



CREST Central Counterparty Service Manual

June 2019

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Chapter 1: Introduction

Section 1: General

This CREST Central Counterparty Service Manual forms a part of the CREST Manual for the purposes of the definition of 'CREST Manual', 'CREST Requirements' and 'CREST CM Requirements' in the agreements entered into by CM undertakings, clearing sponsors, users, CM users and participants with Euroclear UK & Ireland Limited (**EUI**). Accordingly, terms used in this CREST Central Counterparty Service Manual which are not defined in it have the meanings given to them in the Glossary of the CREST Manual.

The central counterparty service comprises arrangements with one or more CCPs, which arrangements may differ as between CCPs, the principal details of the arrangements (insofar as they are relevant to CREST members and participants in the CM system) being as described from time to time in this CREST Central Counterparty Service Manual. All the arrangements involve services which in combination facilitate or otherwise relate to the performance by the CCP concerned of central counterparty functions.

In Chapter 4, sections 4 and 4A of the CREST Reference Manual, a description is given of the clearing support and related services that EUI may provide to clearing houses and other third parties. Some or all of those clearing support and related services are operated or provided as part of the central counterparty service. The distinctive feature of these services, when operated or provided as part of the central counterparty service, is their provision or operation, as part of a collaborative arrangement between EUI and the relevant CCP, which they offer to the market and under which certain services are operated or provided by EUI and certain services are operated or provided by the relevant CCP. This CREST Central Counterparty Service Manual describes which services forming part of a particular constituent central counterparty service are to be provided by EUI (and are, therefore, its responsibility) and which services are to be provided by the relevant CCP (and are, therefore, its responsibility).

As at the date of issue of this version of the CREST Central Counterparty Service Manual, the central counterparty service comprises:

- a. the several services which in combination facilitate the performance by LCH.ClearnetLCH of its central counterparty functions in relation to trades cleared by it (the 'central counterparty service for LCH cleared trades');
- b. the several services which in combination facilitate the performance by x-clear of its central counterparty functions in relation to trades cleared by it (the 'central counterparty service for x-clear cleared trades');
- c. the several services which in combination facilitate the performance by EuroCCP of its central counterparty functions in relation to trades cleared by it (the 'central counterparty service for EuroCCP cleared trades');

(together the central counterparty services referred to in paragraphs (a)-(c) above are referred to as the 'central counterparty service for LCH, x-clear and EuroCCP cleared trades')

- d. the several services which in combination facilitate the performance by ECAG of its central counterparty functions in relation to trades in ExE Options (the 'central counterparty service for ExE trades').

Each of these constituent services of the CREST central counterparty service comprises a separate service. EUI may terminate any of these services, or any other service which may in the future form part of the central counterparty service, by not less than 30 days' prior written notice to the members (or such lesser notice as is necessary to comply with the arrangements made with the relevant CCP).

Terminology

In this CREST Central Counterparty Service Manual, the term 'dealing firm', 'dealing party' or 'non-clearing member' is generally used to refer to the member firm which is the contracting counterparty to a general clearing member (and to whom that general clearing member provides clearing services). Although this will usually be the member firm whose recognised BIC or Dealing Firm ID is included in the trade executed on the relevant trading platform's trading system, this will not always be the case. Where an introducing firm executes a trade, it is in fact the model B firm (or its associate) appointed by that introducing firm which is the contracting counterparty to the general clearing member. It is therefore the relevant model B firm (or its associate) which is the 'dealing firm', 'dealing party' or 'non-clearing member' for this purpose (and it or its associate will also be the 'settlement firm' as explained further in Chapter 5, section 2 below).

In addition, the same legal entity may execute trades on the relevant trading system under a number of recognised BICs or Dealing Firm IDs or may act as a model A firm with responsibility for clearing and settlement of central counterparty transactions directly with the relevant CCP.

It is also the case that, under or in connection with the central counterparty service for for ExE trades, an affiliate of an ICM (an ICM is referred to as a 'DCM' or 'direct clearing member' in the ECAG Rules) may be admitted to membership of the Eurex Exchange and use the clearing services of the ICM to clear the affiliate's trades executed by it as principal. In such a case the 'dealing firm' will be the affiliate which uses the clearing services of the ICM (and the ICM will be the 'settlement firm' as explained further in Chapter 5, section 2 below).

For these reasons, the clearing member database (see Chapter 5, section 2), the settlement participant database (see Chapter 6, section 2) and the open positions database (see Chapter 6, section 3) contain both the Trade System Participant ID - being the recognised BIC or Dealing Firm ID for a member firm included in the trade feed received by EUI - and the related Settlement Firm ID.

The Settlement Firm ID maintained in the CM system will default to the same recognised BIC or Dealing Firm ID as that used for the Trade System Participant ID, unless:

- a. the Trade System Participant ID is that of an introducing broker using the services of a model B firm (where the recognised BIC or Dealing Firm ID of that model B firm or its associate is, at the election of the member firm or the relevant settlement agent, inserted as the Settlement Firm ID in the CM system);
- b. the Trade System Participant ID is that of a member firm which trades under a number of different recognised BICs or Dealing Firm IDs (where one of the recognised BICs or Dealing Firm IDs is, at the election of the member firm or its settlement agent, inserted as the Settlement Firm ID in the CM system);
- c. the Trade System Participant ID is that of a member firm which is using the services of a model A firm with responsibility for clearing and settlement of the relevant trade directly with the CCP

(where the recognised BIC or Dealing Firm ID of that model A firm is, at the election of the member firm or the settlement agent, inserted as the Settlement Firm ID in the CM system);
or

- d. the Trade System Participant ID is that of a member firm of the Eurex Exchanges which is an affiliate of an ICM (DCM) that provides clearing services to that member firm (where the Dealing Firm ID of the ICM is, at the election of the member firm or the relevant settlement agent, inserted as the Settlement Firm ID in the CM system).

'Relevant CCP', etc.

In the remaining chapters of this CREST Central Counterparty Service Manual, the relevant provider of CCP services (e.g. LCH, x-clear, EuroCCP or ECAG, as applicable) is referred to as the 'CCP' or 'the relevant CCP'; and the relevant market in relation to which the CCP provides clearing services is referred to as the 'trading platform' or the 'relevant trading platform'.

Section 2: The central counterparty service for LCH, x-clear and EuroCCP cleared trades

Matched orders

As part of the central counterparty service for LCH, x-clear and EuroCCP cleared trades, electronically matched orders which are executed on a trading system in a central counterparty security result (in accordance with the relevant CCP's arrangements with its members, including but not limited to satisfaction of certain eligibility requirements specified by the relevant CCP in such arrangements) in:

- where the dealing party is a clearing member firm of the relevant CCP, a market contract between the dealing party and the relevant CCP (as central counterparty); or
- where the dealing party is not admitted as a clearing member firm of the relevant CCP¹, a market contract between the clearing member firm providing clearing services to that dealing firm in relation to the trade and the relevant CCP (as central counterparty).

In addition, under the relevant trading platform's rules, where the dealing party is not admitted as a member firm of a relevant CCP, a market contract may arise between the dealing party (or its principal under an agency contract) and the clearing member firm providing clearing services to that dealing firm in relation to the trade.

Under the central counterparty service for LCH, x-clear and EuroCCP cleared trades, there are three CCPs: LCH, x-clear and EuroCCP. Where both dealing parties to a trade executed on a relevant trading system are clearing members, or use the clearing services of a clearing member, of the same CCP, then that CCP will become the counterparty to both the buyer and seller.

Where one dealing party to a trade executed on a relevant trading system is a clearing member, or uses the clearing services of a clearing member, of one CCP (CCP1); and the other dealing party to that trade is a clearing member, or uses the clearing services of a clearing member, of another CCP (CCP2), then under the rules of those CCPs, an additional market contract arises between CCP1 (as

¹ Such a firm is not permitted to clear a trade direct with the relevant CCP (as the central counterparty), but is required to appoint a general clearing member firm of the relevant CCP to provide clearing services to it. A firm which is required to use the clearing services of a GCM to clear its own trades executed on a trading system may be admitted as a 'non-clearing member' firm of the relevant trading platform.

a CCP) and CCP2 (also as a CCP)². This “cross-CCP” contract may form part of a contract chain as follows:

A----- GCM1 ----- CCP1 ----- CCP2 ----- GCM2 ----- B

where:

- A is a dealing firm using the clearing services of GCM1;
- GCM1 is a clearing member of CCP1;
- CCP1 is acting in the capacity of a CCP;
- CCP2 is acting in the capacity of a CCP;
- GCM2 is a clearing member of CCP2; and
- B is a dealing firm using the clearing services of GCM2.

CREST services

The CREST services provided by EUI as part of the central counterparty service for LCH, x-clear and EuroCCP cleared trades comprise:

- services provided to clearing member firms of the relevant CCP (each of the firms may be admitted to participation in the CM system as either an ‘ICM undertaking’ or a ‘GCM undertaking’ – the term ‘CM undertaking’ is the collective term for an ‘ICM undertaking’ and/or a ‘GCM undertaking’) which:
 - allow the ‘CM undertaking’ (or its ‘clearing sponsor’ on its behalf) access to certain records and information relevant to its functions as a clearing member of the relevant CCP; and
 - allow the ‘CM undertaking’ to use the services of a settlement agent (CREST member) to enable or facilitate the settlement of central counterparty transactions entered into the CREST system in respect of which the ‘CM undertaking’ has rights and/or obligations as a clearing member of the relevant CCP;
- services provided to the relevant CCP comprising:
 - the operation and maintenance of equipment which allows the relevant CCP access to certain records and information relevant to its functions as a central counterparty for LCH, x-clear and EuroCCP cleared trades, and which allows EUI to receive (and reproduce) certain information sent to it by the relevant CCP which is relevant to the functions of ‘CM undertakings’ as clearing members of the relevant CCP providing clearing services to dealing firm members of the relevant trading platform;
- use of securities and cash settlement functionality in the CREST system;
- automated transaction management functions³;

(the services referred to above being provided by EUI to the relevant CCP in its capacity as a CCP or ‘CCP’ participant in the central counterparty service for LCH, x-clear and EuroCCP cleared trades)

² Note that the cross-CCP members maintained under the central counterparty service for LCH, x-clear and EuroCCP cleared trades are settlement functions only.

³ ‘Automated transaction management’ refers to the automatic processes relating to a CCP’s participation as a ‘CCP’ participant e.g. linking, auto-splitting, auto-allocation, etc. described in the CREST Manual.

- the (optional) netting procedures and applicable direct input services; and
- (where applicable) use of securities and cash settlement functionality relating to a CCP's cross-CCP membership(s) maintained under the central counterparty service for LCH, x-clear and EuroCCP cleared trades⁴.

CCP services

The CCP services provided by the relevant CCP as part of the central counterparty service for LCH, x-clear and EuroCCP cleared trades (and which are the responsibility of the relevant CCP, and not the responsibility of EUI) comprise:

- acting as a contracting (central) counterparty to a CM undertaking under central counterparty transactions executed on a relevant trading system⁵ (in accordance with the relevant CCP's arrangements with its members);
- the use of a network⁶ (and associated equipment and services) by means of which CM electronic instructions may be sent to, and are received from, the CM system by the relevant CCP (which equipment and services include procedures for authenticating and/or encrypting and decrypting CM electronic instructions sent to or received from the CM system by means of this network);
- the (optional) provision of certain data and other information to EUI, relevant to the performance by each 'CM undertaking' of its functions as a clearing member of the relevant CCP in relation to LCH, x-clear and EuroCCP cleared trades, for reproduction on certain of the databases maintained by EUI as part of the CM system; and
- (where applicable) the maintenance and operation of one or more cross-CCP memberships.

Section 3: This section is intentionally left blank

Section 4: The central counterparty service for ExE trades

Contracts for delivery

As part of the central counterparty service for ExE trades, the exercise and/or assignment of an ExE Option in accordance with the rules of ECAG and/or the Eurex Exchanges may result in contracts which are to be settled by the delivery of the underlying securities in CREST. These contracts comprise:

- a contract between ECAG (as CCP) and its clearing member for the sale of the underlying security;
- a contract between ECAG (as CCP) and its clearing member for the purchase of the underlying security; and (where the relevant clearing member is not dealing on its own account);

⁴ Cross-CCP memberships are eligible for the auto-splitting functionality described in Chapter 4, section 15 of the CREST Reference Manual.

⁵ In connection with its performance of these functions, a CCP requires its clearing members to be subject to its rules and procedures (including but not limited to its default procedures, and rules requiring a clearing member to provide and maintain initial and variation margin to cover its open positions with the CCP as a contracting (central) counterparty).

⁶ LCH uses a main and standby network, and associated equipment and services. x-clear (using services provided to it by BNP Paribas Securities Services SCA) uses a main and standby network, and associated equipment and services. EuroCCP uses a main network, and associated equipment and services.

- a matching contract between that clearing member and its own client (as a non-clearing member of the Eurex Exchanges) or (under an agency trade) its client's principal.

CREST services

The CREST services provided by EUI as part of the central counterparty service for ExE trades comprise:

- services provided to clearing member firms of ECAG (each of the firms is admitted to participation in the CM system as either an 'ICM undertaking' or a 'GCM undertaking' - the term 'CM undertaking' is the collective term for an ICM undertaking and/or a GCM undertaking) which:
 - allow the CM undertaking (or its 'clearing sponsor' on its behalf) access to certain records and information relevant to its functions as a clearing member of ECAG (but noting that details of any margin or prices used to calculate margins collected by ECAG will not be available in CREST (because ECAG will not report this information to CREST)); and
 - allow the CM undertaking to use the services of a settlement agent (CREST member) to enable or facilitate the settlement of central counterparty transactions entered into the CREST system in respect of which the CM undertaking has rights and/or obligations as a clearing member of ECAG;
- services provided to ECAG comprising:
 - the operation and maintenance of equipment which allows ECAG access to certain records and information relevant to its functions as a central counterparty for ExE trades, and which allows EUI to receive (and reproduce) certain information sent to it by ECAG which is relevant to the functions of CM undertakings as clearing members of ECAG providing clearing services to dealing firm members of the Eurex Exchanges;
 - use of securities and cash settlement functionality in CREST;
 - automated transaction management functions⁷;

(the services referred to above being provided by EUI to ECAG in its capacity as a CCP or 'CCP' participant in the central counterparty service for Eurex Exchanges trades)

- applicable direct input services and other services provided to ECAG in its capacity as a CREST central sponsor;
- trade system management functions (including the operation of a TSO or 'trade system of origin' flag), which allow EUI to receive, reproduce and process certain information sent to it by ECAG to facilitate the calculation and collection of stamp duty or stamp duty reserve tax chargeable on, or stamp duty relief otherwise available for, the outturns of ExE Options.

EUI's netting procedures will not be available as part of the central counterparty service for ExE trades

⁷ Automated transaction management' refers to the automatic processes relating to a CCP's participation as a 'CCP' participant e.g. linking, auto-splitting, auto-allocation, etc. described in the CREST Manual.

CCP services

The CCP services provided by ECAG as part of the central counterparty service for ExE trades (and which are its responsibility, and not the responsibility of EUI) comprise:

- acting as a contracting (central) counterparty to a CM undertaking under any contract that arises upon the exercise of an ExE option which is to be settled by the delivery of the underlying securities in CREST, in accordance with ECAG's arrangements with its members in respect of ECAG's 'Eurex Exchanges CCP Service');
- the use of a network⁸ (and associated equipment and services) by means of which CM electronic instructions are sent to, and are received from, the CM system by ECAG (which equipment and services include procedures for encrypting and decrypting CM electronic instructions sent to or received from the CM system by means of this network);
- the provision of certain data and other information to EUI, relevant to the performance by each CM undertaking of its functions as a clearing member of ECAG in relation to ExE trades, for reproduction on certain of the databases maintained by EUI as part of the CM system; and
- the provision by it as a CREST central sponsor of the central sponsor services which are described in Chapter 9, section 2.

⁸ ECAG uses a main and standby network, and associated equipment and services.

Chapter 2: General

Section 1: Applicability of the CREST Reference Manual

The following chapters in the CREST Reference Manual apply to the central counterparty service without further amendment:

- Chapter 5 (Registration); and
- Chapter 6 (The CREST payment mechanism).

Section 2: Other provisions of the CREST Manual

Additionally, the following other parts of the CREST Manual also apply to the central counterparty service and participants in the central counterparty service without further amendment:

- the CCSS Operations Manual;
- the CREST Rules;
- the daily timetable;
- the CREST International Manual; and
- the Glossary of Terms.

The CREST Application Procedures do not apply to 'CCP' participants under the CREST central counterparty service and individual application arrangements will be agreed with each CCP.

The CREST Application Procedures apply to CM undertakings and clearing sponsors in the manner provided by Chapter 19 of this CREST Central Counterparty Service Manual.

There are no separate CREST Application Procedures applicable to a settlement agent which are additional to the CREST Application Procedures applicable to the settlement agent in its capacity as a CREST member.

The remaining chapters in this CREST Central Counterparty Service Manual amend or add to the provisions of the CREST Reference Manual in the manner specified.

Chapter 3: Changes to the CREST Manual and system functionality

Chapter 1, section 1 of the CREST Reference Manual describes the procedures for changing provisions of the CREST Manual and the circumstances in which EUI might exercise its power to suspend the operation of the CREST system or the CREST services or to vary the daily timetable. The provisions of that section apply to the central counterparty service and describe the circumstances in which EUI might exercise its power to suspend the operation of the CM system or the CREST services provided to participants in the CM system, but in its application to the CM system the section shall be interpreted as if each reference in it to a term contained in the left hand column below were a reference to the term which is opposite it in the right hand column below:

| TERM RELATING TO CREST SYSTEM | TERM RELATING TO CM SYSTEM |
|-------------------------------|--------------------------------|
| 'CREST system' or 'system' | 'CM system' |
| 'member' | 'participant in the CM system' |
| 'user' | 'CM user' |

In addition, EUI may exercise its power to suspend the operation of the CREST system or the CM system, in whole or in part⁹ as a result of circumstances affecting the relevant CCP's provision of its CCP services. Such circumstances might include (but are not limited to):

- any failure or defect in or interruption to the network (and associated equipment and services) operated or used by (or on behalf of) the relevant CCP; and
- the suspension or termination of the CCP service provided by a relevant CCP under which it agrees to act as the contracting counterparty to its clearing members under central counterparty transactions.

⁹ EUI might, for example, suspend the arrangements relating to one or all of the central counterparty services.

Chapter 4: Practical limitations of the CM system

Chapter 1, section 2 of the CREST Reference Manual describes the practical limitations of the CREST system. The provisions of that section (save for those provisions specifically dealing with settlement or the processing of settlement instructions) also describe the practical limitations of the CM system, but in its application to the CM system the section shall be interpreted as if each reference in it to a term contained in the left hand column below were a reference to the term which is opposite it in the right hand column below:

| TERM RELATING TO CREST SYSTEM | TERM RELATING TO CM SYSTEM |
|----------------------------------|---------------------------------|
| 'CREST system' or 'system' | 'CM system' |
| 'CREST Applications Host' | 'CM core processor' |
| 'instructions' or 'transactions' | 'CM electronic instructions' |
| 'members' | 'participants in the CM system' |
| 'network provider' | 'CM network provider' |
| 'networks' | 'CM Network' |
| 'service' | 'central counterparty service'. |

In addition, EUI assumes no responsibility for the network(s) (and associated equipment and services) operated or used by (or on behalf of) a CCP as part of its CCP services. It is possible that factors affecting the security, performance or availability of the network (and associated equipment and services) operated or used by (or on behalf of) the relevant CCP may cause EUI to interrupt its operation or provision of the CREST system, the CM system and/or the CREST services from the primary and/or standby site.

Under the arrangements put in place between EUI and the CCP concerned, there are procedures in place for identifying the cause of any failure or interruption affecting the central counterparty service and for taking remedial action to minimise the duration of any such failure or interruption to the central counterparty service or for otherwise taking the action provided for or described in the CREST Manual (including, wherever possible and appropriate, to operate the stand-by procedures referred to Chapter 1, section 2 of the CREST Reference Manual, as applied to the central counterparty service by this Chapter 4, and the stand-by network and associated equipment operated or used by (or on behalf of) the relevant CCP as part of the CCP services provided by it).

Any one of these factors, or a combination of these factors, could impact upon the timing of the processing of individual CM electronic instructions.

Chapter 5: Use of external data

Section 1: General

Chapter 1, section 3 of the CREST Reference Manual describes those information services provided by certain third parties to EUI, and upon which EUI relies in its operation of the CREST system and its provision of certain CREST services to participants and users.

As part of the central counterparty service, certain of the CREST services provided by EUI to CM undertakings and 'CCP' participants are dependent upon the provision to EUI of information from the relevant CCP.

The provision of this information by the CCP concerned is the responsibility of that CCP and is provided to EUI as part of the CCP services provided by that CCP.

Section 2: Clearing member database

The relevant CCP will, as part of the CCP services provided by it, provide such information as will enable EUI to operate the 'clearing member' database.

Each relevant CCP may choose not to make information available to particular clearing members by means of the CM system and/or particular CM undertakings may elect not to have access to the CM system.

The clearing member database is constituted by:

- the clearing member (LCH) database, recording information relating to the clearing members of LCH, which is maintained as part of the central counterparty service for LCH cleared trades;
- the clearing member (x-clear) database, recording information relating to the clearing members of x-clear, which is maintained as part of the central counterparty service for x-clear cleared trades;
- the clearing member (EuroCCP) database, recording information relating to the clearing members of EuroCCP, which is maintained as part of the central counterparty services for EuroCCP cleared trades; and
- the clearing member (ECAG/ExE) database, recording information relating to the clearing members of ECAG and the Eurex Exchanges, which is maintained as part of the central counterparty service for ExE trades.

Under each transaction to which the relevant CCP is a party, the dealing firm to whom the relevant clearing member is providing clearing services in respect of that transaction or which is responsible for the clearing and settlement of that transaction directly with the relevant CCP is identified by a unique 'Settlement Firm ID'; such a firm is referred to as the relevant 'settlement firm' in this CREST Central Counterparty Service Manual.¹⁰

The clearing member database records the relationship between a settlement firm and the CM undertaking which acts as clearing member on its behalf¹¹. The clearing member database forms

¹⁰ Where a settlement firm is a model B firm (or an associate of the model B firm), it is the model B firm or its associate (and not the introducing broker) which is the relevant 'dealing firm' or 'non-clearing member' for the purposes of this CREST Central Counterparty Service Manual.

¹¹ The settlement firm and the CM undertaking may be the same legal entity, e.g. where a CM undertaking (whether an ICM or a GCM undertaking) is clearing its own trades executed by it as principal on the relevant trading platform, or where an ICM undertaking is a direct clearing member of ECAG and is clearing the trades of an affiliated dealing firm.

part of the CM system; and a clearing member's provision of any relevant information to EUI (through the relevant CCP) which enables or facilitates EUI to constitute the clearing member database is the method by which EUI anticipates the relevant CCP or a CM undertaking will (itself or through the relevant CCP) perform its obligations (under its agreement with EUI) to keep EUI informed of: (a) the identity of all non-clearing members for whom that CM undertaking acts as GCM; and (b) the identity of any CCP which permits the CM undertaking to act as a GCM or, as the case may be, an ICM of that CCP in relation to trades executed on a particular trading platform.

Settlement firm – clearing member data are provided, and kept up-to-date, by the relevant CCP (and are its responsibility). The relationship between the settlement firm, TSO Dealing Capacity and House/Client Indicator is used to assign a CCP clearing member and clearing member account to perform the obligations arising from each trade executed on the relevant trading platform(s). The data includes TSO Dealing Capacity and House/Client fields. These are system mechanics which drive static data mapping for CCP open positions information in CREST. Where the relevant CCP has chosen not to make use of the CREST open positions functionality, they serve a purely technical purpose and should not be relied upon as reflecting the correct dealing capacity for the underlying gross trades.

The 'CCP' participant concerned can input, retrieve and amend the information contained within the relevant database (or sub-database, if any), while the CM undertaking and CREST System Controller may view the information only.

The relevant 'CCP' participant may amend the data relating to a specified CM undertaking in respect of a particular settlement firm by first disabling the CCP clearing status for the current CM undertaking and then amending the Clearing Member ID field to record the new CM undertaking.

Once this amendment is made and a system event is run, the relevant 'CCP' participant may re-enable the Clearing Member Status and all open transactions are transferred to the new CM undertaking. Following the amendment all new trades received from the relevant trading platform are allocated to the replacement CM undertaking.

The key elements to this database are the Settlement Firm ID, TSO Dealing Capacity and House/Client Indicator. These three elements are included in the relevant CCP feed or in the case of the Settlement Firm ID derived from the trading system identifier (the Trade System Participant ID) and allow the mapping of trades to clearing member accounts. Details of the settlement firm - clearing member data are contained in the Data Exchange Manual.

The Input Allowed field enables a CM undertaking to be changed for a clearing relationship. This field will allow an existing CM undertaking to act as principal to any open transactions it is clearing on behalf of the settlement firm until they are settled, but will prevent the input of any new transactions for that clearing relationship.

In the event of a CM undertaking's default, either the relevant 'CCP' participant or EUI may, in exercise of the powers reserved to them in the agreements entered into between each of the CCP and its clearing members and EUI, 'CCP' participants and CM undertakings, disable the defaulting CM undertaking's participation in the CM system. Disablement in this manner has the effect of preventing settlement of all further transactions with the 'CCP' participant in respect of which the defaulting CM undertaking has or had clearing member responsibility. Settlement is prevented at the transaction level and does not affect the ability of the settlement agent to continue to settle transactions which are not central counterparty transactions or which are central counterparty

transactions for which a different CM undertaking has assumed clearing responsibility. The relevant 'CCP' participant may disable individual clearing relationships of any CM undertaking.

Each CM undertaking ID must represent a CCP clearing member account. A CCP clearing member will typically have two CREST CM Undertaking IDs, for house and client business respectively.

EUI is able to view the settlement firm – clearing member data of any CM undertaking; a CM undertaking (who has elected to have access to the CM system) is only able to view data relating to it.

Section 3: This section is intentionally left blank

Section 4: This section is intentionally left blank

Section 5: This section is intentionally left blank

Section 6: Information provided by other third parties

EUI operates, as part of the CM system, the following additional databases which are constituted on the basis of certain information provided by third parties:

- the 'corporate actions' database;
- the 'settlement participant database' (which is described in more detail in Chapter 6 below); and
- the 'general information database' (which is described in more detail in Chapter 6 below).

Corporate actions database

The corporate actions data available in the CREST system, as referred to in Chapter 1, section 3 of the CREST Reference Manual, also forms part of the CM system.

While the database is constituted largely on the basis of information provided by third parties, it is EUI which inputs, retrieves, amends and deletes the information contained within this database.

Each 'CCP' participant and CM undertaking (who has elected to have access to the CM system) is able to view the information in the corporate actions database either interactively via the GUI or by file transfer.

Section 7: Use of information

CM users and participants in the CM system should note that each of LCH, x-clear, EuroCCP and ECAG has reserved database rights in certain databases which form part of the CM system.

LCH has database rights to the following databases (to the extent that they contain data relating to LCH and/or its clearing members and/or their functions):

- the open positions (LCH) database;
- the clearing member (LCH) database; and
- the settlement participant (LCH) database (but without affecting EUI's intellectual property and other rights in and to the trade feed settlement parties database which forms part of the direct input services described in Chapter 4, section 4A of the CREST Reference Manual).

x-clear has database rights to the following databases (to the extent that they contain data relating to x-clear and/or its clearing members and/or their functions):

- the open positions (x-clear) database;
- the clearing member (x-clear) database; and
- the settlement participant (x-clear) database (but without affecting EUI’s intellectual property and other rights in and to the trade feed settlement parties database which forms part of the direct input services described in Chapter 4, section 4A of the CREST Reference Manual).

EuroCCP has database rights to the following databases (to the extent that they contain data relating to EuroCCP and/or its clearing members and/or their functions):

- the open positions (EuroCCP) database;
- the clearing member (EuroCCP) database; and
- the settlement participant (EuroCCP) database (but without affecting EUI’s intellectual property and other rights in and to the trade feed settlement parties database which forms part of the direct input services described in Chapter 4, section 4A of the CREST Reference Manual).

ECAG has database rights to the following databases (to the extent that they contain data relating to ECAG and/or its clearing members and/or their functions):

- the open positions (ECAG/EXE) database;
- the clearing member (ECAG/EXE) database ; and
- the settlement participant (ECAG/EXE) database (but without affecting EUI’s intellectual property and other rights in and to the trade feed settlement parties database which forms part of the direct input services described in Chapter 4, section 4A of the CREST Reference Manual). The database rights reserved to the relevant CCP are without prejudice to EUI’s obligations (in accordance with the CREST Central Counterparty Service Manual) to update the relevant database on provision of the relevant information by the CCP concerned. The basis on which each CCP provides the information, including updates or amendments to such information, held on any of these databases are matters for agreement between LCH, x-clear, EuroCCP and ECAG and their respective clearing members.

Section 8: Directions

Chapter 1, section 4 of the CREST Reference Manual describes the circumstances in which EUI may issue directions requiring particular action to be taken (or not taken). The provisions of that section also describe the procedures under which EUI may issue directions in relation to the central counterparty service, but in its application to the CM system the section shall be interpreted as if each reference in it to a term contained in the left hand column below were a reference to the term which is opposite it in the right hand column below:

| TERM RELATING TO CREST SYSTEM | TERM RELATING TO CM SYSTEM |
|-------------------------------------|--------------------------------|
| ‘CREST’, ‘CREST system’ or ‘system’ | ‘CM system’ |
| ‘participant type’ or ‘participant’ | ‘participant in the CM system’ |
| ‘user’ | ‘CM user’. |

Section 9: Provision of information to investment exchanges and others

Under its agreement with EUI, each 'CCP' participant, CM undertaking, clearing sponsor and CREST member (as settlement agent) agrees that information held in the CREST system or the CM system relating to it (or, where applicable, to any non-clearing member or CM undertaking for whom it acts as settlement agent or Sponsored CM for whom it acts as clearing sponsor) may be disclosed (or made available) by EUI to:

- a relevant investment exchange;
- a relevant clearing house;
- the Bank of England;
- the ECB;
- the UK Debt Management Office; and
- another undertaking in the Euroclear group of companies,

for the purposes and in the manner referred to in its agreement with EUI (and/or in the CREST Manual).

Chapter 1, sections 5, 6 and 8 of the CREST Reference Manual describe the circumstances in which EUI may from time to time provide information to: (a) the Bank of England; (b) the ECB; another Euroclear group undertaking; and (d) an investment exchange or clearing house, which is held by EUI and which relates to the business or affairs of participants and users. The provisions of those sections also describe the circumstances under which EUI may disclose to the Bank of England, Euroclear group undertakings and investment exchanges or clearing houses information held in the CM system, but in its application to the CM system the sections shall be interpreted as if each reference in them to a term contained in the left hand column below were a reference to the term which is opposite it in the right hand column below:

| TERM RELATING TO CREST SYSTEM | TERM RELATING TO CM SYSTEM |
|---|--|
| 'CREST', 'CREST system' or 'system' | 'CM system' |
| 'CREST member', 'participant' clearing member' | 'participant in the CM system, CM user or non- |
| 'user' | 'CM user'. |

Chapter 6: Databases forming part of the CM system

Section 1: General

In Chapter 5 of this CREST Central Counterparty Service Manual, the following databases which form part of the CM system were described:

- the clearing member database; and
- the corporate actions database.

Data held in these databases are reproduced in reliance on information provided by the relevant CCP to EUI (as part of the CCP services which are the responsibility of that CCP) and by other third parties. In addition to these databases, EUI operates five other databases:

- the settlement participant database;
- the open positions database;
- the trade monitoring database;
- the broadcast messages database; and
- the general information database.

These five databases also form part of the CM system which is operated by (and is the responsibility of) EUI.

The seven databases which form part of the CM system may be used:

- by EUI to validate trade data received by it from the relevant CREST central sponsor, and in order to process such data as part of the services which EUI provides to a 'CCP' participant or a CREST central sponsor (see further Chapter 9 below);
- by a 'CCP' participant to obtain information as to certain matters relevant to the performance of its central counterparty functions as a CCP;
- by CM undertakings to obtain information as to certain matters relevant to the performance of their functions as clearing members of a CCP; and
- by a settlement agent to obtain information as to certain matters relevant to the performance of its functions as a settlement agent.

Section 2: Settlement participant database

The 'settlement participant' database records the relationship between a settlement firm and its settlement agent in CREST.

The database is constituted by:

- the settlement participant (LCH) database, recording information relating to settlement firm members of the relevant trading platform using the clearing services of a clearing member of LCH, and which is operated as part of the central counterparty service for LCH cleared trades;
- the settlement participant (x-clear) database, recording information relating to settlement firm members of the relevant trading platform using the clearing services of a clearing member of x-clear, and which is operated as part of the central counterparty service for x-clear cleared trades;

- the settlement participant (EuroCCP) database, recording information relating to settlement firm members of the relevant trading platform using the clearing services of a clearing member of EuroCCP, and which is operated as part of the central counterparty service for EuroCCP cleared trades; and
- the settlement participant (ECAG/ExE) database recording information relating to settlement firm members of the Eurex Exchanges and using the clearing services of a clearing member of ECAG and which is operated as part of the central counterparty service for ExE trades.

EUI maintains settlement firm - settlement agent data using information provided by the relevant trading platform or the relevant CCP and the settlement agents. The relationship between the settlement firm and TSO Dealing Capacity is used to assign a settlement agent for the settlement of each trade received by the CREST system. Settlement firms are identified by the Settlement Firm ID which in turn is derived from a Trade System Participant ID which is included in the trade feed.

EUI can input, retrieve, amend and delete the information contained within this database.

It is possible to change a settlement firm's settlement agent by an amendment to this data. Once this amendment is made all new transactions will settle through the new participant. Any existing transactions will remain with the previous participant.

Settlement firm - settlement agent data adhere to the following rules:

- one settlement firm may have a maximum of two settlement agents, one for agency and one for principal trades (unless it uses multiple settlement firm identifiers in which case each settlement firm may have two settlement agents assigned to it); and
- one settlement agent may act for many settlement firms.

A 'CCP' participant is able to view all the settlement firm - settlement agent data relating to it; a settlement agent may only view data which relates to it. Settlement firm – settlement agent data is set out in the CREST Data Exchange Manual.

The relevant trading platform or relevant CCP provides information to EUI which enables EUI to constitute the settlement participant database. This is the method by which EUI anticipates a CREST member (as a settlement agent) will perform its obligation (under its agreement with EUI) to keep EUI informed of all non-clearing members and CM undertakings for whom that member acts as a settlement agent.

Section 3: Open positions database

The 'open positions' database maintains data relating to open positions in central counterparty transactions (on which the relevant CCP's margin calculations may be based).

Each relevant CCP may choose not to make information available to particular clearing members by means of the CM system and/or particular CM undertakings may elect not to have access to the CM system.

The open positions database is constituted by:

- the open positions (LCH) database, recording information relating to open positions of LCH (by CM undertaking) in respect of LCH cleared trades;

- the open positions (x-clear) database, recording information relating to open positions of x-clear (by CM undertaking) in respect of x-clear cleared trades;
- the open positions (EuroCCP) database, recording information relating to open positions of EuroCCP (by CM undertaking) in respect of EuroCCP cleared trades; and
- the open positions (ECAG/ExE) database, recording information relating to the open positions of ECAG in respect of ExE Options (that pursuant to exercise/notification are subsequently to be settled in CREST).

The information held on the open positions database is available by electronic enquiry by:

- 'CCP' participants, for open positions against the 'CCP' participant (in relation to DEL transactions created as central sponsor transactions attributable to the 'CCP' participant);
- CM undertakings (who have elected to have access to the CM system and where the relevant CCP makes this information available), for open positions cleared by them as clearing members of the relevant CCP; and
- settlement agents, for open positions of CM undertakings, for which they act as settlement agent against the relevant 'CCP' participant.

Open positions are calculated in respect of unsettled central counterparty transactions held in CREST (whether matched or unmatched) to which the relevant 'CCP' participant is a settlement counterparty. Where transactions are unmatched, the only transactions included in the open positions database are those attributable to the 'CCP' participant. The transaction types for which the 'CCP' participant is settlement counterparty under a central counterparty transaction are deliveries (DEL) including cash only DELs, claims (CLA) and interest payments (INT).¹²

The open positions database in the CM system is maintained taking into account new transaction data received via a CREST central sponsor and the settlement of resulting settlement transactions. The positions are not updated after the Input Disable diary event is run.

Where the CCP relies upon the open positions database for its overnight margin, this allows the CM undertaking to reconcile using identical open position data as the CCP. Where the CCP relies upon information contained within the open positions database, CM undertakings should request their open positions at the same time as the relevant 'CCP' participant, in order to reconcile intra-day margin calls.

CCP view

For the purposes of enquiries of the open positions database made by the relevant 'CCP' participant, the CM system will respond to an enquiry message which specifies in the relevant field the 'Clearing Member Code' (and not the CM Undertaking ID) of the clearing member concerned. The field is four characters long and consists of the CCP mnemonic plus 'H' or 'C' for house and client. EUI maintains this data using information provided by the CCP and its clearing members.

The field is included on the open positions which are passed to the 'CCP' participant, in order to allow the CCP to map the data received from the CM system into its margining and risk systems.

A 'CCP' participant is able to request open positions, either for all clearing members, or for identified clearing members. The data are grouped by Clearing Member Code, not the CM

¹² In principle, a 'CCP' participant may also be a settlement counterparty to a BDR and the other central counterparty transactions contemplated by Chapter 9 below.

Undertaking ID. These data are available to a 'CCP' participant via a dedicated file transfer mechanism.

CM undertaking view

For the purposes of enquiries of the open positions database made by a CM undertaking, the CM system will respond to an enquiry message which specifies in the relevant field the CM Undertaking ID of the relevant CM undertaking. The enquiry messages will be available by file transfer and interactively via the GUI.

A CM undertaking is able to request its open positions in the following ways:

- for the net clearing member position (i.e. netting open positions across all its settlement firms);
- for all settlement firms; or
- for an individual settlement firm for those transactions cleared by the CM undertaking.

Settlement agent view

A settlement agent is able to request open positions for a settlement firm, for whom it acts. A Settlement Firm ID must be submitted in the request. The response supplies the requesting settlement agent with identical information to that supplied to a CM undertaking (see above).

Section 4: Trade monitoring database

The CM system provides facilities which allow a clearing member of a CCP to monitor each trade it clears in connection with the central counterparty service. These facilities are also made available to settlement agents in relation to central counterparty transactions under which they act as settlement counterparty to the relevant 'CCP' participant. The relevant information is held on the 'trade monitoring' database (which forms part of the CM system).

The CM system generates dynamic status changes for central counterparty transactions. The information will be accessible via the file change mechanism. The transaction status responses returned to the CM undertaking will not include the Transaction Reference, since this is the reference given to the transaction by the relevant settlement agent. If a CM user wishes to receive both file changes¹³, it will be possible to opt in to receiving clearing member file changes at the CM user level. Transaction status may also be viewed using the transaction list feature of the GUI.

Section 5: Broadcast messages database

CM undertakings may from time to time retrieve broadcast messages relating to the operation of the CM system. The CM system notifies CM undertakings that such messages are available.

Section 6: General information database

CM undertakings will be able to view the following financial information held in the CM system:

- exchange rates;
- interest rates;

¹³ This would typically be a CM user who is also a CREST member/user.

- participant data; and
- security prices.

Chapter 7: Logical structures

Chapter 2 of the CREST Reference Manual describes the logical system structures used in the CREST relevant system. Section 1 of that Chapter describes how, for processing purposes, CREST separates the logical functions of inputting instructions and being a party to transactions. In a similar way, the CM system separates the logical functions of inputting CM electronic instructions as a 'CM user' and being a 'participant in the CM system'.

Chapter 4, section 4A of the CREST Reference Manual describes the logical structures relevant to the clearing support and related services that EUI provides to clearing houses and other third parties. This Chapter 7 of the CREST Central Counterparty Service Manual describes specific aspects of the logical system structures when they operate as part of the central counterparty service (and in the CM system), as well as certain related matters arising out of the operation of the CM system.

Section 1: 'CCP' participants

As noted in Chapter 4, section 4A of the CREST Reference Manual, clearing houses may be set up in CREST as a participant type 'CCP' rather than, in system terms, as a 'member'. The distinction is a technical one to reflect the different range of functionality available to clearing houses as 'CCP' participants and does not affect the legal status of a 'CCP' participant under the CREST Regulations as a 'system-member'.

However, in a 'CCP' participant's use of the enquiry and information facilities made available to it as part of the CREST services, a 'CCP' participant is not acting as a participant in the CREST system.

Any communication made by a 'CCP' participant with the CM system is not a communication made with or by means of the 'CREST relevant system', because the CM system is not a system which enables 'title to units of a security to be evidenced and transferred without a written instrument' or which facilitates supplementary and incidental matters for the purpose of regulation 2(1) of the UK Regulations. The CM system is a system which enables or facilitates a clearing house and its members to provide the clearing services which they provide (being clearing services which mitigate the counterparty and market risk incidental to the entry into trades executed on a trading platform).

A 'CCP' participant has access¹⁴ by electronic enquiry by means of its CM Gateway (as a CM user¹⁵) to all the information held in the databases which form part of the CM system (and described in Chapters 5 and 6 above) and which is available to a CM undertaking (see also Section 3 of this Chapter 7). A 'CCP' participant has access to all information held on these databases (and is not limited to the information relating to a particular CM undertaking).

A 'CCP' participant transaction is referred to as a 'central counterparty transaction' when it relates to a central counterparty security and is or is to be cleared and settled through the CREST central counterparty service (see further Chapter 4, section 4A of the CREST Reference Manual).

¹⁴ A 'CCP' participant may be a 'sponsored CCP participant', in which event the 'CCP' participant communicates with the CM system by using the services of a clearing sponsor.

¹⁵ When acting as a CM user, the 'CCP' participant will be deemed to communicate with the CM system (and receive communications from the CM system) under the separate CM User ID designated for that purpose by EUI.

A 'CCP' participant may have its own Gateway, or use the Gateway of a CREST sponsor, to communicate with the CREST system. As a system-member and CREST user (or using the services of a CREST user), a 'CCP' participant may input the full range of settlement instructions available in CREST to a CREST member (although transaction types 'STW' and 'STD' may only be input into the CREST system by a 'CCP' participant with the prior consent of EUI). In addition, although residual service functionality is available to 'CCP' participants¹⁶ (via the GUI), it is expected to be used infrequently (for example, where a corporate action affecting a central counterparty security results in the issue of a security which is not a CREST participating security).

Section 2: Cross-CCP membership

In this section references to 'the relevant CCP' refer only to LCH, x-clear and/or EuroCCP (as applicable).

Cross-CCP membership for LCH, x-clear and EuroCCP cleared trades

As explained in Chapter 1, under the central counterparty service for LCH, x-clear and EuroCCP cleared trades, a market contract may arise between two CCPs. In order to facilitate the settlement of this market contract, certain 'cross-CCP' memberships may be maintained in the CREST system as part of the CCP services provided under the relevant central counterparty service.

For LCH, x-clear and EuroCCP cleared trades, a cross-CCP member will be the settlement counterparty to deliveries between two CCPs. A delivery from one 'CCP' participant to the cross-CCP member of another CCP will constitute the fulfilment of the first CCP's obligations to deliver securities and/or pay cash in relation the market contract between the two CCPs. Similarly, a delivery from the cross-CCP member of one CCP to another 'CCP' participant will constitute the fulfilment of the first CCP's obligation to deliver securities and/or pay cash in relation the market contract between the two CCPs.

Matters relevant to cross-CCP memberships

In both legal terms under the CREST Regulations and in functional terms, the cross-CCP members operated under a central counterparty service are 'system-members'. In this capacity, the relevant CCP has access to all the functionality attributable to a 'normal' member, including auto-splitting functionality as described in Section 15 of Chapter 4 of the CREST Reference Manual. It also has access to GCM services.

However, the services provided to the relevant cross-CCP member have not been developed with a view to reserving the right or power to the relevant CCP under its relevant cross-CCP membership:

- to change the form in which it holds or is to hold units of a security from uncertificated form to certificated form, or vice versa (see further Chapter 8 below); or
- to notify EUI that the authority of its CREST sponsor is limited by reference to the net value of securities that may be transferred in any one day.

Accordingly, the relevant cross-CCP member may not cause any such conversion or give any such notification without the prior consent of EUI (which will not be unreasonably withheld or given subject to unreasonable conditions).

¹⁶ A RES transaction, unless created pursuant to the automatic transformations software in relation to securities the subject of a central counterparty transaction, is not a central counterparty transaction for the purposes of this CREST Central Counterparty Service Manual (and the agreement between EUI and any 'CCP' participant or CREST participant or participant in the CM system).

Section 3: CM undertakings

Clearing members of a CCP who wish to use the CM services provided by EUI and where the relevant CCP facilitates such use are admitted to participation in the CM system either as (i) an 'ICM undertaking' or (ii) as a 'GCM undertaking'.

A clearing member of a CCP which is permitted to clear with that CCP its own trades (or those of its affiliates) dealt as principal (but no other trades) may be admitted to (i) LCH, x-clear and/or EuroCCP (and the relevant trading platform) as an 'individual clearing member' or an 'ICM'; or (ii) ECAG (and the relevant investment exchange) as a 'direct clearing member' or a 'DCM' respectively. The two terms (or any other equivalent term) describe the same type of clearing member – the only difference is the terminology used by the different CCPs and trading platforms. Therefore, definitions including a reference to an 'ICM' in this CREST Central Counterparty Service Manual also include a clearing member which is referred to as a 'DCM' in accordance with ECAG's procedures (or any equivalent term used by a relevant CCP or trading platform). An ICM clearing member is admitted to participation in the CM system as 'ICM undertaking'.

A clearing member of a CCP which is permitted to clear, as principal, with that CCP its own trades dealt as principal and trades of dealing parties ('non-clearing members') for whom it provides clearing services in respect of such trades is admitted as a 'general clearing member' or 'GCM' of the CCP (and of the relevant trading platform). Such a clearing member is admitted to participation in the CM system as a 'GCM undertaking'.

The term 'CM undertaking' refers to either or both of an ICM undertaking and a GCM undertaking. A CM undertaking is neither a 'system-member' nor a 'system-participant' for the purposes of the CREST Regulations, and has no access to either security or cash settlement functionality.

A CM undertaking may be provided with the following services by EUI as part of the central counterparty service:

- (if the CM undertaking is admitted as a GCM undertaking or an ICM undertaking which is to have access to the CM system) access to those records and information described in Chapters 5 and 6 as forming part of the CM system and in the manner described in those chapters; and/or
- use of the services of a settlement agent (CREST member) to enable or facilitate the settlement of central counterparty transactions entered into the CREST system in respect of which the CM undertaking has rights and/or obligations as a clearing member of LCH, x-clear, EuroCCP or ECAG.

If a CM undertaking wishes to settle a central counterparty transaction in respect of which it has rights and/or obligations as a clearing member, it must in addition either be admitted as a CREST member or appoint (or otherwise authorise) a third party CREST member to act as its settlement agent under that central counterparty transaction. The settlement agent will be authorised to make or receive the securities and/or payment the subject of the central counterparty transaction (whether on a gross or net basis) in performance (or receipt of performance) of that transaction on behalf of the CM undertaking (as a clearing member of the CCP concerned and/or as a clearing member providing clearing services to the non-clearing member/settlement firm). It is the responsibility of a CM undertaking to monitor the performance of its settlement agent in relation to any such central counterparty transaction.

The nature of a CM undertaking's communication with the CM system is in the form of enquiry messages sent by means of the CM Network to the CM system. The enquiry and information services provided to an ICM undertaking are different from the enquiry and information services provided to a GCM undertaking because of the different clearing functions which they are required to perform. An ICM undertaking is not permitted, under the rules or procedures of the relevant CCP, to clear the trades of a third party (that is not an affiliate). Accordingly, an ICM undertaking (which has elected to have access to the CM system) is provided with access only to information relating to its own (or its affiliates') trades. In contrast, a GCM undertaking is permitted, under the rules or procedures of the relevant CCP, to clear not only its own trades, but also the trades of non-clearing members (whether acting as principal or agent) for whom it provides clearing services.

Accordingly, a GCM undertaking (which has elected to have access to the CM system) is provided with access not only to information relating to its own trades, but also to information relating to the trades of its (non-clearing member) clients to whom it is providing clearing services.

However, subject to the different range of trades in relation to which a GCM undertaking has access in comparison to an ICM undertaking, the types of information made available for viewing by a CM undertaking (which has elected to have access to the CM system) is the same. In summary, they comprise (where applicable):

- Membership data;
- Open positions;
- Transaction data;
- CCP pricing reports;
- CCP margin reports;
- Clearing member databases;
- Participant data;
- Securities and prices;
- Settlement agents;
- Corporate actions;
- Exchange rates;
- Broadcast messages; and
- Interest rates.

Section 4: Clearing sponsors

A clearing sponsor communicates with the CM system (on behalf of a CM undertaking or a 'CCP' participant) by using the CM Gateway operated by it. A clearing sponsor is not permitted to communicate with the CREST system. As a result a clearing sponsor is not admitted to participation in CREST, but is admitted as a 'CM user' only. Unlike a 'CCP' participant and settlement agent (in each case in relation to its communications made by it, or on their behalf, with the CM system) and a CM undertaking, a clearing sponsor is not a 'participant' in the CM system for the purposes of this CREST Central Counterparty Service Manual.

Section 5: Settlement agents¹⁷

The term 'settlement agent' refers to a CREST member (including a cross-CCP member) who is authorised (whether directly or indirectly) by a non-clearing member or a CM undertaking to settle central counterparty transactions in respect of which that non-clearing member (and/or its principal) or CM undertaking has rights and/or obligations as a contracting party.

It is anticipated that (although this is a matter for the relevant CCP and relevant trading platform, not EUI) settlement of the central counterparty transaction by the CREST member (as settlement agent), by the delivery or receipt of the securities and/or payment concerned (whether net or gross), will be the contemplated contractual performance of the market contract between the CM undertaking and the relevant CCP (and may also be the contractual performance contemplated by the market contract between the non-clearing member (or its principal) and the GCM undertaking). Under the rules of certain investment exchanges it is provided, for example, that the settlement of a market contract under the netting procedures is a complete and final performance of the rights and obligations of the relevant parties to that contract.

CREST members who act as settlement agents are not admitted into CREST under a participant type which is additional to or separate from their participation as a CREST member. This is because the range of CREST system-functionality available to a CREST member as settlement agent¹⁸ is no different from the range of functionality available to the CREST member when it is acting otherwise than as a settlement agent¹⁹. However, the functions performed by a CREST member as a settlement agent give rise to certain additional risks for the security or integrity of the CREST system (and the CM system) which are minimised by imposing certain information and other obligations upon the CREST member (as settlement agent), and by reserving certain powers to EUI in relation to a CREST member (as settlement agent). These obligations and powers are principally set out in Schedule 3 to the CREST Terms and Conditions concerning CREST membership issued by EUI.

Section 6: Operators

Chapter 2, section 3 of the CREST Reference Manual describes the procedures in relation to persons ('operators') who occupy a responsible position in relation to the supply of information to the CREST system by using the gateway computer of a user. The provisions of that section (save for those provisions dealing with records to be maintained by users in relation to its operators) also describe the procedures in relation to operators who access the CM system on behalf of a CM user through a CM Gateway, but in its application to the CM system the section shall be interpreted as if each reference in it to a term contained in the left hand column below were a reference to the term which is opposite it in the right hand column below:

¹⁷ The term 'settlement agent' is used in this CREST Central Counterparty Service Manual to refer to a CREST member which is providing settlement agent functions both in relation to trades entered into by it as a dealing firm for its own account and trades entered into by third party dealing firms. It also contemplates that the same legal entity may maintain different 'memberships' (i.e. under separate Settlement Participant IDs).

¹⁸ The one exception to this is the cross-CCP member - see further Section 2.

¹⁹ A CREST member acting as a settlement agent will, however, have access to additional enquiry facilities: see Chapter 6, sections 2-4 (inclusive). For the purpose of this CREST Central Counterparty Service Manual, these CREST services are provided to a member (as settlement agent) in its capacity as a participant in the CM system. In its communications with the CM system, a settlement agent is deemed to make and receive communications under the CM User ID designated for that purpose by EUI. If the settlement agent uses the services of a sponsor to communicate on its behalf with the CM system, that sponsor is deemed for the purposes of this CREST Central Counterparty Service Manual to be a 'clearing sponsor' acting for the settlement agent as a 'CM undertaking' in relation to any such communication (and the provisions of this CREST Central Counterparty Service Manual, the CREST Rules, the Terms and Conditions concerning CREST membership and the CREST CM Sponsors Agreement shall be applied accordingly (with any appropriate changes of detail)) - and the sponsor is deemed to communicate with the CM system in this capacity under the separate CM User ID designated for that purpose by EUI.

| TERM RELATING TO CREST SYSTEM | TERM RELATING TO CM SYSTEM |
|-------------------------------------|--------------------------------|
| 'CREST', 'CREST system' or 'system' | 'CM system' |
| 'gateway computer' | 'CM Gateway' |
| 'participant' | 'participant in the CM system' |
| 'user' | 'CM user' |

Section 7: Operator function groups

Chapter 2, section 4 of the CREST Reference Manual describes the procedures under which EUI controls access to functions provided by the CREST system. The provisions of that section (save for those provisions dealing with settlement functionality or which suggest that data held in the CM system may be added to or changed by a CM user²⁰) also describe the procedures under which EUI controls access to functions provided by the CM system, but in its application to the CM system the section shall be interpreted as if each reference in it to a term contained in the left hand column below were a reference to the term which is opposite it in the right hand column below:

| TERM RELATING TO CREST SYSTEM | TERM RELATING TO CM SYSTEM |
|-------------------------------------|--------------------------------|
| 'CREST', 'CREST system' or 'system' | 'CM system' |
| 'participant type' or 'participant' | 'participant in the CM system' |
| 'user' | 'CM user'. |

Section 8: Enablement and disablement

Chapter 2, section 7 of the CREST Reference Manual describes the procedures under which EUI enables or disables users, participants, securities and functions in the CREST system. The provisions of that section (save for those which suggest that any instruction or message other than an enquiry message may be processed by the CM system) also describe the procedures under which EUI enables or disables CM users, participants in the CM system, certain specified securities and functions in the CM system, but in its application to the CM system the section shall be interpreted as if each reference in it to a term contained in the left hand column below were a reference to the term which is opposite it in the right hand column below:

| TERM RELATING TO CREST SYSTEM | TERM RELATING TO CM SYSTEM |
|-------------------------------------|--------------------------------|
| 'CREST', 'CREST system' or 'system' | 'CM system' |
| 'participant' | 'participant in the CM system' |
| 'transaction' | 'CM electronic instruction' |
| 'user' | 'CM user'. |

²⁰ The functions provided by the CM system are 'read-only' functions. Data held in the CM system may only be added to or amended by the System Controller or by the relevant 'CCP' participant (as appropriate).

Chapter 8: The paper interface

The CREST Reference Manual, Chapter 3, section 4, explains the limitations on the availability of stock deposit, stock withdrawal and residual service functionality for 'CCP' participants and cross-CCP members.

A RES transaction, unless it is created pursuant to the automatic transformations software in relation to a security the subject of a central counterparty transaction, is not a central counterparty transaction for the purposes of this CREST Central Counterparty Service Manual (and the agreement between EUI and any 'CCP' participant, CREST participant or participant in the CM system).

Stock deposit, stock withdrawal and residual service functionality is not available to a CM undertaking or clearing sponsor.

Chapter 9: Settlement

Section 1: General

Three transaction types occur as central counterparty transactions in the central counterparty service:

- delivery (DEL) transactions;
- claims (CLA) transactions; and
- interest claim payments (INT) transactions²¹.

Section 2: Central sponsor services

Introduction

LCH (in its capacity as a user) is designated by EUI to act as a CREST central sponsor in the central counterparty service for LCH cleared trades²².

BNP Paribas (in its capacity as a user) is designated by EUI to act as CREST central sponsor in the central counterparty service for x-clear cleared trades²³.

EuroCCP (in its capacity as a user) is designated by EUI to act as CREST central sponsor in the central counterparty service for EuroCCP cleared trades²⁴.

ECAG (in its capacity as a user) is designated by EUI to act as a CREST central sponsor for the central counterparty service for ExE trades (but under a different CREST user ID in each case).

In all cases other than the central counterparty service for ExE trades, the 'CCP' participant is treated as having elected to opt into the netting procedures. In all cases, the 'CCP' participant is treated as having elected to opt into the relevant central sponsor services (both in relation to gross and net DEL transactions). As a result, a central counterparty transaction (whether gross or net) is automatically created as one which is attributable to the 'CCP' participant and, as in the case of any other DEL transaction, it will need to be matched by the settlement counterparty before it can proceed to settlement.

In the case of transactions that are cleared through two of LCH, x-clear and EuroCCP as CCPs, the transaction will be settled through a cross-CCP membership. The relevant cross-CCP member is also treated as having opted into both:

- the netting procedures; and
- the relevant central sponsor services.

²¹ These transactions (and the RES transaction type) may also be created pursuant to the automatic transformations software in relation to a security which is the subject of a central counterparty transaction and, if so, any such transaction will also be a central counterparty transaction for the purpose of the CREST Central Counterparty Service Manual. In addition, in principle, where a transfer of title to central counterparty securities under a central counterparty transaction cannot be effected, EUI will apply the Bad Delivery Rules set out in the CREST Rules. If so, a BDR transaction will be generated as a central counterparty transaction for the purposes of the CREST Central Counterparty Service manual. EUI may also deem a transaction relating to a specified security involving a particular 'CCP' participant to be a 'central counterparty transaction' for any purpose.

²² LCH may act as CREST central sponsor through one or more CREST user IDs.

²³ x-clear may act as CREST central sponsor through one or more CREST user IDs.

²⁴ EuroCCP may act as CREST central sponsor through one or more CREST user IDs.

Central counterparty service for LCH, x-clear and EuroCCP cleared trades – Central sponsor services provided by the relevant CREST central sponsor

In this sub-section references to 'the relevant CCP' refer only to LCH, x-clear and/or EuroCCP (as applicable) and references to 'the relevant CREST central sponsor' refer to LCH, Clearnet, BNP Paribas and EuroCCP (as applicable).

Each relevant CREST central sponsor acts for:

- the relevant 'CCP' participant;
- where a market contract arises between two relevant CCPs, the relevant cross-CCP member; and
- CREST members who have been appointed to act as settlement agent by the relevant CCP's clearing members and have elected to use the central sponsor services provided by it.

The central sponsor services provided by the relevant CREST central sponsor, acting in its capacity as a CREST central sponsor for a member, comprise all the systems, services and procedures which it operates, provides or uses to enable, facilitate or procure:

- its receipt of data relating to trades in central counterparty securities executed on the relevant trading platform;
- its creation of two SWIFT MT 518 messages in relation to gross or net deliveries (in a format agreed with EUI): one for the delivery of securities to the 'CCP' participant and one for the delivery of securities to the corresponding settlement counterparty;
- its correction and resending of any SWIFT MT 518 messages notified by EUI as not successfully processed;
- its sending of those messages by means of an accredited ISO 15022 network, via a gateway maintained for such purpose, to the Network Provider's Communications Host for transmission to the CREST Applications Host;
- its receipt of properly authenticated dematerialised instructions on behalf of the member;
- EUI's provision to it of the applicable direct input services to enable or facilitate the creation of a DEL transaction attributable to the member concerned by entering into the CREST Central Sponsors Agreement (and so that the relevant central sponsor's obligation under this bullet shall be discharged if it takes reasonable care to cause EUI to provide to it the direct input services in accordance with the CREST Central Sponsors Agreement, subject to EUI fulfilling its contractual obligations to the relevant central sponsor to provide these services under that Agreement);
- the central generation from the properly authenticated dematerialised instructions received by the CREST Applications Host of a DEL transaction as a central sponsor transaction attributable to the member concerned;
- where the member has opted into the netting procedures and has opted into central sponsor services for the resulting net transaction, the processing by EUI of a gross DEL transaction under the applicable direct input services and under the netting procedures (as services provided by EUI to the CREST central sponsor); and

- (after the operation of the relevant direct input services to enrich the resulting transaction) the central generation of a net DEL transaction as a central sponsor transaction attributable to the member concerned.

The central sponsor services provided by the relevant CREST central sponsor include its creation of a 'contra' transaction attributable to the member concerned, in the event that a trade is reversed or cancelled in the trading platform, in the manner described in Chapter 9, sections 4 and 5 of this CREST Central Counterparty Service Manual. The information received by the relevant CREST central sponsor, in relation to a reversed or cancelled trade in the relevant trading platform, may be used by it to enable or facilitate appropriate correcting action in the relevant securities settlement system or otherwise.

Central counterparty service for ExE trades – Central sponsor services provided by ECAG as a CREST central sponsor

ECAG acts as a CREST central sponsor for:

- a. itself (as a 'CCP' participant); and
- b. CREST members who have been appointed to act as settlement agent by ECAG's clearing members and have elected to use the central sponsor services provided by it under the central counterparty service for ExE trades.

The central sponsor services provided by ECAG, acting in its capacity as a CREST central sponsor for a member, comprise all the systems, services and procedures which it operates, provides or uses to enable, facilitate or procure:

- its receipt of data relating to the exercise of an ExE option in relation to central counterparty securities;
- its conversion of the trade notification message into two corresponding SWIFT MT 518 messages (in a format agreed with EUI) – one for the delivery of securities to the 'CCP' participant and one for the delivery of securities to the corresponding settlement counterparty;
- its correction and resending of any SWIFT MT 518 messages notified by EUI as not successfully processed;
- its sending of those messages by means of a dedicated ISO 15022 network for transmission to the CREST Applications Host and the operation of such procedures as are necessary to convert such messages into properly authenticated dematerialised instructions;
- its receipt of properly authenticated dematerialised instructions on behalf of the member;
- EUI's provision to it of the applicable direct input services to enable or facilitate the creation of a gross DEL transaction attributable to the member concerned by entering into the CREST Central Sponsors Agreement (and so that ECAG's obligation under this bullet shall be discharged if it takes reasonable care to cause EUI to provide to it the direct input services in accordance with the CREST Central Sponsors Agreement, subject to EUI fulfilling its contractual obligations to ECAG to provide these services under that Agreement);
- the central generation from the properly authenticated dematerialised instructions received by the CREST Applications Host of a gross DEL transaction as a central sponsor transaction attributable to the member concerned.

The central sponsor services provided by ECAG as a CREST central sponsor include its creation of a 'contra' transaction attributable to the member concerned, in the event that a ExE trade is reversed or cancelled in the manner described in this Chapter. The information received by ECAG (in its capacity as a CREST central sponsor), in relation to a reversed or cancelled ExE trade, may be used by it to enable or facilitate appropriate correcting action in the relevant securities settlement system or otherwise.

Section 3: Direct input services

As part of the direct input services provided by EUI, EUI has procedures to validate trade data received from the relevant CREST central sponsor by reference to the information held on the clearing member database (described in Chapter 5 above) and the settlement participant database (described in Chapter 6 above). Under these procedures, trade data which do not comply with the parameters of those databases are rejected (and therefore no central sponsor transaction attributable to the relevant 'CCP' participant will be centrally-generated).

If the reason for the rejection of the trade data is incomplete data in the relevant database(s), EUI or the relevant 'CCP' participant will update the relevant database(s) accordingly and resubmit (or procure the re-submission of) the trade data for processing. No further action is required by the 'CCP' participant concerned or relevant settlement agents.

If a trade has been submitted in error it is the responsibility of the relevant CCP to determine the appropriate course of action. Such action may include requiring the two settlement agents to input settlement instructions direct into the CREST system and settle with each other direct.

Note: under no circumstances is a trade itself modified by the 'CCP' participant, EUI or the relevant trading platform; it may only be re-submitted following an update to static data, or settled outside the central counterparty service. EUI liaises with the relevant CCP if such failures occur in order to determine the appropriate course of action.

Under the CREST Rules, EUI may also require the relevant 'CCP' participant and any relevant settlement agent(s) to co-operate with EUI to facilitate the taking of any action which EUI in its absolute discretion thinks fit with a view to protecting (as far as practicable) the security, integrity or reputation of the CREST system and/or the services provided by EUI as part of the central counterparty service and/or facilitating EUI's performance of its obligations under arrangements made by it with the relevant trading platform or clearing house.

In the central counterparty service for LCH, x-clear and EuroCCP cleared trades, where a member may elect to use the relevant CREST central sponsor to create a central sponsor transaction attributable to it (whether as a gross or net DEL, or both) the applicable direct input services are provided by EUI to the relevant CREST central sponsor (as a CREST central sponsor) to enable or facilitate its provision of central sponsor services to the member as part of the central sponsor services provided by it to that member.

In the central counterparty service for ExE trades, where a member may elect to use ECAG as its CREST central sponsor to create a central sponsor transaction attributable to it (as a gross DEL only), the applicable direct input services are provided by EUI to ECAG (as a CREST central sponsor) to enable or facilitate its provision of central sponsor services to the member as part of the central sponsor services provided by it to that member.

Section 4: Contra trades

In the event that a trade is reversed or cancelled on a trading platform, the CREST central sponsor may submit an MT518 cancellation message (as part of the central sponsor services provided by it). The direct input services provided by EUI to CREST central sponsors in that central counterparty service enable or facilitate the creation (on the basis of this MT518 cancellation message) of contra DEL transactions attributable to the 'CCP' participant and (where the settlement counterparty has opted into the central sponsor services) that settlement counterparty in the manner described below. The information received by the CREST central sponsor, in relation to a reversed or cancelled trade may be used by it to enable or facilitate appropriate correcting action in the relevant securities settlement system or otherwise.

The CM system includes the underlying trade code in the 'CCP' participant delivery transaction in the Contra Reference field. A contra transaction does not result in the deletion of the original transaction; both the original transaction and the contra transaction settle separately. (Where the contra transaction is entered and accepted on trade date, it may be processed as part of the netting procedures).

Section 5: Input of settlement instructions

As noted in Chapter 4 of the CREST Reference Manual, the relevant CREST central sponsor inputs the trade data received from the relevant trading platform or calculated following the exercise/assignment by the ECAG clearing member of an ExE Option. EUI, as part of the direct input services provided by it, validates the data in the manner described in Sections 2 and 3 above and Chapter 4, section 4A of the CREST Reference Manual. Additional validation (for example in relation to risk management) may be performed by a CREST central sponsor other than EUI on receipt of trade details from the relevant trading platform or clearing member and in advance of the message being sent to the CREST system.

The direct input services provided by EUI (to the relevant CREST central sponsor) enriches that data and enables the generation of a settlement instruction of transaction type 'DEL' attributable to the relevant 'CCP' participant and the relevant settlement agent.

If the relevant settlement agent has not opted to make use of the central sponsor services provided by a CREST central sponsor, the DEL is alleged against it.

Section 6: Contingency

In the event that either a trading platform, a CREST central sponsor or the CREST system moves to contingency, it is the responsibility of settlement agents to monitor the settlement instructions alleged against them by the central counterparty service for accuracy and completeness. The relevant 'CCP' participant may, in exceptional circumstances, manually input or delete instructions (with the co-operation of the relevant settlement agent), as provided for in the CCP's rules or procedures.

Section 7: Matching of settlement instructions

Settlement agents are required to match by customer input the DELs alleged against them by the relevant 'CCP' participant in accordance with, amongst other things, the requirements of that CCP, unless they have opted to make use of the relevant central sponsor services described in Section 4 of Chapter 4A of the CREST Reference Manual and in Section 2 above (where the settlement

instructions will 'automatically match'). If the settlement agent has not opted to use central sponsor services, after the matching of the DEL in accordance with the normal matching procedures, the transactions will either proceed to settlement or (where a gross DEL and the settlement agent has opted into the netting procedures) will be processed under the netting procedures. After such processing, a net DEL is created as a central sponsor transaction attributable to the relevant 'CCP' participant; and (where the settlement agent has opted into central sponsor services in relation to the net transaction) a net DEL is created as a central sponsor transaction attributable to that settlement agent. If the relevant settlement agent has not opted into central sponsor services for the net transaction which results from the netting procedures, it will be required to match by customer input the net DEL which is alleged against it in accordance with the normal matching procedures. Upon matching, the net DELs will proceed to settlement.

Section 8: Tolerance matching

LCH, EuroCCP and ECAG, as 'CCP' participants in the central counterparty service, have not opted in to tolerance matching. In the event that the consideration specified by a settlement agent who has opted in to tolerance matching (but not the relevant central sponsor services) does not perfectly match the consideration specified by LCH, EuroCCP or ECAG, but falls within the tolerance matching parameters specified in the CREST Reference Manual (see further Chapter 4, section 5), the CREST system amends the settlement agent's consideration to match that of LCH's, EuroCCP's or ECAG's 'CCP' participant.

x-clear, as both a 'CCP' participant and a cross-CCP member, has opted into tolerance matching. As a result, a consideration specified by either participant may be adjusted, within the parameters specified in the CREST Reference Manual.

Section 9: Linking central counterparty transactions

The allocation process described in Chapter 7, section 4 of the CREST Reference Manual and Chapter 10 below will generate linked pairs of transactions to which the 'CCP' participant is a party. The linking functionality is described in more detail in Chapter 5 Section 6 of the CREST Reference Manual. The links are carried across to subsequent splits, transformations and claims (except where the underlying transaction to which the claim relates has settled at the point at which the claim itself is raised).

A 'CCP' participant may split a central counterparty transaction. If a 'CCP' participant splits a linked central counterparty transaction, the split is made to both transactions in the linked pair.

Section 10: Splitting central counterparty transactions

Central counterparty transactions (whether gross or net transactions) may be split. It is not possible to split a central counterparty transaction before it is matched by the relevant 'CCP' participant.

In addition, a 'CCP' participant and the relevant cross-CCP member may make use of the auto-splitting functionality described in Section 15 of Chapter 4 of the CREST Reference Manual. A 'CCP' participant may also make use of the allocation process described in Chapter 7, section 4 of the CREST Reference Manual and Chapter 10 below.

Section 11: Pre-settlement checks

The settlement of central counterparty transactions (whether gross or net) is subject to the normal CREST pre-settlement checks including, inter alia, availability of the required quantity of securities and the effect of settling the transaction on any secured cap (see Chapter 6, section 3 of the CREST Reference Manual).

Chapter 10: Corporate actions

Section 1: General

Chapter 7, section 4 of the CREST Reference Manual (Corporate actions) applies to the execution of corporate actions affecting central counterparty securities. Reference should be made to that section for the differences applicable to buyers' instructions in relation to 'CCP' participants.

In relation to central counterparty transactions, an ACON message should not be input in relation to a cross border transaction (XDL) relating to CREST securities (including CDIs).

Chapter 11: Benefit claims

Chapter 7, section 5 of the CREST Reference Manual (Benefit claims) applies to the calculation of benefit claims in relation to central counterparty transactions. Reference should be made to that section for the differences applicable to central counterparty transactions.

Chapter 12: Automatic transformations

Chapter 7, section 6 of the CREST Reference Manual (Transformations) applies to the operation of the CREST automatic transformations functionality in relation to central counterparty transactions. Reference should be made to that section for the differences applicable to central counterparty transactions.

Chapter 13: Other core functions

The term 'central counterparty transaction' refers to the 'DEL' transaction (whether gross or net) which is created as a central sponsor transaction. The term also encompasses any related 'CLA' and 'INT' transactions, or other related centrally-generated transaction or transaction which is deemed by EUI to be a central counterparty transaction for any purpose, as agreed with the relevant CCP25. The term does not contemplate any other transaction type.

A 'CCP' participant has (or a 'CCP' participant uses the services of a CREST sponsor who has) its own Gateway computer to communicate with the CREST system. As a system-member and (where relevant) a CREST user, a 'CCP' participant may input (or procure that its CREST sponsor inputs) through its Gateway computer the full range of settlement instructions available in CREST to a CREST member (although transaction types 'STW' and 'STD' may only be input into the CREST system by a 'CCP' participant with the prior consent of EUI and only limited residual service functionality is made available: see Chapter 8 above). In this capacity, stock loan and repo, DBV and escrow functionality are available to a 'CCP' participant in the manner described in Sections 1 - 3 and 10 of Chapter 7 of the CREST Reference Manual.

In principle, a 'CCP' participant could participate in the CREST voting service described in Chapter 7, section 9 of the CREST Reference Manual, and in the dividend election/payment and interest payment functionality described in Chapter 7, section 12. However, it is not anticipated that a 'CCP' participant will generally hold central counterparty securities for sufficient periods to merit its use of the CREST proxy appointment, or the dividend election/payment and interest payment, functionality.

The stripping and reconstitution functionality described in Chapter 7, section 7 of the CREST Reference Manual is only available for use by GEMMs (as CREST members). Accordingly, this functionality is not available to a 'CCP' participant. Equally, certain specified securities are not eligible for processing under the self-collateralisation arrangements described in Chapter 7, section 8 of the CREST Reference Manual, or the functionality relating to eligible debt securities described in Chapter 7, section 11.

The observations made in this Chapter 13 in relation to a 'CCP' participant have equal application to the cross-CCP memberships maintained in relation to the CREST central counterparty service.

²⁵ The term encompasses transactions (including the RES transaction type) which are created pursuant to the automatic transformations software in relation to a security which is the subject of a central counterparty transaction. In addition, in principle, where a transfer of title to central counterparty securities under a central counterparty transaction cannot be effected (in accordance with regulation 23 of the UK Regulations), EUI will apply the Bad Delivery Rules set out in the CREST Rules. If so, a BDR transaction will be generated as a central counterparty transaction for the purposes of this CREST Central Counterparty Service Manual.

Chapter 14: Stamp duty and Stamp Duty Reserve Tax

The central counterparty service introduces a number of additional steps into bargains concluded through a relevant trading platform. Without the central counterparty service there would be an offer to sell and an offer to buy between the dealing parties which would lead to a contract settled in the CREST system. With the central counterparty service the respective offers (which would have resulted in a contact) are replaced by a 'chain' of agreements to be settled in the CREST system between seller and GCM, between GCM or ICM and CCP, between CCP and GCM or ICM and between GCM and the buyer. The GCM and ICM act as principal in their dealings in relation to the central counterparty service.

Section 1: United Kingdom

Stamp duty reserve tax regulations were introduced for the UK (the 'regulations') which apply to remove a charge to stamp duty reserve tax ("SDRT") in certain circumstances. The circumstances arise where, in connection with over the counter transactions or those agreed on any Recognised Investment Exchange (RIE)²⁶, securities are agreed to be transferred under a matching agreement between certain persons.

Insofar as the relief applies to the CCP, GCM and ICM, the relief applies to LCH, x-clear, EuroCCP and ECAG acting as a clearing house and any GCM or ICM acting in its capacity as a clearing participant of the relevant CCP.

The relief applies where equity securities are to be transferred:

- a. from an NCM or a client to an ICM/GCM or nominee). Accordingly, this exempts from SDRT the first transaction in the chain between the client or the NCM and the GCM (being a ICM/GCM of the CCP);
- b. between ICM/GCMs (or their nominees)
- c. from a GCM/ICM (or nominee) to the CCP (or nominee). Again, no SDRT arises in relation to over the counter transactions and those agreed on an RIE, on the agreement by the CCP to acquire the securities;
- d. from the CCP (or nominee) to a GCM/ICM (or nominee). No SDRT arises on over the counter transactions and those agreed on an RIE on the agreement between the CCP and an ICM/GCM of the CCP;
- e. between CCPs (or their nominees); and
- f. from a person other than an ICM/GCM to the CCP (or its nominee), as a result of a failure by an ICM/GCM to fulfil its obligations by transferring securities to the CCP (or its nominee).

There is no exemption for the agreement to transfer securities to the ultimate acquirer from the GCM who has acquired the securities by virtue of the agreement referred to paragraph (d), or for the agreement to transfer securities to an ICM as the ultimate acquirer from the CCP (or nominee).

²⁶ In this context, in accordance with section 116(4)(b) of the Finance Act 1991, "recognised investment exchange" means a recognised investment exchange within the meaning of the Financial Services and Markets Act 2000 or a regulated market or multilateral trading facility within the meaning of MiFID (Directive 2004/39/EC).

Accordingly SDRT will be payable on these transactions in the normal way. Any reliefs which may be applicable to these transactions, for instance intermediary relief, will apply, subject to the conditions attaching to the relevant relief being satisfied.

The above reliefs for transactions involving the central counterparty service are dependent upon there being a 'matching agreement' which is 'back-to-back' with the relevant transaction. A matching agreement arises where the person to whom the securities are transferred, acting in its capacity as an ICM/GCM (or CCP) under the relevant transaction, is under an obligation (as an ICM/GCM or CCP) on receipt of the equity securities, to transfer securities of the same kind, number and for the same price to another person. In the case of a failure as described at paragraph f. above, it is recognised that there may not actually be an onward matching transfer of the securities. In normal circumstances matching agreements will arise in relation to transactions validated and carried out through the central counterparty service. Where an ICM acquires securities from the CCP there will normally be no 'matching agreement' between it and its client, if any, within the meaning of the regulations, although other SDRT reliefs may be available.

Where the CCP is clearing options business, regulations²⁷ provide that stamp duty and SDRT relief will apply to over the counter transactions and those agreed on an RIE where:

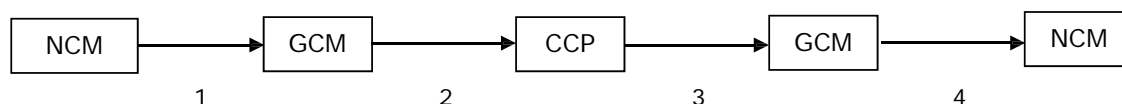
- as a result of an exercise of an option, equities are transferred or issued (or agreed to be transferred or issued) to the CCP or its nominee;
- in order to meet an obligation to receive equities resulting from the exercise/assignment of an option, equities are transferred (or agreed to be transferred), from:
 - the CCP or its nominee; or
 - a non-clearing member or its nominee; to a clearing member or its nominee.

Section 2: Ireland

Unlike under UK legislation (and subject to the treatment of contracts performed by way of net settlement under the Irish Stamp Duties Consolidation Act 1999, as amended), Irish stamp duty is charged on the actual transfers of securities, as reflected in the CREST system by gross DEL transactions, rather than on a contractual change in beneficial ownership. The interposition of a CCP or a clearing member in the settlement chain will give rise to additional stamp duty charges, unless the appropriate reliefs are applied. The following paragraphs explain how existing reliefs (as amended by the Finance Act 2007) will apply where a CCP is used and is especially relevant to central counterparty services where trades are undertaken in Irish securities.

Example

The following settlement chain could arise:



The interposition of a CCP, or a clearing member of a CCP, in the settlement chain will give rise to additional Irish stamp duty charges unless appropriate relief is available. Under s.75A of the Stamp

²⁷ The Stamp Duty and Stamp Duty Reserve Tax (Investment Exchanges and Clearing Houses) (Eurex Clearing AG) Regulations 2007 (S.I. 2007/1097), as amended by The Stamp Duty and Stamp Duty Reserve Tax (Investment Exchanges and Clearing Houses) (Eurex Clearing AG) (Amendment) Regulations 2008 (S.I. 2008/164).

Duties Consolidation Act 1999, as amended, all the above legs of the chain will be exempt, provided (with one exception) that the securities are transferred under a matching contract.

This relief for recognised clearing houses (CCPs), whereby stamp duty shall not be chargeable on a transfer of title to securities effected on an exchange, is applicable where the transfer is from:

an ICM/GCM or its nominee to another ICM/GCM or its nominee;

- a client or NCM or its nominee to an ICM/GCM or its nominee;
- an NCM or its nominee or an ICM/GCM or its nominee to a recognised clearing house (CCP) or its nominee;
- a recognised clearing house (CCP) or its nominee to an ICM/GCM or its nominee or an NCM or its nominee;
- an ICM/GCM or its nominee to an NCM or its nominee; and
- a person other than an ICM/GCM to a recognised clearing house (CCP) or its nominee, as a result of a failure by an ICM/GCM to fulfil its obligations in respect of the transfer of securities to the recognised clearing house (CCP) or its nominee (in this case it is recognised that there may not actually be an onward matching transfer of the securities).

To qualify for relief, the CCP must be 'a recognised clearing house: Eurex Clearing AG, LCH Limited, SIS x-clear AG, European Central Counterparty NV or any other clearing house designated as a recognised clearing house for the purposes of section 75A by regulations made by the Revenue Commissioners.

If the GCM is acting in an agency capacity, a charge to stamp duty will arise on leg 3. If the GCM has exempted Leg 3 then a charge to stamp duty arises on Leg 4. If the GCM has accounted for stamp duty on Leg 3 then leg 4 can be exempted by use of the 'Y' flag, NCBO.

Section 3: Stamp Duty Assessment Service

The Stamp Duty Assessment Service provides functions and facilities for the assessment and collection of stamp duty reserve tax or stamp duty due on trades, including where trades in chargeable securities are netted by a third party outside the CREST system for settlement within the CREST system. These arrangements provide an alternative to the assessment and collection of duty by the CREST system in response to settlement instructions which have entered the CREST system. The Stamp Duty Assessment Service is described in detail in Chapter 10 of the CREST Reference Manual.

Chapter 15: System controller functions

Section 1: Central intervention

Under the CREST Rules, a settlement agent and the relevant 'CCP' participant are required to co-operate with EUI in a number of circumstances, the occurrence of which might represent a threat to the security or integrity of the CREST system or the CM system. Such circumstances include where:

- the appointment or authority of a member to act as settlement agent for any non-clearing member or CM undertaking is or is to be suspended or terminated (for any reason);
- the appointment or authority of a GCM undertaking to act as GCM for any non-clearing member (for whom a member acts or acted as settlement agent) is or is to be suspended or terminated (for any reason);
- details of a transaction, in respect of which a CCP is not in fact obliged (under its rules or procedures) to act as the contracting counterparty to a clearing member, have been entered into and are held within the CREST system and/or the CM system;
- a CCP intends to suspend or terminate, or has suspended or terminated, (whether generally or in respect of specified securities) the service under which it agrees to act as the contracting counterparty to its clearing members under central counterparty transactions;
- a trading platform intends to withdraw, or has withdrawn, its designation of a specified security as being eligible for central counterparty processing or otherwise intends to delete, or has deleted, any order from its trading system(s) to which a central counterparty transaction relates.

Chapter 10, section 1 of the CREST Reference Manual describes the circumstances in which EUI might take action through the central intervention functions available to the CREST System Controller. In addition to those circumstances, the System Controller may also take appropriate action upon the occurrence of any of the circumstances outlined above. However, in normal circumstances he will only do so if the settlement agent(s) concerned and/or the relevant 'CCP' participant are unable or unwilling to give the co-operation required by EUI, or if urgent action needs to be taken and there is insufficient time to co-ordinate that action with the relevant settlement agent(s) and/or the 'CCP' participant concerned.

In addition, under its agreement with EUI, each CM undertaking and 'CCP' participant acknowledges and agrees that EUI reserves the right to make correcting entries in any inaccurate record maintained in the CM system, including where information in the CM system relates to a transaction in respect of which the 'CCP' participant concerned is not in fact obliged (under the CCP's rules or procedures) to act as the contracting counterparty to a clearing member.

System Controller's Adjustment

In cases where action needs to be taken by the System Controller in relation to the CREST system in the circumstances referred to above, the System Controller's Adjustment Transaction (ADJ) is likely to be used. In cases where action needs to be taken by the System Controller in relation to the CM system, the System Controller will amend, delete or otherwise correct any data held in the CM system using central functionality similar to the ADJ transaction type.

Section 2: Procedures relating to the incapacity of CM users and participants in the CM system

In its agreements with CM undertakings, CREST members (acting in the capacity of settlement agents) and clearing sponsors, EUI has certain rights to suspend or terminate a CM user or participant in the CM system (and/or a CREST user or participant) in a range of circumstances. These include a number of circumstances relating to the actual or threatened incapacity of a CM user or participant in the CM system or a non-clearing member. The circumstances in which EUI might exercise these (and other rights) are considered in greater detail in the Notes to Sections 2 - 6 of Chapter 18 (Serving of notices and procedures in cases of default or incapacity, etc.) below.

Chapter 16: Networks and system messages

Section 1: Communications with the CM system by means of the CM Network - as a 'CCP' participant

To the extent that a 'CCP' participant communicates with the CREST system, it is required under its agreement with EUI to use the network services of an accredited network provider (or to use the services of a CREST sponsor who uses the services of such an accredited network provider) or, as a clearing house (and if the relevant CREST Regulations permit), use a dedicated network operated by (or on behalf of) such clearing house in accordance with the specifications of the clearing house to which EUI has agreed. The provisions of Sections 1 and 2 of Chapter 11 of the CREST Reference Manual describe the accreditation process and authentication procedures which relate to any such communications sent by a 'CCP' participant by means of the CREST relevant system and where EUI is responsible for setting the relevant authentication specifications.

In contrast, in a 'CCP' participant's use of the enquiry and information facilities made available to a 'CCP' participant as part of the CREST services, a 'CCP' participant is not acting as a participant in the CREST system. Any communication made by a 'CCP' participant with the CM system is not a communication made with or by means of the 'CREST relevant system'.

Equally, as the CREST services made available to a CM undertaking (and to a settlement agent) are limited to enquiry and information facilities relating to the CM system, a CM undertaking (and, to the extent of the enquiry facilities made available to a member as a settlement agent, a settlement agent) are only admitted by EUI as participants in the CM system. A clearing sponsor is admitted as a 'CM user' only.

It follows that messages sent to (or received from) the CM system by a 'CCP' participant or by a CM undertaking (or a clearing sponsor on its behalf) or by a settlement agent are not required to satisfy the specifications relating to authentication referred to in paragraph 5(3) of Schedule 1 to the UK Regulations or paragraph 5(d) of the Schedule to the Irish Regulations. Such messages are not 'dematerialised instructions' and are not required to be 'properly authenticated' for the purposes of the UK or Irish Regulations.

In relation to any communication sent to the CM system by a CM user via the GUI, EUI has determined that any such message should be sent by means of the same network services operated and provided by the network providers accredited by EUI. Accordingly, the same accreditation and authentication procedures which apply to any communication with the CREST system will apply to such messages sent to (or received) from the CM system. A similar analysis applies where a 'CCP' participant is permitted by EUI to communicate with the CM system by using the same network, using authentication procedures of the clearing house and to which EUI has agreed, which it uses to communicate with the CREST system.

However, in order to distinguish between the different regulatory regimes to which EUI is subject in relation to messages sent to (and received from) the CREST system, and messages sent to and received from the CM system, (in relation to communications with the CM system) this CREST

Central Counterparty Service Manual (and the agreements in place between EUI and the relevant participants in the CM system or CM users) refer to:

- 'authenticated CM electronic instructions' rather than 'properly authenticated dematerialised instructions';
- 'CM Gateway' rather than 'Gateway computer';
- 'CM Network' rather than 'Network' or 'Networks';
- 'CM Network Services' rather than 'Network Services';
- 'CM system' rather than 'CREST' (or 'CREST system');
- 'CREST CM Software' rather than 'CREST Software';
- 'CM core processor' rather than the 'CREST Applications Host';
- 'CM Network Providers' Communications Host' rather than the 'Network Providers' Communications Host'; and
- 'CM user' rather than 'user'.

Accordingly, sections 1 and 2 of Chapter 11 of the CREST Reference Manual shall be interpreted, in their application to communications with the CM system by means of the CM Network supplied by a network provider accredited by EUI, as if the changes in terminology set out above applied (and as if any reference to the requirements of Schedule 1 to the UK Regulations were omitted).

Section 2: Communications with the CM system by means of the CCP dedicated network – as part of CCP services

In Chapter 1 of this CREST Central Counterparty Service Manual, it was explained that the relevant CCP uses (as part of the CCP services provided by it) a network (and associated equipment and services²⁸). This network is used by the relevant CCP to send and receive electronic messages to (and from) the CM system, which does not form part of the CREST relevant system - these messages are used to supply data to the databases which form part of the CM system and are not 'authenticated CM electronic instructions' of the type contemplated by section 1 of this Chapter 16.

As part of the CCP services provided by it, x-clear uses the services of BNP Paribas (as a CM user) to send and receive these messages to and from the CM system. In this respect, the provisions outlined above in relation to a 'CCP' participant's and CM user's communications with the CM system have equal application to such communications.

As part of the CCP services provided by it, EuroCCP (as a CM user) sends and receives these messages to and from the CM system. In this respect, the provisions outlined above in relation to a 'CCP' participant's and CM user's communications with the CM system have equal application to such communications.

In contrast, LCH and ECAG use a dedicated communications network to supply data to the databases which form part of the CM system. Although these messages are not 'dematerialised instructions' and are not required to be 'properly authenticated' for the purposes of the UK or Irish Regulations, any risk to the security and integrity of the CM system is minimised by the encryption

²⁸ Including encryption hardware and software.

procedures operated or used in relation to this network by LCH and ECAG as part of the CCP services provided by each of them.

However, EUI does not assume responsibility for any electronic messages sent by it to the relevant CCP (by means of the network(s) and associated equipment used by that CCP as part of its CCP services) once the messages leave the CM system and enter the equipment used by that CCP (or its clearing sponsor); and EUI does not assume any responsibility for any electronic messages sent by the relevant CCP (or its clearing sponsor) to the CM system (by means of the network(s) and associated equipment used by that CCP or clearing sponsor) until they reach the CM system. No independent verification of such messages or their content is undertaken by EUI, in particular EUI does not operate any independent encryption or authentication procedures in relation to messages sent to the CM system by means of the network (and associated equipment) used by the relevant CCP (or its clearing sponsor) as part of the CCP services provided by it.

Chapter 17: External data view

Chapter 9 of the CREST Reference Manual describes the procedures under which one CREST participant may be given 'read-only' access to data relevant to another participant. A participant in the CM system may also give read-only access rights to other participants in the CM system in relation to data relevant to that participant in the CM system.

The enquiry and information facilities available to a 'CCP' participant in relation to CM undertakings are described in Chapter 7 above. However, a CM undertaking can nominate any other participant in the CM system to be given a CM participant view of its data (including, but not limited to, those bodies with supervisory responsibilities). This might be one method by which:

- a CM undertaking performs its obligations (under its agreement with EUI) to make available to any investment exchange any information which the investment exchange may reasonably require for the purpose of discharging its functions as a recognised investment exchange; or
- EUI makes available to an investment exchange or clearing house, of which a CM undertaking is a member, or to the Bank of England, the ECB and the UK Debt Management Office information which any of them may require or consider appropriate for the performance of its functions.

Chapter 18: Serving of notices and procedures in case of default, incapacity, etc.

Section 1: General

Chapter 12 of the CREST Reference Manual describes certain matters the occurrence of which requires a member to give immediate notification to EUI, so that action may be taken to minimise the risk to the security or integrity of the CREST system, and the procedure for giving such notification to EUI. The procedures set out in Chapter 12 apply equally to the central counterparty service.

However, in relation to the central counterparty service, certain additional matters may occur outside CREST or the CM system which (if not notified immediately to EUI) might represent a threat to the security or integrity of the CREST system and/or the CM system. This Chapter 18 describes those matters, the procedure for giving notification of those matters to EUI and the action which EUI can be expected to take when it receives any such notification.

Section 2: Notices relating to the default, etc. of a CM undertaking or a non-clearing member

EUI is subject to certain statutory and other requirements to assist regulators (including investment exchanges and other clearing houses) in the performance of their functions. In some cases, these requirements are the subject of arrangements between EUI and the regulator concerned in the form of a non-binding Memorandum of Understanding (or similar arrangement). These arrangements contemplate that if certain action is taken by the regulator concerned outside CREST (e.g. under the default rules of an investment exchange or clearing house), EUI will take action so as to prevent the settlement of transactions in the CREST system in a manner inconsistent with the rules, procedures or requirements of the relevant regulator concerned. In order to assist EUI in the performance of these arrangements, EUI's agreement with each CM undertaking requires the CM undertaking to notify EUI immediately if it believes or becomes aware:

- that a default under the rules of an investment exchange or clearing house is to be declared in respect of the CM undertaking or of any non-clearing member (for whom the CM undertaking acts as GCM);
- that an application is to be made for a court order which, if granted, would in any way prevent or interfere with the performance of its obligations as a clearing member, or the obligations of a non-clearing member (for whom the CM undertaking acts as GCM), in respect of any central counterparty transaction;
- that any other event is likely to occur which could affect its ability to perform its obligations as a clearing member, or the obligations of a non-clearing member (for whom the CM undertaking acts as GCM), in respect of any central counterparty transaction;
- that a declaration of default is declared under the rules of an investment exchange or clearing house in respect of the CM undertaking or of any non-clearing member (for whom the CM undertaking acts as GCM);
- that a court order has been received which in any way prevents or interferes with the performance of its obligations as a clearing member, or the obligations of a non-clearing

member (for whom the CM undertaking acts as GCM), in respect of any central counterparty transaction.

EUI's agreement with each CREST member (acting in its capacity as a settlement agent) and clearing sponsor contains similar obligations of notification upon the member and clearing sponsor.

Note: The procedure for serving notice is set out below. When EUI receives notification of any of these events under that procedure, EUI will in normal circumstances suspend the settlement of any affected transactions. EUI will normally liaise with the regulator(s) concerned (if appropriate) to determine what course of action is required or desirable in order to enable or facilitate the regulator(s) in the performance of their functions, and refer (where appropriate) to any relevant arrangements in place between EUI and the investment exchange and/or clearing house concerned.

Section 3: Notices relating to suspension or termination of authority of a CREST member to act as a settlement agent

A non-clearing member (and/or its principal) and a CM undertaking which has rights and/or obligations in respect of a central counterparty transaction will or may authorise a CREST member (acting as a settlement agent) to perform (or accept performance of) those rights and/or obligations by making or accepting the delivery or receipt of the securities or payment concerned to or from the relevant 'CCP' participant in CREST (whether gross or net basis). Settlement in the CREST system through the authorised settlement agent discharges or may discharge the rights and/or obligations of the non-clearing member (and/or its principal) or CM undertaking in respect of the central counterparty transaction concerned because such settlement is (or may be) the contractual performance contemplated by the relevant contracts. Under the Rules of certain investment exchanges it is provided, for example, that the settlement of a market contract under the netting procedures is a complete and final performance of the rights and obligations of the relevant parties to that contract.

If the authority of a CREST member to act as a settlement agent for a non-clearing member or a CM undertaking is suspended or terminated (for any reason), settlement of a relevant central counterparty transaction by that CREST member may or may not be a proper performance in accordance with the terms of the related contracts. This might give rise to bad delivery or otherwise adversely affect the security or integrity of the CREST system. In addition, the security or integrity of the CM system might be adversely affected if a CREST member who is no longer authorised to act as a settlement agent for a non-clearing member or a CM undertaking were to continue to have access (by electronic enquiry) to the open positions and other databases so as to obtain information relating to the transactions of that non-clearing member or CM undertaking.

In order to minimise these risks, under its agreement with EUI each CREST member is required to notify EUI immediately if its appointment as a settlement agent for any non-clearing member or CM undertaking is, or is to be, terminated or if it become aware that it is, or is to be, no longer authorised or permitted (for any reason) to act as a settlement agent for any non-clearing member or CM undertaking.

If the appointment or authority of a CM undertaking to act as an ICM or (as the case may be) a GCM of a CCP is suspended or terminated (e.g. if the CM undertaking's clearing membership of a CCP has been terminated or it is no longer eligible to act as a contracting counterparty to a CCP), the security or integrity of the CM system may be adversely affected if that CM undertaking were

to continue to be given access to information within the CM system which relates to central counterparty transactions in respect of which it no longer has (or may no longer have) rights and/or obligations as a clearing member. In order to minimise this risk, each CM undertaking is required under its agreement with EUI to notify EUI immediately if its permission to act as a GCM or (as the case may be) an ICM of any CCP is, or is to be, suspended or terminated.

In addition, if (under the rules or procedures of the relevant CCP) a suspension or termination of the clearing membership of a CCP causes the relevant CM undertaking to have no subsisting rights and/or obligations in respect of any central counterparty transaction, the purpose of the agency for which any settlement agent of the CM undertaking was appointed or authorised to act on behalf of the CM undertaking will be discharged (whether on a temporary or permanent basis). This is because there will be no relevant central counterparty transactions capable of settlement by the settlement agent as agent for the CM undertaking concerned. Accordingly, in such circumstances EUI will consider the authority of any CREST member to act as settlement agent for the CM undertaking concerned to be suspended or terminated in relation to all affected central counterparty transactions. It follows that the CREST member will be required to notify EUI immediately of the termination or suspension of its authority to act as a settlement agent in this way. This additional requirement of notification imposed upon the CREST member as settlement agent will further minimise the risk that EUI might, through lack of information made available to it, permit settlement or access to information in circumstances which would threaten the security or integrity of the CREST system or the CM system.

Note: The procedure for serving notice is set out below. When EUI receives notification of a suspension or termination of a CREST member's authority to act as a settlement agent for a non-clearing member or a CM undertaking, it will expect to be informed as to the circumstances of that suspension or termination. If the circumstances relate to a non-clearing member or to a CM undertaking which continues to be authorised to act as an ICM or (as the case may be) a GCM of the CCP concerned, EUI will in normal circumstances suspend or terminate the settlement of any affected transactions (whether gross or net). EUI may require the CREST member concerned and, where appropriate, the relevant CCP to co-operate with it (by the sharing of information or otherwise e.g. by inputting matched deletion instructions relating to any affected central counterparty transactions held in the CREST system) to facilitate the taking of any action contemplated by the arrangements between EUI and the relevant trading platform and/or clearing house.

If the circumstances relate to a CM undertaking (or if EUI is notified by a CM undertaking that it is no longer authorised or permitted to act as an ICM or (as the case may be) a GCM), EUI will usually (in addition to its suspension or termination of the settlement of any affected central counterparty transactions) suspend or terminate its provision of CREST services to the CM undertaking under which it would otherwise be able to view information held in the CM system relating to central counterparty transactions in respect of which it no longer has rights and/or obligations as a clearing member (whether in relation to a particular non-clearing member or generally in relation to the relevant 'CCP' participant). Similar action may be taken by EUI if, after the occurrence of events in relation to a non-clearing member, the rights and/or obligations of a CM undertaking in respect of any central counterparty transaction are discharged or otherwise terminated under the rules or procedures of the CCP concerned.

EUI will suspend or terminate the CREST services provided to the relevant CREST member (as settlement agent) under which the member is able to make enquiries of the open positions and

other databases in relation to the transactions of the non-clearing member or CM undertaking concerned (as it is no longer authorised to act as a settlement agent for that non-clearing member or CM undertaking).

In any event, EUI has internal procedures in place in order to liaise with the regulator(s) concerned (if appropriate) to determine what course of action is required or desirable in order to enable or facilitate the regulator(s) in the performance of its functions, and can be expected to refer (where appropriate) to any relevant arrangements in place between EUI and the trading platform and/or clearing house concerned.

EUI will amend the relevant details held within the settlement participant database (which forms part of the CM system) and expect the CCP concerned to amend any relevant details held within the clearing member database kept up-to-date by it under the CCP services provided by it.

Section 4: Notices relating to suspension or termination of authority of a GCM undertaking to act as GCM for a non-clearing member

Under the rules or procedures of a CCP, the CCP will only accept rights and/or obligations in respect of a central counterparty transaction if its contracting counterparty is either an ICM or a GCM which is a member of that CCP. In particular, a CCP is entitled to refuse to accept or make performance under a central counterparty transaction relating to a bargain to which a non-clearing member is a party if, at the relevant time (as specified under the CCP's rules or procedures), the bargain was

not eligible for processing by means of the central counterparty service. This occurs if, for example, the clearing member designated by the non-clearing member to act as its GCM in respect of a central counterparty transaction is no longer eligible (under the rules or procedures of the CCP involved in the transaction) to act as a contracting counterparty to the CCP concerned, or if the clearing arrangements to which the relevant non-clearing member, GCM and CCP are party have been terminated (for any reason).

If EUI were unaware of the suspension or termination of a GCM undertaking's authority or permission to act as a GCM for a non-clearing member, it would be possible for the system to process a central counterparty transaction in respect of which the CM undertaking and the CCP concerned do not have rights and/or obligations under the CCP's rules or procedures. This might give rise to a bad delivery or otherwise adversely affect the security or integrity of the CREST system; it is also likely to be inconsistent with the arrangements between EUI and the relevant trading platform and/or clearing house. In addition, the GCM undertaking might continue to have access by electronic enquiry to information held within the CM system relating to central counterparty transactions in respect of which it no longer has rights and/or obligations as GCM for the non-clearing member concerned.

In order to minimise this risk, each GCM undertaking is required under its agreement with EUI to notify EUI immediately if its appointment as GCM for any non-clearing member is, or is to be, terminated or if it becomes aware that it is, or is to be, no longer authorised or permitted (for any reason) to act as GCM for any non-clearing member.

In addition, as explained above, the authority of the CREST member to act as settlement agent under any central counterparty transaction in respect of which the GCM undertaking no longer has rights and/or obligations as a clearing member will be considered suspended or terminated to that extent. It follows that the relevant CREST member is required under its agreement with EUI to

notify EUI immediately of the suspension or termination of its authority to act as settlement agent for the GCM undertaking in respect of the affected central counterparty transactions.

Note: The procedure for serving notice is set out below. When EUI receives notification of a suspension or termination of a GCM undertaking's authority or permission to act as GCM for a particular non-clearing member or generally in relation to a CCP, EUI will in normal circumstances take the action contemplated by the Note above (as applied to central counterparty transactions in respect of which the GCM undertaking no longer has rights and/or obligations, whether in relation to a particular non-clearing member or generally in relation to a CCP).

Section 5: Notices relating to corporate incapacity of a non-clearing member or a CM undertaking

Non-clearing members and CM undertakings which are corporate bodies may become subject to a legal incapacity, most commonly in the context of a corporate insolvency. In some circumstances, this may result in the settlement agent (acting on behalf or with the consent of the non-clearing member or CM undertaking concerned) being unable to transfer securities or make payment under a central counterparty transaction in respect of which the non-clearing member (or its principal) or the CM undertaking concerned has rights and/or obligations as a contracting party. If EUI were unaware of such an incapacity, it would be possible for the system to process a central counterparty transaction which could not then be registered or which might otherwise be reversed. Such a settlement might also be inconsistent with the arrangements in place between EUI and the relevant trading platform or clearing house (e.g. if a default has been declared under its default rules). More generally, a corporate incapacity relating to a CM undertaking may also affect a CM undertaking's ability to adhere to the terms of its agreement with EUI.

In order to minimise these risks, each CREST member (which acts or has acted as a settlement agent) undertakes in its agreement with EUI (see paragraph 6 of Schedule 3 to the CREST Terms and Conditions concerning CREST membership) to notify EUI immediately of certain matters relating to the corporate incapacity of any non-clearing member or CM undertaking for whom the member acts or acted as a settlement agent.

Note: The procedure for serving notice is set out below. When EUI receives notification of an event affecting the corporate capacity of a non-clearing member or CM undertaking, EUI will in normal circumstances take the action contemplated by the Note above (as applied to central counterparty transactions in respect of which the non-clearing member (or its principal) or CM undertaking has or had rights and/or obligations as a contracting party). EUI also has internal procedures in place in order to liaise with the appointed insolvency practitioner in order to determine the appropriate action after suspension.

Section 6: Notices relating to suspension or termination of a clearing sponsor's clearing sponsorship

Certain CM undertakings and 'CCP' participants employ the services of a clearing sponsor to send CM electronic instructions attributable to the CM undertaking or 'CCP' participant to the CM system and to receive CM electronic instructions from the CM system on behalf of the CM undertaking or 'CCP' participant. In performing these functions, a clearing sponsor will have access to information relating to the CM undertaking/'CCP' participant and its business (as well as information relating to any non-clearing member for whom the CM undertaking provides clearing services as a GCM). The security and integrity of such information when held in the CM system is dependent to some

extent, therefore, on the established and continuing authority given by the CM undertaking as a 'Sponsored CM') or 'CCP' participant (as a 'sponsored 'CCP' participant') to the clearing sponsor to send and receive CM electronic instructions on its behalf. In order to minimise the risk that a clearing sponsor will be given access to information when it is not authorised to do so by the CM undertaking/'CCP' participant concerned (or its client(s)), each Sponsored CM and sponsored 'CCP' participant is required under its agreement with EUI to notify EUI immediately of:

- any suspension, termination or withdrawal of its clearing sponsor's appointment or authority to act as its clearing sponsor; and/or
- any proposed appointment by it of a replacement clearing sponsor.

A similar obligation of notification is placed upon each clearing sponsor under its agreement with EUI.

Note: The procedure for serving notice is set out below. When EUI receives notification of any of these matters, the course of action which EUI can be expected to take will be determined by reference to the particular circumstances of the suspension, termination or withdrawal of the clearing sponsor's appointment or authority. If the CM undertaking/'CCP' participant wishes to terminate such appointment or authority immediately, in normal circumstances EUI will suspend its provision of the CM services to the CM undertaking/'CCP' participant concerned through its use of the services of the relevant clearing sponsor. However, if the CM undertaking proposes to appoint a replacement clearing sponsor with effect from some future date, it should complete and send to EUI a 'Change of Clearing Sponsor' Form (which is available from EUI). After its receipt of a duly completed and dated 'Change of Clearing Sponsor' Form, EUI will check with the proposed replacement clearing sponsor whether the necessary arrangements are in place and, once confirmed, make appropriate changes in the CM system to allow the replacement clearing sponsor to send and receive CM electronic instructions on behalf of the CM undertaking/'CCP' participant (in place of the clearing sponsor formerly authorised by that CM undertaking or 'CCP' participant). The changes will take effect from the start of the 'effective date' specified by the CM Undertaking/'CCP' participant in the 'Change of Clearing Sponsor' Form or, if no date is stated or the 'Change of Clearing Sponsor' Form is received by EUI too late for processing by the date specified, from the start of the second business day after the 'Change of Clearing Sponsor' Form is received by EUI.

Section 7: Procedures for serving notices

When serving a notice relating to any of the matters set out in Sections 2 - 6 above, the notifying party shall notify the System Controller immediately by telephone on 0845 9645 648 (Option 4), or +44 (0)207 849 0199 from outside of the UK.

Where possible, the notifying party shall confirm the information given by telephone immediately by email to EUI-Client-Services@euroclear.com for the attention of the System Controller.

In all cases, the notifying party shall confirm the information given by telephone in writing, together with all relevant information that the notifying party has relating to the matter, signed by or on behalf of the notifying party. Service of such a notice must be made at:

Euroclear UK & Ireland Limited, 33 Cannon Street,
London, EC4M 5SB

and marked for the attention of the System Controller.

Service of a notice in writing must be effected by prepaid first class post (or by airmail if from overseas) or by delivery of the notice through the letterbox.

For the purpose of any notice relating to a change of clearing sponsor (which it is proposed should take effect from some future date), completion and delivery of a 'Change of Clearing Sponsor' Form in accordance with the above procedures will be sufficient compliance with the requirement for service of written notice of any such matter on EUI.

Chapter 19: Application procedures

Section 1: 'CCP' participants

The CREST Application Procedures do not apply to 'CCP' participants under the CREST central counterparty service and individual arrangements will be agreed with each CCP.

Section 2: Cross-CCP members

There are no separate CREST Application Procedures applicable to cross-CCP members which are additional to the CREST Application Procedures applicable to cross-CCP members as CREST members.

Section 3: CM undertakings

The CREST Application Procedures applicable to a CREST member (or, as appropriate, a sponsored member) will apply to a CM undertaking (with such changes as EUI may specify to an applicant for admission to participation in the CM system on a case-by-case basis).

Section 4: Clearing sponsors

The CREST Application Procedures applicable to a CREST sponsor will apply to a clearing sponsor (with such changes as EUI may specify to an applicant for admission as a CM user on a case-by-case basis).

Section 5: Settlement agents

There are no separate CREST Application Procedures applicable to a settlement agent which are additional to the CREST Application Procedures applicable to the settlement agent as a CREST member.

Chapter 20: CREST Rules applicable to the central counterparty service

Rules applicable to 'CCP' participants

1. As a condition of admission as a 'CCP' participant, a person must:
 - 1.1. establish or use network communication facilities which EUI agrees may be used by that person to send CM electronic instructions to and receive CM electronic instructions from the CM system;
 - 1.2. (unless it is a sponsored 'CCP' participant) install and thereafter maintain its gateway computer (including its CM Gateway), or (where applicable) any other hardware and software at which messages sent to and from the CREST system or the CM system are authenticated, in one of the jurisdictions listed in paragraph 2.1 of CREST Rule 1 or (subject to EUI's prior consent) another EU member state not listed in that Rule;
 - 1.3. (if it is a sponsored 'CCP' participant) appoint a CREST sponsor and clearing sponsor; and
 - 1.4. complete trialling in all relevant functions.
2. If the participation of a 'CCP' participant is or is to be terminated (for any reason), it must take all reasonable steps to ensure that the termination minimises the disruption to other CREST participants, persons to whom EUI provides CREST services, the CM Networks, the CM network providers and the network communication services provided to users and/or CM users, and the 'CCP' participant must cooperate with EUI in whatever matters EUI requires in the period before the date of termination.

Note: Paragraphs 16 to 18 below also apply to 'CCP' participants.

Rules applicable to CM undertakings

3. Applicants for admission to participation as a GCM undertaking or (as the case may be) an ICM undertaking must adhere to the terms of the Application Procedures and co-operate with EUI in whatever other matters EUI requires in order to process the application.
4. As a condition of admission as a GCM undertaking or (as the case may be) an ICM undertaking, a person must (unless (a) it proposes to employ the services of a clearing sponsor to send and receive CM electronic instructions on its behalf or (b) it does not require access to the CM system):
 - 4.1. install and thereafter maintain its CM Gateway in one of the jurisdictions in paragraph 2.1 of CREST Rule 1 or (subject to EUI's prior consent) another EU member state not listed in that Rule: and
 - 4.2. complete trialling in all relevant functions.
5. A CM undertaking which is a body corporate or partnership incorporated or formed outside the United Kingdom must:
 - 5.1. (unless it is incorporated or formed within the EU) appoint an agent for service of process which is a body corporate incorporated in England or Wales;
 - 5.2. if required to do so by EUI, provide a legal opinion from an external legal adviser and in terms acceptable to EUI regarding, inter alia, the CM undertaking's capacity to execute the

- CREST CM Undertaking Services Agreement to which it is a party and be bound by the Terms and Conditions for the Provision of CM Services to Clearing Members of CCPs applicable to it.
6. A person must both prior to admission as a GCM undertaking or (as the case may be) an ICM undertaking and at all times thereafter provide EUI with such information, confirmations, access to and copies of records as EUI may require in connection with the prevention of money laundering or other financial crime or otherwise in connection with compliance by EUI with requirements imposed on it by the Bank of England or other regulatory body or by law.
 7. If the participation of a CM undertaking is or is to be terminated (for any reason), it must:
 - 7.1. take all reasonable steps to ensure that the termination minimises the disruption to CREST participants, other persons to whom EUI provides CREST services, the CM Network, the CM network providers and the network communication services provided to users and/or CM users; and
 - 7.2. co-operate with EUI in whatever matters EUI requires in the period before the date of termination.

Rules applicable to clearing sponsors and persons treated as clearing sponsors

8. CREST Rules 1, 3 and 4 shall be applicable to any person who proposes to be admitted as, or is admitted as, a clearing sponsor, subject to paragraphs 9 to 10 below.
9. Any term contained in the left hand column below which appears in any of CREST Rules 1, 3 and paragraph 1 of CREST Rule 4 shall be interpreted as if it were a reference to the term which is opposite it in the right hand column below:

| TERM RELATING TO CREST SPONSORSHIP | CORRESPONDING TERM FOR CLEARING SPONSORSHIP |
|-------------------------------------|--|
| 'CREST sponsor'/'sponsor' | 'clearing sponsor' |
| 'CREST system' | 'CM system' |
| 'CREST user'/'user' | 'CM user' |
| 'gateway computer' | 'CM Gateway' |
| 'participation in the CREST system' | 'participation' |
| 'sponsored participant' | 'sponsored CM'/'sponsored 'CCP' participant. |

10. CREST Rule 3 and paragraph 1 of CREST Rule 4 shall be read (in its application to clearing sponsors) as if the word 'participant' in the fourth line were deleted and substituted by the words, ', other persons to whom EUI provides CREST services, the CM Network, the CM network providers and the network communication services provided to users and/or CM users'.
11. If a person who is admitted by EUI as a CREST sponsor agrees to provide or provides services to a sponsored member (in its capacity as a settlement agent) under which that person sends authenticated CM electronic instructions attributable to the sponsored member concerned and/or receives authenticated CM electronic instructions on its behalf, then:
 - 11.1. for the purposes of these Rules, the CREST Manual and any agreement between EUI and the sponsored member under which EUI admits the sponsored member as a system-member, the person providing such services shall be treated as a 'clearing sponsor' or 'CM user' in

relation to its provision of those services, and the sponsored member shall be treated as a 'CM undertaking' or 'Sponsored CM' in relation to its use of such services (but without changing the CREST services which EUI agrees to provide to the sponsored member concerned under its agreement with it, which shall be those CREST services referred to in the CREST Manual as being provided to a member acting as a settlement agent and not the CREST services referred to in the CREST Manual as being provided to a CM undertaking); and

- 11.2. that person's communication or receipt of any such authenticated CM electronic instructions shall be deemed to be made or received under the separate CM User ID which is designated for that purpose by EUI; and
- 11.3. EUI's permission to that person to provide such services to a sponsored member shall be conditional upon that person's acceptance that, in providing such services, it is subject to the terms and provisions of the CREST CM Sponsors Agreement and this paragraph 12 (which acceptance shall be deemed given on the date on which that person first provides such services to the sponsored member concerned).

Rules applicable to settlement agents

Note: A member which acts as a settlement agent will, in addition to the rules applicable to it under paragraphs 12 to 18 below, be subject to CREST Rules 1 to 329. In the event of any conflict between the provisions of CREST Rules 1 to 3 and paragraphs 12 to 18 in their application to a member who acts as or acted as a settlement agent, paragraphs 12 to 18 shall prevail.

12. As a condition of admission to participation as a settlement agent in the CM system, a person must (unless it proposes to employ the services of another person who is admitted as a CREST sponsor to send and receive CM electronic instructions on its behalf):
 - 12.1. install and thereafter maintain its CM Gateway in one of the jurisdictions listed in paragraph 2.1 of CREST Rule 1 or (subject to EUI's prior consent) another EU member state not listed in that Rule; and
 - 12.2. complete trialling in all relevant functions.
13. As a condition of admission to participation as a settlement agent in the CM system, a person must (if it proposes to employ the services of another person admitted as a CREST sponsor to send and receive CM electronic instructions on its behalf) appoint such a person (who will be treated as a 'clearing sponsor' in accordance with paragraph 11.1).

Note: This paragraph 13 must be read in conjunction with paragraph 14 below.

14. If a settlement agent proposes to use the services of a person who is admitted as a CREST sponsor to send authenticated CM electronic instructions attributable to the settlement agent and/or receive authenticated CM electronic instructions on its behalf, then before using those services the settlement agent shall notify EUI and shall not use those services until EUI has confirmed to it that it has provided a copy of the CREST CM Sponsors Agreement to the person whose services are to be used by the settlement agent.

²⁹ With reference to Rule 2, note that the claims processing operates in a different way for or in relation to CCP transactions.

15. If the participation of a settlement agent in the CM system is or is to be terminated (for any reason), it must:
 - 15.1. take all reasonable steps to ensure that the termination minimises the disruption to CREST participants, other persons to whom EUI provides CREST services, the CM Network, the CM network providers and the network communication services provided to users and/or CM users; and
 - 15.2. co-operate with EUI in whatever matters EUI requires in the period before the date of termination.

Rules applicable to both 'CCP' participants and settlement agents

Note: Paragraphs 1 and 2 above also apply to 'CCP' participants. Paragraphs 12 to 15 above also apply to settlement agents.

16. A 'CCP' participant and a settlement agent must appoint one of the settlement banks listed in the CREST Reference Manual to provide payment services to it for each designated currency and must maintain a CMA in each (and every) designated currency.
17. In the event that EUI becomes aware that:
 - 17.1. the appointment or authority of a member to act as settlement agent for any non-clearing member or CM undertaking is or is to be suspended or terminated (for any reason);
 - 17.2. the appointment or authority of a GCM undertaking to act as GCM for any non-clearing member (for whom a member acts or acted as settlement agent) is or is to be suspended or terminated (for any reason);
 - 17.3. details of a transaction, in respect of which a CCP is not in fact obliged (under its rules or procedures) to act as the contracting counterparty to a clearing member, have been entered into and are held within the CREST system and/or the CM system;
 - 17.4. a CCP intends to suspend or terminate, or has suspended or terminated, (whether generally or in respect of specified securities) the service under which it agrees to act as the contracting counterparty to its clearing members under central counterparty transactions;
 - 17.5. a trading platform intends to withdraw, or has withdrawn, its designation of a specified security as being eligible for central counterparty processing or otherwise intends to delete, or has deleted, any order from its trading system to which a central counterparty transaction relates; or
 - 17.6. any other event has occurred which (in the opinion of EUI) could represent a threat to the security, integrity or reputation of the CREST system and/or the services provided by EUI as part of the central counterparty service,

then the relevant 'CCP' participant and settlement agent must co-operate with EUI (by the sharing of information or otherwise) to facilitate the taking of any action which EUI in its absolute discretion thinks fit with a view to protecting (as far as practicable) the security, integrity or reputation of the CREST system and/or the services provided by EUI as part of the central counterparty service and/or facilitating EUI's performance of its obligations under any arrangements made by it with the relevant investment exchange or clearing house.

18. EUI may take any action contemplated by paragraph 17 on the basis of information supplied to or received by it (whether orally or in writing) which EUI bona fide believes to be true.

Rules applicable to central counterparty securities

Note: A central counterparty security will, in addition to the rules applicable to it under paragraphs 19 and 20 below, be subject to CREST Rules 7 to 15. In the event of any conflict between the provisions of CREST Rules 7 to 15 and paragraphs 19 and 20, paragraphs 19 and 20 shall prevail.

19. EUI may suspend or withdraw its permission for title to units of a security to be transferred by means of any of the services provided by it as part of the central counterparty service if:
- 19.1. EUI becomes aware that a CCP intends to suspend or terminate, or has suspended or terminated, the service under which it agrees to act as the contracting counterparty to its clearing members insofar as it relates to the security;
- 19.2. EUI becomes aware that a trading platform intends to withdraw, or has withdrawn, its designation of the security as being eligible for central counterparty processing;
- 19.3. in EUI's opinion, circumstances have arisen in connection with the security which could represent a threat to the security, integrity or reputation of the CREST system or the services provided by EUI as part of the central counterparty service.
20. EUI may take any action contemplated by paragraph 19 on the basis of information supplied to or received by it (whether orally or in writing) which EUI bona fide believes to be true.

Appeals procedures

21. The Appeals Procedures set out in Part III of the CREST Rules also apply to 'CCP' participants, CM undertakings, CM users, clearing sponsors and settlement agents in relation to their participation in the CM system.

Glossary

Authenticated CM electronic instruction

A CM electronic instruction which has been, or is required to be, authenticated in accordance with the specifications of EUI (or a depository, clearing house or exchange and to which EUI has agreed) in relation to instructions to be transmitted to or received from the CM system by means of a CM Network operated by a network provider.

BNP Paribas

BNP Paribas Security Services SCA

CCP

A recognised clearing house (or other appropriately authorised body) which acts as a contracting central counterparty to its clearing members under central counterparty transactions and, under arrangements made with EUI, has agreed to provide CCP services; and which has additionally been admitted by EUI as a system-member (under participant type 'CCP') and which, in relation to its performance of central counterparty functions, has executed a CREST CCP Agreement.

CCP services

The services provided as part of the central counterparty service (under arrangements made between EUI and the relevant CCP) which are described in the CREST Central Counterparty Service Manual as being the responsibility of the relevant CCP.

Central counterparty functions

Those functions which comprise, or are connected with, the assumption of risk by a central counterparty as a result of it acting (in respect of a central counterparty transaction) as the contracting counterparty to a clearing member, in relation to trades executed on a trading platform or otherwise cleared through a clearing service provided by that central counterparty

(CREST) Central counterparty service

The several services described in the CREST Central Counterparty Service Manual which in combination facilitate or otherwise relate to the performance of central counterparty functions and include the CM services (provided by EUI) and CCP services (provided by the relevant CCP). The central counterparty service at the date of publication of this Glossary comprises: (a) the several services which in combination facilitate the performance by LCH of its central counterparty functions in relation to trades executed on any trading platform for which it provides clearing services (the 'central counterparty service for LCH cleared trades'); (b) the several services which in combination facilitate the performance by ECAG of its central counterparty functions in relation to trades in ExE Options (the 'central counterparty service for ExE trades'); (c) the several services which in combination facilitate the performance by x-clear of its central counterparty functions in relation to trades executed on any trading platform for which it provides clearing services (the 'central counterparty service for x-clear cleared trades'); and (d) the several services which in combination facilitate the performance by EuroCCP of its central counterparty functions in relation to trades executed on any trading platform for which it provides clearing services (the 'central counterparty services for EuroCCP cleared trades').

Central counterparty transaction

A 'CCP' participant transaction, or a transaction involving a particular 'CCP' participant which is otherwise entered into the CREST system and is deemed for any purposes to be a central counterparty transaction by EUI.

Clearing Member

A GCM or an ICM which is a member of a CCP.

Clearing participation

When used in relation to a CM undertaking is a reference to the admission of the CM undertaking to participation as a GCM undertaking or (as the case may be) an ICM undertaking; and 'participation' when used in relation to a CM undertaking, or a 'CCP' participant's or settlement agent's use of the CREST services relating to the CM system, shall be construed as a reference to its participation in the CM system.

Clearing sponsor

A CM user permitted by EUI to send authenticated CM electronic instructions attributable to a CM undertaking or 'CCP' participant and to receive authenticated CM electronic instructions on behalf of a CM undertaking or 'CCP' participant; and references to 'clearing sponsorship' shall be construed accordingly.

Clearing sponsor ID

The identification code (CM User ID) used or deemed to be used in the CM system for a particular clearing sponsor.

CM core processor

The core processor which forms part of the CM system.

CM electronic instruction

An electronic instruction which is sent to or received from the CM system. A CM electronic instruction which is 'attributable' to a person is a reference to an electronic instruction which is expressed to have been sent by, or on behalf of, that person.

CM Gateway

The terminal provided by the CM network provider to the CM user which contains the authentication hardware and by which all electronic instructions are transmitted by the CM user to the CM system.

CM Network

The network and associated equipment and services which enable authenticated CM electronic instructions to be sent to, and received from, the CM system.

CM Network Providers' Communications Host

The means by which the CM network providers accredited by EUI receive and authenticate electronic instructions for onward transmission to and from the CM core processor. The CM Network Providers' Communication Hosts do not form part of the CM system.

CM Network Services

The supply of a CM Network by a network provider accredited by EUI.

CM services

The GCM services and/or the ICM services, which form part of the CREST services.

CM system

The computer system (and related databases, systems and procedures) relating to the central counterparty service and operated by EUI, which are described in the CREST Central Counterparty Service Manual and which comprise:

- the systems and procedures relating to the two CM core processors at two physically remote locations;
- the leased line communications between the two CM core processors and the System Controller's room at EUI offices;
- the System Controller's room at EUI's offices;
- the equipment (the 'router') which directs messages from the CM system to the networks (and associated systems and equipment) operated or used by the relevant CCP as part of the CCP services provided by it, and which receives messages sent to the CM system from the networks (and associated systems and equipment) operated or used by the relevant CCP as part of the CCP services provided by it;
- the clearing member database (see the CREST Central Counterparty Service Manual, Chapter 5, section 2);
- the settlement participant database (see the CREST Central Counterparty Service Manual, Chapter 6, section 2);
- the open positions database (see the CREST Central Counterparty Service Manual, Chapter 6, section 3);
- the trade monitoring database (see the CREST Central Counterparty Service Manual, Chapter 6, section 4);
- the broadcast messages database (see the Central Counterparty Service Manual, Chapter 6, section 5);
- the general information database (see the CREST Central Counterparty Service Manual, Chapter 6, section 6); and
- the corporate actions database (see the CREST Central Counterparty Service Manual, Chapter 5, section 6).

CM undertaking

A GCM undertaking or an ICM undertaking. References to CM undertakings, GCM undertakings or ICM undertakings include Sponsored CMs where the context requires and references to CM undertakings, GCM undertakings and ICM undertakings interacting with the CM system directly include where they do so by means of the services provided to them by a clearing sponsor.

CM Undertaking ID

A GCM Undertaking ID and/or an ICM Undertaking ID.

CM user

A person who has a CM Gateway, or uses authentication procedures to which EUI has agreed, and network connection in order to communicate directly with the CM system, whether for itself as a CM undertaking, 'CCP' participant or settlement agent, or as a clearing sponsor on behalf of one or a number of CM undertakings or 'CCP' participants.

CM User ID

The identification code used or deemed to be used in the CM system for a particular CM user.

CREST CM Software

The software built by EUI for use with the CM Gateway in order to access the CM system and input electronic instructions to and receive electronic instructions from the CM system.

CREST CM sponsors agreement

An agreement between a person and EUI relating, amongst other things, to that person's admission to the CM system as a clearing sponsor.

Cross-CCP memberships

The separate CREST memberships maintained by CCPs to enable or facilitate the settlement of central counterparty transactions between LCH, x-clear and EuroCCP as 'CCP' participants, in the manner described in the CREST Manual, and which are maintained pursuant to the CCP services provided by the relevant CCP as part of the relevant central counterparty service; and references to 'cross-CCP member' or the 'relevant cross-CCP member' shall be interpreted accordingly.

ECAG

Eurex Clearing AG (or any successor-in-title).

Eurex Exchanges

Either or both of Eurex Zurich and Eurex Deutschland (or any successor exchange).

EuroCCP

European Central Counterparty NV (or any successor-in-title).

ExE Option

A UK or Irish equity option that is traded on the Eurex Exchanges, the underlying security of which is a central counterparty security.

GCM

A person who is permitted by a CCP (the identity of which has previously been notified by that person to EUI in accordance with the CREST Requirements applicable to it) to clear, as principal, with that CCP its own central counterparty transactions dealt or otherwise incurred as principal and any central counterparty transactions of other persons for whom it provides clearing services in respect of such transactions.

GCM services

The services described in the CREST Central Counterparty Service Manual as being provided by EUI to a GCM undertaking, and which are provided in connection with and form part of the central counterparty service.

GCM undertaking

A GCM to whom EUI has agreed to provide the GCM services. A 'GCM undertaking' includes any person, acting as a clearing member of LCH, x-clear or EuroCCP, to the extent that GCM services are provided to that person as a cross-CCP member.

GCM Undertaking ID

The identification code used in the CM system for a particular GCM undertaking.

ICM (DCM)

A person who is permitted by a CCP (the identity of which has previously been notified by that person to EUI in accordance with the CREST Requirements applicable to it) to clear with that CCP its own (or its affiliates') central counterparty transactions dealt or otherwise incurred as principal (but no other central counterparty transactions). ECAG refers to such a person as a 'DCM' or 'direct clearing member'. This is only a difference in terminology. Therefore, definitions including a reference to an ICM in this CREST Central Counterparty Service Manual also include members of ECAG that are admitted as direct clearing members or DCMs.

ICM services

The services described in the CREST Central Counterparty Service Manual as being provided by EUI to an ICM undertaking, and which are provided in connection with and form part of the central counterparty service.

ICM undertaking

An ICM to whom EUI has agreed to provide the ICM services.

ICM Undertaking ID

The identification code used in the CM system for a particular ICM undertaking.

LCH

LCH Limited (or any successor-in-title).

Non-clearing member

A person (who may in a separate capacity act as an ICM) who is admitted as a member of a trading platform and who, in respect of any central counterparty transaction, has appointed a GCM to provide clearing services to it in respect of that transaction.

Settlement agent

Any CREST member (other than a CSD participant) who is appointed or otherwise authorised (whether directly or indirectly) by a non-clearing member or a CM undertaking to act as the settlement counterparty to a 'CCP' participant under a central counterparty transaction in respect of which the non-clearing member (and/or its principal) or (as the case may be) the CM undertaking has rights and/or obligations as a contracting party. For the avoidance of doubt, a relevant CCP, when performing functions as a cross-CCP member, acts as a 'settlement agent' for itself (in its separate capacity as a GCM undertaking).

Sponsored CM

A CM undertaking which employs the services of a clearing sponsor to send authenticated CM electronic instructions attributable to it and to receive authenticated CM electronic instructions on its behalf.

The term 'CM network provider' is sometimes used in the CREST Manual to refer to a network provider to the extent of its provision of network communication services to CM users.

Reference is sometimes made in the CREST Manual to a 'participant in the CM system' or a 'CM participant'. This is intended to refer to those persons who (whether through their own CM Gateway or through the CM Gateway of their clearing sponsor or otherwise) are able to send CM electronic instructions to, and receive CM electronic instructions from, the CM system (including 'CCP' participants, CM undertakings, settlement agents and any other person who is given viewing rights

as described in Chapter 17 of the CREST Central Counterparty Service Manual). Such persons are not, to the extent of such participation in the CM system, 'participants' in the CREST system.

x-clear

SIS x-clear AG (or any successor-in-title).



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