements by volume effected using a DvP settlement mechanism (12_2_1), and• Percentage of settlements by volume effected using a PvP settlement mechanism (12_2_3).
<p>Assessment of principle:</p> <p><i>Observed</i></p>	

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.

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.

Summary narrative

If losses occur due to a default situation, these are covered by a multi-level security system, called “lines of defense” or the default waterfall. While the mainstay of this safety system is the margin, which Clearing Members have deposited as collateral for open positions, the lines of defense consist of several additional layers of safety nets. In the event of a default, these layers are applied in the order that is outlined in below diagram. Information on the Lines of Defense are also available on the webpage of Eurex Clearing (<http://www.eurexclearing.com/clearing-en/risk-management/default-waterfall>). The order in which the Lines of Defense are utilized is documented in the Clearing Conditions.

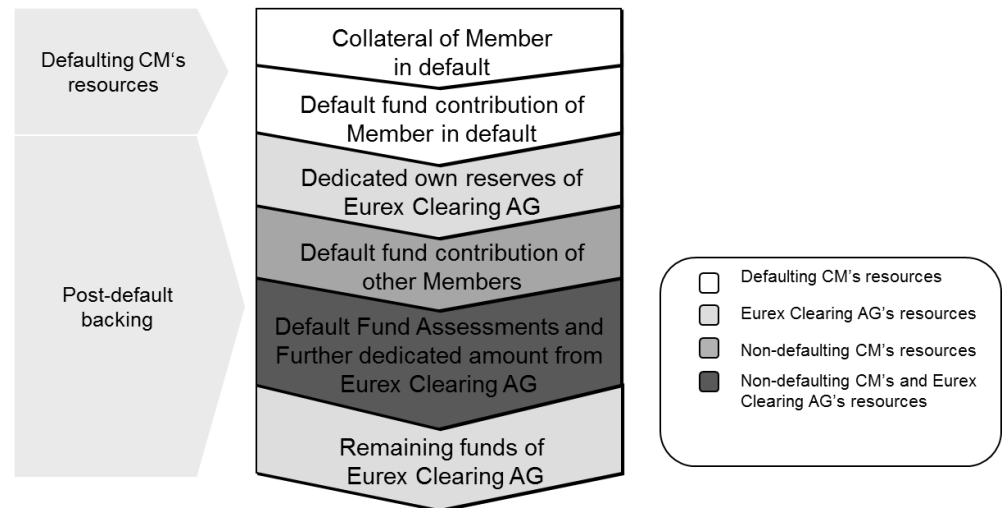


Figure 8: Default waterfall of Eurex Clearing

The default of a member is called a “termination event”. In this case, a party to the CCP has irrevocably failed, or close to have failed, as its open positions are terminated. This leaves the CCP unbalanced and initiates the Default Management Process. Eurex Clearing distinguishes between automatic and non-automatic termination events. A commencement of insolvency proceedings over a Clearing Member’s estate results in an automatic termination of all transactions held between Eurex Clearing and such Clearing Member. In addition, Eurex Clearing has defined a range of non-automatic termination events.

Key objectives of default management procedures include minimizing further losses at the defaulting participant, winding down its positions in an orderly way, enabling

the CCP to continue performing its obligations and preserving other participants' and users' ability to manage their portfolios.

The generic structure of the procedure in case of a member default is defined by the following cornerstones:

- **Predefined Liquidation Groups:** Products and instruments are arranged into one Liquidation Group if their overall liquidation process is similar and offsets may exist between them. As such, the DMP can be seen as running in parallel for each Liquidation Group, with the specific actions and outcomes of each case following their own path. Given that the DMP is structured along Liquidation Group lines, the specificities of this process must be reflected in the margins applied to them. This will take into account possible shared risk factors and differing liquidity of the constituents of the Liquidation Group.
- **Default Management Committees (DMC):** DMC assist Eurex Clearing with regard to any relevant matter of the DMP. The DMC consists of representatives from Clearing Members with sufficient risk and trading expertise for a specific Liquidation Group. The DMC will be convened in case of a Clearing Member default situation or for regular default simulations or any reason as defined in the Clearing Conditions.
- **Preliminary Measures:** These enable Eurex Clearing to be in the best possible starting position to manage a default quickly and efficiently. Preliminary measures are not actions that rebalance the CCP, but technical preparations and set-up, governance, operational set-up and other preparations to ensure that Eurex Clearing has up-to-date information, a speedy decision-making process, and general readiness to act.
- **Hedging:** Hedging is the reduction of risk posed by the open positions of the CCP. Hedging is an optional stage, with great flexibility to enable a commensurate response depending on the nature of the portfolio. Generally, each Liquidation Group will be hedged with liquid products, permitting a rapid reduction of exposure to risk factors. This not only minimizes the uncertainty in the losses that the CCP's open positions would lead to but also stabilizes the portfolio for auctions.
- **Auction & Independent Sale:** While hedging has the effect of matching the economics of the open positions to mitigate risk to the CCP and its lines of defense, independent sales and auctions will be the primary tool for fully recreating a matched book. Member participation in independent sales is voluntary, whereas auctions are mandatory for members. Auctioning off previously hedged portfolios to the non-defaulting participants is expected to be the primary method to rebalance the CCP for large portfolios.
- **Cash Settlement of Liquidation Group Transactions:** If the CCP is unable to rebalance itself during the DMP, emergency procedures are applied to ensure that healthy asset classes can continue to be cleared. Generally speaking, the end-of-the-line for a Liquidation Group is a cash settlement of all open positions in that Liquidation Group.

	<p>The figure below provides an overview of the components mentioned above.</p>  <ul style="list-style-type: none"> • Convention of Default Management Committees to support Eurex Clearing throughout the whole DMP • To protect client assets, positions and collateral are transferred wherever possible • Portfolio and market evaluation in preparation of liquidation • Handling positions that expire shortly • Hedging of the defaulted clearing member’s portfolio is executed as early as possible, to limit losses immediately • Hedged portfolio is likely to receive better prices in the auction • If the portfolio is small or only few clearing members are active in the involved products then bilateral or on-exchange trades can ensure a timely liquidation • For particular asset classes independent sale is the main component of default management process • Mutual default fund will not be utilised, unless all clearing members have the chance to provide a price in the auction • Participation in auctions is mandatory for those clearing members who are capable from an operational and risk perspective to process the respective portfolio • Clients are allowed to bid via their clearing member • Default fund juniorisation and penalty fee set incentives for competitive bidding <p>Figure 9: General structure of a default management process</p> <p>Eurex Clearing conducts regular default simulations to ensure the best level of preparation for any default situation among its Clearing Members. Clearing Members are obliged to support Eurex Clearing when any such simulation takes place.</p>
<p>Key Consideration 2</p>	<p>An FMI should be well prepared to implement its default rules and procedures, including any appropriate discretionary procedures provided for in its rules.</p>
<p>Summary narrative</p>	<p>The purpose of default procedures is to protect the continuing functioning of Eurex Clearing by limiting the potential for the effects of a default to spread beyond the defaulting participant. Key objectives of default procedures include minimizing further losses at the defaulting participant, allowing for client porting wherever possible, winding down its positions in an orderly way, enabling the CCP to continue performing its obligations and preserving other participants’ and users’ ability to manage their portfolios.</p> <p>The event of a Clearing Member’s default is assumed to be highly correlated to market stress and may be subject to further endogenous disruptions of the market. Given the impossibility of predicting the nature of future crises and potential defaults, the DMP is designed to be sufficiently flexible to take different default scenarios into account.</p> <p>Eurex Clearing conducts regular default simulations to ensure the best level of preparation for any default situation among its Clearing Members. Clearing Members are obliged to support Eurex Clearing when any such simulation takes place. Upon request of Eurex Clearing, each Clearing Member active in the respective Liquidation Group needs to be able to act as a potential counterparty for hedging positions and shall support testing of the auction process. Hence, Eurex Clearing ensures that</p>

members have the necessary procedures and infrastructure in place to provide prices during a real default.

The default procedures are tested in realistic default simulations, which take place at least once (EMIR requirement, participation is mandatory for the Clearing Members) and at maximum three times per year. In a default simulation, the procedures and infrastructure of Eurex Clearing and the Clearing Members' readiness to participate in a real DMP are tested. Pre-assigned Clearing Members are required to second representatives to the Default Management Committee that will assist Eurex Clearing in handling the default. Furthermore, members are required to provide prices on a hypothetical portfolio during a default simulation, thus, Eurex Clearing ensures that members have the necessary procedures and infrastructure in place to participate in the auction during a real default. If during a default simulation Eurex Clearing detects that the default procedures are not feasible anymore, Eurex Clearing can take immediate action to remedy the shortcomings. The results of the annual simulation are discussed with the participants in the bilateral debriefing sessions and are presented to the Executive Board of Eurex Clearing as well as to the EMIR Risk Committee. In addition, Eurex Clearing regularly conducts bilateral simulations with selected Clearing Members.

Eurex Clearing's Executive Board is the ultimate decision making body and responsible for the Default Management Process. Any amendments to the Default Management Process have to be approved by the Eurex Clearing Executive Board, are discussed with the EMIR Risk Committee and undergo a market consultation. All default management procedures are captured within process documents, which are reviewed and audited annually.

The implemented default procedures allow Eurex Clearing to control, manage or close the positions of the defaulting member – whatever is more appropriate – to ensure market integrity and CCP security. In a default case, this also includes a transfer of customer positions of the defaulting Clearing Member to a new (non-defaulting) Clearing Member. The waterfall model of Eurex Clearing's lines of defense foresees, in the case of a Clearing Member default, that first all assets and collaterals of the defaulting Clearing Member are used before other resources of Eurex Clearing or the remaining clearing community are utilized. The funds available under the lines of defense can be used without delay.

As part of the EMIR Art. 48 (3) requirement, Eurex Clearing informs its competent authority if it considers that the Clearing Member will not be able to meet its future obligations. The decision whether a Clearing Member is considered not to be able to meet its future obligations is made by at least two members of the Executive Board of Eurex Clearing.

In case the Executive Board decides on a termination, Eurex Clearing informs the market by publishing a circular and communicates the decision to all other relevant stakeholders.

Key Consideration 3

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

Summary narrative

Eurex Clearing publishes information on its default management procedures. The full set of rules in regard to the Default Management Process is outlined and is publicly available in the Clearing Conditions, the DMC Rules and the Default Management Auction Rules. Major information is available on Eurex Clearing's homepage (<http://www.eurexclearing.com/clearing-en/risk-management/default-management-process/>).

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.

Summary narrative

During the annual default management fire drill, Eurex Clearing simulates a default of one of the largest Clearing Members active in various Liquidation Groups and convenes the Default Management Committees for the respective groups.

Resolution of Clearing Members is indirectly in scope of the annual simulation as the largest Clearing Members are all subject to resolution regimes and are therefore unlikely to simply default. The tests typically cover a resolution situation in which the responsible resolution authority has decided to not grant specific treatment to market infrastructures and the respective Clearing Member defaults on its obligation with the CCP.

Generally, in case relevant resolution authorities declare a Eurex Clearing Member being in resolution, Eurex Clearing does not automatically terminate the clearing relationship with the member as, according to the Clearing Conditions, resolution is not an automatic termination trigger. The case will be reviewed in detail while Eurex Clearing closely monitors the Clearing Member.

In case the Clearing Member does in the meantime not fulfil its obligations or a termination event occurs, Eurex Clearing will terminate the clearing relationship and trigger the Default Management Process.

If during a default simulation Eurex Clearing detects that the default procedures are not feasible anymore, Eurex Clearing takes immediate action to remedy the shortcomings. Lessons learned and feedback collected from the Clearing Members are used for continuous improvement of the DMP.

Assessment of principle:

Observed

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.

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.

Summary narrative

Eurex Clearing offers a comprehensive service that complies with the regulatory initiatives and effectively meets the requirements for Client Asset Protection. Eurex Clearing established a comprehensive legal framework to set market standards enabling segregation and portability of positions and collaterals of clients of Clearing Members as well as to comply with European, US and national regulatory prerequisites for the protection of these client assets.

Client Asset Protection ensures the highest protection by providing segregation and timely portability. Clients will have the option as to how their positions and margin collateral is held and posted by their Clearing Member at Eurex Clearing, depending on each individual client's needs.

An overview of Eurex Clearing’s segregation options for direct clients of a Clearing Member and key features can be found below:

Client Considerations	Net Omnibus Segregated Account (NOSA)	Gross Omnibus Segregated Account (GOSA)	Individual Segregated Account (ISA)
Fellow customer risk	Yes	Limited	No
Trades held in position account	With other clients	Individual a/c	Individual a/c
Margin efficiency	Net	Gross	Gross
Collateral pool	Omnibus	Omnibus	Individual
Securities collateral provided via held as	Pledge	Pledge	Pledge or title transfer
Cash collateral provided via held as	Title transfer	Title transfer	Title transfer
Collateral allocation	By value	By value	By asset
Porting	Available with fellow customers	Available as individual	Available as individual
Collateral return if porting fails	Via insolvency administrator	Direct from CCP	Direct from CCP
Direct collateral transfer	-	-	for title transferred security collateral
Direct reporting	-	Available	Available

CASS protection	Available	Available	Available under pledge for security collateral
Clearing model under Clearing Conditions/ membership	Elementary Clearing Model		Individual Segregated Account

Figure 10: Overview of Eurex Clearing’s segregation options for direct clients of a Clearing Member

Elementary Clearing Model

By its Elementary Clearing Model, Eurex Clearing offers its Clearing Members the following omnibus client segregation:

(a) “net omnibus client segregation” (NOSA) where positions of multiple Undisclosed Direct Clients are held in one position account and margin is posted by the Clearing Member to Eurex Clearing on a net basis across transactions relating to all such Undisclosed Direct Clients. Hence, via the Elementary Clearing Model, clients do not bear the risk of losses arising from proprietary transactions of their Clearing Member or from client-related transactions cleared under another clearing model, but do bear the risk of losses arising from other client-related transactions of the Clearing Member under the Elementary Clearing Model. Porting is available with fellow customers.

(b) “gross omnibus client segregation” (GOSA) where a position account of a Direct Disclosed Client is held separately from other clients and margin is posted by the Clearing Member to Eurex Clearing on a gross basis across transactions relating to a particular Direct Client. Hence, via the GOSA-model, fellow customer risk is limited to collateral shortfalls. Porting is available for individual clients.

In addition, Eurex Clearing offers net omnibus segregated accounts and gross omnibus segregated accounts for indirect client clearing in relation to omnibus accounts.

Eurex Clearing supports Clearing Members domiciled in the UK that wish to clear certain omnibus transactions in accordance with the CASS Rules for the benefit of their clients. Positions and assets forming part of a CASS client account are legally segregated from any non-CASS transactions and assets.

More details can be found in the Clearing Conditions in Chapter I.

Individual Segregated Account (ISA)

Maximum protection is achieved for Direct Clients which opt for individual segregation. Positions and margin collateral of an individual segregated client are held in dedicated, individual accounts at CCP level and, hence, are completely ring-fenced from the Clearing Member’s or other client’s positions and margin collateral. ISA (Direct Disclosed) Clients therefore neither bear the risk of losses relating to proprietary transactions of their Clearing Member nor the risk of losses relating to other client-related transactions of that Clearing Member.

The contractual rights and obligations of a Clearing Member towards Eurex Clearing with respect to a certain ISA Client are legally segregated from all other rights and obligations between such Clearing Member and Eurex Clearing. This is ensured by an allocation of the respective positions to a separate standard agreement per ISA Client, the ISA Standard Agreement. Accordingly, a separate ISA Standard

Agreement is established between the Clearing Member and Eurex Clearing for each ISA Client.

The occurrence of a termination date with respect to a Clearing Member will, at the election of the ISA Client, initiate a porting process by which all rights and obligations under the ISA Standard Agreement will be transferred and all redelivery claims for margin and variation margin relating thereto will be assigned to a replacement Clearing Member. If the ISA Client chooses not to port or if the porting requirements are not met within the applicable cut-off times, a close-out netting will take place.

If close-out netting occurs, all payment and delivery obligations under the relevant ISA Standard Agreement between Eurex Clearing and the Clearing Member expire and will be combined into a separate difference claim. Eurex Clearing will return any balance owed by it in respect of such ISA Standard Agreement following the completion of the default management process with respect to the Clearing Member.

By its ISA model, Eurex Clearing facilitates indirect clearing services by providing, upon request of the Clearing Member, separate transaction accounts for ISA transactions relating to clients of the relevant Disclosed Direct Client (indirect clients).

As with the Elementary Clearing Model, Eurex Clearing supports Clearing Members domiciled in the UK that wish to clear ISA transactions in accordance with the rules of the Client Asset Sourcebook (CASS) of the United Kingdom Financial Conduct Authority ("CASS Rules") for the benefit of their clients.

More details can be found in the Clearing Conditions in Chapter I.

Indirect clearing

Indirect clearing arrangements under EMIR and MiFIR provide an additional layer of protection to indirect clients.

Clearing Members, offering clearing services to indirect clients (clients of a direct client), are required to open and maintain the following accounts, on the level of CCP, in accordance with the request of the client:

- (a) an omnibus account with the assets and positions held by that client for the account of its indirect clients (NOSA);
- (b) an omnibus account with the assets and positions held by that client for the account of its indirect clients, in which the clearing member shall ensure that the positions of an indirect client do not offset the positions of another indirect client and that the assets of an indirect client cannot be used to cover the positions of another indirect client (GOSA).

Eurex Clearing opens on request of the Clearing Member the respective accounts.

LSOC – Segregation offering in accordance with the DCO Status

The LSOC-Models are only offered to Clearing Members which are registered as Future Commission Merchants (FCM) with the U.S. Commodity Futures Trading Commission and members of the National Futures Association (NFA) (FCM Clearing Member).

LSOC clients of the FCM Clearing Member (FCM Clients) can be either U.S. persons or clients of the FCM located in other jurisdictions. Further details with regard to applicable jurisdictions can be found on Eurex Clearing's website.

The FCM Clearing Member has the choice to provide clearing services to FCM Clients under the LSOC Without Excess Model and the LSOC With Excess Model:

- The LSOC Without Excess Model is the basic LSOC-Model, under which the portion of the FCM Client Margin Account reserved for a particular client (legally segregated value – LSV) is equal to the FCM Client Margin Requirement and the legally segregated value cannot exceed the FCM Client Margin Requirement on a day-to-day basis.
- The LSOC With Excess Model provides the FCM Clearing Member the option to assign specific portions of the FCM Client Margin Account to specific FCM Clients including excess margin. This requires the FCM Clearing Member to deliver a collateral value report to Eurex Clearing in which the LSVs for all FCM Clients are determined. The choice under which LSOC-Model the FCM Clearing Member wants to clear FCM Client Transactions needs to be performed in the systems of Eurex Clearing when setting up the FCM Client Margin Account.

LSOC differs from the omnibus models under EMIR because the value of collateral associated with every individual swap clearing FCM Client is legally segregated and protected but collateral related to all swap clearing FCM Clients is operationally commingled in one account. The value of assets assigned to one FCM Client can never be utilized to meet the obligations of another FCM Client.

If a termination date occurs with respect to a FCM Clearing Member, Eurex Clearing is entitled to exercise the following rights separately for each FCM Client Netting Set:

- (i) its right to transfer all FCM Client Transactions under the relevant FCM Client Netting Set (including the relevant Eligible Margin Assets) to one or more other FCM Clearing Members (each a "Replacement FCM Clearing Member"), or
- (ii) its right to treat FCM Client Transactions under the relevant Netting Set as if they are terminated by issuing an FCM Client Declaration of Termination and calculate the Difference Claim with respect to such Netting Set. The final amount of the Difference Claim will if it is a positive figure, be owed by Eurex Clearing to the FCM Clearing Member on behalf of the relevant FCM Client.

In case of the occurrence of an insolvency termination event, the FCM would be subject to an insolvency proceeding pursuant to the applicable U.S. laws. As a consequence, Eurex Clearing will seek to coordinate with the CFTC and the bankruptcy trustee (or a comparable person responsible for administering the proceeding) with respect to the transfer of FCM Client Transactions and Eligible Margin Assets allocated to the relevant FCM Client. Eurex Clearing may deviate from the provisions and processes described above, if so required by the CFTC and the bankruptcy trustee (or a comparable person responsible for administering the proceeding).

For further reference please also see the FCM Regulations Chapter I.

	<p>Eurex Clearing verifies the enforceability of each of its clearing models, including the arrangements to protect and transfer the positions and collateral related to customers of a Clearing Member, for each jurisdiction from which Clearing Members are admitted on the basis of comprehensive legal opinions from leading well reputed law firms in the relevant jurisdictions.</p>
<p><i>Key Consideration 2</i></p> <p><i>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.</i></p>	
Summary narrative	<p>Proprietary Accounts of the Clearing Member and the FCM Clearing Member</p> <p>According to Article 39 EMIR, Eurex Clearing keeps separate records and accounts that shall enable it to distinguish in accounts with the CCP the assets and positions held for the account of one Clearing Member from the assets and positions held for the account of any other Clearing Member and from its own assets.</p> <p>Therefore, Eurex Clearing establishes and maintains accounts for each Clearing Member (CM Account), in which transactions, cash amounts and margins (i.e. collateral in various forms) of such Clearing Member are recorded. Clearing Members are provided with reports reflecting the account status on a daily basis.</p> <p>The assets and positions of one Clearing Member will not be recorded in a CM Account dedicated to another Clearing Member. Eurex Clearing's own assets will not be recorded in CM Accounts.</p> <p>The netting of positions related to different Clearing Members and therefore recorded in different CM Accounts is legally not possible under German law as the debtor and the creditor in such scenario would not be identical (see Section 387 of the German Civil Code).</p> <p>The assets covering the positions recorded in one CM Account are not exposed to losses connected to positions recorded in another CM Account. This is legally ensured through respective provisions regarding the security purpose of the provided margin.</p> <p>Customer Accounts of the Clearing Member in accordance with EMIR</p> <p>For the purpose of omnibus client segregation under the Elementary Clearing Model, Eurex Clearing maintains the following types of transaction accounts with respect to each Clearing Member in which the omnibus transactions of that Clearing Member have to be booked:</p> <ul style="list-style-type: none">(a) "NOSA UDC Account(s)" with respect to UDC-Related Transactions of the Clearing Member relating to transactions of multiple Undisclosed Direct Clients;(b) "DC Own Account(s)" with respect to own transactions of each Disclosed Direct Client of the Clearing Member;(c) "NOSA Indirect Client Account(s)" for the clearing of client-related transactions relating to multiple clients of a Direct Client of the Clearing Member;

(d) "GOSA Indirect Client Account(s)" for the clearing of Eurex transactions and OTC Interest Rate Derivative transactions relating to one particular client of a Direct Client of the Clearing Member.

Transaction accounts are combined in one or more transaction account groups. The transactions booked to the transaction accounts forming part of the same transaction account group and the Eligible Margin Assets allocated to the transaction accounts of such transaction account group constitute a separate ECM Standard Agreement.

For the purpose of individual account segregation Eurex Clearing maintains the following types of transaction accounts with respect to each Disclosed Direct Client of the Clearing Member in which the ISA Transactions of the Clearing Member have to be booked:

- (a) one or more DC Own Accounts;
 - (b) one or more NOSA Indirect Client Accounts;
 - (c) one or more GOSA Indirect Client Accounts
- (each such account an "ISA Transaction Account").

All ISA Transaction Accounts of a Clearing Member relating to a particular Disclosed Direct Client form a separate group of transaction accounts (each such group an "ISA Transaction Accounts Group"). Each Transaction Accounts Group constitutes a separate ISA Standard Agreement.

Customer Accounts in accordance with the DCO Status

With respect to FCM Client Transactions, Eurex Clearing maintains a separate account for each FCM Client (each, an "FCM Client Transaction Account"). All FCM Client Transactions of each FCM Client booked into the relevant FCM Client Transaction Account of such FCM Client form a separate Netting Set (each a "FCM Client Netting Set"). Further, Eurex Clearing maintains one or more internal margin accounts for FCM Client Transactions (each an "FCM Client Margin Account") to which the collateral value with respect to the relevant FCM Client Transactions are booked.

Collateral Coverage of customer positions

A Clearing Member is required to provide Elementary Omnibus Margin, Omnibus CASS Margin, ISA Margin or ISA CASS Margin as applicable. In addition, an FCM Clearing Member is required to deliver separate cover with respect to each FCM Client Margin requirement.

The applicable Margin Requirement consists of the sum of all relevant Margin Requirements separately calculated by Eurex Clearing in accordance with the relevant applicable Margin Methodology subject to and in accordance with the relevant segregation model. The provision of collateral is intended to ensure that all financial commitments related to the open positions of a Clearing Member can be offset within a very short period of time.

The different types of Margin Requirements are defined in Chapter I of the Clearing Conditions (Current Liquidation Margin, Premium Margin, Additional Margin, Initial

	<p>Margin) and respectively in the Chapter I of the FCM Regulations (Initial Margin and Supplementary Margin).</p> <p>Under the Elementary Clearing Model, the Clearing Member is required to provide Margin for each Omnibus Standard Agreement. Margin in the form of cash is granted by way of transfer of title, whereas Margin in the form of securities is provided by way of pledge. A Clearing Member may request the setup of multiple Internal Margin Accounts and, thus, establish multiple omnibus collateral pools.</p> <p>Under the ISA Model, the Clearing Member is required to provide Margin for each ISA Standard Agreement. Margin in the form of cash is granted by way of title transfer. Margin in the form of securities is provided either by way of pledge or by way of title transfer. The Clearing Member is required to separately demand margin from its ISA Client in an amount which shall at least be equal to the sum of the Margin Requirement applicable to each ISA Transaction Account.</p> <p>Under the LSOC Model, the FCM Clearing Member is required to provide Margin for each FCM Client. FCM Client Margin can be provided in the form of cash or in the form of securities. Eligible Margin Assets in the form of cash are transferred to Eurex Clearing via full title transfer. Margin in the form of securities is provided by way of pledge.</p> <p>Information on client positions held in different accounts is provided in the quarterly CPMI-IOSCO public quantitative disclosure on the “AggregatedDataFile” tab:</p> <ul style="list-style-type: none"> • Total Client Positions held in individually segregated accounts (14_1_1), • Total Client Positions held in omnibus client-only accounts, other than legally segregated but operationally comingled (LSOC) accounts (14_1_2), • Total Client Positions held in LSOC accounts (14_1_3), • Total Client Positions held in comingled house and client accounts (14_1_4).
<p><i>Key Consideration 3</i></p> <p><i>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.</i></p>	
<p>Summary narrative</p>	<p>If a termination date occurs with respect to a Clearing Member, Eurex Clearing will initiate a standardised porting process separately with respect to each Omnibus and ISA Standard Agreement, which is similar for all segregation models. The porting of transactions and collateral to a Replacement Clearing Member is operationally close to the process of a regular Clearer change.</p> <p>Eurex Clearing will use reasonable efforts to port each Disclosed Direct Client individually to a non-defaulting Clearing Member (“Replacement Clearing Member”). If the porting requirements are fulfilled within the porting period, all rights and obligations of the defaulted Clearing Member under the relevant Standard Agreement, including with respect to corresponding margin, will be transferred to the Replacement Clearing Member. The instructions of the direct client will also apply to the respective indirect clients.</p>

	<p>A comparable porting process is initiated if a termination date occurs with respect to an FCM Clearing Member. Eurex Clearing will use reasonable efforts to port each FCM Client individually to a separate Replacement FCM Clearing Member. If all FCM Clearing Member replacement requirements in respect of the relevant FCM Client Transactions are fulfilled by the end of the Replacement Cut-Off Time, the FCM Client Transactions, and all rights and obligations of the affected FCM Clearing Member arising from such FCM Client Transactions including a portion of the value of Eligible Margin Assets booked on the FCM Client Margin Account equal to the LSV of the relevant FCM Client, will be transferred to the new FCM Clearing Member.</p> <p>The Clearing Conditions and the FCM Regulations provide for the rules under which positions and collateral are ported. By signing the “Clearing Agreement” or the “FCM Clearing Agreement” (as prerequisite of a Clearing Member / FCM Clearing Member licence), a Clearing Member or FCM Clearing Member gives his consent to the porting rules because these agreements incorporate by reference the Clearing Conditions or FCM Regulations.</p>
<p><i>Key Consideration 4</i></p> <p><i>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.</i></p>	
<p>Summary narrative</p>	<p>Eurex Clearing provides summary descriptions of its clearing models on its website, namely</p> <ul style="list-style-type: none"> (i) the “Disclosure pursuant to Article 39 (7) EMIR with respect to the Clearing Conditions of Eurex Clearing AG” and (ii) the “Disclosure pursuant to Article 39 (7) EMIR with respect to the FCM Clearing Conditions of Eurex Clearing AG”. <p>The published documents describe the levels of protection of the available clearing models, including the main legal implications related to these clearing models and the applicable insolvency laws.</p> <p>In addition, the recent versions of the Clearing Conditions and FCM Regulations are available for download on Eurex Clearing’s website.</p> <p>Detailed descriptions of the respective porting procedures are also published on Eurex Clearing’s website as well as jurisdiction-related information.</p> <p>The above-mentioned documents as well as the website further specifies that Eurex Clearing does not charge costs that specifically relate to the use of a certain clearing model. Instead, the price list of Eurex Clearing applies. This price list is also publicly available on Eurex Clearing’s website.</p>
<p>Assessment of principle:</p> <p><i>Observed</i></p>	

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.

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.

Summary narrative

Eurex Clearing has a sound framework for the comprehensive management of all material risks. In that regard Eurex Clearing has established documented policies, procedures and systems to identify, monitor and manage such risks. This is already described in greater detail in Key Consideration 1 of Principle 3.

Eurex Clearing established a Risk Strategy, which is based upon Eurex Clearing's business strategy and regulates the extent of risk taken within the various business activities carried out by Eurex Clearing. The Risk Strategy determines conditions for risk management, control and limitation. Eurex Clearing pays considerable attention to its risk mitigation process and ensures that appropriate measures are taken to avoid, reduce and transfer or intentionally accept risk. It is defined that the appropriateness of the risk management and controlling systems is to be validated continuously.

The Risk Strategy differentiates between three major risk types that are managed and controlled with distinct methods. These risk types are:

- financial risk,
- operational risk, and
- business risk.

However, Eurex Clearing is solely exposed to minor business risk due to its existing operations management contracts, where all income is collected in the name of the operating (parent) companies and Eurex Clearing's total expenditures are reimbursed by the operating companies.

In consequence, the theoretically required capital for business risk is regarded as being less than the EMIR required regulatory minimum of 25% of the annual gross operating expenses. However, the actually capital held for business risk is of course in line with the existing regulations, demonstrating the robustness of Eurex Clearing's capital basis.

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.

Summary narrative

Eurex Clearing holds liquid net assets funded by equity in such an amount that it can continue operations and services if it incurs general business losses. Article 16 EMIR and corresponding ESMA technical standards⁶ demand a specific capital base for CCPs that consists of CET1 capital, retained earnings and reserves.

The ESMA regulatory technical standards further demand own funds for winding down/restructuring, operational/legal risk, credit risk, counterparty risk, market risk and business risk. It is especially required that a CCP has procedures in place to identify all sources of risks that may impact its ongoing functions and shall consider the likelihood of potential adverse effects on its revenues or expenses and its level of capital. Eurex Clearing complies with all regulatory requirements and reports its capital figures as well as the attributable parts for each risk type to the Executive Board, the EMIR Risk Committee and its national competent authority on a regular basis. The greater public is informed via independently testified annual financial statements, which are accessible via the website of Eurex Clearing.

When determining the time period necessary for winding down or restructuring, Eurex Clearing takes into account whether the services of Eurex Clearing have to be closed/terminated (wind down) or whether a continuing of the business is still feasible (recovery). The decision about which strategy to take (winding down or recovery) depends on the situation at hand. Whereas in the vast majority of cases a recovery would be the most feasible solution, a winding down always serves as last solution. In addition, the decision whether a wind down or recovery shall be triggered might not be immediately possible. It might be the case that an initiated restructuring process fails and a wind down would become necessary. Eurex Clearing has documented procedures and policies in place for both cases. Next to the established Recovery Plan, which is updated at least annually and thoroughly reviewed by the national competent authority and independent external auditors, procedures for a wind-down are approved.

⁶ Delegated Regulation (EU) No 152/2013 of 19 December 2012 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council with regard to regulatory technical standards on capital requirements for central counterparties (ESMA technical standards).

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.

Summary narrative

Eurex Clearing prepared its Recovery Plan following the legal requirements stipulated in the German act on recovery and resolution of credit institutions ("Sanierungs- und Abwicklungsgesetz", SAG), transposing the Bank Recovery and Resolution Directive (BRRD) into German national law. The main goal of the plan is to identify recovery options that strengthen the financial and operational robustness of Eurex Clearing in potential stress situations.

As an authorised central counterparty under EMIR, Eurex Clearing is obliged to have sufficient own funds for a winding down or the recovery of its own business. Therefore an appropriate time period for winding down/the recovery of its own business was estimated. For that purpose, Eurex Clearing determined documentation outlining how a recovery or an orderly wind down can be achieved. Eurex Clearing's capital base for winding down/recovery is calculated in accordance with regulation (EU) 152/2013. According to Eurex Clearing's own estimation, the winding down/restructuring period is no longer than 6 months. This estimate has been proved stable over the last years. Nevertheless, for calculation of capital requirements, the minimum of 6 months as winding down/restructuring period as required by above mentioned regulation, is set.

The recovery and wind-down documentation is reviewed at least once a year in the context of the update of the recovery plan. Within the review it is verified if the time periods expected are still valid.

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.

Summary narrative

As outlined in Key Consideration 2 of this Principle, Eurex Clearing manages its general business risk and holds sufficient liquid resources to cover potential business losses.

Eurex Clearing will only invest in cash or in highly liquid financial instruments with minimal market and credit risk that are capable of being liquidated rapidly with minimal adverse price effect.

As a principle, the own funds of Eurex Clearing shall be invested applying the same mechanisms as the placement of Clearing Member funds, of course segregating the investment of own funds from those resulting from Clearing Members' cash collateral. Eurex Clearing may invest part of its own funds through direct security purchases in correspondence to the criteria and limits as mentioned in Eurex Clearing's Investment Policy.

	<p>To ensure the liquidity of Eurex Clearing also in adverse market conditions, the majority of placements are in principle restricted to very short tenors. In order to avoid counterparty concentration and related risks, the placements are spread to the extent reasonable taking into account counterparty quality. At least 95 % of Eurex Clearing's cash balances must be invested on a secured basis. This is in line with existing regulations.</p> <p>Placement of funds is also subject to credit limits governed by Eurex Clearing's Credit Policy for its Treasury activities. Credit limits can only be approved within the authority, which has been delegated by the Eurex Clearing Executive Board. Regular credit reviews of all treasury counterparties are undertaken. A credit review recommends continuing, changing or cancelling the relationship with a counterparty. Furthermore, limits according to CRR may apply.</p> <p>Continuous monitoring of transactions initiated by Eurex Clearing's Treasury department is conducted and reported monthly to risk management, different affected areas and the Executive Board of Eurex Clearing. The report contains placement details, limit violations and performance indicators. Limit violations are also reported ad hoc.</p>
<p><i>Key Consideration 5</i></p> <p><i>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.</i></p>	
<p>Summary narrative</p>	<p>Eurex Clearing has both a wind down/restructuring assessment plan as well as a recovery plan in place, which both assess the option to strengthen the capital base by raising additional equity.</p> <p>Eurex Frankfurt AG (Eurex Frankfurt), which is the 100 % parent of Eurex Clearing, can increase Eurex Clearing's equity through a payment into Eurex Clearing's capital reserve. In case Eurex Clearing needs to raise additional equity, the Eurex Clearing Executive Board will address the Eurex Frankfurt Executive Board. As Eurex Clearing and Eurex Frankfurt are stock corporations formed and incorporated under German law, equity can only be raised pursuant to the German Companies Act.</p> <p>In addition, agreements and decisions of the Executive Board of Eurex Clearing and the Supervisory Board of Eurex Clearing and Eurex Frankfurt are necessary. An agreement of the German Supervisory Authorities is legally not required; however, an informal notification would be submitted. Eurex Clearing increased its capital multiple times in past years, i.e. it has successfully passed this process before.</p> <p>Furthermore, Eurex Clearing established triggers to monitor its capital needs. Approved predefined measures are in place to increase capital.</p>
<p>Assessment of principle:</p> <p><i>Observed</i></p>	

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.

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.

Summary
narrative

Eurex Clearing applies strict criteria and principles when selecting collateral locations in order to protect its own and its participant's assets.

The Clearing Members need efficient and operationally flexible allocation of the eligible securities collateral, either through a dedicated securities settlement and position holding on specific accounts, or through exposure management via tri-party collateral management services.

A main criterion in selecting a collateral location is the designation of a collateral location as operator of a regulated Securities Settlement System (SSS) according to Article 47 (3) EMIR, ideally with access to the European System of Central Bank (ESCB) facilities.

The services to be provided by a securities collateral location comprise safekeeping, collateral eligibility checks and valuation, protection of the assets posted in favour of the CCP as well as custody (incl. tax) processing and supporting Eurex Clearing's segregation models based on the legal concepts of pledge or transfer of title. Especially for the event of a participant's default/bankruptcy, Eurex Clearing requires legal certainty in terms of first ranking access rights including collateral portability in each respective jurisdiction of the involved parties.

The range of services provided by a collateral location must meet a diverse set of requirements in order to be connected to Eurex Clearing as service provider to its Clearing Members. The requirements cover regulatory, legal, operational and technical requirements as defined in Eurex Clearing's Security Collateral Location Framework. The connected collateral locations' fulfilment of the criteria is being monitored continuously by the responsible areas of Eurex Clearing. In addition, regular re-assessments are conducted.

Based on these requirements and principles, Eurex Clearing deposits financial instruments posted by the Clearing Members with the Securities Settlement Systems of Clearstream Banking AG, Frankfurt (CBF) and Clearstream Banking S.A., Luxembourg (CBL), both notified according to Article 10 of the Settlement Finality Directive (98/26/EC), as well as with SIX SIS Ltd., Switzerland, which is the operator of one of the systemically important payment and settlement systems in Switzerland and as such is overseen by the Swiss National Bank.

Eurex Clearing's and its participant's assets are always protected, i.e. in the event of a participant's default, irrespective of the legal concept (pledge or transfer of title). Eurex Clearing has legal certainty regarding the home country jurisdiction of the

	<p>Clearing Member and of the location where the collateral is held, in connection with the German law applying to Eurex Clearing.</p> <p>In addition, Eurex Clearing offers both omnibus and individual segregation to Clearing Members and clients at the collateral locations. Safety and efficiency are key principles of the models as well as flexibility in terms of available position and collateral account set-ups. Whilst the securities collateral of a segregated Disclosed Direct Clients is legally owned by Eurex Clearing, each clearing model serves different levels of protection as outlined in Principle 14 and on Eurex Clearing's website under https://www.eurexclearing.com/clearing-en/risk-management/client-asset-protection-emir.</p>
<p><i>Key Consideration 2</i></p> <p><i>An FMI should have prompt access to its assets and the assets provided by participants, when required.</i></p>	
Summary narrative	<p>Eurex Clearing ensures a sound legal basis by legal analyses and opinions through legal counsels based on dedicated regulations (e.g. Financial Collateral Directive,) and laws (e.g. the German Insolvency Code). The legal certainties include the foreign insolvency laws, i.e. home country jurisdictions of non-German Clearing Members as well as of each location where the collateral is held, in connection with the German jurisdiction of Eurex Clearing.</p> <p>Accordingly, the regulations provide an appropriate legal environment to ensure access not only in normal cases but also in the case of a Clearing Member's insolvency in order to liquidate the collateral. Hence, Eurex Clearing has first ranking rights and prompt access to the financial instruments when required, regardless of the collateral type and whether it is pledged by the Clearing Members in favour of Eurex Clearing or transferred by title to Eurex Clearing.</p> <p>The enforceable rights of appropriation of Eurex Clearing with regard to the securities held at a CSD are explicitly described in the Clearing Conditions of Eurex Clearing.</p> <p>Currently Eurex Clearing is not connected with collateral locations in time zones other than Central European Time.</p>
<p><i>Key Consideration 3</i></p> <p><i>An FMI should evaluate and understand its exposures to its custodian banks, taking into account the full scope of its relationships with each.</i></p>	
Summary narrative	<p>Eurex Clearing does not have any exposures to custodian banks as it only uses (I)CSDs for the deposit of securities collateral, highly liquid financial instruments and cash. All (I)CSDs used are operators of SSS and, as such, subject to prudential regulation and supervision.</p>
<p><i>Key Consideration 4</i></p> <p><i>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.</i></p>	

Summary narrative	<p>The Executive Board of Eurex Clearing is ultimately responsible for the risk strategy of the CCP. The risk strategy defines the overall risk appetite, including the maximum loss the Executive Board is willing to take in one year, the tolerance in the light of the risk as well as the performance levels aspired. The Executive Board ensures that the risk strategy is integrated into the business activities throughout the entire CCP and that adequate measures are in place to implement the strategies, policies and procedures in line with the overall risk appetite.</p> <p>The investment strategy itself also follows this logic and is approved by Eurex Clearing's Executive Board. The general principles of Eurex Clearing's investment strategy:</p> <ul style="list-style-type: none">• capital preservation, and• liquidity maximisation <p>are disclosed to the general public on the CCP's homepage (http://www.eurexclearing.com/clearing-en/collateral-management/cash-collateral/investment-policy).</p> <p>The Executive Board of Eurex Clearing approves the eligibility criteria for the CCP's investments. In general, Eurex Clearing applies restrictive standards to financial instruments qualifying as investments. As the leading principle, financial instruments need to fulfil the conditions applicable to highly liquid financial instruments as laid out by the EMIR and the relevant Commission Delegated Regulations. This is true for both secured money market transactions and direct purchases of debt instruments.</p> <p>a) Investments secured by high-quality obligors:</p> <p>In secured money market transactions the primary exposure is counterparty credit risk. Hence, Eurex Clearing assesses counterparties with an internal developed rating methodology, while Eurex Clearing refers to external ratings for the consideration of the quality of financial instruments underlying the reverse repo transactions. If an issuer's rating falls below the minimum rating requirements, the instruments shall be deemed ineligible with immediate effect and need to be replaced by the counterparty with eligible collateral.</p> <p>b) Claims on high-quality obligors:</p> <p>For direct purchases of debt instruments, Eurex Clearing performs an internal assessment on its obligors to ensure low credit and market risk. In general, the assessment considers quantitative and qualitative criteria. The obligor's credit quality is expressed in the form of an internal rating. Eurex Clearing monitors and reviews the credit quality on a regular basis, at least annually. A reduction of credit quality may trigger a reduction or cancellation of the limit that has been allocated to this obligor.</p> <p>Additionally, the so-called CreditWatch serves as an early warning indicator for obligors likely to require a reduction in the limit or rating downgrade in the near future. Factors that may affect counterparties' creditworthiness, e.g. downgrade by a major rating agency or deterioration of financials, are taken into account.</p>
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Eurex Clearing's eligibility criteria shall ensure that the CCP purchases only highly liquid instruments, which can be converted into cash rapidly with minimal price impact even in stressed market conditions. In case that financial instruments need to be liquidated, Eurex Clearing can either sell or mobilise, e.g. repo out, these marketable assets.

The own funds of Eurex Clearing are invested applying similar security mechanisms as the placement of Clearing Members' funds, preferring reverse repos. In accordance with the EMIR, Eurex Clearing does not invest participants' assets in the participants' own securities or those of its affiliates.

Additionally, as Eurex Clearing is subject to the minimum reserve, it may immediately use eligible assets to collateralise all types of the Eurosystem's credit operations, i.e. intraday credit, marginal lending facility to obtain overnight liquidity and open market operations for maturities of up to 48 months, all against full collateralisation.

Information on Eurex Clearing's investment strategy regarding participants cash margins is provided in the quarterly CPMI-IOSCO public quantitative disclosure on the "AggregatedDataFile" tab. Examples of these information are:

- Total cash received from participants as Initial Margin (16_1_1),
- Total cash received from participants as Default Fund contribution (16_1_2),
- Percentage of total participant cash held as cash deposits at central banks of issue of the currency deposited (16_2_2),
- Percentage of total participant cash held as cash deposits at other central banks (16_2_3),
- Percentage of total participant cash held as cash deposits at commercial banks [secured, including through reverse repo] (16_2_4),
- Percentage of total participant cash held as cash deposits at commercial banks [unsecured] (16_2_5),
- Percentage of total participant cash held as cash deposits in money market funds (16_2_6),
- Percentage of total participant cash held as cash deposits in other forms (16_2_7).

More information on issuer, currency, average maturity and risk of the investments is provided as well as can be found in further numbers of disclosure category 16_2. See the "Guide" tab in the disclosure file for more information.

Assessment of principle:*Observed*

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.

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.

Summary narrative

Eurex Clearing takes great care to mitigate risk and ensures that appropriate measures are taken to avoid, reduce and transfer – or intentionally take on – risk. This is ensured by having established a sound framework for the comprehensive management of all material risks, including documented policies, procedures and systems to identify, monitor and manage such risks. Eurex Clearing defined and maintains standards and workflows for its documentation, procedures and policies, which is in accordance to Section 25a German Banking Act and Sections AT 5 and AT 6 of the "Minimum Requirements for Risk Management Rules" (MaRisk) issued by the German Federal Financial Supervisory Authority. The standards are regularly audited by Eurex Clearing's internal audit function as well as external auditors.

In general, the established risk management process covers the following five key phases:

- Risk Identification,
- Risk Notification,
- Risk Assessment,
- Risk Control and
- Risk Monitoring/Reporting.

The Risk Management Framework is coordinated by a central risk management function under the supervision of Eurex Clearing's Chief Risk Officer. Adequate monitoring is ensured through the quarterly risk report to the Eurex Clearing Executive Board and a yearly operational risk review.

Eurex Clearing's Risk Management Framework differentiates between three major risk types that are managed and controlled with distinct methods. These risk types are financial risk, operational risk, and business risk. Operational risk is defined as the risk of loss resulting from inadequate or defective systems and internal processes, from human or technical failure, from inadequate or defective external processes and from legal risks.

Eurex Clearing currently uses scenario based risk analysis as part of the operational risk process, aligned with the Deutsche Börse Group's overall risk management framework into which Eurex Clearing's risk processes are embedded. The scenario risk analysis includes, for example, disruption of clearing systems caused by

	<p>hardware, network, software or even terrorist attack; disruption of services from external providers, including utilities services; internal human errors and omissions related to calculation of settlement prices and delivery of securities. The results of the scenario risk analysis are assessed and taken into account during the regular reviews of the Eurex Clearing Business Continuity Management (BCM) Plan.</p> <p>Deutsche Börse Group uses several data sources in its group-wide operational risk management. Apart from internal data on operational risk events having materialised within DBG, external data may serve as another source. Therefore, DBG established an Operational Risk External Loss Database. This means that information on operational risk events encountered by companies outside DBG is included into DBG's own operational risk management process and considered during operational risk scenario reviews. These external operational risk events are stored in this database for any future analysis purposes in order to ensure a robust data basis.</p> <p>In addition, Eurex Clearing, together with Deutsche Börse Group, has implemented a group-wide incident and crisis management process and Eurex Clearing's BCM Plan will support a coordinated and rapid reaction to incidents in a controlled and effective manner. Eurex Clearing's BCM Plan is integrated into the overall Risk Management Framework and comprises information, guidelines and procedures in order to maintain the continuity of critical services, taking into consideration external links and interdependencies within the financial infrastructure and functions or services which have been outsourced to third-party providers. All business continuity arrangements are tested on a regular basis and in a comprehensive manner.</p> <p>As far as operational risk is concerned, the key preventive measures consist of strong internal control processes, which are performed and documented in the framework of the ISAE 3402 certification, and ongoing initiatives to further reduce errors and omissions.</p> <p>Eurex Clearing ensures that employees and their deputies have the knowledge and experience required by their duties, competencies and responsibilities. Suitable measures are taken to ensure that the employees have the appropriate qualifications. In addition, the employees have the opportunity for further education and training to maintain their qualification. As an example, mandatory online trainings continuously foster the risk culture and risk awareness within the company by focusing on the personal responsibility of every individual employee regarding risk management. This includes general understanding of compliance with internal and external regulations, policies and procedures.</p> <p>With respect to fraud prevention, Eurex Clearing applies the Anti Fraud Policy of DBG. The guideline intends to prevent fraudulent behaviour within DBG in order to guarantee the protection of group assets. To prevent fraud, all employees must comply with the established rules of conduct and suitable, group-wide structures are maintained.</p> <p>Deutsche Börse Group has a group-wide Project & Change Initiative Management Policy in place, which describes the fundamental framework that project management within Deutsche Börse Group will follow to achieve project goals on time, within budget and to high quality. The latter also means that a smooth functioning of the whole system is not disturbed by a rollout of any change or major project.</p>
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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.

Summary narrative

The Executive Board of Eurex Clearing is responsible for the company's Risk Management Framework. Eurex Clearing disposes of a Risk Strategy as part of the Risk Management Framework that is based upon Eurex Clearing's business strategy and regulates the extent of risk taken within the various business activities carried out by Eurex Clearing. The Executive Board ensures that the Risk Strategy is integrated into the business activities throughout Eurex Clearing entirely and that adequate measures are in place to implement the strategies, policies and procedures. The responsible management body is informed fully and timely about Eurex Clearing's risk profile and relevant risks.

In addition, Eurex Clearing is included in the group-wide risk management process of Deutsche Börse. The Deutsche Börse Group Risk Management Policy stipulates that the relevant boards and committees are timely and consistently informed about material risks – whether existing or potential – and the related risk control measures in order to take appropriate action. Adequate quality standards are established and reviewed on an ongoing basis.

The risk management function at Eurex Clearing is performed by the Risk Management department, which develops and maintains operational risk procedures for new and existing clearing services.

A timely, complete and reliable risk management constitutes a general risk principle of the Eurex Clearing Risk Management Framework. The operational risk aspects as well as other risk categories are taken into account with adequate quality standards. Eurex Clearing's Executive Board reviews the Risk Management Framework on an ongoing basis.

In addition, consistent with BT 2.1 of the "Minimum Requirements for Risk Management Rules" (MaRisk) issued by the German Federal Financial Supervisory Authority, the risk-based internal audit plan covers all relevant aspects of the central counterparty including the risk management processes and control mechanisms. Independent audit opinions on the appropriateness of the risk control and risk management functions are given. The internal audit plan is prepared annually, based on a three-year audit cycle derived from a risk-based methodology. Audits are planned on a yearly basis for areas assessed to be of "high risk". Also, the Audit and Risk Committee addresses risk matters, inter alia advises the Supervisory Board on the institution's current and future risk appetite and Risk Strategy and examines whether the incentives provided by the remuneration system take into account the risk, capital and liquidity structure of Eurex Clearing.

Eurex Clearing conducts annually workspace and staff unavailability tests during business hours, relevant external parties are implicitly involved.

	<p>In addition to the internal audits, clearing operations, risk management processes, internal control mechanisms and accounts are subject to independent audits of an external audit company on an annual basis. The result of the audit is communicated to the Executive Board and the national competent authority.</p>
<p><i>Key Consideration 3</i></p> <p><i>An FMI should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives.</i></p>	
Summary narrative	<p>Timely, complete and reliable risk management is one of the general risk principles at Eurex Clearing. Risk management is an elementary component of the management and the control of Eurex Clearing and the affiliated companies. Effective and efficient risk management is fundamental in protecting Eurex Clearing's and its stakeholders' interests. It enables Eurex Clearing to achieve its corporate goals and safeguards its continued existence. The established Risk Management Framework ensures complete, timely and consistent information about risk. The framework enables Eurex Clearing to identify, notify, assess, control and report risk appropriately. Adequate quality standards are established and reviewed on an ongoing basis.</p> <p>Eurex Clearing employs risk-bearing capacity as its main risk management tool. It uses VaR at a confidence level of 99.98 % to calculate its required economic capital (EC) and compares it to its risk-bearing capacity in order to be able to cover financially even extreme events in the next twelve months. Eurex Clearing uses the equity on its balance sheet as the risk-bearing capacity for its economic capital. For control purposes, Eurex Clearing regularly calculates the ratio of EC to risk-bearing capacity, or "utilisation of risk-bearing capacity", as an indicator.</p> <p>The results of the VaR calculation are entered into a reporting system. Reporting includes both a quantification of risks but also qualitative information. The reporting of risks to the Executive Board of Eurex Clearing is carried out quarterly as well as ad-hoc if necessary. The Supervisory Board of Eurex Clearing receives quarterly reports.</p> <p>Furthermore, Eurex Clearing strives to provide products and services with utmost reliability, and gives the highest importance to the resilience of its business to safeguard it against incidents. Eurex Clearing aims to continue to operate under adverse conditions or in the face of unexpected events or disasters. These goals are ambitious and require constant evolution and adaptation to a challenging environment.</p> <p>Therefore, functions which are indispensable for the critical daily operations in view of the above objectives are defined as mission critical and must be resumed within a Recovery Time Objective (RTO) of 2 hours following a disruptive incident, crisis or disaster. The RTO is the time period following a disruptive incident within which products, services or activities must be resumed or resources must be recovered.</p> <p>Consequently, Eurex Clearing implements and maintains effective business continuity plans designed to minimise the impact of unavailability of the key resources, i.e. information (electronic or other), IT systems and networks, workspace and facilities, staff, suppliers and other external dependencies. Thereby Eurex</p>

	<p>Clearing adopts industry standard best practices in line with its needs and regulatory requirements.</p> <p>The business continuity plans specify how services, processes and resources will be reinstated to a predetermined level within predefined time scales after an incident or disaster. To ensure that Eurex Clearing is able to respond to an incident in a rapid, controlled and effective manner, an incident and crisis management process is in place for the timely detection, escalation and assessment of incidents and the prompt activation of the business continuity plans.</p> <p>Business continuity plans are used, tested or exercised regularly as close to reality as possible to ensure their effectiveness and viability and in order to provide assurance that a real incident could be successfully managed.</p>
<p><i>Key Consideration 4</i></p> <p><i>An FMI should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives.</i></p>	
Summary narrative	<p>Information technology is a challenging and quickly developing field. Hence, Eurex Clearing designs and requires its systems to be secure and reliable. The systems are designed with the goal to process the necessary information to perform the activities and operations in a safe and effective manner. System documentation on the information technology architecture is available and redundant system architecture with failover functions are placed to ensure Eurex Clearing is reasonably scalable and can deal with operational needs and the risks faced also in stressed market conditions. Additionally, regularly tested business continuity measures are in place. To assess the need for introducing new technology including clear reversion plans, Eurex Clearing monitors system performance constantly. Reports of this monitoring are provided to the management.</p> <p>Stringent testing is performed for each change to the system and changes are simulated in a separate technical environment including involvement of participants, vendors and other affected parties. Additionally a permanent simulation environment is operated for testing.</p> <p>Transaction volumes on Eurex Clearing's core systems are constantly monitored and reported to responsible Executive Board members. An overall capacity target for the critical transaction systems is defined by the responsible steering committee, consisting of the responsible board members and IT representatives. If necessary, the capacity target is adjusted and an increase of system capacity is initiated to meet the new capacity target.</p>
<p><i>Key Consideration 5</i></p> <p><i>An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.</i></p>	
Summary narrative	<p>The geographical position of Germany, and thus the location of Frankfurt, does not expose Deutsche Börse Group or its data centres to any potential large-scale physical vulnerabilities. A risk assessment containing a Security Controls Questionnaire is completed including any potential physical vulnerability. The</p>

construction and technical safety provisions in place adequately and reliably protect the data centres against the few environmental hazards that are to be expected in central Europe.

Eurex Clearing currently uses a scenario based risk analysis as part of the operational risk process, as defined in the Deutsche Börse Group's overall Risk Management Framework. The scenario risk analysis includes, for example, disruption of clearing systems caused by hardware, network, software or even terrorist attack; disruption of services from external providers, including utilities services; internal human errors and omissions related to calculation of settlement prices and delivery of securities. The results of the scenario risk analysis are assessed by the BCM function and taken into account during the regular reviews of the Eurex Clearing Business Continuity Management Plan. The scenario analysis is reviewed annually. The results of the reviews are reported to the Eurex Clearing Executive Board.

Based on increased protection needs of a data centre, Deutsche Börse Group documents the data centre-specific security and safety standards and requirements. To assure high security standards and availability of a DBG data centre, a regular Physical Security Standards Data Centre (PSSDC) analysis is essential. Therefore, DBG's main data centres are analysed every year. This analysis is conducted alternating between a remote analysis and by an on-site analysis. DBG's access points are evaluated every second year by a remote analysis and at least by one on-site analysis over a five years period. Results of these analyses are fed into the BCM and risk management process.

The overall Business Continuity Management Framework aims to ensure that Eurex Clearing secures the functioning and timely recovery of its crucial systems and processes in case of a disaster or emergency event.

Furthermore, Eurex Clearing has a robust information security framework in place to manage the information security risk. The Deutsche Börse Group-wide Information Security Framework is applicable to Eurex Clearing. The framework determines the approach and organizational roles and responsibilities with regard to Information Security Management. The aim is to provide clear direction for the protection of information and corresponding facilities, used for information processing and communication, of Deutsche Börse Group. The Information Security Framework contains, among others, information security standards & guidelines on application and local application security, access control and communication security and sensitive document access. The Information Security Framework is subject to regular updates to further strengthen information security controls within the organization and address evolving regulatory requirements..

Since 2016, Eurex Clearing follows new vulnerability management processes, which requires regular scanning of infrastructure and applications and a holistic management of vulnerability closure processes. Additionally, since 2017, all applications with critical production workload have to regularly test their application code (code scan and penetration testing).

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.

Summary narrative

Eurex Clearing, as part of the Deutsche Börse Group, disposes of a group-wide Business Continuity Management Program. The group-wide BCM Program is governed by the BCM Policy of Deutsche Börse Group, which was approved by the Executive Board of Deutsche Börse Group and subsequently by the Executive Board of ECAG. The BCM Policy describes the broad approach and organizational roles and responsibilities with regard to business continuity management. Furthermore, the BCM Policy provides a governing framework for the development, establishment, implementation, validation and maintenance of unit-specific BCM Plans.

As a result of the requirements laid down in EMIR, Eurex Clearing has developed an appendix to the group-wide BCM Policy. The Eurex Clearing BCM Policy Appendix specifies minimum requirements in line with EMIR and is applicable to all units or departments of the Deutsche Börse Group that provide critical services to the functioning of Eurex Clearing.

All BCM Plans include a Recovery Time Objective to ensure that critical services, processes and resources are recovered in time before Eurex Clearing is impacted beyond tolerable limits. The Eurex Clearing BCM Policy Appendix prescribes a maximum RTO of 2 hours as an objective for all mission critical functions. In addition, it is recognized that depending on the nature of the incident, the actual recovery can be achieved quicker (e.g. in case of individual systems or power failure). This ensures that end-of-day procedures and payments shall be completed on the required time and day in all circumstances.

Eurex Clearing's business continuity arrangements are tested on a regular basis and in a comprehensive manner.

Details on the BCM Plans have already been outlined in Key Considerations 1, 3 and 5 of this principle.

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.

Summary narrative

Eurex Clearing has identified several potential operational risks that could be caused by key participants, service and utility providers. The potential risks are monitored and also considered within the operational risk scenarios of Eurex Clearing.

	<p>Eurex Clearing has implemented a Business Continuity Management, which is integrated into the overall BCM of Deutsche Börse AG.</p> <p>Within the Eurex Clearing BCM, also external links and interdependencies within the financial infrastructure and critical functions or services, which have been outsourced to third-party providers, are taken into account.</p> <p>The proper interconnectedness of business continuity plans between outsourcing and insourcing company is already requested by the current national German framework for credit institutions. It is therefore implemented both within the business continuity framework and the outsourcing framework.</p> <p>Additionally, Eurex Clearing involves Clearing Members, external providers and relevant institutions in the financial infrastructure with which interdependencies have been identified in the BCM testing process.</p>
<p>Assessment of principle:</p> <p><i>Observed</i></p>	

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.

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.

Summary narrative

Eurex Clearing has established clear and transparent admission criteria per clearing license. The admission requirements are set forth in the Clearing Conditions in Chapter I for the general prerequisites, in Chapter II following for special prerequisites for the relevant transaction type and in the FCM Regulations.

Eurex Clearing's participation requirements are non-discriminatory, objective and do not limit access on grounds other than risk (e.g. sufficient liable equity capital, compliance with technical requirements, verification of the legal validity and enforceability of the Clearing Conditions, etc.). To ensure that this purpose is met, Eurex Clearing assesses its admission requirements continuously including market participants, Clearing Members and the different Eurex Clearing Committees, including the EMIR Risk Committee.

Eurex Clearing requires Clearing Members to provide evidence of sufficient financial resources and operational capacity to meet their obligations and minimise the risk towards the CCP.

Eurex Clearing uses a risk-based approach to determine the level of financial resource requirements that a Clearing Member needs to prove:

- Minimum own funds requirements or equivalent regulatory capital are defined and depend on the product and the type of Clearing Membership the new member applies for. Eurex Clearing additionally employs a dynamic component ensuring that the own funds requirements or equivalent regulatory capital are scaled to represent the risk of the individual Clearing Member. The dynamic component is calculated as a percentage of each Clearing Member's Initial Margin requirement.
- If Clearing Members have insufficient own funds or equivalent regulatory capital for a clearing license, Eurex Clearing may determine that the shortfall may be made up by collateral in cash and/or securities.
- FCM Clearing Members are required to have adjusted net capital, at the time of the application, in the minimum amount published by Eurex Clearing on its website, calculated in accordance with CFTC Regulation 1.17. The minimum static amount required is equivalent to EUR 30 million, whereas a dynamic component of 20% of the Initial Margin requirement applies if higher.
- Clearing Members must contribute to the Default Fund (in case of a Basic Clearing Membership the Clearing Agent shall make contributions to the Default Fund with respect to all Basic Clearing Member transactions), whereas the contribution is determined as the maximum amount out of the

	<p>minimum requirement of each Clearing Member (including FCM Clearing Members) and the requirement based on the risk exposure of a member firm. Clearing Members are required to deposit the higher of the following amounts:</p> <ul style="list-style-type: none"> ○ A minimum amount (static component) which depends on the membership type (http://www.eurexclearing.com/clearing-en/risk-management/default-waterfall/default-fund). ○ A dynamic component based on the member’s Initial Margin requirement across all products. <p>Eurex Clearing also assesses the participants’ operational capability. Members must provide proof of the technical and functional connection, the use of appropriate technical equipment (back-office facilities) and sufficiently qualified back-office personnel.</p> <p>Eurex Clearing has established a Member Compliance Framework to assess Clearing Members’ compliance with the participation requirements set out by Eurex Clearing.</p> <p>With respect to the Default Management Process, each Clearing Member is obliged to participate (i) in Default Management Committees (if selected to do so by Eurex Clearing in accordance with its rules), (ii) in default simulations and (iii) in auctions of a defaulted Clearing Member’s positions, with respect to all asset classes such Clearing Member is active in. In case of a Basic Clearing Membership, the Clearing Agent shall participate in any Default Management Process with respect to all Basic Clearing Member transactions of a particular Basic Clearing Member for which it acts as Clearing Agent.</p>
<p><i>Key Consideration 2</i></p> <p><i>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.</i></p>	
<p>Summary narrative</p>	<p>The overall objective of Clearing Membership requirements is to admit firms, which are appropriately licensed in their local jurisdiction.</p> <p>The scope of the membership requirements encompasses a set of quantitative and qualitative criteria, catering for excellent credit quality, indicating the financial and operational strength of Clearing Members at the time of admission and ongoing during their membership.</p> <p>Admission criteria can be categorised according to the following criteria and requirements:</p> <ul style="list-style-type: none"> • Own funds, equivalent regulatory capital or assets under management requirements, • Acceptable credit quality (initial and ongoing credit risk assessment), • Jurisdiction & regulatory oversight,

- Infrastructure requirements,
- Operational set up (Including Qualified Clearing Staff),
- Contribution to the Default Fund (a Clearing Member's admission requires the payment to the Default Fund).

Eurex Clearing offers different types of Clearing Licenses:

- General Clearing License,
- Direct Clearing License,
- FCM Clearing Member License,
- Basic Clearing License,
- Specific Lender License, and
- Specific Repo License.

The different types vary on the permitted activity and partly require specific admission requirements in this context.

As specified in the relevant Clearing Agreement, a clearing license is issued either as a general clearing license or a direct clearing license. Unless otherwise provided in the relevant Special Clearing Provisions, a general clearing license entitles the holder thereof

- (i) to clear own transactions and client-related transactions or, in respect of OTC IRS U.S. Clearing Members, own transactions and
- (ii) to participate in the clearing of Basic Clearing Member transactions as a Clearing Agent subject to further requirements as set out in the Basic Clearing Member Provisions.

A direct clearing license entitles the holder thereof to clear own transactions, client-related transactions (in the case of DC-related transactions limited to transactions relating to DC Market Participants, and in the case of transactions relating to Indirect Client Market Participants limited to Indirect Client Market Participants, affiliated with it (as determined by Eurex Clearing AG and notified to the Clearing Members).

A Basic Clearing Member License entitles the holder to clear own transactions.

A FCM Clearing Member License entitles the holder thereof (i) to clear own transactions and (ii) FCM Client transactions in accordance with the FCM Regulations.

To ensure that Clearing Members that clear transactions on behalf of their clients have necessary additional financial resources, different minimum equity capital is required per Clearing Membership, cleared products and markets served. The different categories are shown in the table below.

No	Product	Market	GCM / FCM CM ⁷ own funds (or equivalent amount) in EUR mn	DCM / BCM ⁸ own funds in EUR mn
1	Futures/ Options	Eurex Frankfurt	30	7.5
2	Securities (Repos)	Eurex Repo/ NEX BrokerTec	200	50
3	Securities (Equities)	FSE/Xetra	15	3.75
4	Securities Lending	CCP Services for Securities Lending	200	50
5	OTC Derivatives Transactions	EurexOTC Clear	30	7.5

Figure 101: Categories of memberships and minimum capital requirements

Furthermore, different minimum requirements for the Default Fund contribution are applicable depending on the type of Clearing Membership, which is described in Key Consideration 1 of this Principle.

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.

Summary narrative

According to the Clearing Conditions, Clearing Members are obliged to provide evidence of compliance with the prerequisites for a clearing license. As part of each Clearing Member admission process it is ensured that all admission requirements are fulfilled. In order to also ensure the application of the admission criteria on an ongoing basis, Clearing Members are regularly audited based on the Member Compliance Framework. This includes on-site visits as well as due diligence questionnaires.

Eurex Clearing monitors the compliance of operational procedures and the adequacy of back-office staff of Clearing Members with the operational minimum standards established by its admission criteria.

⁷ Only relevant for a limited scope of OTC Derivatives.

⁸ Only relevant for Eurex Repo and OTC Derivatives.

The audit process also focuses on the compliance of Clearing Members (including FCM Clearing Members) which outsource clearing, risk and/or back-office functions. Thereby, Eurex Clearing is entitled to request further information and evidence concerning the orderly conduct of outsourced functions from the outsourcer if deemed necessary. In addition, Eurex Clearing or an independent auditor authorised by Eurex Clearing have the right to conduct on-site visits.

Compliance of Clearing Members with financial resource requirements is monitored on a regular basis to obtain evidence of the level of their liable equity capital at admission and at least once a year. All Clearing Members are required to submit proof of own funds or equivalent regulatory capital annually by June 30 for the previous fiscal year. Minimum requirements on own funds or equivalent regulatory capital are defined for admission and Eurex Clearing additionally employs a dynamic component for these requirements as explained in Key Consideration 1 of this principle. The dynamic component ensures that the capital requirements are scaled to represent the risk of the individual Clearing Member. The dynamic component is calculated as a percentage of each Clearing Member's Initial Margin requirement.

The same process is applied for the Default Fund contribution. A minimum contribution is required and the dynamic component ensures scaling of the Default Fund contribution to represent the risk of the individual Clearing Member.

The overall risk exposure of the single Clearing Member towards the CCP is calculated regularly. Both the own funds or equivalent regulatory capital requirement and the Default Fund requirement are newly determined at the end of each month or ad-hoc, if required. Monitoring is performed once a week for own funds or equivalent regulatory capital requirements against reported own funds or equivalent regulatory capital and collateral as well as for the Default Fund requirements.

In case of irregularities detected by the standard audit activities or in case of any doubt regarding the compliance of the Clearing Member with the admission requirement, Eurex Clearing applies measures like spot tests and on-site audits.

According to the Clearing Conditions, Eurex Clearing is entitled to request further information and evidence concerning the orderly conduct of outsourced functions from the outsourcer.

In case of breaches of rules discovered during the Clearing Member's ongoing operative assessment, external assessment through the due diligence questionnaire or during on-site assessments, an escalation process is started.

The Clearing Conditions give Eurex Clearing the right to suspend and/or terminate a license and its business relationship with that member in case the admission requirements are no longer fulfilled.

Assessment of principle:*Observed*

Principle 19: Tiered participation arrangements

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

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.

Summary narrative

Eurex Clearing's rules, procedures and agreements are governed by the Clearing Conditions, FCM Regulations and other related legal framework. From a legal perspective, Eurex Clearing employs a principal-to-principal clearing model under the Clearing Conditions, where Eurex Clearing has contractual relationships with its Clearing Members only.

Also, in the LSOC model under the FCM Regulations, which is legally structured as a U.S agency clearing model, the FCM Clearing Member is the sole contractual counterparty to Eurex Clearing and Eurex Clearing treats the FCM Clearing Member as a principal in respect of FCM Client transactions the FCM Clearing Member clears through Eurex Clearing.

Even though no direct contractual relationship between Eurex Clearing and a client exists, the functional set-up of Disclosed Clients of a Clearing Member as well as of FCM Clients of a FCM Clearing Member allow Eurex Clearing to gather relevant basic information to identify, monitor and manage relevant concentrations of risk relating to the provision of services to clients.

The Member Compliance Framework foresees that Eurex Clearing requests information directly from the Clearing Members to confirm compliance with certain requirements in the Eurex Clearing rules and regulations within the yearly Due Diligence Questionnaire. This Due Diligence Questionnaire also considers a chapter with questions related to the Risk Management Framework of the Clearing Member, e.g. related to margin calculation for clients, monitoring of client portfolios for concentration and wrong way risks, stress testing of client positions and liquidity requirements from client defaults.

Based on the Due Diligence Questionnaire, Eurex Clearing verifies if Clearing Members are able to comply with the requirements with respect to customer business of the Clearing Member.

In addition to the Due Diligence Questionnaire, Eurex Clearing can conduct on-site audits at the premises of the Clearing Members. The content of the on-site meeting will be adapted to the situation of the individual Clearing Member. The audits can also include the inspection of processes of the Clearing Members regarding their client business.

When selecting candidates for standard on-site meetings, Eurex Clearing takes into consideration criteria such as clearing volumes, trading volumes, margin requirements and significant changes to these indicators. This evaluation includes both proprietary and client business of a Clearing Member. The annual audit schedule

	<p>is defined based on these criteria, i.e. Clearing Members which have large trading and clearing volume in undisclosed client accounts as well as a high margin required caused by the undisclosed client activities will receive a high audit priority. In special cases, the internal credit ratings are also considered when defining the audit schedule.</p> <p>In addition, the monitoring of Clearing Members and their clients' business is ensured by a framework, which identifies, monitors and reports concentration & wrong way risks that may arise out of the clearing business of Eurex Clearing. This monitoring includes the level of exposure of a Clearing Member, the quality of the collateral pool as well as the overall trading activities. Events that are considered as concentrations of risk in the sense of this document could also be trigger events for requests for information or on-site meetings as described above.</p>
<p><i>Key Consideration 2</i></p> <p><i>An FMI should identify material dependencies between direct and indirect participants that might affect the FMI.</i></p>	
Summary narrative	<p>For Eurex Clearing, main sources of material dependencies between direct and indirect participants are the ownership structure and risk concentrations between these entities.</p> <p><u>Ownership structure:</u></p> <p>In terms of ownership structure, Eurex Clearing defines a material dependency as a close link. A close link is a direct or indirect ownership or control via voting rights between two entities (which may be direct and indirect participants), in which an ownership of 50 % or more of the voting rights or capital of an undertaking or a control agreement exists. All issuer identification numbers of those entities that have an ownership structure that classifies them as close link are grouped and regularly monitored. Clearing Members are not allowed to post financial instruments as collateral if those instruments were issued by an entity, which is highly interlinked with the Clearing Member. Furthermore, material dependencies are considered in determining the appropriate size of Eurex Clearing's default waterfall by considering not only the default of the Clearing Members in the stress tests but also the default of all their clients.</p> <p><u>Risk concentration:</u></p> <p>Eurex Clearing's monitoring of risk concentration is detailed in Key Consideration 1 of this Principle.</p>

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.

Summary narrative

The general approach to monitoring and mitigating the risk of disclosed clients and undisclosed clients is outlined in Key Considerations 1 and 2 of this Principle.

Eurex Clearing has several measures, which allow a monitoring additional to the supervision conducted by direct participants.

Eurex Clearing's account set-up and segregation models enable the identification and differentiation between direct and indirect participants' activities. Activities of Clearing Members as direct participants are reflected on the respective proprietary accounts, whereas activities of clients of Clearing Members are reflected on the agent accounts or the respective client accounts. Therefore, Eurex Clearing identifies and monitors the proportion of activity that each Clearing Member conducts on behalf of its clients. The posted collateral has to be sufficient to cover the Clearing Member as well as its clients' exposure.

In addition, Eurex Clearing applies concentration limits at two levels; the CCP level and the Clearing Member level. Limits on the CCP level are applied across every Clearing Member (including FCM Clearing Member) and their clients at Eurex Clearing. Concentration limits at the Clearing Member level apply per Clearing Member (including FCM Clearing Member); this includes the Clearing Member's own business and the business of their clients in the various clearing models.

In the case that accounts indicate behaviors outside the typically observed standards e.g. large transaction volume or position buildup, Eurex Clearing is entitled to request further information or conduct on-site meetings.

Key Consideration 4

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

Summary narrative

All established policies and procedures are reviewed annually as well as ad-hoc if necessary.

Assessment of principle:

Observed

Principle 20: FMI links

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

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.

Summary narrative

Eurex Clearing has links in place with Central Securities Depositories, central and commercial banks and trade repositories. Eurex Clearing has no link in place with another central counterparty.

Settlement Locations of Eurex Clearing AG

Eurex Clearing needs to maintain link arrangements with so-called Settlement Locations in order to settle security transactions and fulfil subsequent related services as a part of the clearing process.

Due to the importance of those Settlement Locations for Eurex Clearing's operability within the sphere of the financial market as a CCP, it is crucial for Eurex Clearing to strictly limit any link-related risk exposure using predefined criteria. The criteria are based on necessary internal requirements of Eurex Clearing as well as on all applicable regulatory requirements on an international and European level.

The term Settlement Location refers to any CSD or ICSD operating a Securities Settlement System for the usage of transfer and settlement of securities based on transactions, but also including custody services.

The figure below gives an overview of (I)CSDs to which Eurex Clearing is linked for ensuring the settlement of transactions.

Eurex Exchange	Eurex Repo	Frankfurt Stock Exchange	Irish Stock Exchange	Securities Lending
CBF, CBFi/CBL and SIX SIS EUI for deliveries in GB and IE options	CBF, CBFi/CBL, EB	CBF, CBFi/CBL	EUI	CBF, ESES, SIX SIS, EUI For fixed income securities: CBFi/CBL, EB

CBF: Clearstream Banking AG, Frankfurt
 CBFi/CBL: Clearstream Banking Frankfurt International/Clearstream Banking SA, Luxembourg
 EUI: Euroclear UK & Ireland
 EB: Euroclear Bank SA
 ESES Euroclear Settlement of Euronext-zone Securities (ESES markets: Euroclear France, Belgium, Netherlands)
 SIX SIS AG: Swiss Central Securities Depository

Figure 12: Eurex Clearing's links with Central Securities Depositories

(In February 2019, Irish Stock Exchange (ISE) migrated the clearing services from ECAG to EuroCCP. The clearing services for transactions concluded at ISE and the ISE clearing licenses have been terminated by ECAG accordingly.)

For further information on CSDs please refer to Principle 8 (Settlement Finality).

Links with Payment Locations (Central and Commercial Banks)

Eurex Clearing provides access to a broad range of currencies for the fulfilment of payments out of the clearing process (e.g. variation margin, premiums, fees).

In order to ensure maximum safety, cash collateral should preferably be provided in central bank money by Clearing Members. Hence, access to central bank money helps to mitigate risks adequately, especially counterparty and credit risk.

Given Eurex Clearing’s reliance on the Settlement Banks for the efficient working of the clearing processes, predefined selection criteria are used to evaluate the Settlement Banks before going live and to take the decision whether to connect a specific Settlement Bank or not.

The figure below gives an overview of the central and commercial banks (Settlement Banks) Eurex Clearing is linked with for the processing of clearing-related cash payments as well as for the management of cash collateral provided by Clearing Members:



¹ Eurex Clearing generally requires the usage of central bank money for clearing related cash payments in the clearing currencies EUR and CHF (TARGET2 for EUR, Swiss National Bank for CHF). If evidenced that this is not possible, neither directly nor indirectly, access to a Settlement Bank may be granted and the Settlement Bank Fee shall be charged.

Figure 113: Admitted central and commercial banks of Eurex Clearing

For further information on Settlement Banks please refer to Principle 9 (Money Settlement).

Links with Trade Repositories

Eurex Clearing is linked to the trade repository REGIS-TR in order to fulfil the requirements stipulated in Article 9 EMIR to report all derivatives transaction. The link to the European trade repository REGIS-TR is properly set up and does not pose any material risk to Eurex Clearing. REGIS-TR is located in Luxembourg, supervised in Luxembourg by the Commission de Surveillance du Secteur Financier (CSSF) and offers its services under Luxembourg law. On 7th of November 2013 the European

	<p>Securities and Markets Authority registered REGIS-TR as Trade Repository in accordance with Article 55 EMIR.</p> <p>In addition, Eurex Clearing in its capacity as an authorized Derivatives Clearing Organization is linked to the trade repositories (1) DTCC's Global Trade Repository (DTCC) and (2) CME Global Repository (CME) in order to fulfill swap data reporting requirements on basis of Dodd-Frank Act Title VII - CFR Title 17 Part 45 and Part 39.</p> <p>Eurex Clearing AG ensures the adequate fulfilment of the regulatory requirements by using Deutsche Börse's reporting and consultancy services. These links also do not pose any material risk for Eurex Clearing.</p> <p>DTCC and CME are Swap Data Repositories ("SDR") registered with the CFTC and operate as SDRs in the U.S. under U.S. law. They both also operate other repository services under multiple jurisdictions. CME and DTCC follow CPMI-IOSCO principles.</p> <p>Any implemented and operational link is monitored and evaluated regularly. Thereby Eurex Clearing aims to assure the continuous provision of critical supplier services to the extent possible through a regular due diligence review of suppliers' Business Continuity Management arrangements.</p> <p>Links with other financial market infrastructures</p> <p>For multicurrency cash settlement, Eurex Clearing is linked with CLS Bank International. The CLS settlement is ensured via a dedicated bank acting as CLS third-party service provider.</p> <p>Future links with financial market infrastructures</p> <p>With respect to future links with financial market infrastructures, Eurex Clearing disposes of policies and procedures that describe the process which will be followed by Eurex Clearing after having received a formal request to set up a link. In addition, Eurex Clearing performs a proper due-diligence of the legal, operational, functional and risk-related aspects that arise from a potential link.</p>
	<p><i>Key Consideration 2</i></p> <p><i>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.</i></p>
Summary narrative	<p>As outlined in Principle 1, Eurex Clearing has a legal basis providing a high degree of certainty for each aspect of its activities.</p> <p>Eurex Clearing is linked to Central Securities Depositories through the deposit of financial instruments posted as margins and Default Fund contributions. Instruments are posted to Clearstream Banking AG, Frankfurt, Germany and Clearstream Banking S.A., Luxembourg – both notified according to Article 10 of the Settlement Finality Directive (98/26/EC), as well as with SIX SIS Ltd., Olten, Switzerland, which is the operator of one of the systemically important payment and settlement systems in Switzerland and as such is overseen by the Swiss National Bank. The same holds true for Euroclear UK & Ireland, which is also notified according to Article 10 of the Settlement Finality Directive.</p>

	<p>Also the links to the European trade repository REGIS-TR as well as to the trade repositories DTCC's Global Trade Repository and CME Global Repository have a profound legal basis.</p> <p>Eurex Clearing verifies whether the linked FMIs have valid accounting practices and safekeeping/internal control procedures in place, are appropriately regulated and have a strong financial position. This assessment is performed on an annual basis and ad-hoc if deemed necessary.</p> <p>Before entering into any interoperability arrangement, Eurex Clearing initiates and coordinates changes of legal and regulatory documents (e.g. Clearing Conditions), if necessary. Furthermore, Eurex Clearing monitors the enforceability of the interoperability arrangements in all relevant jurisdictions on a regular basis.</p>
	<p><i>Key Consideration 3</i></p> <p><i>Linked CSDs should measure, monitor, and manage the credit and liquidity risks arising from each other. Any credit extensions between CSDs should be covered fully with high-quality collateral and be subject to limits.</i></p>
	<p>Not applicable</p>
	<p><i>Key Consideration 4</i></p> <p><i>Provisional transfers of securities between linked CSDs should be prohibited or, at a minimum, the retransfer of provisionally transferred securities should be prohibited prior to the transfer becoming final.</i></p>
	<p>Not applicable</p>
	<p><i>Key Consideration 5</i></p> <p><i>An investor CSD should only establish a link with an issuer CSD if the arrangement provides a high level of protection for the rights of the investor CSD's participants.</i></p>
	<p>Not applicable</p>
	<p><i>Key Consideration 6</i></p> <p><i>An investor CSD that uses an intermediary to operate a link with an issuer CSD should measure, monitor, and manage the additional risks (including custody, credit, legal, and operational risks) arising from the use of the intermediary.</i></p>
	<p>Not applicable</p>
	<p><i>Key Consideration 7</i></p> <p><i>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.</i></p>
Summary narrative	<p>Eurex Clearing has no contractual relationships with other central counterparties in place.</p>

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.

Not applicable

Assessment of principle:

Observed

Principle 21: Efficiency and effectiveness***An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.****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.

Summary narrative

Eurex Clearing has in place adequate processes for taking into account the needs of its participants and the markets it serves. First, Eurex Clearing is in continuous dialogue with its customers. Eurex Clearing hosts a number of specialist committees to inform and integrate participants from all its markets served into the consultation process. Following committees have been initiated to inform and integrate participants into the decision-making process for changes and new developments to the services offered by Eurex Clearing: EMIR Risk Committee, Fixed Income Board Advisory Committee, Eurex Derivatives Clearing Committee, Securities Clearing and Settlement Committee, Fixed Income Product Committee and the Default Management Committees.

The Supervisory Board has constituted the Audit and Risk Committee in compliance with CRD IV and EMIR that deals with audit matters particularly related to the preparation of the annual budget, the accounting process, internal and external audits, compliance and control systems.

More detailed information regarding the Eurex Clearing Committees is available in Key Consideration 2 of Principle 2.

In addition, Eurex Clearing determined a Technology Roadmap aiming to assure the safety and integrity of markets while providing innovation in risk management and clearing technology. Eurex Clearing deploys reliable and customer-focused technology.

In order to provide its members with innovative and cost-efficient technologies, Eurex Clearing's clearing interfaces use industry standards such as FIXML, which lets its members benefit from increased customisation. This reduction in programming complexity allows further cost savings and operational efficiencies. Further information on the use of internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording can be found in Principle 22.

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.

Summary narrative

Eurex Clearing has a two-tiered board structure comprising an Executive Board and a Supervisory Board. The objectives and strategies for Eurex Clearing are established by the Executive Board in accordance with §76 German Stock Company Act and approved by the Supervisory Board. Consistent with §111 AktG, the

	<p>Supervisory Board oversees the work of the Executive Board. The governance structure of Eurex Clearing contains an adequate system of checks and balances that helps ensuring that the performance of management bodies is monitored.</p> <p>The Business Strategy provides the framework for more detailed goals and objectives on cost, volume, financial and risk level. The achievements of these goals and objectives are monitored on a continuous basis.</p> <p>In order to achieve the corporate objectives, the Executive Board of Eurex Clearing bears the overall responsibility for the implementation and effective operation of the Internal Control System. The ICS is a key management instrument designed to provide reasonable assurance achieving the corporate objectives regarding effectiveness and efficiency of operations, reliability of financial reporting and compliance with applicable laws and regulations. The ICS is an essential component of good corporate governance.</p> <p>The Business Continuity Management approach of Eurex Clearing aims to provide products and services with utmost reliability. It thus gives the highest importance to the resilience of its business to safeguard against incidents and disasters and the unavailability of core processes and resources. This includes the definition of mission critical areas where services must be resumed within a Recovery Time Objective of 2 hours.</p> <p>Eurex Clearing has clear objectives of its technology development in order to assure the safety and integrity of markets while providing innovation in risk management and clearing technology as well as cost-efficient technologies. Eurex Clearing's information technology systems are secure and strive towards a high availability rate, which is monitored continuously. The systems are capable of processing the necessary information to perform the activities and operations in a safe and efficient manner. System documentation on the information technology architecture is available and redundant system architecture with failover functions are in place to ensure that Eurex Clearing is scalable and can deal with operational needs and the risks faced, even in stressed market conditions.</p> <p>Furthermore, Eurex Clearing has high quality Client Asset Protection services that efficiently and effectively protect customer positions and deposited collateral.</p>
	<p><i>Key Consideration 3</i></p> <p><i>An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.</i></p>
Summary narrative	<p>Eurex Clearing applies the Internal Control System Policy of Deutsche Börse Group. The ICS Policy was approved by the Eurex Clearing Executive Board. The ICS Policy is applicable to all individuals as well as organisational functions that are in charge with management and control of processes within the legal entities of DBG. The ICS is a key management instrument designed to provide reasonable assurance achieving the corporate objectives regarding effectiveness and efficiency of operations, reliability of financial reporting and compliance with applicable laws and regulations. It is an essential component of good corporate governance and consists of safeguards and controls embedded in the organisational structures, in particular within the business processes, of the group companies to ensure that business processes and activities run in an orderly fashion.</p>

	<p>The internal audit function of Eurex Clearing reviews the effectiveness of measures taken in the business areas and also assesses the effective operation of the ICS. Internal Audit uses a risk-based approach in defining specific areas of the organisation to audit.</p> <p>In addition, Eurex Clearing has in place procedures to control its operational costs and operational reliability as well as the capacity levels seen as vital for the daily business of Eurex Clearing.</p> <p>Across the serviced products, participant meetings are held on a regular basis to discuss new product developments and service enhancements. The participants of the committees cover a significant portion of the cleared volume in the respective type of product. The committees are used to gather direct feedback for the potential new product or service offering, but also as means to receive feedback on the service provided.</p>
<p>Assessment of principle: <i>Observed</i></p>	

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.

Key Consideration 1

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

Summary narrative

Eurex Clearing uses the following internationally accepted standards for their external communication with Clearing Members, trading participants and FMIs:

- Financial Information eXchange (FIX) Protocol standard,
- Financial Products Markup Language (FpML) standard,
- SWIFT ISO 15022 messaging standard, and
- Advanced Message Queuing Protocol (AMQP) standard.

Eurex Clearing uses FIX for the vast majority of its communication with Clearing Members as well as to obtain on-book and off-book trades from the trading system for listed derivatives. FIX is an internationally accepted standard that supports a number of syntaxes. Based on the XML Standard, FIXML is the globally preferred syntax for listed derivatives. FIX has been extended in recent years to natively cover the area of OTC derivatives. Deutsche Börse Group actively supports the development of the FIX Family of Standards.

The Eurex Clearing FIXML interface provides members with a highly flexible, standards compliant and cost-effective way to use Eurex Clearing services. The FIXML interface uses AMQP, an open standard to allow secure connections and a standardised transport. Deutsche Börse Group was an active member of the AMQP Working Group that originally developed the standard.

Eurex Clearing also uses SWIFT ISO 15022 for the CCP services in the securities market related to gross delivery management and numerous reports.

Eurex Clearing maintains detailed FIXML interface and AMQP documentation as well as documentation of the SWIFT ISO 15022 interface on its website and maintains detailed FpML interface documentation in the member section of its website.

Additionally, Eurex Clearing uses SWIFT ISO 15022 and ISO 20022 for delivery instructions in the FX market as well as for payment services in the derivatives market. Eurex Clearing uses ISO standards where applicable to identify financial instruments and counterparties. These are ISINs (ISO 6166) for products and underlyings, currency codes (ISO 4217), MICs (ISO 10383) for exchanges and clearing houses as well as LEIs (ISO 17442) for member firms.

Assessment of principle:

Observed

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.

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.

Summary narrative

Eurex Clearing participants are subject to the Clearing Conditions or FCM Regulations in the conduct of their clearing business.

The Clearing Conditions are based on German civil law and clearly stated and structured as general terms and conditions, whereas the FCM Regulations are governed by U.S. law and the laws of New York.

Furthermore, Eurex Clearing publicly discloses rules and procedures relating to the roles of participants determined in the Clearing Conditions on the website to allow applicants of the system to assess their rights, risk and obligations (<https://www.eurexclearing.com/clearing-en/resources/rules-and-regulations>). The following documents are disclosed:

- Clearing Conditions of Eurex Clearing,
- FCM Regulations of Eurex Clearing,
- Price List of Eurex Clearing,
- Statutes for the EMIR Risk Committee,
- Default Management Committee Rules,
- Default Management Auction Rules,
- Statutes for the IRS Product Committee,
- Auction Terms of Eurex Clearing,
- Statutes for the Disciplinary Committee,
- Disciplinary Procedures Rules,
- Dispute Resolution Rules,
- General Terms and Conditions to the Agreement on Technical Connection to the Clearing EDP of Eurex Clearing AG, and
- Price List to the Agreement on Technical Connection to the Clearing EDP of Eurex Clearing AG.

Eurex Clearing ensures that its rules, procedures and contractual arrangements are clear, accurate, comprehensive, in writing, in compliance with applicable regulatory and supervisory requirements and up-to-date. Eurex Clearing regularly analyses the

	<p>soundness of the rules, procedures and contractual arrangements. There is no indication that rules and regulations are not internally coherent.</p> <p>The processes for changing Eurex Clearing's rules and procedures form an integral part of the Clearing Conditions as available via the Eurex Clearing website. As described in Chapter I, Part 1, Number 17.2, Eurex Clearing has in place adequate rules to make amendments to the Clearing Conditions. Transparency of all rules and regulations is provided by disclosing them via the Eurex Clearing website. In addition, important news will be disclosed via press release.</p>
<p><i>Key Consideration 2</i></p> <p><i>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.</i></p>	
Summary narrative	<p>Eurex Clearing publishes two disclosure documents on its website with respect to:</p> <ul style="list-style-type: none">• the Clearing Conditions ("Disclosure pursuant to Article 39 (7) of Regulation (EU) No 648/2012 of the European Parliament and the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories ("EMIR") with respect to the Clearing Conditions of Eurex Clearing AG"), and• the FCM Regulations ("Disclosure pursuant to Article 39 (7) of Regulation (EU) No 648/2012 of the European Parliament and the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories ("EMIR") with respect to the FCM Clearing Conditions of Eurex Clearing AG"). <p>Both documents set out the information required to be disclosed under Article 39 (7) EMIR. They provide a summary description of the client clearing models currently offered by Eurex Clearing under the Clearing Conditions and the FCM Regulations that provide for different levels of client segregation, including information on the main legal implications of the respective levels of segregation and applicable insolvency law.</p> <p>Relevant information on the design and operations of Eurex Clearing is to be found in the Technology tab on the Eurex Clearing website (http://www.eurexclearing.com/clearing-en/technology/).</p> <p>A detailed description of the concepts and messages of the Eurex Clearing interfaces, its XML representation and schema files, as well as all necessary information about network access and Eurex GUI solutions can be found on the website and is organised using following categorisation:</p> <ul style="list-style-type: none">• Overview and Functionality• Eurex Clearing Interfaces• Network Access• Production• Eurex Clearing GUIs• Eurex Reports• Simulation <p>Further details can also be found in Key Consideration 1 of Principle 22.</p>

	<p>Furthermore, the website of Eurex Clearing gives an extensive view on the Eurex Clearing Risk Management Framework, thereby providing Clearing Members and clients with information on all benefits as well as potential risks when choosing Eurex Clearing as a CCP. In the risk management area of the website, the various key topics for an adequate management of risks are explained in detail such as the lines of defense of Eurex Clearing, the Default Management Process or the margining process. (For more information please refer to: http://www.eurexclearing.com/clearing-en/risk-management).</p> <p>As outlined in Key Consideration 1 of this Principle, Eurex Clearing provides documentation on all committees established to allow applicants and participants to assess their rights, risk and obligations related to Eurex Clearing.</p>
<p><i>Key Consideration 3</i></p> <p><i>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.</i></p>	
Summary narrative	<p>Eurex Clearing deals with educated/sophisticated financial market participants and assumes a certain level of basic knowledge of the clearing process and the risks associated with the clearing process. In addition Eurex Clearing applies strict admission criteria for Clearing Members which are necessary to ensure that Clearing Members have the necessary financial and technical resources and the know-how. Consequently, Clearing Members must provide evidence that a sufficiently qualified member of staff works in the Clearing Member's back-office to orderly fulfil the clearing obligations during the business day and to be available as a reliable contact person via telephone.</p> <p>In order to facilitate participants' understanding of Eurex Clearing's rules and procedures and the risks, Eurex Clearing offers a wide variety of training courses and education materials. To maintain high qualification levels of Clearing Member staff in a rapidly changing environment, Eurex Clearing requires from its Clearing Members at least one qualified employee, a Qualified Clearing Staff. This requirement applies to all General Clearing Members and Direct Clearing Members. Eurex Clearing offers an individual test for each clearing license, consisting of one so-called basic module, which is about core clearing knowledge, and a market module for the respective clearing license. Sufficient qualification is assumed to be reached if the respective clearer test is passed successfully. If this requirement can no longer be confirmed, Eurex Clearing can decide to treat this as a breach of admission requirements and act accordingly. Depending on the severity of the detected irregularity, the escalation measure (e.g. spot test, on-site meeting, third party confirmation) is decided.</p>

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.

Summary narrative

Eurex Clearing publicly discloses the prices and fees associated with the services provided for clearing. The Clearing Conditions outline the fees charged by Eurex Clearing to its Clearing Members for admission as a Clearing Member as well as a regular charge for holding a clearing license,

- a one-time fee upon conclusion of the first Clearing Agreement,
- an annual fee for the granting of a Clearing License, payable by the Clearing Member on January 31 of each year, and
- further fees for certain actions (e.g. general service fees) and transactions (e.g. transaction fees in various cleared markets).

All fees and incentive models are publicly available and applied to all market participants on an equal basis. Fee structures and incentive models are made available in full detail in specifically updated sections of the price list for Eurex Clearing. In addition, Eurex Clearing also maintains a close contact to Clearing Members and Disclosed Direct Clients by informing of any envisaged amendments in publicly available circulars. In these circulars rebate models can also be presented and described in further detail.

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.

Summary narrative

Eurex Clearing's objectives are fully compliant with regulatory standards for CCPs. Eurex Clearing regularly reviews its methodologies and risk management practices against the Principles for Financial Market Infrastructures and additional guidance reports in this context. The results are published in the Disclosure Document on the website.

Eurex Clearing publishes a comprehensive set of quantitative data based on the CPMI-IOSCO public quantitative disclosure template. Quarterly updates are provided on the website (<http://www.eurexclearing.com/clearing-en/about-us/regulatory-standards>) in accordance with the frequencies set out by CPMI-IOSCO.

With respect to the disclosure of basic data on transaction volumes and values, Eurex Clearing offers a wide range of information. This includes theoretical price data and all necessary data to compute prices depending on the valuation of a product. It also contains theoretical values and parameters for equities, theoretical values and parameters for subscription rights on equities, theoretical values and parameters for bonds and coupon dates and rates for all bonds, which are required for the risk-based margining of the day. Both end-of-day and intraday data are available. Additionally, relevant risk parameters are published under the Risk Management tab of the website

to provide Clearing Members and the broader public with margin parameters, haircuts and a specification of accepted collaterals.

Eurex Clearing also discloses the price information used to calculate the end-of-day exposures. This information is sent to the Clearing Members in so-called Price Files or Reports and can also be found in the Member Section for Files Services of the website. Eurex Clearing's competent authorities have on request access to this information based on the applicable disclosure requirements. The website further provides Clearing Members with necessary data to compute theoretical option prices using certain pricing models.

Volumes of the cleared transactions for each class of instruments cleared by the CCP on an aggregated basis along with other statistics are published on the website on a monthly basis. Eurex Clearing provides a monthly view of the number of cleared trades and the cleared volumes across all market segments (<http://www.eurexclearing.com/clearing-en/resources/volume-statistics/>).

Assessment of principle:*Observed*

Principle 24: Disclosure of market data by trade repositories

A TR should provide timely and accurate data to relevant authorities and the public in line with their respective needs.

Key Consideration 1

A TR should provide data in line with regulatory and industry expectations to relevant authorities and the public, respectively, that is comprehensive and at a level of detail sufficient to enhance market transparency and support other public policy objectives.

Key Consideration 2

A TR should have effective processes and procedures to provide data to relevant authorities in a timely and appropriate manner to enable them to meet their respective regulatory mandates and legal responsibilities.

Key Consideration 3

A TR should have robust information systems that provide accurate current and historical data. Data should be provided in a timely manner and in a format that permits it to be easily analysed.

Summary narrative	As outlined in Key Consideration 1 of Principle 1, Eurex Clearing is an authorised CCP under EMIR and not a trade repository. Therefore, Eurex Clearing deems Principle 24 as not applicable.
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Assessment of principle:

Not applicable
