December 2024

DISCLOSURE

Société Générale Capital Canada Inc. ("**SGCC**" or "**we**") is providing you with this documentation, which is relevant for you if you enter into exchange-traded derivatives transactions that are cleared by a clearing organization that is authorized as central counterparty in the European Union authorised under the European Market Infrastructure Regulation ("**EMIR**") or by a non-European central counterparty recognised under EMIR.

In our relationships with affiliates of the Société Générale Group that are direct members of EU CCPs and recognised non-EU CCP, we are considered a "direct client", and you, SGCC direct client, would be considered an "indirect client", of such clearing members.

The present documentation contains information required to be provided to you pursuant to EMIR 3.0, notably relating to 1) The option to clear certain derivative contracts through an authorised CCP located in the European Union; 2) Transparency regarding fees charged for services provided by CCPs and clearing members; 3) Transparency regarding the CCPs margin calls and margin models and; 4) The potential losses or other costs that you may bear as a result of the application of CCPs default management procedures and loss and position allocation arrangements under the CCPs' rules.

This document is for information purposes only subject to change without notice.

PLEASE SEE IMPORTANT DISCLAIMERS AT THE END OF THE DOCUMENT

December 2024

EMIR 3 Article 7c(1) Information statement on the possibility of clearing contracts through EU CCPs

Société Générale Capital Canada Inc. ("SGCC") provides clearing services at several non-European central counterparties ("CCPs") recognised under EMIR Article 25 (a "Recognised non-EU CCP"), as well as at several CCPs authorised under EMIR Article 14 (an "Authorised EU CCP").

Pursuant to EMIR 3 Article 7c(1), we are required to inform you that, where we offer the relevant clearing service, it is possible to clear contracts through an Authorised EU CCP in addition to, or in place of, a Recognised non-EU CCP. We note that you would need to be satisfied that you will continue to meet your local regulatory requirements by clearing contracts through the relevant Authorised EU CCP, and we cannot be held responsible for any non-compliance thereof.

The list of Authorised EU CCPs together with the classes of financial instruments covered by the CCPs' authorisation for which we are offering clearing services is available below:

- Listed derivative contracts[1] offered by Société Générale Capital Canada Inc. and its affiliates:
    - BME Clearing: Commodities and Equities;
    - Eurex Clearing AG: Equities, Fixed Income and Currencies
    - Euronext Clearing: Commodities and Equities
    - European Commodity Clearing AG: Commodities
    - KDPW_CCP: Equities
    - Nasdaq OMX Clearing AB: Commodities, Equities and Fixed Income

Please reach out to your SGCC client service or sales management representative if you seek further details on the derivative contracts we offer.

[1] i.e. contracts the execution of which takes place on a regulated market as with the meaning of Article 4(1) (14) of MIFID.

EMIR Article 38(1) Fee Disclosure Statement

Societe Generale SA
Societe Generale International Limited
SG Americas Securities, LLC
Société Générale Capital Canada Inc.

EMIR/MiFID II Pricing and Fee Disclosure Document for Clearing Services on European Central Counterparties

Last updated June 2023

Content

1. Business Activity Structure

Societe Generale SA ("SGSA"), Societe Generale International Limited ("SGIL"), SG Americas Securities, LLC ("SGAS") and Société Générale Capital Canada Inc. ("SGCC") (together SGSA, SGIL, SGAS, and SGCC are referred to herein as **"SG"**) are part of the Societe Generale Group[1].

2. European Markets and Infrastructure Regulation (EMIR)

On 16 August 2012 the European Market Infrastructure Regulation (EMIR) came into force in the European Union effecting changes in the legal and regulatory landscape for central counterparties in the EU (CCPs) and clearing members of such CCPs, in relation to both listed and OTC cleared derivatives.

Part of this regulation created an environment within which direct clients of Clearing Members ("CM") could facilitate clearing of OTC derivatives to their clients without those clients becoming direct clients of the CM, a concept known as 'indirect clearing'.

3. Markets in Financial Instruments Directive II / Markets in Financial Instruments Regulation (together "MiFID II")

As part of the recast MiFID, the concept of indirect clearing arrangements was both expanded to include exchange-traded derivatives (ETDs) under the newly implemented Markets in Financial Instruments Regulation (MiFIR) within Article 30 and updated within EMIR in order to align the two approaches. These changes were achieved via two new Commission Delegated Regulations (Delegated Regulations).

On 21 November 2017, the two documents were published in the *Official Journal of the European Union* (*OJEU*):

- Delegated Regulation ((EU) 2017/2154) (MiFIR Indirect Clearing RTS), which supplements the Markets in Financial Instruments Regulation (Regulation 600/2014) (MiFIR) with regards to regulatory technical standards (RTS) on indirect clearing arrangements); and

- Delegated Regulation ((EU) 2017/2155) (EMIR Indirect Clearing RTS), amending Delegated Regulation (EU) 149/2013 with regards to RTS on indirect clearing arrangements, to reflect a mandate under Article 4(4) of the European Market Infrastructure Regulation (Regulation 648/2012) (EMIR).

These Delegated Regulations applied starting from 3 January 2018.

With effect, under Part 7 of the Financial Services and Markets Act 2000 (Amendment) (EU Exit) Regulations 2019, SGIL became subject to the amended, onshored version of EU MiFID under the EU (Withdrawal) Act 2018 and the Markets in Financial Instruments (Amendment) (EU Exit)

[1] It should be noted that SGIL, SGAS and SGCC are 3rd-country, non-EU registered investment firms that are primarily subject to regulation by their home regulators. In the case of SGIL, SGIL is a UK registered investment firm regulated by the Financial Conduct Authority. SGAS is a U.S. registered broker-dealer and futures commission merchant regulated by the Securities and Exchange Commission, the Commodity Futures Trading Association, the Financial Industry Regulatory Authority and the National Futures Association. SGCC is a Canadian registered dealer regulated primarily by the Canadian Investment Regulatory Organization.

Regulations 2018 ("UK MiFID") when it provides UK MiFID investment (or ancillary) services/activities in or from the United Kingdom.

The aim of the Delegated Regulations is to:

- simplify and clarify the requirements relating to managing the default of a direct client providing indirect clearing services;
- adapt account structures to rationalize the offering of indirect clearing services;
- allow indirect clearing services to be provided in chains going beyond the client of a direct client, with certain limitations, so long as appropriate and equivalent protection is ensured throughout the chain; and
- set out homogenous requirements for indirect clearing arrangements relating to both over-the-counter and exchange-traded derivatives.

3.1. Fee Disclosure Requirements

One of the objectives of EMIR is to provide greater transparency in relation to the services provided by CCPs and clearing members and to that end it imposes new disclosure requirements related to the fees charged for services.

- EMIR Article 38 (1) requires that a CCP and its clearing members shall publicly disclose the prices and fees associated with the services provided (including discounts and rebates and the conditions to benefit from those reductions).
- EMIR Article 39 (5) requires that a clearing member shall offer its clients, at least, the choice between omnibus client segregation and individual client segregation and inform them of the costs and level of protection associated with each option.
- EMIR Article 39 (7) requires that CCPs and clearing members shall publicly disclose the levels of protection and the costs associated with the different levels of segregation that they provide.
- Additionally, MiFIR Indirect Clearing RTS Article 4(2) requires that a clearing member providing indirect clearing services in relation to ETDs shall offer its clients, at least, the choice between basic omnibus segregation and gross omnibus segregation.

This document is intended to provide customers and prospective customers with information relating to the costs and fees associated with different segregation account types to be offered by SG. As with most clearing firms, SG's cost structure is client-specific and based on a large number of factors, many of which are set forth herein. This Supplement may be updated from time-to- time, as SG comes into possession of information from CCPs regarding their costs for certain account types and other relevant information. Customers are encouraged to review this Supplement, along with other important EMIR & MiFID II-related disclosure documents provided by SG relating to its clearing services and contact their Account Executive / Relationship Manager to agree on the actual account type costs to be charged.

Clearing: Fee Considerations for EU and UK CCP's[2]

3.2. Overview

SG fees are based on a number of different criteria, the most important being a client's individual circumstances, and may vary over time (for example, to take into account changes in the legal, regulatory, tax or business environment). Some of the common factors which may be taken into account as of the date of this Supplement are set out in the table below. As a general matter, there is a correlation between the level of protection chosen by the client and the overall costs charged by SG. Typically, our internal and external costs will be higher for the services associated with providing the higher levels of protection, for example, as provided by individual segregated accounts.

The table below is provided as an illustration of the criteria, not necessarily exhaustive or determinative, which may be used in consideration of the level of fees to be applied:

Products, CCPs and execution		**Lower Fees**	**Higher Fees**
Products	Listed or OTC cleared	Listed Products	OTC Products
CCPs	Choice of CCP	Dependent on individual CCP fees	
	Account opening, maintenance and transactional costs charged by each CCP	Dependent on individual CCP fees	
Processing	Straight-through processing	STP Markets	Non-STP Markets
Execution method	Direct, electronic or voice	Direct / Electronic Execution	Voice Execution
Account Types and Volumes		**Lower Fees**	**Higher Fees**
Type	Direct OSA / ISA Basic / Gross Omnibus Indirect Client Account[3]	Direct Basic Omnibus Segregated Account ('OSA') & Basic Omnibus Indirect Client Account ('BOSA')	Direct Individual Segregated accounts ('ISA') Gross Omnibus Indirect Client Account ('GOSA')
Number of Accounts	Number of Position Accounts required to be held at the CCP	Low Numbers of Accounts	High Number of Accounts
Volume of Transactions	Number of Transaction cleared	High Volumes of Transactions	Low Volumes of Transactions
Collateral Allocation and Settlement		**Lower Fees**	**Higher Fees**
Type of collateral	Cash or Non-Cash	Cash Collateral	Non-Cash Collateral
Settlement Frequency	Excess margin at CCP	Auto repay on	Auto Repay off
Settlement	Cash or Physical Delivery	Cash Settlement	Physical Delivery
Allocation	Pre- or Post-Clearing	Pre-Clearing Allocation	Post-Clearing Allocation

[2] It should be noted that these fee considerations may not apply for clearing services on non-European CCPs. Please refer to the Appendix to understand when indirect clearing services are offered by the various SG entities.

[3] A GOSA attracts additional requirements and has specific terms and conditions in comparison with BOSA, including relating to (i) information provided to any relevant clearing member or clearing house, (ii) pricing and (iii) legal documentation. If the Client elects for a GOSA, they should contact their usual account executive to discuss this further.

Additional factors		Lower Fees	Higher Fees
Internal Operational costs		Low Internal SG Operational Costs	High Internal SG Operational Costs
Application of Client Asset Protection Rules to Client Cash Collateral		Client Agreement subject to Title Transfer Collateral Arrangements	Client Agreement subject to CASS Client Assets Protection or other local Client Asset Protection rules
Credit and Internal Risk Weighting of Client		High Client Credit Rating	Low Client Credit Rating
Capital and Liquidity Costs		Low Capital and Liquidity Impact on SG	High Capital and Liquidity Impact on SG
Impact on Default Fund contributions and concentration risk margin requirements arising from provision of services to the Client		Low Impact on SG's Default Fund Contributions	High Impact on SG's Default Fund Contributions
Default Management	Porting or Leapfrog / liquidation	Liquidation	Porting or leapfrog

Direct Basic Omnibus Segregated Accounts ('OSA'), Direct Individual Segregated Accounts ('ISA'), Basic Omnibus Indirect Client Accounts ('BOSA') and Gross Omnibus Indirect Client Accounts ('GOSA')

As tabled above, clients may incur higher fees if they opt for ISAs or GOSAs rather than OSAs or BOSAs. The higher account maintenance fees reflect the additional operational complexity of the ISA / GOSA which require additional reconciliations and movements of cash and non-cash collateral. Please note GOSA accounts are not supported for permissible indirect clearing long chains to avoid risks stemming from false assumptions related to the level of protection that may be achieved in a long chain scenario.

The OSAs, BOSAs, ISAs and GOSAs will be subject to the following fees types and maximum fees:

Fee Type	Description	Fee	
		OSA / BOSA	ISA / GOSA
CCP Charges	CCP charges directly incurred by us in connection with your positions and collateral. (pass-through of costs)	Yes	Yes
Third Party Charges	Third party charges directly incurred by us in connection with your positions and collateral. (pass-through of costs)	Yes	Yes
Account Opening Fee	Charge per CCP account opened.	None	£5,000 per account
Account Maintenance Fee	Charge per CCP account per month.	None	£10,000 per month

Portfolio Fee	Charge based on the balance of assets held.	None	75 bps
Funding Charge	To meet intra-day shortfalls incurred on your supporting margin payments to CCPs. (daily shortfalls will incur a funding charge across all account types)	None	Market overnight rate plus 325 bps

Note, fees may differ for OTC Cleared Derivatives.

Please note the fees and charges are indicative and are subject to individual negotiation and are also subject to change or amendment from time to time. All amounts referred to in this document are exclusive of value added tax (to the extent applicable).

4. Minimum Account Fee

SG may also apply a minimum account fee (MAC) to those clients whose activity is below thresholds set by SG.

5. Additional Services

5.1. Overview

SG fees are also based on the extent to which any additional services are extended to a Client. These may include, but are not limited to the following services:

- Single Currency Margining
- Non-Cash Collateral transformation
- Margin Financing Facility

The fee charges for additional services are likely to be higher with the level of complexity of the solution provided.

6. Discounts and Rebates

Customers may be able to benefit from certain discounts or rebates with regards to SG clearing services. Such discounts or rebates, and the conditions to benefit from such reductions, should be discussed with your SG account executive.

7. CCP Fees

As above, SG will pass on to the client any costs charged by CCPs for holding those accounts. See Appendix 1 for a summary of the CCP fee disclosures currently available. This will be updated from time to time to reflect the publication of any new fee schedules connected with EMIR & MIFID II account structures by CCPs.

Appendix

CCP Fee Summary As per Section 5: *"Direct Basic Omnibus Segregated Accounts ('OSA'), Direct Individual Segregated Accounts ('ISA'), Basic Omnibus Indirect Client Accounts ('BOSA') and Gross Omnibus Indirect Client Accounts ('GOSA')"*, CCP charges directly incurred by us in connection with your positions and collateral will be passed on to you. For those EMIR authorised CCPs where SG is a clearing member[4], information of individual CCP account fee structures under EMIR & MiFID II are available through the CCPs websites, links tabled below:

Societe Generale International Limited ("**SGIL**"), Societe Generale SA ("**SGSA**"), SG Americas Securities, LLC ("**SGAS**") and Société Générale Capital Canada Inc. ("**SGCC**") currently propose to offer an exchange traded derivatives indirect clearing service to qualifying clients on the following exchanges as Clearing Member ("**CM**") or Direct Client ("**DC**") of a CM as indicated below:

Central Counterparty ("CCP")	**Non-SG Clearing Memberships**	**SGIL**	**SGSA**	**SGAS**	**SGCC**	**Links to CCP / CM disclosures**
Nasdaq Clearing AB		DC via SGSA	CM	DC via SGSA	DC via SGSA	CCP: http://www.nasdaqomx.com
						CM: SGIL: https://sgildisclosure.societegenerale.com/en/market- regulation/indirect-clearing/ SGSA: https://wholesale.banking.societegenerale.com/en/compliance- regulatory-information/market-regulation/clearing-and-prime- brokerage-activity/

[4] Currently, SGAS is a clearing member of ICE Clear Europe and a member of ICE Futures US.

Eurex Clearing AG		CM	CM	DC via SGSA	DC via SGSA	CCP: http://www.eurexclearing.com CM: SGIL: https://sgildisclosure.societegenerale.com/en/market-regulation/indirect-clearing/ SGSA: https://wholesale.banking.societegenerale.com/en/compliance-regulatory-information/market-regulation/clearing-and-prime-brokerage-activity/
Cassa di Compensazionee Garanzia S.p.A. (CC&G)		DC via SGSA	CM	DC via SGSA	DC via SGSA	CCP: http://www.ccg.it CM: SGIL: https://sgildisclosure.societegenerale.com/en/market-regulation/indirect-clearing/ SGSA: https://wholesale.banking.societegenerale.com/en/compliance-regulatory-information/market-regulation/clearing-and-prime-brokerage-activity/
LCH.Clearnet SA		CM	CM	DC via SGSA	DC via SGSA	CCP: http://www.lchclearnet.com CM: SGIL: https://sgildisclosure.societegenerale.com/en/market-regulation/indirect-clearing/ SGSA: https://wholesale.banking.societegenerale.com/en/compliance-regulatory-information/market-regulation/clearing-and-prime-brokerage-activity/

European Commodity Clearing AG		DC via SGSA	CM	DC via SGSA	DC via SGSA	CCP: http://www.ecc.de CM: SGIL: https://sgildisclosure.societegenerale.com/en/market-regulation/indirect-clearing/ SGSA: https://wholesale.banking.societegenerale.com/en/compliance-regulatory-information/market-regulation/clearing-and-prime- brokerage-activity/
LCH.Clearnet Ltd		CM	CM - OTC Cleared	FCM	DC via SGIL	CCP: http://www.lchclearnet.com CM: SGIL: https://sgildisclosure.societegenerale.com/en/market-regulation/indirect-clearing/ SGSA: https://wholesale.banking.societegenerale.com/en/compliance-regulatory-information/market-regulation/clearing-and-prime- brokerage-activity/
LME Clear Ltd		CM	DC via SGIL	DC via SGIL	DC via SGIL	CCP: http://www.lme.com/en-gb/lme-clear/ CM: SGIL: https://sgildisclosure.societegenerale.com/en/market-regulation/indirect-clearing/

ICE Clear Europe Ltd (for ICE Futures Europe)		CM	DC via SGIL	DC via SGIL	DC via SGIL	CCP: https://www.theice.com/clear-europe CM: SGIL: https://sgildisclosure.societegenerale.com/en/market- regulation/indirect-clearing/
ICE Clear Europe Ltd (for ICE Futures US Energy Division)		DC via SGAS	DC via SGAS	CM	DC via SGAS	CCP: https://www.theice.com/clear-europe CM: SGAS: www.sgasdisclosure.com
BME Clearing SA	Altura Markets, Sociedad De Valores, S.A.	DC	DC	1st Indirect Client Via SGIL	1st Indirect Client Via SGIL	CCP: http://www.bmeclearing.es CM: To be confirmed
KDPW CCP S.A.	Societe Generale, Warsaw branch	DC	CM	DC via SGSA	DC via SGSA	CCP: http://www.kdpw.pl CM: To be confirmed

Please note SGSA, SGIL, SGAS and SGCC do not currently intend to provide an indirect clearing service in relation to over-the-counter derivatives.

Disclaimer

This document provides a high-level indication of SG's fee charging structure as it relates to EU and UK CCPs. It does not provide all the information you may need to make the decision on which account type is suitable for you. It is intended as a basis for further discussion and for further detailed information regarding the costs of an omnibus or individual segregated account as offered on EU and UK CCPs. Please contact your Account Executive or usual SG contact for further information.

SG shall not in any circumstances be liable, whether in contract, tort, breach of statutory duty or otherwise for any losses or damages that may be suffered as a result of using this document. Such losses or damages include (a) any loss of profit or revenue, damage to reputation or loss or any contract or other business opportunity or goodwill and (b) any indirect loss or consequential loss. No responsibility or liability is accepted for any errors, misstatements or omissions in this document or any differences of interpretation of legislative provisions and related guidance on which it is based. This paragraph does not extend to an exclusion of liability for, or remedy in respect of, fraudulent misrepresentation.

EMIR Article 38(8) Margin Transparency Disclosure Statement

1. Introduction

Pursuant to EMIR Article 38(8), we are required to inform you about:

(a) information on the way that the margin models of the CCP work;

(b) information on the situations and conditions that might trigger margin calls;

(c) information on the procedures used to establish the amount to be posted by the clients; and

(d) a simulation of the margin requirements to which clients might be subject under different scenarios.

ESMA, in consultation with EBA and the ESCB, is required to develop and submit draft regulatory technical standards, within 12 months from the date of entry into force of EMIR 3, to further specify (among other things): (i) the information to be provided by clearing service providers to their clients and (ii) the requirements of the simulation of margins to be provided to clients and the type of output to be provided.

At the time of publication of this Disclosure Statement, ESMA has not yet published the draft regulatory technical standards referred to above, therefore this document has been drafted on a “best efforts basis” considering the requirements in EMIR Article 38(8) set out above and considering information made publicly available by CCPs.

This Disclosure Statement has been drafted by experts at clearing firms that participated in the FIA Working Group on EMIR Article 38(8). CCPs and other market participants did not review or provide input into this document, which is based solely on the publicly available information that the FIA Working Group members have collected.

2. Information on the way that the margin models of the CCP work

<u>General CCP margin information</u>

CCPs usually call their members for two margin types, namely variation margin and initial margin[4].

2.1 <u>Variation margin</u>

[4] Please note that margin terminology may differ from one EU CCP to the other, and clients are advised to refer to the rules of each CCP to familiarise themselves with the margin terminology that the specific CCP uses in its rules.

Variation margin (VM) represents margin collected or paid out to reflect current exposures resulting from actual changes in market price[5]. VM, normally paid in cash and transferred outright or with full title to a CCP or by a CCP, is a risk management tool designed to ensure that amounts representing the gains and losses under cleared derivatives contracts are transferred regularly as market prices fluctuate, preventing the build-up of large, unrealized losses. CCPs typically require that VM be posted in cash in the currency of the underlying transactions, depending on the specific terms of the contract.

For some other contracts, VM is collected and accrued by the CCP for the duration of the contract. This is often referred to as "contingent" VM[6]. Such contingent VM can be considered as Initial Margin (see below) depending on the CCP and can be covered in cash or non-cash collateral.

2.2 Initial margin and additional margins

Initial margin (IM) represents margins collected by the CCP to cover potential future exposure to clearing members providing the margin and, where applicable, to interoperable CCPs. This margin is intended to cover the market risk resulting in a change in mark-to-market value of the cleared contracts held by the clearing member at the CCP during the period between the last margin collection and the liquidation of positions following a default of a clearing member or of an interoperable CCP[7].

IM is posted by clearing members to the CCPs either by way of cash (which is usually transferred outright) or securities (by way of security or outright transfer). As reference above, IM primarily covers market risk, which is the risk of a change in the mark-to-market before additional VM is posted or the position is closed out. Essentially, this is a function of the time it takes to post VM, the volatility of the cleared derivative and the close out timeline (margin period of risk). Other types of risk, such as concentration or stress conditions, can be covered via additional margins.

The application of IM and additional margins is CCP-specific. For example, some CCPs may include risks other than price risks in their IM, while other CCPs may apply additional margins. CCPs also reserve the right in their rules to call for any extraordinary additional margins to their members. CCPs use margin models to compute IM and additional margins. IM is typically calculated by applying one of the following two model types: SPAN like model or portfolio VaR model[8].

In the European Union (EU), CCPs are required to have anti-procyclical tools embedded in their margin models to mitigate risks associated with rapid margin changes. For IM, CCPs can use three different options: (a) applying a margin buffer at least equal to 25 % of the calculated margins, (b) assigning at least 25 % weight to stressed observations in the lookback period, or (c) ensuring that its margin requirements are not lower than those that would be calculated using volatility estimated over a 10-year historical lookback period[9].

[5] See Article 1(6) of COMMISSION DELEGATED REGULATION (EU) No 153/2013 of 19 December 2012 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council with regard to regulatory technical standards on requirements for central counterparties (EMIR CCP RTS), as amended.
[6] This is a prevalent VM method for listed equity options.
[7] See Article 1(5) of the EMIR CCP RTS.
[8] Please refer to Section 2 of the ECB Occasional Paper Series on CCP initial margin models in Europe published by the ECB in April 2023 for further details of the main modelling frameworks used, including Standard Portfolio Analysis of Risk (SPAN) and Value at Risk (VaR) models.
[9] See Article 28 of the EMIR CCP RTS.

CCPs have a right to amend their margin methodologies and relevant parameters subject to applicable governance. Typically, CCPs review margin parameters on a periodic basis to ensure the level of margin coverage remains appropriate under any prevailing market conditions to cover market and counterparty credit risk.

Key CCP margin model parameters include:

- Margin period of risk (MPOR) which is the period of time from the last transfer of collateral covering a set of transactions with a defaulting clearing member, until the transactions are closed out and the resulting market risk is re-hedged. The MPOR for specific product sets is prescribed in the EU by regulation and currently stands at a minimum of
  - 2-days for exchange-traded derivatives (ETDs) or
  - 1-day for ETDs on a gross basis for client accounts under specific conditions[10] and
  - 5-days for cleared OTC derivatives;
- The "confidence interval" for calculating IM, based on historical volatility and anticipated liquidation periods, which is set to 99.0% for ETDs and 99.5% for cleared OTC derivatives under EU regulations[11];
- The anti-procyclical parameters: (a) the weight of stress periods, (b) the length of the lookback period, or (c) the buffer size.

CCPs typically compute margin for groups of positions in portfolios that are part of a specific clearing service or market, such as exchange-traded equity derivatives, exchange-traded interest rate derivatives or cleared OTC interest rates derivatives. However, some CCPs allow cross-product margining between correlated markets, such as, for example, exchange-traded and OTC cleared interest rate derivatives.

Appendix to this Disclosure Statement includes basic EU CCP-specific margin information for illustration purposes.

2.3 Collateral

IM can be met by market participants in the form of eligible collateral, typically cash in the main fiat currencies and high credit quality and liquid non-cash collateral in the form of US/EU and UK government bonds. CCPs establish a list of eligible collateral which may be subject to a 'haircut' that represents a discount to mitigate for the potential decrease in value of the collateral.

CCP haircut models, similar to CCP margin models, estimate the potential loss in value of eligible collateral. Considering the liquidity, credit risk, price volatility and other factors of the instrument, the CCP haircut model will dictate the discounted value of the instrument[12].

[10] See Article 26(1)(c) of the EMIR CCP RTS, called "liquidation period" therein.
[11] See Article 24(1) of the EMIR CCP RTS.
[12] For example, assuming a margin requirement of EUR95 for a counterparty. That counterparty decides to use 10Y Italian Government Bonds against which the CCP set a 5% haircut. The counterparty should post in excess of EUR100 notional value of the 10 Y Italian Government Bond to meet its margin requirement (collateral = margin requirement / (1 - haircut) = 95 / (1-0.05) = 100).

CCPs also set concentration limits with respect to the amount of certain collateral types that can be posted as IM and set limit on the level of excess collateral that can posted to cover future IM requirements.

2.4 CCP margin payment cycle

CCPs have specific daily payment schedules to receive and pay VM and IM (typically once a day) and may also require ad hoc payments of margin (intraday margin calls).

Intraday IM calls can often only be met with cash collateral, but some CCPs may have stricter collateral criteria in place and only accept specific cash currency (such as Euro). These ad hoc calls usually occur during business hours, but, depending on market conditions, they can also take place outside of business hours and can be met in a different currency (such as US Dollars, for example).

2.5 CCP Transparency

CCPs provide information to their clearing members in different formats and at different levels. Certain CCPs do not distinguish between the impact of house and client activity on additional margin applied to the clearing member's business. For this reason, the information that clearing members make available to their clients is highly dependent on the level of transparency and disclosure that they receive from each individual CCP. The same applies with respect to the level of information available to clearing service providers further down the clearing chain.

CCPs have margin simulation tools enabling computations of IM. Some CCPs make their margin simulation tools publicly available, whereas others make them available to their members and clients only. These tools may also include features to compute CCP additional margins. *(See Section 5 below for further details.)*. It may be the case that new types of additional margin are not immediately reflected in CCP margin simulation tool, which limits the transparency that can be shared with clients.

3. Information on the situations and conditions that trigger margin calls

3.1 General information

CCPs typically collect IM and VM once a day based on the settlement price or mark-to-market value of cleared derivative positions at the end of the previous day (EoD margin), usually on a T+1 basis (i.e., at open of business the next morning). As mentioned above, CCPs can also call for margin outside the traditional EoD schedule. Intraday payments may be triggered if the cleared derivative positions have suffered unrealised or realised losses beyond a certain limit as defined by the CCP.

Several factors can result in changes to CCP IM. For example, trading activity that results in changes to the size of a position or composition of a portfolio can lead to higher CCP IM requirements. Larger or more concentrated positions generally require more IM to ensure adequate coverage.

Another key factor that can trigger a change in IM is increased market volatility. When markets become more volatile, the likelihood of large price movements increases, prompting CCPs to require higher margins to cover any such potential price movements.

CCPs also periodically review and update their risk models. Changes in these models can lead to adjustments in IM requirements to better reflect current market conditions and risks.

It is important to note that both VM and IM requirements can change daily even if cleared derivative positions remain unchanged.

In summary, CCP margin calls can be triggered by a number of different factors including (but not limited to) a change in trading activity, increased market volatility and CCP margin models reacting to market conditions. For more detailed information, please refer to relevant CCP margin documentation on the relevant CCP websites.

3.2 Margin calls by clearing service providers

Clearing members typically call clients for the CCP required VM and/or IM called by the CCP. A client of a clearing member providing clearing services to its clients would in turn call its clients for at least the same amount of margin following a call from the clearing member.

Clearing service providers may call clients for additional margin in line with the contractual framework that they have in place with them. This can be done either by applying a multiplier to the CCP margin requirement or via a fixed margin buffer. In some cases, clearing service providers may also apply their own in-house margin methodology.

To determine whether additional margin is required, clearing service providers perform daily monitoring of client portfolios, evaluating a wide array of quantitative and qualitative factors. These include (but are not limited to) counterparty risk, credit risk, portfolio risk, country risk, market price movements, potential future volatility, the capacity of clients to respond to intraday margin calls and other risks assessed against each individual client. It is important to note that these risks may not be assessed by CCPs, and CCPs may not be aware of the identity of end clients in certain segregation models.

Clearing service providers also evaluate the level of the CCP margin in relation to their assessment of anticipated market conditions, the specific client portfolios, or other client specificities, and may apply additional margin. They may also apply additional margin to facilitate clients' intraday trade registrations and to absorb potential negative intraday market movements, which clients might not be able to respond to promptly. Clients should contact their relationship managers at the clearing firm for further information around the terms of their contractual framework with the clearing service provider.

4. Information on the procedures used to establish the amount to be posted by the clients

For more details on the procedures used to determine the amount of margin required by each CCP, please refer to the CCP margin information in the Appendix below that is not exhaustive and has been produced for illustration purposes only.

Client clearing agreements typically govern the provision of margin by clients to clearing service providers. The agreement may also cover the provision of margin by clearing service providers to clients, where relevant and mutually agreed upon. Clients are typically required to transfer margin to the clearing service provider to meet the requirements set by the CCP, as well as any additional margin requirement set by the clearing service provider, as explained above.

Where a CCP provides different clearing services, CCP rules may require clearing members to make separate margin calls on clients in respect of transactions cleared through each CCP Service. Client clearing documentation may provide for the option that the clearing service provider may make separate, or aggregated, margin calls on a client in the clearing service provider's sole and absolute discretion.

The ability for the clearing service provider to apply additional margin is governed by the terms of the client clearing agreement. To determine whether additional margin is required, clearing service providers usually assess a wide range of client-specific and portfolio-specific factors among others. In the event additional margin is to be applied, the client is notified and informed in accordance with the terms that govern its relationship with the clearing service provider.

Clients should contact their relationship managers at the clearing service provider for further information around the terms of their client clearing documentation.

5. Simulation of the margin requirements to which clients might be subject under different scenarios

CCPs provide margin simulation tools that help clearing service providers and clients estimate their margin requirements. In some instances, these tools also allow for scenario-based simulations. However, as mentioned above, certain margin components, such as additional margins, may not be always immediately included in those simulations.

You will find a link to CCP-specific margin tools for each of the CCPs listed in the Appendix. Some CCP tools allow simulation of the same portfolio at different historical dates, which can help clearing service providers and/or clients get a sense of the volatility of margin requirements during stressed periods.

When additional margins are required by a clearing service provider, a comprehensive assessment of various quantitative and qualitative factors is conducted. As these requirements are specific to each client, clearing service providers might not be in a position to simulate such information systematically across their client base. Clients should contact their relationship manager at their clearing service provider should they require further information on the margin requirements under different scenarios.

Appendix – CCP-specific margin information

CCPs typically publicly disclose information of their margin models on their websites.

Disclaimer: *CCP-specific margin information provided in this Appendix is accurate as of the date specified for each CCP separately below. CCP margin models can change from time to time. Clients should refer to the relevant CCP websites for the most up to date information.*

EUREX (Date: 9 December 2024)	**Nasdaq Equity (Date: 9 December 2024)**
CCP Name: Eurex Clearing AG Website: https://www.eurex.com/ Margin model documentation weblink: Eurex Clearing Prisma Margin simulation model weblink: https://cpme.eurex.com/ Margin model Name: Prisma Margin model Type: Portfolio VaR Risks captured by margin model: Market risk, liquidity (or concentration) risk, option risk and time-to-expiry (settlement) risk Cross-product margining: Applicable between ETDs and Cleared OTC Interest Rates Margin Period of Risk (holding period): 2-days for ETDs / 5-days for OTC Anti-Procyclical component: Yes – 25% weighted stress period scenarios Lookback period: 3 years Confidence level: 99.0% for ETDs / 99.5% for OTC Metric: Value-at-Risk (VaR)	CCP Name: Nasdaq OMX Clearing AB Website: https://www.nasdaq.com/ Margin model documentation weblink: Nasdaq Clearing Margin Methodology Margin simulation model weblink: Nasdaq Clearing Technology and Connectivity (only available upon contacting Nasdaq) Margin model Name: OMS II Model Margin model Type: Span-like Risks captured by margin model: Market risk, option risk and time-to-expiry (settlement) risk Cross-product margining: Only between equity products Margin Period of Risk (holding period): 2-days for ETDs Anti-Procyclical component: Undisclosed Lookback period: 1 year Confidence level: 99.2% Metric: Stress Value

Nasdaq Fixed Income (Date: 9 December 2024)	Nasdaq Commodities (Date: 9 December 2024)
CCP Name: Nasdaq OMX Clearing AB Website: https://www.nasdaq.com/ Margin model documentation weblink: Nasdaq Clearing Margin Methodology Margin simulation model weblink: Nasdaq Clearing Technology and Connectivity (only available upon contacting Nasdaq) Margin model Name: CFM Model (Cash Flow Margin) Margin model Type: Principal Component Analysis Risks captured by margin model: Market risk (Curve Risk) Cross-product margining: Only between fixed income products Margin Period of Risk (holding period): 2-days for ETDs and 5-day for OTC Anti-Procyclical component: Undisclosed Lookback period: 10 years and 1 year Confidence level: 99.2% for ETDs and 95% for OTC Metric: Stress Value	CCP Name: Nasdaq OMX Clearing AB Website: https://www.nasdaq.com/ Margin model documentation weblink: Nasdaq Clearing Margin Methodology Margin simulation model weblink: Nasdaq Clearing Technology and Connectivity (only available upon contacting Nasdaq) Margin model Name: SPAN® Model Margin model Type: SPAN Risks captured by margin model: Market risk, option risk and time-to-expiry (settlement) risk Cross-product margining: Only between certain commodities product group Margin Period of Risk (holding period): 2-days to 5-days for ETD Anti-Procyclical component: Undisclosed Lookback period: 1 year Confidence level: 99.2% for ETDs Metric: Stress Value

Euronext Equity Derivatives (Date: 9 December 2024)	Euronext Fixed Income Derivatives (Date: 9 December 2024)
CCP Name: Euronext Clearing Website: https://www.euronext.com/ Margin model documentation weblink: • Methodologies | Euronext Clearing • Parameters | Euronext Clearing Margin simulation model weblink: The tool is not available publicly, for access please contact CCP-rm.group@euronext.com Margin model Name: EQDER Risk Engine Margin model Type: SPAN-like Risks captured by margin model: Market risk, option risk and time-to-expiry (settlement) risk Cross-product margining: Only between equity products Margin Period of Risk (holding period): 2-days for ETDs and 5-days for OTC Anti-Procyclical component: 25% Stressed weight Lookback period: 5 years Confidence level: 99.5% Metric: Stress Value	CCP Name: Euronext Clearing Website: https://www.euronext.com/ Margin model documentation weblink: • Methodologies | Euronext Clearing • Parameters | Euronext Clearing Margin simulation model weblink: The tool is not available publicly, for access please contact CCP-rm.group@euronext.com Margin model Name: Fixed Income Risk Engine Margin model Type: VaR Risks captured by margin model: Market risk Cross-product margining: Only for instruments from same issuer Margin Period of Risk (holding period): 5-days Anti-Procyclical component: 10 Year lookback period Lookback period: Anchored from 2004 Confidence level: from 99.5% to 99.8% Metric: Expected Shortfall Note the following margin add-ons are applied separately: decorrelation, concentration/idiosyncratic and repo concentration

Euronext Commodity Derivatives (Date: 9 December 2024)	**LCH SA CDSClear (Date: 9 December 2024)**
CCP Name: Euronext Clearing Website: https://www.euronext.com/ Margin model documentation weblink: • Methodologies | Euronext Clearing • Parameters | Euronext Clearing Margin simulation model weblink: The tool is not available publicly, for access please contact CCP-rm.group@euronext.com Margin model Name: COMDER Risk Engine Margin model Type: VaR Risks captured by margin model: Market risk, option risk and time-to-expiry (settlement) risk Cross-product margining: Between commodity products excluding farmed salmon Margin Period of Risk (holding period): 2-days Anti-Procyclical component: 25% Stressed weight Lookback period: 5-year Confidence level: from 99.5% Metric: Expected Shortfall Note the following margin add-ons are applied separately: decorrelation	CCP Name: LCH SA Website: https://www.lseg.com/ Margin model documentation weblink: LCH SA Risk Management Margin simulation model weblink: The tool is not available publicly, for access please contact CDSClear@lch.com Margin model Name: Undisclosed Margin model Type: VaR Risks captured by margin model: Market risk, wrong way risk and option risk Cross-product margining: Undisclosed Margin Period of Risk (holding period): 5-days Anti-Procyclical component: Undisclosed Lookback period: From 2007 Confidence level: from 99.7% Metric: VaR / Expected Shortfall Note the following margin add-ons are applied separately: Self referencing protection, liquidity and concentration, accrued fixed amount liquidation, credit event, stress, credit quality and capital related

ECC Derivatives Margining (Date: 9 December 2024)	BME Financial derivatives (Date: 9 December 2024)
CCP Name: European Commodity Clearing AG Website: https://www.ecc.de/ Margin model documentation weblink: Margining Margin simulation model weblink: Q & A Session – PC-Span® (Please follow these steps to install and run ECC margin simulation tool) Margin model Name: SPAN® Model Margin model Type: SPAN Risks captured by margin model: Market risk, option risk and time-to-expiry (settlement) risk Cross-product margining: Only applicable between “cross margin group” Margin Period of Risk (holding period): 2-days Anti-Procyclical component: Undisclosed Lookback period: 1-year Confidence level: from 99% Metric: stress value Note the following margin add-ons are applied separately: Concentration, power, gas, emission and short option delivery	CCP Name: BME Clearing Website: https://www.bmeclearing.es/ Margin model documentation weblink: MEFFCOM2 | BMEClearing Margin simulation model weblink: Not available publicly Margin model Name: MEFFCOM2 Margin model Type: SPAN-like Risks captured by margin model: Undisclosed Cross-product margining: Undisclosed Margin Period of Risk (holding period): Undisclosed Anti-Procyclical component: Undisclosed Lookback period: Undisclosed Confidence level: Undisclosed Metric: Undisclosed Note the following margin add-ons are applied separately: Undisclosed

KDPW CCP Listed derivatives (Date: 9 December 2024)	
CCP Name: KDPW_CCP S.A. Website: https://www.kdpw.pl/ Margin model documentation weblink: SPAN – margin calculation methodology Margin simulation model weblink: SPAN – margin calculation methodology (please follow the steps in this page to install and run KDPW_CCP margin simulation tool) Margin model Name: **SPAN®** Margin model Type: SPAN Risks captured by margin model: Market risk, option risk and time-to-expiry (settlement) risk Cross-product margining: Yes Margin Period of Risk (holding period): 2-Days Anti-Procyclical component: 10-Years lookback Lookback period: 10-Year Confidence level: 99% (and 99.5% where history is shorter than the lookback period) Metric: Stress value Note the following margin add-ons are applied separately: Undisclosed	

Central Counterparty Recovery and Resolution Regulation – (‘CCPR’)

In accordance with our obligations under the EU CCP Recovery and Resolution Regulation (“**CCPR**”)[13] and the European Market Infrastructure Regulation (“**EMIR**”)[14], we are writing to you to provide you with greater detail (i) about how measures in a CCP’s recovery plan may affect you (Article 9(23) CCPR), and (ii) of the potential losses or other costs that you may bear as a result of the application of the default management procedures and loss and position allocation arrangements under the CCP’s operating rules (Article 38(9) of EMIR, which was introduced by Article 87(7) CCPR and replaced pursuant to Article 1(41) of EMIR 3.0[15]).

I. CCPR

CCPR establishes a harmonised framework for the recovery and resolution of EU CCPs. CCPR is intended to ensure that both CCPs and their regulators will act decisively in a crisis scenario to keep CCPs providing their critical functions and to limit the impact on the financial system and on public funds.

CCPR comprises the following three pillars:

1. Preparation

(a) Recovery plans

CCPs are required to prepare recovery plans setting out measures they would take in crisis scenarios to restore their financial soundness and continue providing their critical functions. Recovery plans are not standardised and will likely differ from CCP to CCP. CCP Recovery plans are required to include a comprehensive range of:

(i) capital actions;
(ii) loss allocation actions (including recovery cash calls and a reduction in the value of gains payable by the CCP to non-defaulting clearing members);
(iii) position allocation actions; and
(iv) liquidity actions,

to maintain or restore the viability and financial soundness of the CCP.

(b) Resolution plans

Resolution authorities are required to prepare resolution plans setting out the resolution actions they would take if the CCP were likely to fail, in order to keep the CCP providing its critical functions and to limit the impact on the financial system and on public funds.

13 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R0023&from=EN
14 https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:L_202402987
15 https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:L_202402987

(c) **Resolvability**

Where a resolution authority identifies obstacles to the resolvability of a CCP in the course of the planning process, it can also require the CCP to take appropriate measures. These measures may include changes to the CCP's operational or legal structure or to its pre-funded loss-absorbing resources.

2. Early intervention

Where a CCP is about to breach its prudential requirements, CCPR gives regulators powers to intervene before the problems become critical and the financial situation deteriorates irreparably. These powers may include requiring a CCP to undertake specific actions envisaged in its recovery plan or to make changes to its business strategy or legal or operational structure.

3. Resolution

CCPR gives resolution authorities resolution tools to manage the failure of a CCP in an orderly way and to ensure that essential clearing functions and services are preserved.

Specifically, CCPR envisages the following resolution tools:

(a) the **position and loss allocation tools**, including:

(i) the **tear-up tool**: This resolution tool allows the resolution authority to terminate specific clearing contracts to balance the books of the CCP. In practice, this tool would be used by a resolution authority if a clearing member defaults and its positions cannot be auctioned off. In these circumstances, the resolution authority would terminate corresponding opposing positions to re-balance the CCP's books.

(ii) the **variation margin gain haircut (VMGH) tool**: This resolution tool allows the resolution authority to reduce the amount the CCP owes a clearing member in respect of post-resolution variation margin gains due in accordance with the CCP's process for paying variation margin.

(b) the **write-down and conversion tool**: This resolution tool allows the resolution authority to write down or convert instruments of ownership, debt instruments or other unsecured liabilities of the CCP.

(c) the **sale of business tool**: This resolution tool allows the resolution authority to sell all or part of the failing CCP to another entity.

(d) the **bridge CCP tool**: This resolution tool allows the resolution authority to separate out essential functions of a CCP and transfer them to a new CCP (the bridge CCP), which is controlled by the resolution authority.

To apply the resolution tools, resolution authorities are given wide resolution powers, including the power to:

(a) close out and terminate financial contracts;

(b) reduce the amount of variation margin due to a clearing member;

(c) cancel or modify the terms of a contract with the CCP;

(d) suspend payment and delivery obligations;

(e) restrict security interest enforcement; and

(f) suspend termination rights.

The application of the resolution tools and powers under CCPR is subject to certain safeguards (such as the 'no creditor worse off' principle). CCPR does not apply these safeguards to the recovery plans or default management procedures discussed in Section II below.

II. Impact on you

Provisions under CCPR and EMIR require us to inform you:

(a) if and in what way measures in the CCP's recovery plan may affect you; and

(b) of the potential losses or other costs that you may bear as a result of the application of the default management procedures and loss and position allocation arrangements under a CCP's operating rules.

The measures described below may affect transactions we are clearing for ourselves as well as transactions we are clearing for you or, where we are providing a clearing service to you as a client of a clearing member (known as "indirect clearing"), transactions cleared by that clearing member for us and you. The clearing agreement between us provides that, where we are a clearing member, we are only required to perform and pay our obligations to you to the extent a relevant CCP performs and pays its corresponding obligations to us and where we are a client of a clearing member, we are only required to perform and pay our obligations to you to the extent a relevant CCP performs and pays its corresponding obligations to our clearing member and, in turn, our clearing member performs and pays its corresponding obligations to us. Therefore, if the measures below are exercised, what we pay or deliver to you may be correspondingly reduced.

In addition to the specific costs and losses set out below, you may incur further costs and losses as a result of any market disruptions ensuing from the financial difficulties of the relevant CCP or its clearing members (such as increased margin requirements or stressed market circumstances which may adversely impact the value of your transactions).

CCP recovery plan measures

As CCPs are not required to make their recovery plans public, we cannot confirm with certainty which measures will be included in each CCP's recovery plan.

However, we expect each CCP's recovery plan to comprise one or more of the following measures, each of which may impact you in the ways outlined in the table below. The appendices to this letter set out details of which of the below measures have been provided for in the rulebook of each CCP we clear at on your behalf or, where we are facilitating an indirect clearing service, at which your transactions are cleared by a clearing member. If a measure is provided for in a CCP's rulebook, we would also expect that measure to be included in that CCP's recovery plan.

Measure	Description	Impact on you
Tear up	A process by which a CCP may terminate a class of contracts in order to rebalance its book. This tool is normally available to CCPs if a clearing member defaults and its positions cannot be auctioned off. The CCP can terminate corresponding positions in whole or part to re-balance the CCP's books. It may also be available following a non-default loss, a force majeure or other emergency. Normally a tear-up will be in the form of a partial tear-up, in which only a portion of each contract of a particular class of contracts will be subject to the tear-up. Generally, this portion will be sized at the minimum level to permit the CCP to rebalance the contracts of that class following the default or other event leading to the tear-up. A partial tear-up may lead to the tear-up of only portions of contracts that have an opposing	If the CCP implements tear-up measures in respect of a contract we are clearing for you, the CCP will terminate the relevant contract (or a portion of it), perform a close-out calculation and pay any positive resulting sum to us or require us to pay any resulting amount to it. Where we are facilitating an indirect clearing service, the CCP will make the initial payment of any positive resulting sum to or require payment of any resulting amount from the clearing member providing indirect clearing services and the

	directional position to contracts in the defaulting clearing member's portfolio or it may lead to the tear-up of portions of contracts that have both an opposing directional position and the same directional position. A tear-up may also be in respect of the entirety of the contracts in a particular class. Such a tear-up will lead to the tear-up of all contracts in the class, regardless of the direction of the position. Typically, a CCP will have broad discretion to determine what constitutes a class of contracts for these purposes. Partial tear-up is to be contrasted with an invoicing back (described below) because it will apply to all the contracts of a particular class of contracts cleared by a CCP (as opposed to only certain contracts identified to offset the defaulted contracts) and so its impact will fall evenly across all equivalent contracts forming part of the same class, although the impact may fall upon only those contracts having an opposing directional position to the defaulted contracts.	clearing member will either make a corresponding payment to us or require us to make a corresponding payment to it. Whilst we will account to you for any payment we receive, if we are required to make a payment to the CCP or our clearing member, we will claim that amount from you. In this context, you may incur incidental costs in the process of the closing out of your contracts and you may incur additional costs if you decide to enter into a replacement contract. You may also suffer a loss if the close-out value is different to the value of the closed-out contract recorded in your books. If you decide not to enter into a replacement contract, you will be exposed to the risk of adverse market movements that were previously hedged by the contract.
Invoicing Back	A process by which a CCP may terminate specific contracts in order to rebalance its book. This tool is normally available to CCPs if a clearing member defaults and its positions cannot be auctioned off. The CCP can terminate contracts that have an opposing directional position to re-balance the CCP's books. It may also be available following a non-default loss, a force majeure or other emergency. Invoicing back is to be contrasted with a partial tear-up (described above) because it will apply to some, but not all the contracts of a particular class of contracts cleared by a CCP (as opposed to portions of all those contracts in the same class as the defaulted contracts) and so its impact may not fall evenly across all clearing members holding	If the CCP implements invoicing back measures in respect of a contract we are clearing for you, the CCP will terminate the relevant contract, perform a close-out calculation and pay any positive resulting sum to us or require us to pay any resulting amount to it (although a requirement to pay the CCP is significantly less likely in an invoicing back). Where we are facilitating an indirect clearing service, the CCP will make the initial payment of any positive resulting sum to or require

	equivalent contracts forming part of the same class. Unlike partial tear-up, which may apply to contracts having different directional positions, invoicing back will only apply to contracts having a corresponding opposing directional position to the defaulted contracts.	payment of any resulting amount from the clearing member providing indirect clearing services and the clearing member will either make a corresponding payment to us or require us to make a corresponding payment to it. Whilst we will account to you for any payment we receive, if we are required to make a payment to the CCP or our clearing member, we will claim that amount from you. In this context, you may incur incidental costs in the process of the closing out of your contracts and you may incur additional costs if you decide to enter into a replacement contract. You may also suffer a loss if the close-out value is different to the value of the closed-out contract recorded in your books. If you decide not to enter into a replacement contract, you will be exposed to the risk of adverse market movements that were previously hedged by the contract.
Forced allocation	A process by which a CCP may require a clearing member to enter into a contract at a price and on terms specified by the CCP in order to rebalance its book. Similar to invoicing back, this tool is normally available to CCPs if a clearing member defaults and its positions cannot be auctioned off. In the case of forced allocation, the CCP will divide up the unsold portfolio of the defaulted	If the CCP implements forced allocation measures in respect of a category of contracts we clear on your behalf or, where we are facilitating an indirect clearing service, a category of contracts which a clearing member clears on your behalf, we may allocate certain of the contracts we are required to enter into to your client

	clearing member and allocate portions of such portfolio to the remaining non-defaulting clearing members. In most cases, the CCP has ultimate discretion to determine which clearing members are allocated such trades and the price at which the portfolio is allocated. This tool may also be available following a non-default loss, a force majeure or other emergency.	account. Following the allocation of such contracts to your client account, related back-to-back contracts will automatically arise between you and us and you will be required to perform payment and margining obligations in respect of such related back-to-back contracts.
Variation Margin Gains Haircutting (VMGH) measures	VMGH is used to reduce the amount of variation margin a CCP is required to transfer to non-defaulting clearing members where such obligation arises from a move in the mark-to-market value of a contract in favour of the clearing member after the CCP triggers a default process. Different drafting may be used to achieve this effect, for example, there may be a permanent reduction in the variation margin obligation that affects the value of the affected contract or an additional payment obligation may arise in favour of the CCP under the affected contract that has the effect of reducing the CCP's variation margin obligation.	If the CCP implements VMGH measures in respect of any variation margin to be transferred in respect of your contracts, we will pass the impact of any reduction in such variation margin on to you or, where we are facilitating an indirect clearing service, the impact of any reduction of variation margin on the clearing member acting for us in respect to contracts cleared on your behalf. This may result in you not receiving any variation margin in respect of any increase in the mark-to-market value of such contracts in your favour. This may mean that you do not obtain the full value that would otherwise accrue to your affected contracts that would have arisen from market movements after the default and, to the extent that you hold an opposite position in relation to any asset or liability that was hedged by the affected contract, you may face a loss on that position.
Assessments	Assessments are additional contributions to the default fund, which the CCP may call upon a non-defaulting clearing member to make during the default management process in order to ensure that	If the CCP or, where we are facilitating an indirect clearing service, the clearing member calls us for an assessment as

	it has sufficient resources to enable the CCP to manage the default of one or more clearing members. Assessments are amounts called for in addition to default fund contributions already made by clearing members. They will only be called for during a default management process and should be differentiated from replenishments, which the CCP will call to restore the default fund to its steady state following the end of the default management process.	part of a default management process, we may call for an amount equal to a portion of such assessment from you. The amount we will call for shall represent the portion of the portfolio of contracts we clear at the CCP which comprises contracts we clear on your behalf or, where we are facilitating an indirect clearing service, the proportion of contracts we clear at the CCP through that clearing member which comprises contracts we clear on your behalf.
Changes to Margin Criteria	A CCP may have discretion under its rulebook to amend the criteria used to determine the quantum of margin calls (whether variation margin or initial margin), the timing of such margin calls and the assets it will accept as eligible collateral.	If the CCP amends its margin criteria such that the type or amount of variation margin or initial margin we are required to transfer in respect of your contracts (or, where we are facilitating an indirect clearing service, the clearing member acting for us is required to transfer), or the timing on which we are required (or the clearing member, as applicable, is required) to make such transfer, changes, we will pass the impact of such changes onto you. This may result in you having to post additional margin in respect of your contracts, no longer being able to transfer certain assets as eligible collateral or us changing the deadline by which you must transfer margin to us on each business day.
Contingent Variation Margin	In certain situations (e.g. following the default of a clearing member), in order to preserve its cashflow, the CCP may credit a clearing member with an entitlement to variation margin (e.g. by way of a credit to their account) whilst, at the same	We will only transfer an amount of variation margin to you equal to the amount of variation margin we receive from the CCP in respect of the

	time, restricting payment of such variation margin to the clearing member or withdrawal of amounts credited to its account by the clearing member. In the future, the clearing member may be able to use this contingent variation margin credit in settlement of an obligation to post variation margin (and so the clearing member will not need to transfer variation margin to satisfy such obligation).	contracts we clear on your behalf or, where we are facilitating an indirect clearing service, the amount of variation margin the clearing member acting for us receives from the CCP in respect to contracts cleared on your behalf. Therefore, if the CCP implements contingent variation margin measures in respect of any variation margin to be transferred in respect of your contracts, you may not receive the full amount of variation margin due in respect of those contracts at the time such transfer is due. However, you will be credited with an entitlement to such variation margin which you may be able to use against your variation margin obligations in the future (rather than transferring additional variation margin).
Emergency Powers	In emergency conditions (such as market disruption, war, force majeure or following governmental or regulatory action), a CCP may have additional powers to amend its rulebook or require clearing members to take certain actions with regard to the performance of each clearing member's contracts. Such emergency powers may include Tear ups, Invoicing Back, Contingent Variation Margin and Forced Allocation (each as described above). The CCP may also elect to close one or more of its services and terminate all outstanding contracts cleared at that service.	See further above as to the impact of Tear ups, Invoicing Back, Contingent Variation Margin and Forced Allocation and below as to the impact of a service closure. In addition, if the CCP's exercise of emergency powers impacts the terms of any of your contracts or the amount of margin we are required to transfer to the CCP or a clearing member on your behalf or the CCP or clearing member is required to transfer to us in respect of your contracts, we will pass the

		impact of such changes onto you. This may result in an amendment to the terms of your contracts, the close-out of contracts to which you are party, an increase in the amount of margin you are required to transfer or a decrease in the amount of margin you may receive. If a contract which is being cleared for you is closed out, you may incur incidental costs in the process of the closing out of such contract and you may incur additional costs if you decide to enter into a replacement contract at another CCP. You may also suffer a loss if the close-out value is different to the value of the closed-out contract recorded in your books. If you decide not to enter into a replacement contract, you will be exposed to the risk of adverse market movements that were previously hedged by the contract. If you receive less margin in respect of a contract we clear on your behalf or, where we are facilitating an indirect clearing service, which is cleared by a clearing member on your behalf, this may mean that you do not obtain the full value that would otherwise accrue to such contract as a result of market movements and, to the extent that you hold an opposite position in relation to any asset or liability that was hedged by the affected contract, you may face a loss on that position.

Service Closure	The CCP may elect to close one or more of its services and terminate all outstanding contracts cleared at that service.	If the CCP closes a service at which we are clearing contracts for you and you have not arranged for your positions to be closed out yourself before the closure, the CCP will terminate the relevant contracts, perform a close-out calculation and pay any positive resulting sum to us or require us to pay any resulting amount to it. Where we are facilitating an indirect clearing service, the CCP will pay any positive resulting sum to or require payment of any resulting amount from the clearing member providing indirect clearing services and the clearing member will either make a corresponding payment to us or require us to make a corresponding payment to it. Whilst we will account to you for any payment we receive, if we are required to make a payment to the CCP or our clearing member, we will claim that amount from you. In this context, you may incur incidental costs in the process of the closing out of your contracts and you may incur additional costs if you decide to enter into a replacement contract at another CCP. You may also suffer a loss if the close-out value determined by the CCP is different to the value of the closed-out contract recorded in your books.

		If you decide not to enter into a replacement contract, you will be exposed to the risk of adverse market movements that were previously hedged by the contract. Due to the closure of the relevant service, it also may not be possible to enter into replacement contracts.

Please see further the Appendices to this letter for details as to which of these measures are included in the rulebook of the relevant CCPs at which we clear on your behalf.

1. Default management procedures

In summary[16], if a clearing member is declared to be in default under a CCP's default management procedures, the CCP will usually try to transfer (port) transactions and assets related to the clients of that clearing member to another clearing member. If porting cannot be achieved, the CCP will terminate the transactions related to the clients of that clearing member and perform a close-out calculation in respect of them. If there is an amount owed by the CCP, the CCP may pay such amount directly to such clients subject to certain conditions, including if it knows their identity. If the CCP does not pay directly to such clients, it will pay such amount to the defaulting clearing member (or its insolvency practitioner) for the account of the clearing member's clients.

If we are or, where we are facilitating an indirect clearing service, the clearing member providing the indirect clearing service is declared to be in default, you may incur costs and losses, the most relevant of which we expect to be the following:

(a) If your transactions and assets are ported and (i) we are the defaulting clearing member, you may incur incidental costs for transferring your positions and assets to another clearing broker; or (ii) we are facilitating an indirect clearing service, whilst we will continue to provide you with an indirect clearing service, we may pass on to you incidental costs associated for transferring your positions and assets to another clearing broker. In each case, you may be required to post additional collateral to enable porting to occur.

(b) If your transactions are terminated and (i) we are the defaulting clearing member and the resulting sum is paid directly to you, you may incur incidental costs in the process of the closing out of your contracts; or (ii) if we are facilitating an indirect clearing service through a clearing member that has defaulted and the resulting sum is paid directly to us, we will hold this sum for you and you may incur incidental costs in the process of the

[16] Please refer to Part One A of the FIA Clearing Member Disclosure Document for a more detailed description of a CCP's default management procedures.

closing out of your contracts. In each case, you may also suffer a loss if the close-out value is different to the value of the closed-out contract recorded in your books. Further, you may incur additional costs if you decide to enter into replacement transactions and if you decide not to (or cannot) enter into a replacement contract, you will be exposed to the risk of adverse market movements that were previously hedged by the contract.

(c) If we are the defaulting clearing member and your transactions are terminated and the resulting sum is paid to us, you may incur the costs and losses described in the paragraph above and additional losses resulting from our insolvency (which are explained in more detail in Part One C of the FIA Clearing Member Disclosure Document). If your transactions are terminated, we are facilitating an indirect clearing service through a clearing member that has defaulted and the resulting sum is paid directly to the defaulted clearing member, you may incur the costs and losses described in the paragraph above and additional losses resulting from the insolvency of the defaulted clearing member (which are explained in more detail in Part One C of the FIA Direct Client Disclosure Document).

If another clearing member is declared to be in default, the CCP will terminate any outstanding transactions of that clearing member. Any losses suffered by the CCP in respect of those transactions will be allocated amongst the CCP and its members in accordance with its loss and position allocation tools. The CCP may also seek to reduce those losses through the application of certain other measures provided for in its rulebook.

As part of such loss allocation and reduction tools, the CCP may apply default contributions provided by its clearing members against losses it incurs in respect of any transactions it has entered into with the defaulting clearing member. If we are your clearing member, to the extent any default fund contributions we have made in respect of transactions we clear on your behalf are applied to reduce such losses, we may be entitled to pass on some or all the amount by which such default fund contributions are reduced to you under the client clearing agreement between us. If we are facilitating an indirect clearing service through a clearing member and that clearing member, to the extent any default fund contributions that clearing member has made in respect of transactions we clear on your behalf are applied to reduce such losses and such costs are passed on to us, we may be entitled to pass on some or all the amount of such costs incurred by us to you under the client clearing agreement between us.

Such loss allocation and reduction tools may include the following, each of which will impact you in the manner described under “CCP recovery plan measures” above:

(a) assessments;
(b) tear up;
(c) invoicing back;
(d) forced allocation;
(e) variation margin gains haircutting (VMGH) measures;

(f) changes to margin criteria;
(g) service closure;
(h) contingent variation margin; and
(i) use of emergency powers.

Please see further the Appendices to this letter for details as to which of these measures are included in the rulebook of the relevant CCPs at which we clear or, where we are facilitating an indirect clearing service, at which your transactions are cleared by a clearing member on your behalf.

Please also refer to Part One B of the FIA Clearing Member Disclosure Document, "*Will you get back the same type of asset as you originally provided to us as margin for a Client Transaction?*" for a description of the type of compensation you may receive under a CCP's default management procedures.

III. Disclaimer

Recovery plans are not public and clearing members have to rely on voluntary disclosures by CCPs and the provisions of CCPs' rulebooks. Additionally, CCPs may take actions which are not reflected in the information they have provided. Therefore, there may be other ways in which a CCP's recovery plan may impact you which are not reflected in this notification.

The information in this notification is based on the general provisions of CCPR and EMIR, as well as the information publicly available on CCPs' websites (including in the rulebooks of those CCPs).

This notification may be updated from time to time to reflect regulatory guidance and the appendices hereto may be updated as CCPs update their rulebooks or disclose information about their recovery plans. However, we are under no obligation to keep the disclosure contained in this notification up to date at all times and there may therefore be some delay between a CCP updating its rulebook, or disclosure relating thereto, and consequential updates being made to the disclosure in this notification. Clients are therefore advised to consult the latest version of the relevant CCP's rulebook, in addition to the latest version of this notification and the appendices.

This notification does not constitute legal or any other form of advice and must not be relied on as such. This notification provides a high-level overview of a complex and new area of law, the effect of which will vary depending on the specific facts of any particular case. You and, where applicable, your clients may wish to appoint independent professional advisors to advise you on this.

This notification is not an exhaustive information document, please also refer to other disclosure documents on other aspects of CCPR and EMIR.

If you have questions in the meantime, please contact your usual relationship manager.

Appendix 1 - BME Clearing, S.A.U

This Appendix sets out the recovery and default tools available to, or that may be applied to, BME Clearing S.A.U ("**BME**") in a recovery and resolution scenario as set out in the BME Central Counterparty Rulebook effective from 12 February 2023 (the "**Rulebook**") and certain other documentation published by BME referred to in this Appendix.

* indicates that while this measure is not specifically contemplated in the Rulebook, it is likely to be available to BME by virtue of its general powers.

Measure	Contemplated in Rulebook	Rulebook Reference	Additional Comments
Tear-up	x*	n/a	n/a
Invoicing Back	x*	n/a	n/a
Forced Allocation	x*	n/a	n/a
Variation Margin Gains Haircutting (VMGH)	x*	n/a	n/a
Assessments	✓	Articles 29(5)(F), 45(8)(C)(7) and 55(1) of the Rulebook and Condition 1.14 of the General Conditions[17].	Although the BME rulebook does not explicitly provide for assessments, a clearing member may be required to provide additional contribution amounts to ensure the continuity of the service. A resolution authority may call a clearing member for a cash contribution of an amount equal to up to twice its contribution to the default. A failure to meet the required amount may result in the member being declared in default.
Changes to Margin Criteria	✓	CPMI-IOSCO Self-Assessment 2020 (*Q6.7.2*); Articles 2(5) and 29(4) of the Rulebook; and Financial Derivatives General Conditions, Circular C GEN 12/2022 (*Valuation of*	-

[17] BME Central Counterparty General Conditions, Financial Derivatives Segment dated 3 June 2021 and effective from 1 July 2021 ("**General Conditions**").

		Securities posted as Margins).	
Contingent Variation Margin	x*	n/a	n/a
Emergency Powers	✓	Article 2(5) of the Rulebook	In.an emergency situation, BME has broad powers to amend its rules without notice. This means that BME could in practice adopt any of the measures outlined above which are not specifically provided for explicitly in the Rulebook.
Service Closure	✓	Article 45.8(C)(10) of the Rulebook	-

Appendix 2 – Euronext Clearing

This Appendix sets out the recovery and default tools available to, or that may be applied to, Cassa di Compensazione e Garanzia S.p.A. ("**CC&G**"), trading under the name Euronext Clearing, in a recovery and resolution scenario as set out in the Cassa di Compensazione e Garanzia Regulations dated 12 February 2023 (the "**Rulebook**") and certain other documentation published by CC&G referred to in this Appendix.

Measure	Contemplated in Rulebook	Rulebook Reference	Additional Comments
Tear-up	x	n/a	n/a
Invoicing Back	x	n/a	n/a
Forced Allocation	✓	Article B.6.2.1 of the Rulebook.	Forced allocation is only applicable in respect of agricultural commodity derivatives (and, in the case of severe market illiquidity, single stock dividend futures and futures on the FTSE MIB dividend index).
Variation Margin Gains Haircutting (VMGH)	✓	Article B.7.1.1(2)(iii) of the Rulebook.	This power is only available after CC&G has determined to close a clearing service.
Assessments	✓	Articles B.4.2.5 and B.6.2.3.1 of the Rulebook.	There is a cap on the amount of assessments that may be called.
Changes to Margin Criteria	✓	Articles B.4.1.3 and B.4.1.1.7 of the Rulebook and Condition 7.3 of General Conditions I.	Urgent changes to the margin criteria may be made on 5 calendar days' notice.
Contingent Variation Margin	x	n/a	n/a
Emergency Powers	✓	Condition 7.3 of the General Conditions I. A.1.1.3.5, Regulations	In.an emergency situation, CC&G has broad powers to amend its rules or take action on little or no notice. This means that CC&G could in practice adopt any of the measures outlined above which are not specifically provided for explicitly in the Rulebook.
Service Closure	✓	Article B.7.1.1 of the Rulebook.	

Appendix 3 – Eurex Clearing

This Appendix sets out the recovery and default tools available to, or that may be applied to, Eurex Clearing AG ("**Eurex**) in a recovery and resolution scenario as set out in the Clearing Conditions of Eurex Clearing AG as published on 12 February 2023 (the "**Rulebook**") and certain other documentation published by Eurex referred to in this Appendix.

* indicates that while this measure is not specifically contemplated in the Rulebook, it is likely to be available to Eurex in certain circumstances by virtue of its general powers.

Measure	Contemplated in Rulebook	Rulebook Reference	Additional Comments
Tear-up	✓	Chapter I Part 1, Conditions 7.5.4.1, 7.5.4.3, 17.7.2(2)(a) and 17.7.2(b)(i) and (iii).	Eurex or the resolution authority may terminate transactions with opposite directional positions to those of the defaulting clearing member. Eurex or the resolution authority may also terminate all transactions within a liquidation group on the occurrence of a clearing member default where the resources available to Eurex are not sufficient to cover its losses.
Invoicing Back	✓	Chapter I Part 1, Conditions 13.3.1 and 13.3.3.	Eurex may establish opposite corresponding transactions with respect to transactions affected by a force majeure event, market disorder event or an impossibility event.
Forced Allocation	x*		-
Variation Margin Gains Haircutting (VMGH)	✓	Chapter I, Part 1, 17.7.2(3).	-
Assessments	✓	Chapter I Part 1, Conditions 6.3.1 and 17.7.2(4).	There is a cap on the amount of assessments that may be called
Changes to Margin Criteria	✓	Chapter I Part 1 Conditions 1.6.3 (b), 3.2.1, 3.2.4, 3.2.5 and 16.1.	
Contingent Variation Margin	x*	n/a	n/a
Emergency Powers	✓	Chapter I, Part 1, Condition 13.3.1(2)(ii) and 17.3.1(2) Chapter VIII, Part 1, Condition 1.5	Eurex has broad powers to take any action or amend the rulebook following a market disorder event, impossibility event or force majeure event and to pass emergency resolutions in the event of extraordinary market conditions.

			This means that Eurex could in practice adopt any of the measures outlined above which are not specifically provided for explicitly in the Rulebook.
Service Closure	✓	Chapter I, Part 1, Condition 13.3.1(3).	Eurex may suspend clearing services following a market disruption event, force majeure event or impossibility event.

Appendix 4 to CCPR Client Notification – LCH SA

This Appendix sets out the recovery and default tools available to, or that may be applied to, LCH SA ("**LCH**") in a recovery and resolution scenario as set out in the LCH SA Clearing Rulebook published on 10 February 2023 (the "**Rulebook**"), the LCH SA CDS Clearing Rulebook dated 11 May 2022 (the "**CDS Rulebook**") and certain other documentation published by LCH referred to in this Appendix.

* indicates that while this measure is not specifically contemplated in the Rulebook and/or the CDS Rulebook, subject to anything in the below table to the contrary, it is likely to be available to LCH by virtue of its general powers.

Measure	Contemplated in Rulebook	Rulebook Reference	Additional Comments
Tear-up	x*	n/a	n/a
Invoicing Back	x*	n/a	n/a
Forced Allocation	x*	n/a	n/a
Variation Margin Gains Haircutting (VMGH)	CDS Rulebook only*	Appendix 1, Clause 7, CDS Rulebook	-
Assessments	✓	Article 17 of Instruction IV.3-1 Section 6.6 of the Procedures relating to the CDS Rulebook	There is a cap on the amount, and number, of assessments that may be called.
Changes to Margin Criteria	✓	Articles 4.2.03 and 4.2.0.4 of the Rulebook and Articles 8, 13, 20 and 48 of Instruction IV. 4-1. Articles 4.2.1.2, 4.2.6.1 and 4.2.6.4 of the CDS Rulebook.	LCH has broad powers to amend its margin criteria, including the amount of margin it calls for, what constitutes eligible margin and haircuts applicable to margin.
Contingent Variation Margin	x*	n/a	n/a
Emergency Powers	✓	Article 1.3.3.13 of the Rulebook Article 5, Instruction I.2-1 Paragraph 5.2 of the Clearing Agreement	In.an emergency situation, LCH may take various measures (including amending its rules) on little or no notice. This means that LCH could in practice adopt any of the measures outlined above which

		Article 1.2.2.4 of the CDS Rulebook	are not specifically provided for explicitly in the Rulebook.
Service Closure	✓	Article 1.6.1.1 of the Rulebook, Article 7 of Instruction IV.5-3 and Article 7 of Instruction IV.5-5. Section 2.4.3 of the CDS Rulebook	-

Appendix 5 – Nasdaq Clearing AB

This Appendix sets out the recovery and default tools available to, or that may be applied to, Nasdaq Clearing AB ("**Nasdaq**") in a recovery and resolution scenario as set out in the Clearing Rules of Nasdaq Derivatives Markets (the "**Rulebook**") and certain other documentation published by Nasdaq referred to in this Appendix.

* indicates that while this measure is not specifically contemplated in the Rulebook, it is likely to be available to Nasdaq by virtue of its general powers.

Measure	Contemplated in Rulebook	Rulebook Reference	Additional Comments
Tear-up	✓	Schedule 2 to Appendix 16 of the Rulebook.	Tear-up may be applied in both directions (i.e. tear-up may be applied to portions of contracts that have both an opposing directional position and the same directional position to contracts in the defaulting clearing member's portfolio).
Invoicing Back	x*	n/a	n/a
Forced Allocation	x*	n/a	n/a
Variation Margin Gains Haircutting (VMGH)	x*	n/a	n/a
Assessments	✓	Articles 1.9A.26 -28 of Appendix 16 of the Rulebook.	There is a cap on the amount of assessments that may be called.
Changes to Margin Criteria	✓	Articles 2.8.2a, 2.8.14, 2.8.16 and 2.8.17 of the Rulebook	-
Contingent Variation Margin	x*	n/a	n/a
Emergency Powers	✓	Articles 1.17.1 and 1.19 of the Rulebook.	In.an emergency situation, Nasdaq may take various measures (including amending its rules) without notice. This means that Nasdaq could in practice adopt any of the measures outlined above which are not specifically provided for explicitly in the Rulebook.

Service Closure	✓	Schedule 4 of Appendix 16 of the Rulebook.	-

Appendix 6 – European Commodity Clearing AG

This Appendix sets out the recovery and default tools available to, or that may be applied to, European Commodity Clearing AG ("**ECC**") in a recovery and resolution scenario as set out in the Clearing Conditions of European Commodity Clearing effective from 8 May 2023 (the "**Rulebook**") and the guide published by ECC entitled "Impact of Recovery and Resolution Tools on Members and Clients" effective from 19 December 2022 (the "**Recovery Guide**").

* indicates that while this measure is not specifically contemplated in the Rulebook, it is likely to be available to ECC by virtue of its general powers.

Measure	Contemplated in Rulebook or Recovery Guide	Rulebook Reference	Additional Comments
Tear-up	✓	Section 3.11.9 of the Rulebook.	ECC may effect a "Partial Tear-Up" of remaining opposing positions held by a non-defaulting Clearing Member after at least one voluntary auction has been held and was insufficient to close out all positions in the default portfolio.
Invoicing Back	x*	n/a	n/a
Forced Allocation	✓	Sections 3.11 and 3.11.8 of the Rulebook.	ECC may hold mandatory auctions if at least one voluntary auction has been held and was insufficient to sufficiently reduce the risk in the default portfolio. ECC may also apply Forced Allocation in respect of remaining open positions after at least one voluntary and one mandatory auction has been held.
Variation Margin Gains Haircutting (VMGH)	x*	n/a	n/a
Assessments	✓	Sections 3.4.6.2(3) and 3.7.4 of the Rulebook.	-

Changes to Margin Criteria	✓	Sections 3.4.6.1(1) and 3.4.7(1) of the Rulebook.	
Contingent Variation Margin	x*	n/a	n/a
Emergency Powers	✓	Section 3.3.11 of the Rulebook.	In certain emergency scenarios, ECC has broad powers to take all appropriate and necessary measures to ensure orderly clearing. This means that ECC could in practice adopt any of the measures outlined above which are not specifically provided for in the Rulebook.
Service Closure	x*	n/a	n/a

Appendix 7 – KDPW_CCP S.A.

This Appendix sets out the recovery and default tools available to, or that may be applied to, KDPW_CCP S.A. ("**KDPW**") in a recovery and resolution scenario as set out in:

(i) the Rules of Transaction Clearing (Organised Trading), valid as of 16 July 2024 (the "**Organised Trading Rulebook**"); and

(ii) the Rules of Transaction Clearing (non-organised trading) valid as of 16 July 2024 (the " **Non-Organised Trading Rulebook**"),

(together, the **"Rulebooks"**)[18].

* indicates that while this measure is not specifically contemplated in one or more of the Rulebooks, it is likely to be available to KDPW by virtue of its general powers.

Measure	**Contemplated in Rulebooks**	**Rulebook Reference**	**Additional Comments**
Tear-up	✓	Article 65(1)(2) of the Organised Trading Rulebook Article 108b(1)(2) of the Non-Organised Trading Rulebook	KDPW may only effect a tear-up (in whole or in part) of the positions held by non-defaulting clearing members: (i) after three auctions have been held; and (ii) subject to the consent of clearing members party to at least two thirds of the value of the positions recorded in the clearing system that are affected by such tear-up.
Invoicing Back	x*	n/a	n/a
Forced Allocation	x*	n/a	n/a

[18] KDPW has also published Rules of clearing and settlement of EUA/EUAA sale transactions. As this document does not include recovery and default tools of the type described in this Annex it has not been included in the table.

Variation Margin Gains Haircutting (VMGH)	✓	Articles 65(1)(1) and 65a of the Organised Trading Rulebook Article108b(1)(1) and 108c of the Non-Organised Trading Rulebook	VMGH may only be effected with the consent of clearing members party to at least two thirds of the value of the positions recorded in the clearing system that are affected by such VMGH. Under the Organised Trading Rulebook, VMGH may reduce the financial benefits or interest coupons payable to a clearing member by KDPW. Under the Non-Organised Trading Rulebook, VMGH may reduce the variation margin or settlement amount payable to a clearing member by KDPW.
Assessments	✓	Article 66 of the Organised Trading Rulebook Articles 108 and108a of the Non-Organised Trading Rulebook	There is a cap on the amount of assessments that may be called. Under the Rulebooks[19], clearing members may not be called for greater than 100% of their existing maximum contributions.
Changes to Margin Criteria	✓	Articles 2 and 47 of the Organised Trading Rulebook Articles 3 and 79 of the Non-Organised Trading Rulebook	-
Contingent Variation Margin	x*	n/a	n/a
Emergency Powers	x*	n/a	n/a
Service Closure	x*	n/a	n/a

[19] The Non-Organised Trading Rulebook specifies two limits on the amount of assessment that may be called. One is set at 100% of the existing maximum contributions of a clearing member and one at 50%. It is unclear from the Non-Organised Trading Rulebook which applies, so the prudent approach would be to assume it is 100% in line with the Organised Trading Rulebook.

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