

Clearing Appendix 9

Default Fund Rules

Issued by Nasdaq Clearing AB

DEFAULT FUND RULES

1 APPLICATION

- 1.1 These Default Fund Rules set forth the terms and conditions governing the relationship between the Clearinghouse and Default Fund Participants, and between Default Fund Participants, in connection with the Default Fund.
- 1.2 The Default Fund Rules are supplemented by the Default Fund Custody Account Agreement, which each Default Fund Participant must enter into separately. If any provision of these Default Fund Rules is inconsistent with a provision of the Default Fund Custody Account Agreement, the former shall prevail.

2 INTERPRETATION

- 2.1 References to the Clearinghouse shall, where the context so requires, include its nominees, agents or sub custodians appointed by the Clearinghouse on its behalf in accordance with the Default Fund Rules or the Default Fund Custody Account Agreement.
- 2.2 Capitalized terms herein shall have the meanings assigned to them below and in the Clearing Rules.

Additional Contribution Day	means, for each Clearing Service, each Business Day designated as such by the Clearinghouse (provided such day does not fall in an Interim Period) but not including any day for which an additional contribution is required pursuant to Section 5.2.
Associated Default Fund Participant	means, in relation to a Default Fund Sponsored Participant, the Clearing Member who has agreed to act as such and accept the obligation to post the Fund Requirement with respect to such Default Fund Sponsored Participant.
Auction	means, following a Relevant Participant’s default, an auction of certain of such Relevant Participant’s contracts relating to Commodity Instruments, as part of the default management process.
Business Day	means a day (other than a Saturday or Sunday) on which commercial banks in Sweden are generally open for business.
Cash Fund Requirement Bank Account	means an account designated in accordance with section 4.2.
Clearing Participant	means any and all “Account Holders” under these Clearing Rules and any and all “Account Holders” under the FIN Clearing Rules.
Clearing Service	means each of the services that the Clearinghouse provides relating to Commodity Instruments, Financial Instruments.
COM Close Out Providers	means Default Fund Participants who have signed a close-out provider agreement with the Clearinghouse in respect of Commodity Instruments.
COM Cover 2 Funds	means the sum of the Junior Capital, the Senior Capital (in each case allocated to cover Default Losses arising in respect of Commodity Instruments) and the Commodity Default Fund.
Commodity Default Fund	means the part of the Default Fund relating to Commodity Instruments to be applied upon a Relevant Participant’s default in

accordance with Sections 6.1 or 6.3, as applicable, to cover Default Losses allocated to Commodity Instruments.

Commodity Instruments	means Instruments, whether physically or cash settled, whose value is derived from the value of one or more commodities (including emission allowances and green certificates) or commodity-based indices, and that are not exchange-traded funds.
Contributed Assets	means, in respect of any Clearing Service, all funds and assets contributed by a Default Fund Participant to the Default Fund for that Clearing Service, whether in the form of cash amounts or securities or otherwise and whether or not Eligible Funds and, for the avoidance of doubt, including any funds provided under a Guarantee Commitment or as a Replenishment.
Contribution Day	means, in respect of any Clearing Service, (i) the first Business Day of each calendar month (provided such day does not fall in an Interim Period or within ten Business Days of (x) the end of an Interim Period or (y) any preceding Additional Contribution Day), (ii) the first Business Day after the end of an Interim Period for that Clearing Service, and (iii) any Additional Contribution Day.
Custody Account	has the meaning ascribed to it in the Default Fund Custody Account Agreement (as applicable in relation to each Default Fund Participant).
Default Fund	means the sum of the Contributed Assets to the Commodity Default Fund and the Financial Default Fund at any time, excluding any funds and assets that have been released by the Clearinghouse pursuant to these Default Fund Rules (whether through a lower Fund Requirement, and whether or not actually returned to the relevant Default Fund Participant at the relevant time).
Default Fund Custody Account Agreement	means, in respect of a Default Fund Participant, an agreement between the Clearinghouse and such Default Fund Participant stipulating terms for a Custody Account to be opened by such Default Fund Participant with the Clearinghouse.
Default Fund Exempt Participant	means a Clearing Participant determined as such by the Clearinghouse in accordance with Section 5.4.
Default Fund Exit Date	means, in respect of a Default Fund Exit Notice, the date upon which the Clearinghouse confirms in writing that the relevant Default Fund Participant has provided an effective Default Fund Exit Notice.
Default Fund Exit Notice	means a written notice provided by a Default Fund Participant to the Clearinghouse to the effect that the Default Fund Participant (i) has provided notice of the termination of its clearing membership agreement with the Clearinghouse and (ii) has no remaining obligations towards the Clearinghouse related to such membership other than obligations pursuant to the Default Fund Rules and, if applicable, pending future settlements which are not yet due at the time, but which are fixed and secured through adequate collateral arrangements in favour of the Clearinghouse.
Default Fund Participant	means any and all Clearing Participants, except Default Fund Exempt Participants.

Default Fund Sponsored Participant	means any and all “Indirect Pledging Customers” under the Non-Commodity Clearing Rules.
Default Loss	means, in respect of any Clearing Service, the deficit that remains after any coverage available to the Clearinghouse has been applied in relation to the Relevant Participant’s obligations, disregarding any contributions to the Default Fund by the Relevant Participant.
Excess Loss	means, in respect of any Clearing Service, any remaining Default Loss allocated to Commodity Instruments or Financial Instruments, as applicable, exceeding the funds applied under Sections 6.1 – 6.4.
FIN Cover 2 Funds	means the sum of the Junior Capital, the Senior Capital (in each case allocated to cover Default Losses arising in respect of Financial Instruments) and the Financial Default Fund.
Financial Default Fund	means the part of the Default Fund relating to Financial Instruments to be applied upon a Relevant Participant’s default in accordance with Sections 6.1 or 6.3, as applicable, to cover Default Losses allocated to Financial Instruments.
Financial Instruments	means Instruments other than Commodity Instruments.
Fund Requirement	means the requirement for each Default Fund Participant’s contribution to the Default Fund calculated by the Clearinghouse and notified to the Default Fund Participants in accordance with Sections 5.1 – 5.2.
Guarantee Commitment	means a cash amount requested by the Clearinghouse from each Default Fund Participant in accordance with Section 7.1.
Interim Period	means a period of thirty (30) calendar days following a Relevant Default, provided that where one or more subsequent Relevant Defaults occur during the same Interim Period, such Interim Period shall be extended for a further thirty (30) calendar days from the date of the Relevant Default which falls latest in time, provided that an Interim Period shall not extend further than ninety (90) calendar days following the first Relevant Default to which the Interim Period relates.
Junior Capital	means an amount funded by the Clearinghouse’s own assets in accordance with Section 3.7.
Minimum Fund Requirement	means the minimum Fund Requirement applicable to each Default Fund Participant, as further set out in Section 5.3.
Non-Default Loss	means a loss that is incurred by the Clearinghouse for any reason other than a default event, including but not limited to, business, custody, investment, legal or operational failures or fraud, including failures resulting from cyber-attacks
Non-Commodity Clearing Rules	means the terms and conditions for clearing of Instruments issued by Nasdaq Clearing AB, other than these Clearing Rules, as may be amended from time to time. A specification of the applicable Non-Commodity Clearing Rules is available from the Clearinghouse.
Realised Collateral Balance	means the actual value of the collateral provided by a Relevant Participant following recourse and realisation of the collateral by the Clearinghouse in relation to the Margin Requirement applicable to the Relevant Participant.

Relevant Default	means a Relevant Participant’s default which causes a Default Loss.
Relevant Participant	means any Default Fund Participant, Default Fund Sponsored Participant or Default Fund Exempt Participant that is, in each case, in default pursuant to the Clearing Rules.
Replenishments	means new contributions in Eligible Funds made by each non-defaulting Default Fund Participant in accordance with Section 8.
Senior Capital	means capital funded by the Clearinghouse through own assets or other arrangements as further set out in Section 3.8 and shall be 25 (twenty-five) per cent plus an additional 5 (five) per cent, in total 30 (thirty) per cent, of the risk-based capital requirements calculated in accordance with Article 16 (2) of EMIR.
Website	means the Clearinghouse’s website from time to time, currently https://business.nasdaq.com/trade/clearing/nasdaq-clearing/index.html .

3 COMPOSITION AND STRUCTURE OF THE DEFAULT FUND

- 3.1 The Clearinghouse maintains the Default Fund and other resources to cover Default Losses.
- 3.2 The Fund Requirements shall be satisfied through each Default Fund Participant providing Eligible Funds to cover any Default Losses in respect of Relevant Participants (including itself) in accordance with the Default Fund Rules. Each Default Fund Participant being an Associated Default Fund Participant will contribute to the Default Fund in respect of any Default Fund Sponsored Participants associated to it, through its Fund Requirement being increased corresponding to the Fund Requirement of such Default Fund Sponsored Participants.
- 3.3 A description of the relevant model and calculation method for the size of the Financial Default Fund, the Commodity Default Fund and the Junior Capital (as allocated in accordance with Section 3.7) is available on the Clearinghouse’s Website. Information about the size, from time to time, of the Commodity Default Fund, the Financial Default Fund, the Junior Capital and the Senior Capital shall be made available by the Clearinghouse on the Website.
- 3.4 The size of the Financial Default Fund shall be calculated by the Clearinghouse and shall enable the Clearinghouse to withstand at least, under extreme but plausible market conditions (as determined by the Clearinghouse), Default Losses corresponding to: (a) in respect of the Financial Default Fund only, either (i) the largest Clearing Participant clearing Financial Instruments, or (ii) the second and third largest Clearing Participants clearing Financial Instruments combined, if the sum of their combined exposures is larger; and (b) in respect of the FIN Cover 2 Funds, the combined exposure of the largest and the second largest Clearing Participants clearing Financial Instruments.

The Clearinghouse has the right to calculate and add a buffer to the Financial Default Fund. Such buffer will normally not exceed 25 (twenty five) per cent of the FIN Cover 2 Funds, but may at the Clearing House’s discretion be raised to a maximum of 50 (fifty) per cent of the FIN Cover 2 Funds during volatile market conditions. The size of the Financial Default Fund shall not be less than SEK 50,000,000 (fifty million). The base currency of the Financial Default Fund is SEK.

- 3.5 The size of the Commodity Default Fund shall be calculated by the Clearinghouse and shall enable the Clearinghouse to withstand at least, under extreme but plausible market conditions (as determined by the Clearinghouse), Default Losses corresponding to: (a) in respect of the Commodity Default Fund only, either (i) the largest Clearing Participant clearing Commodity Instruments, or (ii) the second and third largest Clearing Participants clearing Commodity Instruments combined, if the sum of their combined exposures is larger; and (b) in respect of the COM Cover 2 Funds, the combined exposure of the largest and the second largest Clearing Participants clearing Commodity Instruments.

The Clearinghouse has the right to calculate and add a buffer to the Commodity Default Fund. Such buffer will normally not exceed 25 (twenty five) per cent of the COM Cover 2 Funds, but may at the Clearinghouse's discretion be raised to a maximum of 50 (fifty) per cent of the COM Cover 2 Funds during volatile market conditions. The size of the Commodity Default Fund shall not be less than EUR ~~5,000,000~~ 1,000,000 (~~five~~ one million). The base currency of the Commodity Default Fund is EUR.

- 3.6 An amount of Junior Capital will be allocated to cover Default Losses arising in respect of each of Commodity Instruments and Financial Instruments as set out below.

For each Clearing Service, the size of the Junior Capital shall be the sum of (i) the amount of the Clearinghouse's dedicated own resources determined so as to meet, as a minimum, applicable legal and regulatory requirements regarding dedicated resources from time to time and (ii)(a) for Financial Instruments, SEK 100,000,000 (one hundred million); and (b) for Commodity Instruments, EUR 10,000,000 (ten million), provided that for Commodity Instruments only, the size of the Junior Capital shall always be at least EUR 20,000,000 (twenty million). For the avoidance of doubt, the amount of Junior Capital allocated to cover Default Losses arising in respect of one Clearing Service will only be available to cover Default Losses in respect of such Clearing Service.

- 3.7 An amount of Senior Capital will be allocated to cover Default Losses arising in respect of each of Commodity Instruments and Financial Instruments as set out below.

- 3.8 The Clearinghouse shall allocate the Senior Capital to each respective Clearing Service in proportion to the size of the Commodity Default Fund, and the Financial Default Fund, respectively, compared to the Default Fund. For the avoidance of doubt, the amount of Senior Capital allocated to cover Default Losses arising in respect of one Clearing Service will only be available to cover Default Losses in respect of such Clearing Service. In the case of a non-default event, the full amount of the Senior Capital shall be allocated against the losses incurred as a result of the non-default event ("Non-Default Loss") and, if the Non-Default Loss is less than the Senior Capital, such loss shall be allocated to each respective Clearing Service in proportion to the size of the Commodity Default Fund, and the Financial Default Fund, respectively, compared to the Default Fund. In the event of a simultaneous Default Loss and Non-Default Loss, then first (i) the Non-Default Loss shall be allocated to each respective Clearing Service in proportion to the size of the Commodity Default Fund, and the Financial Default Fund, respectively, compared to the Default Fund, and, secondly, (ii) the Default Loss and the Non-Default Loss allocated to the same Clearing Service in accordance with (i), shall be applied to cover the respective Default Loss and the Non-Default Loss in proportion to the total losses in respect of such Clearing Service.

4 DEFAULT FUND CONTRIBUTIONS

- 4.1 Before participating in and being eligible for clearing, or representing Default Fund Sponsored Participants, a Default Fund Participant shall open a Custody Account and enter into a Default Fund Custody Account Agreement, and contribute the Minimum Fund Requirement, or the higher amount notified by the Clearinghouse in its discretion, to the Default Fund for the respective Clearing Service for which it is a Clearing Participant.

- 4.2 (i) Default Fund Participants shall meet the most recently notified Fund Requirement not later than 10:30 a.m. (CET) on each Contribution Day as per Section 5.1 in respect of ordinary Fund Requirement notifications, or 10:30 a.m. (CET) on the relevant Business Day as per Section 5.2 in respect of additional Fund Requirement notifications.

(ii) To the extent that a Default Fund Participant does not meet the Fund Requirement one hour prior to the deadlines set out in section 4.2(i), the Clearing House shall ensure that payments of the Fund Requirement, or part thereof as applicable, are made through the direct debit or credit facility as provided by each Default Fund Participant pursuant to section 4.2(iii). Each Default Fund Participant must ensure that there are sufficient funds in the relevant Cash Fund Requirement Bank Account(s) in order for such payments to be made.

(iii) Each Default Fund Participant shall designate a bank account in each relevant currency with an Approved Settlement Bank for the provision of the Fund Requirement in cash (the “**Cash Fund Requirement Bank Account**”).

(iv) With respect to the Cash Fund Requirement Account(s) designated in accordance with section 4.2(iii), each Default Fund Participant (i) authorizes the Clearing House to issue direct debit and/or credit (as applicable) instructions for any amounts due in accordance with the Clearing Rules and any fees due to the Clearing House (including accrued interest), to the Approved Settlement Bank, in respect of the Cash Fund Requirement Account; and (ii) shall execute a power of attorney to enable the Clearing House to issue direct debit and/or credit instructions for any amounts due in accordance with the Clearing Rules and any fees due to the Clearing House (including accrued interest), to the relevant Approved Settlement Bank with respect to the respective Cash Fund Requirement Account.

(v) Each Default Fund Participant shall immediately notify the Clearing House to the extent it (or the relevant account owner) wishes to revoke such authority provided and/or the power of attorney executed pursuant to section 4.2(iv) above in respect of one or more Cash Fund Requirement Accounts. Notwithstanding anything to the contrary in the power of attorney or in a similar instrument, each Approved Settlement Bank is authorized to act in accordance with any communication or manual instruction (including, without limitation, by using email, fax or other authenticated electronic means) from the Clearing House, which may from time to time be used due to a SWIFT disruption or similar event (including, for the avoidance of doubt, an event related to the Clearing House’s systems).

- 4.3 All contributions to the Default Fund by Default Fund Participants shall be made in the form of Eligible Funds. Contributed Assets shall be deposited, registered, held and disposed of in accordance with the Default Fund Custody Account Agreement and the Collateral List. Each Default Fund Participant shall ensure that it complies with the Default Fund Custody Account Agreement at all times.
- 4.4 The Clearinghouse maintains the Collateral List. In case of changes to the Collateral List with respect to Eligible Funds each Default Fund Participant must ensure that all Contributed Assets are compliant with the updated Collateral List no later than the date on which such list becomes effective. Release of Contributed Assets, following the contribution of replacement assets in accordance with Section 4.3, is subject to Section 4.7.
- 4.5 It is each Default Fund Participant’s responsibility to ensure that the Contributed Assets at all times are in Eligible Funds and meet the applicable Fund Requirement. Notwithstanding the foregoing obligation, if the value of the Contributed Assets, when valued in accordance with the Collateral List, at any time becomes lower than the applicable Fund Requirement, the relevant Default Fund Participant shall within one (1) Business Day following written demand from the Clearinghouse contribute the deficit amount in accordance with Section 4.3.
- 4.6 A Default Fund Participant may, subject to the prior consent of the Clearinghouse, given in its discretion, replace its Contributed Assets with other Eligible Funds at any time, subject to the Default Fund Participant complying with its applicable Fund Requirement at all times. Release of Contributed Assets, following the contribution of replacement assets in accordance with Section 4.3, is subject to Section 4.7.
- 4.7 Contributed Assets may be released to Default Fund Participants, upon request to the Clearinghouse, to the extent the value of such Contributed Assets, when valued in accordance with the Collateral List, exceeds the applicable Fund Requirement, and subject to the prior consent of the Clearinghouse, given in its discretion. A request by a Default Fund Participant to the Clearinghouse for release of excess contributions to the Default Fund made before 10:30 a.m. (CET) on a Business Day will be processed and approved or rejected by the Clearinghouse during the same Business Day. If approved, the release will be effected within one (1) Business Days from the time of the approval. If rejected, the Clearinghouse will inform the Default Fund Participant of the grounds for rejection.
- 4.8 A Default Fund Sponsored Participant is not subject to a Fund Requirement, but its Associated Default Fund Participant (being its Clearing Account Administrator) is subject to a Fund Requirement in respect of the exposures of such Default Fund Sponsored Participant

and shall contribute to the Default Fund for exposures in respect of such Default Fund Sponsored Participant. In relation to these Default Fund Rules, the obligations of a Default Fund Participant who is also an Associated Default Fund Participant shall be treated separately, such that a reference to a Default Fund Participant shall mean such entity in respect of each of the Fund Requirements required as a Default Fund Participant and Associated Default Fund Participant, as applicable.

- 4.9 The Clearinghouse is entitled to use any Contributed Assets to cover Default Losses until the Contributed Assets have been or should have been released by the Clearinghouse in accordance with these Default Fund Rules.

5 CALCULATION AND NOTIFICATION OF FUND REQUIREMENTS

- 5.1 Fund Requirements shall be calculated in accordance with the model set out from time to time in Schedule 1 to these Default Fund Rules. The Clearinghouse calculates and notifies the Default Fund Participant of the applicable Fund Requirement (including in respect of its Default Fund Sponsored Participants as applicable) not less than five (5) Business Days prior to each Contribution Day. A Fund Requirement shall be deemed valid and effective from the time of its notification to the relevant Default Fund Participant, and until replaced by the notification of a new Fund Requirement. The Clearinghouse may designate an Additional Contribution Day for a Clearing Service if, in the Clearinghouse's reasonable determination, this is required due to a change in market conditions or the underlying exposures of one or more Default Fund Participants.
- 5.2 In addition to the provisions of Section 5.1, the Clearinghouse may take into account known or anticipated changes in clearing volume and risk, including, but not limited to, changes resulting from account and position transfers and mergers and acquisitions involving the Default Fund Participant, and by applying the model for calculation of Fund Requirements described in Schedule 1 to these Default Fund Rules, carry out additional calculations of Fund Requirements at any time between two Contribution Days (including during an Interim Period) in respect of one or more Default Fund Participants (including their Default Fund Sponsored Participants as applicable). In such cases the Clearinghouse shall notify the affected Default Fund Participants promptly after a decision to carry out an additional calculation has been made and will furthermore notify such affected Default Fund Participants of each of their new Fund Requirement. Contribution of Eligible Funds meeting the new Fund Requirements shall be made not later than five (5) Business Days after the Clearinghouse has notified each affected Default Fund Participant of its new Fund Requirement. Following a request by a Default Fund Participant, the Clearinghouse will provide the basis for the new calculation.
- 5.3 Notwithstanding Sections 5.1 and 5.2, the Minimum Fund Requirement per Default Fund Participant for each Clearing Service is as follows and must always be fulfilled (see also Section 4.1):
- a. For a Default Fund Participant that is clearing Financial Instruments the Minimum Fund Requirement for that Clearing Service is SEK 300,000 (three hundred thousand).
 - b. For a Default Fund Participant that is clearing Commodity Instruments the Minimum Fund Requirement for that Clearing Service is EUR 30,000 (thirty thousand).
- 5.4 The Clearinghouse may on a case-by-case basis and from time to time decide that a government institution that is otherwise a Default Fund Participant shall be classified as a Default Fund Exempt Participant. A Default Fund Exempt Participant is not subject to any Fund Requirement.

6 REALISATION OF THE DEFAULT FUND AND APPLICATION OF OTHER RESOURCES

In the event of one or several Default Losses in respect of any Clearing Service, the Default Fund and the Junior Capital and the Senior Capital, in each case in respect of such Clearing Service(s), shall be available to cover such Default Losses in the order of priority stipulated in this Section:

- 6.1 First, (i) where the Relevant Participant is a Default Fund Participant, all such Relevant Participant's Contributed Assets (whether or not in excess of the Fund Requirement and whether or not pending release from the Clearinghouse at the relevant time); or (ii) where the Relevant Participant is a Default Fund Sponsored Participant, all Contributed Assets of the Associated Default Fund Participant, whether related to such Default Fund Sponsored Participant or otherwise.

Where there are Default Losses arising in respect of more than one Clearing Service, a Relevant Participant's Contributed Assets in respect of a particular Clearing Service shall be applied first to the Default Loss applicable to that Clearing Service and, if after application there remain Contributed Assets available in respect of such Clearing Service, such excess Contributed Assets shall be applied to the Default Losses attributable to the other two Clearing Services pro rata to the size of the Relevant Participant's Margin Requirement for each other Clearing Service. If after such application there remain Contributed Assets available in respect of either Clearing Service, such excess Contributed Assets shall be applied to the Default Loss attributable to the other Clearing Service.

In determining the Default Loss of a Relevant Participant in respect of each Clearing Service, the Clearinghouse shall ensure that any Realised Collateral Balance shall first be allocated to each of Clearing Services pro rata to the size of the Relevant Participant's Margin Requirement for each Clearing Service and, if there is any excess for one Clearing Service, then to each of the other Clearing Services pro rata to the size of the Relevant Participant's Margin Requirement for each other Clearing Service.

- 6.2 Second, the Junior Capital shall be applied to cover any remaining Default Losses, provided that Junior Capital allocated to cover Default Losses arising in respect of one Clearing Service will only be available to cover Default Losses in respect of such Clearing Service.

If subsequent defaults occur during an Interim Period, any Junior Capital (as allocated in accordance with Section 3.7) already realised or to be realised to cover Default Losses in respect of the previously occurred default(s) shall reduce the size of the available Junior Capital (as allocated in accordance with Section 3.7) by an amount equal to the amount realised or to be realised in respect of previously occurred default(s) when applying this Section 6.2.

- 6.3 Third, the Contributed Assets of each non-defaulting Default Fund Participant to (a) the Commodity Default Fund shall be applied on a pro rata basis relative to the aggregate Contributed Assets of all non-defaulting Default Fund Participants to the Commodity Default Fund, to cover any remaining Default Loss allocated to Commodity Instruments, and/or (b) the Financial Default Fund shall be applied on a pro rata basis relative to the aggregate Contributed Assets of all non-defaulting Default Fund Participants to the Financial Default Fund to cover any remaining Default Loss allocated to Financial Instruments. The Contributed Assets of a non-defaulting Default Fund Participant in respect of one Clearing Service shall not be available to cover Default Losses in respect of a different Clearing Service.

If subsequent defaults occur during an Interim Period, any contributions to the Commodity Default Fund and/or Financial Default Fund already realised or to be realised to cover Default Losses in respect of the previously occurred default(s) shall reduce the size of the available Commodity Default Fund and/or Financial Default Fund, as applicable, by an amount equal to the amount realised or to be realised in respect of previously occurred default(s) when applying this Section 6.3. Any such reduction in the size of the available Commodity Default Fund and/or Financial Default Fund shall be without prejudice to the fact that any Guarantee Commitments or Replenishments requested from non-defaulting Default Fund Participants during an Interim Period shall be determined by reference to the most recently notified Fund Requirements for the relevant Clearing Service (taking into account any increase in such Fund Requirements effected by the Clearinghouse in accordance with Section 8.1).

- 6.4 Fourth, the Senior Capital shall be applied to cover any remaining Default Losses, provided that Senior Capital allocated to cover Default Losses arising in respect of one Clearing Service shall only be available to cover Default Losses in respect such Clearing Service.

If subsequent defaults occur during an Interim Period, any Senior Capital (as allocated in accordance with Section 3.8) already realised or to be realised to cover Default Losses in respect of previously occurred default(s) shall reduce the size of the available Senior Capital (as allocated in accordance with Section 3.8) by an amount equal to the amount realised or to be realised in respect of previously occurred default(s) when applying this Section 6.4.

- 6.5 Fifth, the Guarantee Commitment given by each Default Fund Participant in respect of Excess Losses under Section 7.1 shall be used to cover any remaining Default Losses.
- 6.6 Sixth, to the extent any remaining Default Losses have arisen in connection with a default during an Interim Period, any capital replenished in accordance with Sections 8.1 and 8.3 shall be applied to cover such Default Losses in the order that mutatis mutandis follows from Sections 6.2 – 6.4, subject that, from the date falling thirty (30) calendar days from the date of the first application of the Junior Capital (or any replenished Junior Capital) to cover Default Losses, prior to the allocation of resources to cover any remaining Default Losses during the relevant Interim Period pursuant to the foregoing, resources as set out in Section 6.2 (as replenished pursuant to Section 8.3) will be used in priority.
- 6.7 The Clearinghouse shall be entitled to realise the contributions available under Sections 6.1, 6.3 and 6.6 above, without making a demand on the Default Fund Participants, by application of Contributed Assets (although any requests for Guarantee Commitments or Replenishments during an Interim Period shall be notified by the Clearinghouse as set out in Sections 7.3 and 8.1 below).
- 6.8 Where a Relevant Participant is engaged in more than one Clearing Service, the completion of the default management processes in respect of such Clearing Services may occur at different times. The Clearinghouse may be required to make certain determinations in respect of one Clearing Service in order to manage the Relevant Default, which are contingent on (i) an outcome of the default management process in respect of another Clearing Service which has not yet been completed, or (ii) other information relating to the default management processes which is not yet available. In the interests of efficient resolution, the Clearinghouse may make assumptions about that outcome or information, and proceed with the relevant process on that basis. Where any such assumptions have been made, the Clearinghouse shall, on the completion of the default management processes in respect of all Clearing Services, make such credits to the default funds relating to the Clearing Services and such distributions to Clearing Participants (or former Clearing Participants) as may be necessary to put those default funds and those Clearing Participants in the position that they would have been in had the correct outcomes been reached and the relevant assumptions not been made.
- 6.9 For the avoidance of doubt, the procedures in Schedules 3-5 may be applied to a Default Loss in accordance with the provisions in those Schedules, at any time during the realisation of a Default Loss in accordance with this Section 6.

7 GUARANTEE COMMITMENT

- 7.1 Following a Default Loss in relation to any Clearing Service, in the event of any Excess Loss being allocated to Commodity Instruments and/or Financial Instruments (respectively), each Default Fund Participant which has made contributions to the Commodity Default Fund and/or the Financial Default Fund (as applicable) undertakes to, without exception or objection and subject only to Section 7.3, upon receipt of the first written request from the Clearinghouse, within two (2) Business Days (excluding the day of demand) pay to the Clearinghouse a Guarantee Commitment, into a bank account designated by the Clearinghouse, corresponding to its pro rata share of such Excess Loss (as calculated by the Clearinghouse in accordance with Section 7.2) in relation to the Commodity Default Fund and/or the Financial Default Fund (as applicable). The foregoing shall not apply to a Default Fund Participant in respect of a Relevant Participant for which it is the Associated Default Fund Participant.
- 7.2 A Default Fund Participant's Guarantee Commitment shall be calculated as the proportion of such Default Fund Participant's most recently notified Fund Requirement in respect of the Commodity Default Fund and/or the Financial Default Fund (as applicable), relative to the sum of the most recently notified Fund Requirements for all Default Fund Participants

in respect of the Commodity Default Fund and/or the Financial Default Fund (as applicable) (not including, if applicable, such part of any Fund Requirement which pertains to a Relevant Participant).

- 7.3 The Clearinghouse may request one or more Guarantee Commitments from a Default Fund Participant in respect of one or more Relevant Defaults, provided that, for each Default Fund Participant, the Guarantee Commitments requested during an Interim Period shall not exceed one hundred per cent (100%) of the most recently notified Fund Requirement in respect of the Commodity Default Fund and/or the Financial Default Fund, respectively, as applicable to the relevant Default Fund Participant.

8 REPLENISHMENT AND REDISTRIBUTION

- 8.1 During each Interim Period, realised Default Fund contributions shall be replenished by Replenishments so that the Fund Requirement applicable to each non-defaulting Default Fund Participant (not including, if applicable, such part of any Fund Requirement which pertains to a Default Fund Sponsored Participant that is a Relevant Participant) is fulfilled within two (2) Business Days following a replenishment request, which may be notified by the Clearinghouse from the day of any realisation of a Default Fund Participant's contributions to the Default Fund.

For the purposes of collecting Replenishments in accordance with this Section 8.1, the Clearinghouse may increase or decrease all Default Fund Participants' Fund Requirement in respect of the Commodity Default Fund and/or the Financial Default Fund, provided that for each Default Fund Participant the size of any increased Fund Requirement shall not exceed one hundred and thirty per cent (130%) of the most recently notified Fund Requirement for the relevant Clearing Service.

- 8.2 The Clearinghouse may request one or more Replenishments from a Default Fund Participant in respect of one or more Relevant Defaults, (i) to replenish realised Default Fund contributions and, (ii) if the Clearinghouse has increased the relevant Fund Requirement in accordance with Section 8.1, to collect Default Fund contributions to satisfy such increased Fund Requirement. The aggregate of such Replenishments shall not exceed one hundred per cent (100%) (or such percentage as has been notified pursuant to Section 8.1) of the most recently notified Fund Requirement in respect of the Commodity Default Fund and/or the Financial Default Fund, respectively, as applicable to the relevant Default Fund Participant. During an Interim Period, replenished funds may only be applied in relation to Default Losses under Section 6.6. Following the applicable Interim Period, the replenished funds will be moved to their original priority level under Sections 6.1 and 6.3 as applicable.
- 8.3 Any realised Junior Capital and Senior Capital contributed by the Clearinghouse shall be replenished by the Clearinghouse within two (2) Business Days from such realisation, up to 100 per cent of such pre-funded resources. During a period of thirty (30) calendar days from the date of the first application of the Junior Capital (or any replenished Junior Capital) to cover Default Losses, funds replenished to cover such Default Loss may only be applied in relation to Default Losses under Section 6.6. Following such period of thirty (30) calendar days from the date of the first application of the Junior Capital (or any replenished Junior Capital) to cover Default Losses, such replenished funds will be moved to their original priority level under Sections 6.2 and 6.4.
- 8.4 In the event that the Clearinghouse, following a Default Loss which has yielded contributions by Default Fund Participants and the Clearinghouse pursuant to Section 6 above, is able to recover any Default Loss (or parts thereof) from the defaulting Relevant Participant, the Clearinghouse shall redistribute such recovered amounts to the Default Fund Participants who contributed to the applicable Default Loss, including the Clearinghouse itself (to the extent it contributed to the Default Loss through the Senior Capital, the Junior Capital or otherwise).
- 8.5 Redistribution of recovered amounts pursuant to Section 8.4 shall take place by applying Section 6 level by level in reverse order, starting from the level of priority which was last triggered in relation to the applicable Default Loss and ending where and when the recovered amount has been fully redistributed. On each level of priority to which

redistribution is applicable, each Default Fund Participant shall be entitled to a pro rata reimbursement of its actual contribution of Contributed Assets to the applicable Default Loss, as valued on the day on which such Contributed Assets were applied to the Default Loss. For the avoidance of doubt, any additional and subsequent amounts recovered in respect of the same Default Loss shall be redistributed on the same basis, starting from where redistribution was previously cut off in relation to that Default Loss.

- 8.6 A Default Fund Participant's obligations to replenish funds in accordance with Section 8.1 shall terminate on the relevant Default Fund Exit Date, provided that the Default Fund Exit Date occurs before the Clearinghouse has notified the Default Fund Participant of a replenishment request under Section 8.1.

9 COM CLOSE OUT PROVIDERS

- 9.1 The Clearinghouse may, in its sole discretion, invite certain Default Fund Participants to become COM Close Out Providers. Only COM Close Out Providers will be able to participate in Auctions.
- 9.2 Following the default of a Relevant Participant, where the Default Loss is such that the Contributed Assets of each non-defaulting Default Fund Participant need to be applied pursuant to Section 6, such Contributed Assets of each non-defaulting Default Fund Participant in the Commodity Default Fund shall be applied in accordance with Schedule 2 of these Default Fund Rules.

10 DEFAULT FUND EXIT

- 10.1 A Default Fund Participant may serve a Default Fund Exit Notice on the Clearinghouse at any time.
- 10.2 Following receipt of a Default Fund Exit Notice, the Clearinghouse shall confirm in writing that such notice is effective within two (2) Business Days of receipt, unless the Clearinghouse does not agree with the contents of the relevant Default Fund Exit Notice, in which case any rejection by the Clearinghouse of such Default Fund Exit Notice shall also take place within two (2) Business Days of receipt. If the Clearinghouse has not rejected the Default Fund Exit Notice within two (2) Business Days of receipt, the Default Fund Exit Notice shall be deemed effective.
- 10.3 Following a Default Fund Exit Date, the Clearinghouse shall release the Default Fund Participant's Contributed Assets on the first Contribution Day following such Default Fund Exit Date. However, if the Default Fund Exit Date occurs less than five (5) Business Days prior to the date the Clearinghouse is to notify the next Fund Requirements which relate to such first Contribution Day, the Contributed Assets will be released on the next Contribution Day following such first Contribution Day.
- 10.4 Notwithstanding the delivery of a Default Fund Exit Notice and/or the occurrence of a Default Fund Exit Date, a Default Fund Participant remains subject to and bound by these Default Fund Rules, including the requirement to provide a Guarantee Commitment in accordance with Section 7, until the Contribution Day on which the Clearinghouse releases the Default Fund Participant's Contributed Assets.

11 DEFAULT NOTIFICATION PROCEDURE

- 11.1 The Clearinghouse will notify Default Fund Participants in the event a default has been declared by the Clearinghouse at such time as decided by the Clearinghouse in its sole discretion.



SCHEDULE 1

DEFAULT FUND REQUIREMENTS

Contributions are made to the Commodity Default Fund and/or Financial Default Fund. A Default Fund Participant's share of the Financial Default Fund and/or Commodity Default Fund is based on the Default Fund Participant's (including its Default Fund Sponsored Participants') 3-month average Initial Margin in relation to the aggregated average values of all Default Fund Participants and Default Fund Sponsored Participants in the respective market. Default Fund Participants' and/or Default Fund Sponsored Participants' calculated average Initial Margin shall be multiplied by 0.5 when such Default Fund Participants' and/or Default Fund Sponsored Participants' Initial Margin is provided in relation to an Individual Client Segregated Account.

A Default Fund Participant's share represents the share of the applicable Default Fund that the Default Fund Participant shall contribute to. The calculated contribution of a Default Fund Participant includes contributions to the Financial Default Fund and/or the Commodity Default Fund. A Default Fund Participant's calculated Fund Requirement includes calculated contributions in respect of its own accounts as well as its Default Fund Sponsored Participants (if any).

The calculation of the size of the Financial Default Fund and the Commodity Default Fund is described in Sections 3.4 – 3.6 of the Default Fund Rules.

If the calculated Fund Requirement would be lower than the applicable Minimum Fund Requirement, the Minimum Fund Requirement will be applied.

The Clearinghouse may increase or reduce the Fund Requirement of an individual Default Fund Participant to take into account known or anticipated changes in clearing volume and risk, including, but not limited to, changes resulting from account and position transfers and mergers and acquisitions involving the Default Fund Participant. Any such increase or reduction in a Default Fund Participant's Fund Requirement shall be made at the absolute discretion of the Clearinghouse, acting reasonably.

SCHEDULE 2

SENIORISATION OF CONTRIBUTED ASSETS

The provisions of this Schedule 2 will apply where, pursuant to the default of a Relevant Participant, a hedging and/or Auction process has been held as part of the default management process for such Relevant Participant.

1. Where the Default Loss is such that the Contributed Assets of each non-defaulting Default Fund Participant need to be applied pursuant to Section 6, such Contributed Assets of each non-defaulting Default Fund Participant in the Commodity Default Fund shall be applied to cover the remaining Default Loss in the following order:
 - (i) first, (x) the Contributed Assets of those Default Fund Participants who are not Close Out Providers and (y) such part of the Contributed Assets equal to the Non-Senior Proportion of the Contributed Assets of Close Out Providers ((x) and (y) together the "**Junior Contributed Assets**"), in each case on a pro rata basis relative to the aggregate Junior Contributed Assets of all non-defaulting Default Fund Participants to the Commodity Default Fund;
 - (ii) if and to the extent that there is still a Default Loss outstanding after the attribution process referred to in sub-clause (i) above, such part of the Contributed Assets equal to the Relevant Proportion of the Contributed Assets of each Tier 3 Close Out Provider, on a pro rata basis relative to the aggregate Relevant Proportion of Contributed Assets of all Tier 3 Close Out Providers;
 - (iii) if and to the extent that there is still a Default Loss outstanding after the attribution process referred to in sub-clause (ii) above, such part of the Contributed Assets equal to the Relevant Proportion of the Contributed Assets of each Tier 2 Close Out Provider, on a pro rata basis relative to the aggregate Relevant Proportion of Contributed Assets of all Tier 2 Close Out Providers; and
 - (iv) if and to the extent that there is still a Default Loss outstanding after the attribution process referred to in sub-clause (iii) above, such part of the Contributed Assets equal to the sum of (x) the Relevant Proportion of the Contributed Assets of each Tier 1 Close Out Provider, and (y) the Relevant Hedging Proportion of the Contributed Assets of each Hedge Provider, in both cases on a pro rata basis relative to the sum of the aggregate Relevant Proportion of Contributed Assets of all Tier 1 Close Out Providers and the aggregate Relevant Hedging Proportion of Contributed Assets of all Hedge Providers.

2. In order to categorise Close Out Providers as Hedge Providers, Tier 1 Close Out Providers, Tier 2 Close Out Providers and/or Tier 3 Close Out Providers, the Clearinghouse will follow the procedure set out in Clauses 3 – 6 below. In respect thereof:
 - (i) if the Clearinghouse has to run multiple Default Cycles in respect of the portfolio of the same Relevant Participant, the provisions of this Schedule 2 shall be applied to each Default Cycle as set out, making such determinations in respect of the portfolio and (where relevant) each Auction Bucket or part thereof which is remaining;
 - (ii) a Close Out Provider may be categorised in more than one category in respect of its Contributed Assets and the categorisation of a Close Out Provider as a Senior Close Out Provider in respect of part of its Contributed Assets does not preclude the categorisation of such Close Out Provider as a Senior Close Provider in a different category, or outside of any category, for some or all of its remaining Contributed Assets;
 - (iii) the purpose of these provisions is to allocate 100% of the Contributed Assets of each non-defaulting Default Fund Participant (and for the avoidance of doubt, the maximum amount of Contributed Assets of each non-defaulting Default Fund Participant which can be seniorised is 100%);
 - (iv) the Clearinghouse may close out part of a Relevant Participant's portfolio (measured as a reduction of the Initial Margin of such Relevant Participant's portfolio) other than through Hedging and/or an Auction. In the event that it does so, the

Clearinghouse will be able to utilise the resources available to it in Section 6 of the Default Fund Rules as it determines necessary and the provisions set out in this Schedule 2 shall be applicable to the remainder of such resources. As such, seniorisation of the Contributed Assets of any non-defaulting Default Fund Participant will not be available in respect of that part of the portfolio equal to the reduced Initial Margin. Accordingly, the Clearinghouse shall make such adjustments to the calculations (including to calculations that have already been made¹) as are necessary to reflect the use of any such resources² and the reduction in the amount of total net Initial Margin of the portfolio or any Auction Bucket shall be reduced by the amount of Initial Margin reduced other than through Hedging and/or an Auction;

- (v) in respect of the foregoing, it is acknowledged that the Clearinghouse may enter into transactions with Close Out Providers outside the scope of their Close Out Provider Agreement or other third parties in circumstances where the Clearinghouse does not approach all Close Out Providers for a bid in respect of the transaction and any resulting contracts shall not permit the Close Out Provider to be eligible for seniorisation in respect of such contracts and amendments shall be made to the calculations as set out in the sub-paragraph above; and
 - (vi) in applying the Contributed Assets of a Default Fund Participant as set out above, the Clearinghouse may determine which particular assets to apply through the waterfall.
3. Prior to an Auction, the Clearinghouse may, in its absolute discretion, split the portfolio of the Relevant Participant into Auction Buckets and, where it does so, the Clearinghouse shall calculate for each Auction Bucket its Auction Bucket IM³ and its Bucket Weight. For each such Auction, the calculation of the Auction Bucket IM and the Bucket Weight for each such Auction Bucket prior to the Auction shall provide indicative figures for that Auction in order to assist the auction participants and the Clearinghouse shall recalculate such Auction Bucket IM and Bucket Weight after completion of the Auction, which figures shall be utilised for the purposes of this Schedule.
 4. Further to an Auction, the Clearinghouse shall determine the categorisation of each Close Out Provider on the basis of the following:
 - (i) each Close Out Provider providing a Winning Bid will be a Tier 1 Close Out Provider, and the Relevant Proportion of its Contributed Assets, in respect of a Winning Bid that is a Portfolio Bid, shall be 100% of the Auction Proportion or Partial Auction Proportion (as the case may be) and, in the case of a Winning Bid for an Auction Bucket, shall correspond to the Bucket Weight of the relevant Auction Bucket;

For example, if a Close Out Provider provides a winning bid in respect of an Auction Bucket with a Bucket Weight of 60%, the Relevant Proportion of such Close Out Provider's Contributed Assets shall be 60%;
 - (ii) in cases where a Close Out Provider has provided bids solely in respect of one or more Auction Buckets:
 - (a) any Close Out Provider who has provided a bid in respect of an Auction Bucket with a Bid Differential to the Winning Bid (if any) in respect of such Auction

¹ If the Clearinghouse undertakes an Auction and then undertakes activities that fall outside of Hedging or Auctions, but in circumstances where some of the portfolio remains subject to a further auction, the Clearinghouse will need to make adjustments to the calculations made for the first Auction to ensure consistency is applied through the whole process.

² Default Fund Participants should note that, if the use of resources were such that the Contributed Assets of non-defaulting Default Fund Participants were utilised in activities other than Hedging and Auctions, the amount of resources available for seniorisation hereunder would be less and adjustments will therefore be made to the relevant calculations.

³ Default Fund Participants should note that the sum of Auction Portfolio IMs for Auction Buckets within the Relevant Participant's portfolio is likely to be larger than the Initial Margin for the overall portfolio, due to lost netting effects.

- Bucket of up to 10% shall be a Tier 2 Close Out Provider in respect of that Auction Bucket, and the Relevant Proportion of its Contributed Assets shall correspond to the Bucket Weight of that Auction Bucket;
- (b) any Close Out Provider who has provided a bid in respect of an Auction Bucket with a Bid Differential to the Winning Bid (if any) in respect of such Auction Bucket of equal to or more than 10% but less than 20% shall be a Tier 3 Close Out Provider in respect of that Auction Bucket, and the Relevant Proportion of its Contributed Assets shall correspond to the Bucket Weight of that Auction Bucket;
 - (c) in cases where the Winning Bid is a Portfolio Bid, only those Close Out Providers providing other Portfolio Bids will be eligible to be classified as Senior Close Out Providers in respect of the Relevant Proportion of their Contributed Assets and, for the avoidance of doubt, any Close Out Provider who has provided bids solely in respect of one or more Auction Buckets will not be eligible to be a Senior Close Out Provider in respect of any of the Auction Buckets making up that Auction.
- (iii) in cases where a Close Out Provider has provided only a Portfolio Bid (and no bids for any of the Auction Buckets):
- (a) any Close Out Provider who has provided a Portfolio Bid with a Bid Differential to the Winning Bid or, where there was a Winning Bid for all of the Eligible Auction Buckets making up the portfolio in that Auction, the sum of the Winning Bids for each such Eligible Auction Bucket, of up to 10% shall be a Tier 2 Close Out Provider, and the Relevant Proportion of its Contributed Assets shall be 100% of the Auction Proportion or Partial Auction Proportion (as the case may be);
 - (b) any Close Out Provider who has provided a Portfolio Bid with a Bid Differential to the Winning Bid or, where there was a Winning Bid for all of the Eligible Auction Buckets making up the portfolio in that Auction, the sum of the Winning Bids for each such Eligible Auction Bucket, of equal to or more than 10% but less than 20% shall be a Tier 3 Close Out Provider, and the Relevant Proportion of its Contributed Assets shall be 100% of the Auction Proportion or Partial Auction Proportion (as the case may be);
 - (c) in cases where there are Winning Bids in respect of some but not all Auction Buckets, such Close Out Provider will not be eligible to be classified as a Senior Close Out Provider in respect of the Portfolio Bid; and
- (iv) in cases where a Close Out Provider has provided both a Portfolio Bid and bids in respect of one or more Auction Buckets, the Clearinghouse shall determine, first, whether the Close Out Provider is a Senior Close Out Provider pursuant to subsection (iii) above and, secondly, whether the Close Out Provider is, in respect of any of its bids for any Auction Bucket, a Senior Close Out Provider pursuant to subsection (ii) above and:
- (a) if it is a Senior Close Out Provider solely in respect of its Portfolio Bid, or where its categorisation for any of its bids for an Auction Bucket is lower than its Portfolio Bid, the Relevant Proportion of its Contributed Assets shall be 100% at the level calculated pursuant to subsection (iii) above;
 - (b) if it is a Senior Close Out Provider solely in respect of its bid for one or more Auction Buckets, the Relevant Proportion of its Contributed Assets shall be the sum of the Relevant Proportions corresponding to the Bucket Weights for each such Auction Bucket as calculated pursuant to subsection (ii) above;
 - (c) if it is a Senior Close Out Provider in respect of both of its Portfolio Bid and a bid for one or more Auction Buckets, where one or more of the bids for an Auction Bucket has a more senior categorisation than its Portfolio Bid, the Relevant Proportion of its Contributed Assets shall be (x) the Relevant Proportion corresponding to the Bucket Weight for each such Auction Bucket as calculated pursuant to subsection (ii) above and (y) the balance (being

100% less each of the Relevant Proportions applied in (x)) of the Relevant Proportion of its Contributed Assets shall be applied at the level calculated pursuant to subsection (iii) above.

For example:

- *an Auction is split into Auction Buckets and the Close Out Provider has provided separate bids in respect of one or more Auction Bucket(s) and a Portfolio Bid;*
 - *one of the bids provided by such Close Out Provider for an Auction Bucket is a Tier 1 Bid and the Portfolio Bid is a Tier 2 Bid, the other bids provided by the Close Out Provider for the other Auction Buckets are not classified as Tier 1 Bids or Tier 2 Bids;*
 - *the Close Out Provider shall be a Tier 1 Close Out Provider in respect of the percentage of such Close Out Provider's Contributed Assets which corresponds to the Bucket Weight of the Auction Bucket in respect of which the Close Out Provider provided a Tier 1 Bid; and*
 - *the Close Out Provider shall be a Tier 2 Close Out Provider in respect of the remainder of the Auction Proportion of such Close Out Provider's Contributed Assets, due to the fact that such Close Out Provider's Portfolio Bid which was a Tier 2 Bid.*
5. Where a Non-Clearing Member acts as a Close Out Provider, its related General Clearing Member's default fund contribution will be seniorised to the extent that such Non-Clearing Member provides a Tier 1 Bid, a Tier 2 Bid or a Tier 3 Bid, as if the General Clearing Member itself had entered into the Relevant Hedges or provided the Tier 1 Bid, Tier 2 Bid or Tier 3 Bid, as applicable.
6. The Clearinghouse shall be responsible for making all calculations in accordance with this Schedule 2 and all such calculations shall be final and binding in the absence of manifest error. In the event that there are circumstances arising in respect of an Auction which are not contemplated herein, and/or in the event that not all of the Contributed Assets of any non-defaulting Default Fund Participant are allocated and/or available for utilisation pursuant to the calculations herein, the Clearinghouse shall make such determinations as it thinks fit in its sole discretion, including to ensure all resources available to it pursuant to Section 6 of the Default Fund Rules are fully utilised.
7. For the purposes of this Schedule 2 the following definitions shall apply:

"Actual Auction Proportion" means, in the event of any Auction in respect of which the total Initial Margin making up the portfolio for that auction has not been successfully transferred to Clearing Participants as a result of such Auction, the proportion calculated by the aggregate of the Auction Bucket IM for which there have been Winning Bids divided by the aggregate of the Auction Bucket IM for each Auction Bucket of the Relevant Participant subject to the Auction multiplied by the Auction Proportion.

"Auction" means following a Relevant Participant's default, an auction of certain of such Relevant Participant's contracts relating to Commodity Instruments, as part of the default management process (and, for the avoidance of doubt, a Partial Auction shall be deemed an Auction for the purposes of this Schedule).

"Auction Bucket" means, in relation to the Auction of a portfolio, the sub-portfolios into which a portfolio has been sub-divided by the Clearinghouse and, in circumstances where there is a Partial Auction, that part of the portfolio that is not to be offered in that Auction shall be one such sub-portfolio.

"Auction Bucket IM" means, in related to an Auction Bucket, the Initial Margin calculated by the Clearinghouse for that Auction Bucket.

"Auction Proportion" means, at any point, the proportion calculated as 100% less the Hedging Proportion (if any) for any completed hedging phase within any prior or the existing

Default Cycle and any Actual Auction Proportion (if any) for a prior Auction, subject to any recalculation pursuant to Clause 2(iv).

“**Bid Differential**” means an amount, expressed as a percentage, equal to:

- for an Auction Bucket: $(\text{relevant bid} - \text{Winning Bid}) / \text{Auction Bucket IM}$
- for a Portfolio Bid where the Winning Bid is a different Portfolio Bid: $(\text{relevant bid} - \text{Winning Bid}) / \text{total Initial Margin for the overall portfolio}$ (subject to any recalculation pursuant to Clause 2(iv))
- for a Portfolio Bid where the Winning Bids were in respect of each of the Auction Buckets within the portfolio: $(\text{relevant bid} - \text{aggregate of each Winning Bid}) / \text{aggregate of the Auction Bucket IM for each Auction Bucket within the portfolio}$.

“**Bucket Weight**” means, for an Auction Bucket for a particular Auction, the size of such Auction Bucket relative to the size of the whole portfolio, calculated by dividing the Auction Bucket’s Auction Bucket IM by the sum of the Auction Bucket IM for each Auction Bucket in that Auction, then multiplied by the Auction Proportion for that Auction.

“**Close Out Provider**” means each Default Fund Participant which has signed a Close Out Provider Agreement with the Clearinghouse in respect of Commodity Instruments.

“**Close Out Provider Agreement**” means a close out provider agreement in respect of Commodity Instruments between a Default Fund Participant and the Clearinghouse.

“**Default Cycle**” means a cycle of the default management process represented by Hedges and/or an Auction.

“**Eligible Auction Bucket**” means, in relation to a Partial Auction, those Auction Buckets which are made available to auction participants.

“**Hedge**” means one or more contract(s) entered into between the Clearinghouse and a Close Out Provider as part of the hedging phase of the default management process, provided that the Clearinghouse has approached each Close Out Provider to solicit a bid in respect of such Hedge.

“**Hedge Bid Request**” means a request for quote sent by the Clearinghouse to Close Out Providers in connection with the hedging phase of the default management process.

“**Hedge Provider**” means a Close Out Provider which has entered into one or more contracts with the Clearinghouse in respect of one or more Hedge Bid Requests.

“**Hedging Proportion**” means, at any point, the proportion calculated as

- 100% less the Hedging Proportion (if any) for any completed hedging phase and any Actual Auction Proportion (if any) for a prior Auction (subject in each case to any recalculation pursuant to Clause 2(iv)), multiplied by
- the proportion calculated by the aggregate net IM for each successfully executed Hedge in the Default Cycle divided by the aggregate net IM of each successfully executed Hedge in the Default Cycle and the net Post-Hedge IM,

where, Post Hedge IM means the total net Initial Margin on the portfolio of the Relevant Participant following execution of all Hedges in that Default Cycle. “**Non-Senior Proportion**” means, in relation to a Close Out Provider, the proportion of such Close Out Provider’s Contributed Assets remaining (if any) after the deduction of each Relevant Proportion and each Relevant Hedging Proportion of such Contributed Assets.

“**Partial Auction**” means, in relation to an Auction, an auction where the whole of the portfolio, or remaining portfolio, of a Relevant Participant is not made available in that Auction.

“**Partial Auction Proportion**” means, in relation to a Partial Auction, the Actual Auction Proportion for that Auction.

“Portfolio Bid” means, in relation to an Auction, a bid for the portfolio as a whole, whether the portfolio has been split into Auction Buckets or not and, in respect of a Partial Auction, a bid for the remaining portfolio as represented by the Eligible Auction Buckets (whether as a single bid or as an aggregate of bids for each Eligible Auction Bucket).

“Relevant Hedge” means, in relation to a Close Out Provider, each Hedge entered into between such Close Out Provider and the Clearinghouse in connection with the hedging phase of the default management process.

“Relevant Hedging Proportion” means, in relation to each Hedge Provider and a Default Cycle, the proportion of such Hedge Provider’s Contributed Assets calculated as the total net Initial Margin of its Relevant Hedges for that Default Cycle divided by the total net Initial Margin of all Hedges for that Default Cycle, expressed as a percentage, multiplied by the Hedging Proportion.

“Relevant Proportion” means, in relation to a Close Out Provider, the proportion of such Close Out Provider’s Contributed Assets calculated in accordance with Clauses 4 and 5, as applicable.

“Senior Close Out Provider” means, in respect of an Auction, a Tier 1 Close Out Provider, Tier 2 Close Out Provider and/or Tier 3 Close Out Provider and in respect of a Hedge Bid Request, a Hedge Provider.

“Tier 1 Close Out Provider” means, in respect of an Auction, the Close Out Provider(s) who submitted the winning bid(s) (each such bid, a **“Tier 1 Bid”**).

“Tier 2 Close Out Provider” means, in respect of an Auction, the Close Out Provider(s) who submitted bids with a Bid Differential to the winning bid of up to 10% of Initial Margin (each such bid, a **“Tier 2 Bid”**).

“Tier 3 Close Out Provider” means, in respect of an Auction, the Close Out Provider(s) who submitted bids with a Bid Differential to the winning bid of between 10 and 20% of Initial Margin (each such bid, a **“Tier 3 Bid”**).

“Winning Bid” means, in respect of an Auction, each bid determined by the Clearinghouse in its absolute discretion as the best bid in respect of the default management process, whether that bid is a Portfolio Bid or a bid in respect of an Auction Bucket.

Schedule 3 – Partial Tear-Up

1. The provisions of this Schedule 3 shall apply in respect of one or more types of Transaction entered into by the Relevant Participant, where pursuant to the occurrence of a Default Event in respect of such Relevant Participant:
 - (i) at least two Auctions have been held following the relevant Default Event in accordance with Schedule 2; and
 - (ii) the Clearinghouse in its absolute discretion decides that a Partial Tear-Up should apply in respect of the Relevant Participant.
2. If the Clearinghouse determines in accordance with Schedule 3, paragraph 1(ii), that a Partial Tear-Up should occur in respect of any type of Transaction entered into by the Relevant Participant, it shall send a notice to all Relevant Default Fund Participants (a "**Partial Tear-Up Notice**"), specifying the date that the Partial Tear-Up will occur (the "**Partial Tear-Up Date**"):
 - (i) in respect of any type or category of Exchange Transaction or Third Party Exchange Transaction (including any corresponding Clearing Transaction) (each, an "**Exchange Traded Type**") pursuant to which the Relevant Participant is either a buyer or seller under the terms of that Transaction (each, an "**Exchange Traded Tear-Up Transaction**") on the Partial Tear-Up Date:
 - (a) the Clearinghouse shall identify each Exchange Traded Tear-Up Transaction to be reallocated by this Schedule 3 and the outstanding nominal amount of each such Exchange Traded Tear-Up Transaction to be so reallocated;
 - (b) in respect of each Exchange Traded Tear-Up Transaction to be reallocated, the Clearinghouse shall reallocate such Exchange Traded Tear-Up Transaction from the Relevant Participant to one or more Relevant Default Fund Participant(s) who is a party to a Transaction which is of the same Exchange Traded Type as the relevant Exchange Traded Tear-Up Transaction, using the following methodology on the Partial Tear-Up Date:
 - (I) the Clearinghouse shall identify the open positions of the Relevant Participant in respect of the Exchange Traded Tear-Up Transaction;
 - (II) the Clearinghouse shall increase the open position of each Default Fund Participant (excluding the Relevant Participant) holding the same side position as the Relevant Participant in respect of the Exchange Traded Tear-Up Transaction, in proportion to the number of open positions such Default Fund Participant holds in respect of the relevant Exchange Traded Type compared to the number of open positions all Default Fund Participants hold (in the same direction) in respect of the relevant Exchange Traded Type; and
 - (III) the Clearinghouse shall reduce the open position of each Default Fund Participant (excluding the Relevant Participant) holding the opposite side position to the Relevant Participant in respect of the Exchange Traded Tear-Up Transaction, in proportion to the number of open positions such Default Fund Participant holds in respect of the relevant Exchange Traded Type compared to the number of open positions all Default Fund Participants hold (in the same direction) in respect of the relevant Exchange Traded Type;
 - (IV) The aggregate of (x) the increase in the number of open positions calculated in accordance with (II) above and (y) the decrease in the number of positions calculated in accordance with (III) above shall equal the aggregate number of positions the Relevant Participant held in respect of the Exchange Traded Tear-Up Transactions to be so reallocated as determined in accordance with Schedule 3, paragraph 2(i)(a).
 - (ii) in respect of any type or category of Non-Exchange Transaction where the original party can be identified (each, an "**Non-Exchange Traded Type**"), pursuant to which the Relevant Participant is either a buyer or seller under the terms of that Non-

Exchange Transaction (each, a “**Non-Exchange Traded Tear-Up Transaction**”) on the Partial Tear-Up Date:

(a) the Clearinghouse shall identify each Non-Exchange Traded Tear-Up Transaction to be reallocated by this Schedule 3 and the outstanding nominal amount of each such Non-Exchange Traded Tear-Up Transaction to be so reallocated; and

(b) the Clearinghouse shall terminate each such identified Non-Exchange Traded Tear-Up Transaction, as between the Relevant Participant and the Default Fund Participant which is the counterparty, using a price determined in accordance with Schedule 3, paragraph 3,

provided that, in making the terminations above, the Clearinghouse shall consider as excluded those Non-Exchange Traded Tear-Up Transactions that are held by a Default Fund Participant who was not an original counterparty to the Transaction that was submitted to the Clearinghouse for Clearing as that Non-Exchange Traded Tear-Up Transaction.

(iii) in respect of any type or category of Non-Exchange Transactions where the original counterparty cannot be identified due to Netting (each, a “**Netted Non-Exchange Traded Type**”), pursuant to which the Relevant Participant is either a buyer or seller under the terms of that Netted Non-Exchange Transaction (each, a “**Netted Non-Exchange Traded Tear-Up Transaction**”) on the Partial Tear-Up Date:

(a) the Clearinghouse shall identify each Netted Non-Exchange Traded Tear-Up Transaction to be reallocated by this Schedule 2 and the outstanding nominal amount of each such Netted Non-Exchange Traded Tear-Up Transaction to be so reallocated;

(b) the Clearinghouse shall reallocate such Netted Non-Exchange Traded Tear-Up Transaction from the Relevant Participant to one or more Relevant Default Fund Participant(s) who is a party to a Transaction which is of the same Netted Non-Exchange Traded Type as the relevant Netted Non-Exchange Traded Tear-Up Transaction, using the following methodology on the Partial Tear-Up Date: a new Transaction will be registered between the Relevant Participant and the Relevant Default Fund Participant(s) so that the new Transactions together exactly offset the remaining cash flows of the Netted Non-Exchange Traded Tear-Up Transaction. The new Transactions shall be distributed to the Relevant Default Fund Participant(s) in proportion to the Relevant Default Fund Participant share of net Initial Margin for open positions in Netted Non-Exchange Trade Type Transactions compared to the net Initial Margin of all Relevant Default Fund Participants in Netted Non-Exchange Trade Type Transactions.

3. The Clearinghouse shall calculate the value of each Exchange Traded Allocated Transaction, Non-Exchange Traded Allocated Transaction and Netted Non-Exchange Traded Allocation Transaction (each an “**Allocated Transaction**”) in accordance with Schedule 3, paragraph 2, in the following order:

(i) first, if the Clearinghouse in its sole and absolute discretion determines that its existing processes and methodologies for determining the value of the Allocated Transaction would be representative of market values for the Allocated Transaction as of the Partial Tear-Up Date, the Clearinghouse shall value the Allocated Transaction using such processes and methodologies;

(ii) second, if the Clearinghouse in its sole and absolute discretion determines that the process in relation to paragraph (i) above would not be representative of the market value of the Allocated Transactions as of the Partial Tear-Up Date, the Clearinghouse shall value the Allocated Transaction using indicative prices based on quotes provided by all Relevant Default Fund Participants having Operational Access in respect of the relevant Allocated Transaction. Such price will be set to the arithmetic mean of the provided quotes, having deducted the highest and the lowest quotes, provided that quotes have been provided by at least five Relevant Default Fund Participants; and

(iii) lastly, if the Clearinghouse in its sole and absolute discretion determines that the process in relation to paragraph (ii) above will not produce a market price in respect of an Allocated Transaction, any price determined at the absolute discretion of the

Clearinghouse, using such methodologies and processes as the Clearinghouse shall determine to be appropriate in its absolute discretion, shall apply. [

4. For the purposes of this Schedule 3, the following definitions shall apply:

“**Allocated Transaction**” has the meaning given to it in Schedule 3, paragraph 3.

“**Exchange Traded Tear-Up Transaction**” has the meaning given to it in Schedule 3, paragraph 2(i).

“**Exchange Traded Type**” has the meaning given to it in Schedule 3, paragraph 2(i).

“**Non-Exchange Traded Type**” has the meaning given to it in Schedule 3, paragraph 2(ii).

“**Netted Non-Exchange Trade Type**” has the meaning given to it in Schedule 3, paragraph 2 (iii).

“**Non-Exchange Traded Tear-Up Transaction**” has the meaning given to it in Schedule 3, paragraph 2(ii).

“**Netted Non-Exchange Traded Tear-Up Transaction**” has the meaning given to it in Schedule 3, paragraph 2(iii).

“**Operational Access**” means, in respect of a Relevant Default Fund Participant, that in the reasonable opinion of the Clearinghouse, such Relevant Default Fund Participant has the necessary capabilities, access and expertise to provide a quote in respect of an Allocated Transaction.

“**Partial Tear-Up**” means the process applied in Schedule 3, paragraph 2 in respect of any Exchange-Traded Tear-Up Transaction, Non Exchange Traded Tear-Up Transaction or Netted Non-Exchange Traded Tear-Up Transaction.

“**Partial Tear-Up Date**” has the meaning given to it in Schedule 3, paragraph 2.

“**Partial Tear-Up Notice**” has the meaning given to it in Schedule 3, paragraph 2.

“**Relevant Clearing Service**” means, all the Clearing Services in respect of which the Default Loss occurred.

“**Relevant Default Fund Participant**” means, a non-defaulting Default Fund Participant which is a participant in the Relevant Clearing Service.

Schedule 4 – Voluntary Cash Call

1. The provisions of this Schedule 4 shall apply in respect of a Default Loss of a Relevant Participant, where pursuant to the default of such Relevant Participant:
 - (i) all Guarantee Commitments provided to the Relevant Default Fund in respect of the Relevant Clearing Service, have been fully utilised in accordance with Section 7;
 - (ii) following the occurrence of paragraph (i) above, the relevant Default Loss remains outstanding whether in full or part; and
 - (iii) in the sole determination of the Clearinghouse, a Voluntary Cash Call made in accordance with this Schedule 4 would sufficiently cover the amount of the outstanding Default Loss.
2. Where the provisions of Schedule 4, paragraph 1 have been met, the Clearinghouse, in accordance with this Schedule 4 and in accordance with its usual rules and procedures, will invite each Relevant Default Fund Participant to participate in a Voluntary Cash Call Vote.
3. Where in respect of a Default Loss a Voluntary Cash Call Vote has been passed in accordance with Schedule 4, paragraph 4, a Voluntary Cash Call will be held.
4. Voluntary Cash Call
 - (i) In respect of a Voluntary Cash Call Vote, each Relevant Default Fund Participant will hold a number of votes equal to the proportion of (the "**Relevant Fund Proportion**"):
 - (a) the higher of: (I) the Fund Requirement most recently notified to the Relevant Default Fund Participant in respect of the Relevant Clearing Service in accordance with Sections 5.1 and 5.2; and (II) the total Minimum Fund Requirement that was applicable to the Relevant Default Fund Participant in place of the relevant Fund Requirement in respect of the Relevant Clearing Service (with such higher amount being the "**Relevant Fund Requirement**"); divided by
 - (b) the total Relevant Fund Requirement in respect of all Relevant Default Fund Participants;
 - (ii) For a Voluntary Cash Call Vote to be passed in respect of a Default Loss the Clearinghouse must have determined that greater than 75 per cent of the Relevant Default Fund Participants (by percentage of the votes cast) have voted in favour of the Voluntary Cash Call.
5. Where the Clearinghouse has determined that a Voluntary Cash Call Vote has been passed in accordance with Schedule 4 paragraph 4:
 - (i) the Clearinghouse shall as soon as possible notify all Relevant Default Fund Participants and the Relevant Participant that the Voluntary Cash Call Vote has been passed (the "**Voluntary Cash Call Notice**");
 - (ii) each Relevant Default Fund Participant shall contribute to the Default Fund in accordance with Section 4, an amount equal to their respective Relevant Fund Requirement, within two (2) Business Days following the date of the Voluntary Cash Call Notice; and
 - (iii) the Clearinghouse shall provide:
 - (a) additional Junior Capital in respect of the relevant Clearing Service for the outstanding Default Loss, in an amount equal to the original Junior Capital calculated in accordance with Section 3.7; and
 - (b) additional Senior Capital in respect of the relevant Clearing Service for the outstanding Default Loss, in an amount equal to the original Senior Capital calculated in accordance with Section 3.8;

within two (2) Business Days following the date of the Voluntary Cash Call Notice.

6. A Relevant Default Fund Participant who does not contribute to the Default Fund as required, in accordance with Schedule 4, paragraph 5(ii), will be treated as being in default pursuant to the Clearing Rules.

7. For the purposes of this Schedule 4 the following definitions shall apply:

“Relevant Clearing Service” means, all the Clearing Services in respect of which the Default Loss occurred.

“Relevant Default Fund” means the section of the Default Fund pertaining to the Relevant Clearing Service.

“Relevant Default Fund Participant” means, each non-defaulting Default Fund Participant which is a participant in the Relevant Clearing Service.

“Relevant Fund Proportion” has the meaning given to it in Schedule 4, paragraph 4.

“Relevant Fund Requirement” has the meaning given to it in Schedule 4, paragraph 4.

“Voluntary Cash Call” means, in respect of a Default Loss, the occurrence of Schedule 4, paragraph 4 in respect of such loss.

“Voluntary Cash Call Notice” has the meaning given to it in Schedule 4, paragraph 5

“Voluntary Cash Call Vote” means, a vote held by the Clearinghouse in respect of a Default Loss, to determine whether a Voluntary Cash Call should be held in respect of such Default Loss pursuant to this Schedule 4.