CCP management process under multiple defaults in a short period of time

To:
Financial Services Agency
Planning and Coordination Bureau
Financial Markets Division

ISDA Japan Central Counterparty Default Management Process Working Group

February 16, 2012

ISDA's Japan Central Counterparty Default Management Process Working Group (the WG) was formed on November 7, 2011 primarily by 25[1] Japanese and non-Japanese financial institutions that are the main members of ISDA's Japan OTC Derivatives Regulatory Working Group and Credit CCP Working Group. Since all WG members[2] have come to an agreement on the details of the process, we are pleased to present the finalized version.

The WG intends to closely work with Japan Securities Clearing Corporation (JSCC) so that their system concerning clearing members, loss sharing, and default management process for CDS and IRS central clearing is improved. We would greatly appreciate it if the FSA would take the WG's proposals as described below into consideration, for the smooth implementation of the mandatory clearing requirement scheduled for November.

We would also request the FSA take the WG proposals in consideration when discussing various principles of the CPSS-IOSCO "Principles for financial market infrastructures (FMI Principles)" with international regulators, and in the granting licenses and oversight of the Central Counterparty (CCP).

[1] Please note that we are currently in discussion with LCH SwapClear on the same issues and intend to reflect the findings of the discussion where appropriate.
[2] Please refer to the full WG members' list at the end of this memo.

Summary

1. **Capped liability** – Ensure capped liability for non-defaulting members, even if multiple clearing members simultaneously default during a period of market stress in a severe financial crisis.

2. **Orderly exit and position liquidation** – Prevent a situation where clearing members race to the exit from the CCP to avoid loss-sharing following default of other members, leading to a large scale position liquidation[3], as stipulated by member withdrawal rules. The CCP default management process and member withdrawal rules should be designed so that liability owed by the members incurred by other members' default is de-linked from the effective withdrawal from the CCP by member's position liquidation.

3. ***Ex ante* rules for CCP business continuity** – Develop *ex ante* rules for business continuity, such as a position transfer to another CCP or recapitalization by the CCP, as alternative options to close-out of all the net open positions, in order to be prepared for the depletion of financial safeguards in the CCP.

Background

Since the launch of CDS clearing business by JSCC last July, the number of clearing members has not increased from the initial five members (four Japanese members and one non-Japanese member). It is reported that many non-Japanese financial institutions are unable to obtain an internal credit approval from headquarters because of JSCC's CDS clearing rules on members (withdrawal rules in particular), loss sharing, and the default management process (posting of Guarantee Fund in particular). There are issues of both risk management as a clearing member and the stability of the CCP.

JSCC's IRS clearing business is scheduled to be launched no later than this November. It is expected to be difficult for all non-Japanese WG members to participate, provided that the same clearing rules concerning clearing members, loss sharing, and default management process are applied.[4]

The WG considers it is critical to set up an environment where more financial institutions can participate in the CDS and IRS clearing, in view of the mandatory clearing requirement to be put in place in November this year.

Furthermore, it is noted that Singapore Stock Exchange (SGX) has published a consultatation paper, "Enhanced Default Management Framework for SGX-DC" last September to seek public comments[5] on the similar aspects as above.

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[3] Position liquidation is completed when the outstanding liability becomes zero following early terminations or position transfers to other clearing members.
[4] It is currently under discussion in the JSCC's OTC Working Group.
[5] The deadline of the public comments was 3 October 2011.

Specific Proposals

1. **Capped liability regardless of the number of defaults** – Guarantee Fund obligation by non-defaulting members during a certain number of days (Capped Period) should be limited to the sum of Guarantee Fund (Funded Obligation) at the time of the first default and One-time Guarantee Fund Assessment (Unfunded Obligation, the same amount as Funded Obligation) regardless of the number of defaults for the period.

2. **Rolling 30 business days Capped Period** – The Capped Period should be on a 30 business day rolling basis (i.e. extended by 30 business days upon additional default).

3. **Additional Initial Margin obligation during the Capped Period** – Upon the first member's default, the CCP should stress test non-defaulting members' Guarantee Fund requirement on a daily basis. If a member's Guarantee Fund requirement exceeds its previous day's requirement by more than 10%, the excess amount should be posted as additional Initial Margin. Following the end of the Capped Period, non-defaulting members should no longer be subject to any additional Initial Margin obligation, and the additional Initial Margin posted should be returned to each member while each member is required to post newly calculated Guarantee Fund to the CCP.

4. **Conditions for withdrawal fulfilled upon completion of position close-out (vs. upon approval by the CCP)** – While no member is in default (i.e. outside of the Capped Period), withdrawal from the CCP should be effective as of the date that is the later of (a) the date when position close-out of a resigning member is completed or (b) 30 business days following withdrawal notice by the member, without any specific action required by the CCP, such as approval of withdrawal.

   When a member is in default (i.e. during the Capped Period), withdrawal from the CCP should be effective at the end of the Capped Period, provided that position close-out of a resigning member is completed, even before 30 business days following the withdrawal notice, without any specific action required by the CCP such as the approval of withdrawal.

   In any case, the CCP should not be given authority to approve a withdrawal request to avoid any uncertainty as to the effectiveness of a member's withdrawal. In case the CCP cannot confirm the completion of position close-out of the resigning member, conditions for withdrawal are not considered to be fulfilled and the member remains subject to all the obligations required of clearing members, including obligation to participate in Default Auctions. Also, with regards to a new request for membership (including a re-entry request as well as a new entry request) submitted after Guarantee Fund of non-defaulting members is consumed to cover the loss caused by defaulting members, the CCP committees (IRS committee and CDS committee in case of JSCC) review the entry rules (such as amending entry qualifications and requiring additional fund obligation).

5. **30 business days prior withdrawal notice** – As mentioned above, a clearing member intending to withdraw from the CCP with position close-out outside of the Capped Period is required to provide 30 business days prior notice. This is not applied when a clearing member withdraws from the CCP with position close-out during the Capped Period.

6. **Guarantee Fund obligation after conditions for withdrawal are fulfilled during the Capped Period** – A resigning member should continue to be subject to the Guarantee Fund obligation up to the sum of the Guarantee Fund (Funded Obligation) at the time of the first default and One-time Guarantee Fund Assessment (Unfunded Obligation, the

same amount as Funded Obligation) during the Capped Period, even after conditions for withdrawal are fulfilled. At the end of the Capped Period, the withdrawal becomes effective and the resigning member should no longer be subject to the obligation.

7. **Obligation to participate in Default Auctions before the completion of position close-out** – A resigning member (a clearing member having submitted withdrawal notice) should continue to be subject to the obligation to participate in Default Auctions held following a member's default until position close-out is completed and conditions for withdrawal are fulfilled. A resigning member having completed position close-out and fulfilled conditions for withdrawal should be exempted from the obligation to participate in Default Auctions subsequently held during the Capped Period, provided that its Guarantee Fund is consumed in priority to other members'.

8. **Participation in Default Auctions permitted for a member having fulfilled conditions for withdrawal** – A resigning member having completed position close-out fulfilled conditions for withdrawal and opted to be exempted from the obligation to participate in Default Auctions subsequently held during the Capped Period, provided that its Guarantee Fund is consumed in priority to other members, should be permitted to participate in Default Auctions subsequently held during the Capped Period. In case the resigning member acquires new positions following Default Auctions and cannot close it out during the Capped Period, conditions for withdrawal are not fulfilled at the end of the Capped Period and withdrawal is not considered to be effective. The resigning member, therefore, continues to be subject to Guarantee Fund obligation required of the CCP members even after the end of the Capped Period.

9. ***Ex ante* rules relating to position transfer to other CCPs and recapitalization** – the CCP should establish *ex ante* rules to enable a clearing member to transfer its position to other CCPs (e.g. LCH SwapClear, SGX-DC) as an alternative option to close-out of all the net open positions in the CCP. Also, the CCP should, prior to a financial crisis, develop its recapitalization plan to be prepared for the depletion of its contribution to financial safeguard (e.g. currently JPY4 billion in case of JSCC CDS clearing).

10. **Legally enforceable framework concerning clearing business continuity** – the CCP should establish a legally enforceable framework concerning clearing business continuity even after multiple defaults in a short period of time to ensure legal certainties around 1) the CCP's claim against defaulting clearing members, 2) continuing clearing business of OTC derivatives without being affected by that of other products (such as listed products) operated under the same legal entity in case of the CCP running multiple products (e.g. JSCC), and 3) restructuring of the CCP by segregating its assets subject to close-out of all the net open positions held by non-defaulting members from the assets newly acquired by clearing after a series of defaults (similar to restructuring of failed banks using bad bank vs. good bank segregation scheme).

Appendix 1 Risk Waterfall of JSCC CDS clearing
Appendix 2 Obligation of Guarantee Fund and Additional Initial Margin under multiple defaults in a short period of time
Appendix 3 Withdrawal rules of clearing members and their obligations following withdrawal notice
Appendix 4 Auction method
Appendix 5 Summary of obligations at each status under DMP
Appendix 6 The definition of "extremely bad price" in a Default Auction and prioritized utilization of Guarantee Fund

Proposals

1. **Capped liability regardless of the number of defaults** – Guarantee Fund obligation by non-defaulting members during a certain number of days (Capped Period) should be limited up to the sum of Guarantee Fund (Funded Obligation) at the time of the first default and One-time Guarantee Fund Assessment (Unfunded Obligation, the same amount as Funded Obligation) regardless of the number of defaults for the period.

The WG has no issue with the basic structure of the Risk Waterfall of JSCC CDS clearing, which is designed so that the obligation of non-defaulting members is capped (see Appendix 1, Risk Waterfall of JSCC CDS clearing).

However, it should be noted that it is designed so that non-defaulting members are required to replenish the Guarantee Fund each time it is consumed as a result of covering the loss incurred by defaulting members under a severe financial crisis scenario where multiple clearing members sequentially default in a short period of time.

Using the example on the page 1 “JSCC CDS Clearing” of Appendix 2 “Obligation of Guarantee Fund and Additional Initial Margin under multiple defaults in a short period of time”, a scenario is described below where non-defaulting members could be subject to unlimited obligation due to a severe financial crisis where multiple clearing members sequentially default in a short period of time, under the JSCC CDS clearing rules on loss sharing.

> A clearing member defaults on Day D. The associated loss amount turns out to be unexpectedly large so that the Guarantee Fund (Funded Obligation) non-defaulting members had posted is fully consumed. As a result, non-defaulting members post a One-time Guarantee Fund Assessment (Unfunded Obligation, the same amount as Funded Obligation) [6] to compensate for the loss.
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> Upon the completion of the default management process, the Guarantee Fund is re-calculated on a weekly basis. Since the outstanding balance of the Guarantee Fund (Funded Obligation) is zero, non-defaulting members replenish it by posting required amount.
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> Another member defaults on Day D+25. The associated loss again turns out to be unexpectedly large so that Guarantee Fund (Funded Obligation) replenished by non-defaulting members is fully consumed to cover the loss.
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> Guarantee Fund is re-calculated and since the outstanding balance of Guarantee Fund (Funded Obligation) is back to zero, non-defaulting members again replenish it by posting required amount.

As shown in the above example, non-defaulting members are required to limitlessly post the Guarantee Fund each time Guarantee Fund (Funded Obligation) of non-defaulting members is consumed following defaults under a severe financial crisis scenario where multiple clearing members sequentially default in a short period of time under the JSCC CDS clearing rules on loss sharing.

[6] Once Guarantee Fund (Funded Obligation) the defaulting member had initially posted is consumed up, non-defaulting members are required to post the same amount as the Funded Obligation (Unfunded Obligation) one time only for 30 business days following the initial default. Thereby, Unfunded Obligation is capped for 30 business days following the initial default.

In this mechanism, it is difficult for a clearing member to estimate the maximum exposure in its risk management process since sequential defaults could increase its obligation without limitation. This could be a major issue when a clearing member, as a financial institution, tries to determine the capital to set aside for the associated risk and also meet regulatory capital requirements. Also, the issue becomes even more serious should a clearing member, together with the defaulting member, be a member of major global CCPs where there is no cap on clearing members' obligation (each financial institution's risk management issue).

Also, from the CCP's perspective, although such a loss sharing rule as above appears to be beneficial to the financial stability of the CCP, there is a risk of clearing members rushing to exit the CCP when a financial crisis materializes due to the lack of obligation cap, or trying to close out their position to obtain an exit approval as early as possible to avoid additional obligation. The mechanism which incentivizes clearing members to try to exit at an early stage to limit their obligation due to the lack of obligation cap could exacerbate systemic risk (CCP's stability issues on account of a large scale exit and position close-out).

Furthermore, from international regulators' perspective, including JFSA's, we understand that it is critical from a supervisory and monitoring viewpoint to accurately keep track of expected maximum exposure of each financial institution on a daily basis in a severe financial crisis. For example, supposing a financial group to which Japanese financial institution A belongs is a clearing member of global CCPs that do not have obligation cap in case of multiple defaults in a short period of time. It would be impossible for a regulator to keep track of expected maximum exposure that the financial group A has against the CCPs (Regulators' supervisory and monitoring issue).

Considering the above issues, the WG proposes to set a certain Capped Period where the Guarantee Fund obligation by non-defaulting members is limited up to the sum of the Guarantee Fund (Funded Obligation) at the time of the first default and One-time Guarantee Fund Assessment (Unfunded Obligation, the same amount as Funded Obligation) regardless of the number of defaults for the period.

The example on the page 2 "Draft Proposal by ISDA Japan WG" of Appendix 2 "Obligation of Guarantee Fund and Additional Initial Margin under multiple defaults in a short period of time", similar to the example on the page 1 "JSCC CDS Clearing", describes a scenario where two clearing members sequentially default in a short period of time. The obligation of non-defaulting members is limited up to the sum of Guarantee Fund (Funded Obligation) at the time of the first default and One-time Guarantee Fund Assessment (Unfunded Obligation, the same amount as Funded Obligation), and they are not required to replenish the Guarantee Fund (Funded Obligation) each time it is consumed.

During the WG discussion, someone mentioned that "capping the Guarantee Fund obligation only increases the probability of the CCP suffering insufficient funds and close-out of all the net open positions held by non-defaulting members. Non-defaulting members ultimately share the loss in that case, and therefore it might not be effective in limiting clearing members' obligation." However, due to the reasons below, the WG has concluded that it is still critical to cap the Guarantee Fund.

1） Risk of chain default (pro-cyclicality)
In case a clearing member is required by multiple CCPs to replenish the Guarantee Fund many times in a short period of time in a severe financial crisis, there is a risk that the member struggling to fund in the money market could also chain default by failing to

meet the replenishment requirements[7]. In other words, systemic risk could be increased (pro-cyclicality). On the other hand, close-out of all the net open positions held by non-defaulting members is supposed to be orderly processed in a relatively longer period of time, and therefore the risk of chain default arising from short term funding difficulties is considered to be smaller.

2) Guarantee Fund replenishment by the CCP
It is not considered to be fair in the first place to argue that non-defaulting members ultimately share the loss in any case. It is because the CCP's risk management (margin and Guarantee Fund model, setting and managing position limits) is not adequate that the CCP ends up suffering an insufficient fund following a clearing member's default. Therefore, the mechanism where only the clearing members are subject to obligation to replenish the Guarantee Fund while the CCP does not owe any such obligation is considered to be flawed.

Under the JSCC CDS clearing, the CCP and non-defaulting members are supposed to hold a discussion to consider corrective measures prior to close-out of all the net open positions held by non-defaulting members. We consider that depending on the circumstances, such options as recapitalization or Guarantee Fund replenishment by the CCP should naturally be considered in the discussion.

3) Incentive of the CCP and non-defaulting members to recapitalize CCP
It is true that the probability of the CCP suffering an insufficient fund and close-out of all the net open positions held by non-defaulting members materializing would increase if the Guarantee Fund obligation is capped. However, it is the worst case scenario which both the CCP and non-clearing members are eager to avoid to carry out close-out of all the net open positions held by non-defaulting members, since the workload and cost would be enormous for both of them. The CCP would have incentive to plan to recapitalize itself in a more responsible manner prior to a member's default if the Guarantee Fund obligation of non-defaulting members is capped. Also, some of the non-defaulting members with a particularly large transaction volume would have incentive to recapitalize the CCP in order to avoid position close-out. In the discussion prior to position close-out between the CCP and non-defaulting members mentioned above, concrete plans to recapitalize the CCP are supposed to be considered.

4) Risk Capital under Basel III
As mentioned in the comment letter submitted by major industry associations such as ISDA and PRC (Payments Risk Committee[8]) on the consultation paper attached to the FMI Principles published by CPSS-IOSCO last March, major global financial institutions have requested that the Guarantee Fund obligation owed by non-defaulting members should be capped. We understand that it is still under discussion among international regulators, and if the request is accepted, a CCP without an obligation cap is not going to be authorized as a Qualified CCP (QCCP), and as a result, clearing members of such CCP become subject to regulatory capital charges based on a higher risk weight.

Also, even if the request is not accepted, the issue of obligation to replenish the Guarantee Fund under multiple defaults in a short period of time would need to be

[7] In the case of client clearing, the Guarantee Fund obligation of the clearing members are calculated based on the sum of their own positions and their clients' positions, this issue would become even more serious for clearing members (since clients are not subject to the Guarantee Fund obligation).
[8] PRC is an industry association, consisting of senior managers of major banks operating in the United States, sponsored by New York Fed. The members are GS, BOA, BONY-Mellon, BOTM-UFJ, Citi, DB, HSBC, JPM, MS, State Street, UBS, Wells Fargo.

assessed in the calculation of default fund exposure proposed in the consultation paper on “the Capitalization of bank exposures to central counterparties” published by the Basel Committee last November.

5) Regulatory approval
Since CDS trading is defined as Futures Commission Merchant (FCM) activity under Dodd-Frank, a US financial institution participating in a non-US CCP without clearing members' obligation cap is required to obtain a specific approval from the Federal Reserve Board for the participation by any subsidiaries of the banking group to exchange or clearinghouse abroad, under PART 211 INTERNATIONAL BANKING OPERATIONS (REGULATION K), Code of Federal Regulations (“Reg.K” hereafter) §211.10 (c). The fact that obligation is not capped and there is the inability to calculate and manage the obligation in risk management is considered an issue. Needless to say, this is not applicable in case a clearing member is not subject to Reg. K.

Furthermore, the WG considered whether 1) the obligation cap should be the sum of Guarantee Fund (Funded Obligation) at the time of the first default and One-time Guarantee Fund Assessment (Unfunded Obligation, the same amount as Funded Obligation), or 2) non-defaulting members should be subject to one or two additional obligations to replenish Guarantee Fund (Funded Obligation) depending on the length of period, in addition to 1).

As mentioned in the consultation paper attached to FMI Principles, the model to calculate the Guarantee Fund obligation is generally required to be designed to at least cover the sum of the two largest losses[9]. From this perspective, in the option 1) in the previous paragraph, by capping the obligation to the sum of the Funded Obligation and the Unfunded Obligation, non-defaulting members effectively owe up to the sum of the four largest losses and therefore the stability of the CCP is considered to be sufficiently and adequately secured.

In option 2) above, non-defaulting members effectively owe up to the sum of the six to eight largest losses. Since the number of clearing members in an OTC derivatives CCP is typically fifteen to twenty, it assumes a scenario where nearly half of the clearing members are in default. This means that barely surviving financial institutions are required to share the loss under a situation where global financial institutions classified as G-SIFI are mostly in default, leading to enhanced risk of chain default, and therefore the mechanism is not considered to support the stability of the CCP or reduction of systemic risk.

If anything, as mentioned later, it is considered to be critical to establish *ex ante* rules to ensure the CCP's clearing business continuity such as recapitalization, prior to a devastating crisis.

2. **Rolling 30 business days Capped Period** – The Capped Period should be on 30 business days rolling basis, i.e. extended by 30 business days upon an additional default.

As shown in the example in the page 2 “Draft Proposal by ISDA Japan WG” of Appendix 2 “Obligation of Guarantee Fund and Additional Initial Margin under multiple defaults in a short period of time”, the initial Capped Period (30 business days) is determined starting with the first member's default date. In this example, another clearing member defaults on the twenty-fifth business day, and the Capped Period is extended by another 30 business days

[9] In the CDS and IRS clearing of JSCC, the model to calculate the Guarantee Fund obligation is designed to cover the sum of the two largest losses.

beginning on the second member's default date. As a result, the fifty-five business day period beginning at the first member default date becomes the Capped Period.

The rationale of applying the rolling 30 business days Capped Period is that given the past experiences of serious financial crisis such as Lehman, at least for the 30 business days or so following the first clearing member's default, the risk of second default is considered to be high under the stressed market environment created by the first default. The risk of further sequential default is also high should the second default be materialized. Therefore it appears to be prudent to regard a series of these stressed periods as a "financial crisis period".

3. **Additional Initial Margin obligation during the Capped Period** – Upon the first member's default, the CCP should stress test non-defaulting members' Guarantee Fund requirement on a daily basis. If a member's Guarantee Fund requirement exceeds its previous day's requirement by more than 10%, the excess amount should be posted as additional Initial Margin. Following the end of the Capped Period, non-defaulting members should no longer be subject to any additional Initial Margin obligation, and the additional Initial Margin posted should be returned to each member while each member is required to post newly calculated Guarantee Fund to CCP.

As shown in the example in the page 2 "Draft Proposal by ISDA Japan WG" of Appendix 2 "Obligation of Guarantee Fund and Additional Initial Margin under multiple defaults in a short period of time", in case a non-defaulting member has acquired new positions via Default Auctions or new transactions and its Guarantee Fund obligation has increased by more than 10% compared to that at the time of a member's default during the extended Capped Period up to Day D+55, it is required to post incremental collateral in the form of additional Initial Margin instead of its Guarantee Fund obligation. Thereafter, the Guarantee Fund obligation is calculated based on the sum of that at the time of a member's default and the additional Initial Margin posted during the Capped Period.

The rationale of requiring additional Initial Margin is that it is considered to be reasonable for a clearing member trying to significantly increase its position to become subject to a sufficiently conservative credit enhancement requirement from CCP's stability perspective under the stressed market environment during the Capped Period where liquidity is expected to be low and price volatility is expected to be high.

Additional Initial Margin calculated based on Guarantee Fund obligation is required in addition to the original Initial Margin because the model calculates Initial Margin assuming a normal market environment, instead of a stressed environment. On the other hand, the model calculates Guarantee Fund assuming a stressed market environment under financial crisis in order to sufficiently stabilize the CCP by requiring the clearing member to post incremental collateral based on Guarantee Fund obligation.

Also, the rationale of requiring additional collateral in the form of Initial Margin instead of Guarantee Fund obligation is that the credit enhancement is solely performed to prepare for the default of the clearing member having significantly increased its position, instead of other clearing members. It is considered that the Guarantee Fund is to be used to compensate for the loss incurred by the default of other non-defaulting members should be limited to the sum of the Guarantee Fund (Funded Obligation) at the time of the first default and the One-time Guarantee Fund Assessment (Unfunded Obligation, the same amount as Funded Obligation) during the Capped Period. Furthermore, Initial Margin is used to compensate for the loss incurred by the default of the clearing member as the first priority in

Risk Waterfall, and thus it is considered to be an adequate way of credit enhancement covering the increased positions during the Capped Period.

In the example in page 2 of Appendix 2, following the end of the Capped Period on Day D+56, the newly calculated Guarantee Fund obligation is posted in return of the additional Initial Margin mentioned above, which is going to be returned to the clearing member.

4. **Conditions for withdrawal fulfilled upon completion of position close-out (vs. upon approval by the CCP)** – While no member is in default (i.e. outside of the Capped Period), withdrawal from the CCP should be effective as of the date that is the later of (a) the date when position close-out of a resigning member is completed or (b) 30 business days following withdrawal notice by the member, without any specific action required by the CCP, such as approval of withdrawal.

   When a member is in default (i.e. during the Capped Period), withdrawal from the CCP should be effective at the end of the Capped Period, provided that position close-out of a resigning member is completed, even before 30 business days following the withdrawal notice, without any specific action required by the CCP such as the approval of withdrawal.

   In any case, the CCP should not be given authority to approve a withdrawal request to avoid any uncertainty as to the effectiveness of a member's withdrawal. In case the CCP cannot confirm the completion of position close-out of the resigning member, conditions for withdrawal are not considered to be fulfilled and the member remains subject to all the obligations required of clearing members, including obligation to participate in Default Auctions. Also, with regards to a new request for membership (including a re-entry request as well as a new entry request) submitted after Guarantee Fund of non-defaulting members is consumed to cover the loss caused by defaulting members, the CCP committees (IRS committee and CDS committee in case of JSCC) review the entry rules (such as amending entry qualifications and requiring additional fund obligation).

As shown in page 1 "JSCC CDS the CCP Clearing" of Appendix 3 "Withdrawal rules of clearing members and their obligations following withdrawal notice", JSCC is supposed to approve a withdrawal request as soon as it confirms the completion of position close-out of the resigning member.

The CCP has the authority to deny members' withdrawal, fearing a rush to exit in a financial crisis, so the CCP might deliberately delay approving a withdrawal request, saying the approval process is extended.

In addition, the CCP is not allowed to cancel once it approves a withdrawal request by confirming the completion of position close-out in the system, even if a system error is identified later and it turns out that position close-out has actually not been completed.

For the purpose of eliminating any uncertainty as to the effectiveness of a member's withdrawal, as shown in page 2 "Draft Proposal by ISDA DMP Non-Japanese Dealer Sub-Working Group" of Appendix 3, we propose to have a mechanism where conditions for withdrawal are fulfilled by the completion of position close-out, without requiring approval from the CCP.

The CCP reviews the completion of position close-out ex post facto[10]. If the CCP cannot confirm the completion after the review, conditions for withdrawal are considered not to have been fulfilled and the resigning member remains subject to all the obligations required of clearing members, including the obligation to participate in Default Auctions.

The WG discussed whether additional requirements should be introduced in case of re-entry to prevent members from irrationally repeating withdrawal and re-entry just to avoid the obligation to participate in Default Auctions or to avoid a situation where remaining members owe a large additional burden in case of a member suddenly withdrawing from the CCP in financial crisis.

The WG has concluded that neither penalty nor additional requirements should be imposed on members' such repetitive actions of withdrawal and re-entry as long as the CCP rules are observed[11] because re-entries by members help the CCP to increase profit and regain stability of default fund, and also the judgment of irrationality inevitably could be subjective.

It can be said that the fact that the Guarantee Fund of non-defaulting members is affected by loss sharing following the default management process would suggest the necessity of reviewing the CCP's entire risk management including entry qualifications and to consider additional credit enhancement involving non-defaulting members to restore the impaired default fund. The WG, therefore, proposes that with regard to a new request for membership (including a re-entry request as well as a new entry request) submitted after the Guarantee Fund of non-defaulting members is consumed to cover the loss caused by defaulting members, the CCP committees (IRS committee and CDS committee in case of JSCC) review the entry rules (such as amending entry qualifications and requiring additional fund obligation). In the review of entry conditions, sufficient care needs to be taken so that revised conditions neither constitute an effective entry barrier nor produce issues of fairness such as preferential treatment of existing members.

5. **30 business days prior withdrawal notice** – As mentioned above, a clearing member intending to withdraw from the CCP with position close-out outside of the Capped Period is required to provide 30 business days prior notice, while this requirement is not applied in case a clearing member withdraws from the CCP with position close-out during the Capped Period.

As shown in the first part of page 2 of Appendix 3, we propose to have a mechanism where outside of the Capped Period, conditions for withdrawal are not fulfilled and thus withdrawal does not become effective even if position close-out is completed, unless at least 30 business days have elapsed following the withdrawal notice.

One of the lessons learned in the past financial crisis is that market participants become sensitive to a financial crisis even before a major default. They tend to rush to terminate existing transactions and request the return of posted collateral, and the situation accelerates the timing of default. Therefore, we propose to avoid a situation where members rush to close out positions and exit the CCP prior to a member's default by imposing 30 business days prior notice requirement outside of the Capped Period in the clearing system.

[10] Position is closed out by early terminating or novating transactions to other clearing members. In case of JSCC IRS clearing, for example, daily margin requirement is proposed to be calculated using the yield curve as of 10 am every day. JSCC can periodically confirm the completion of position close-out at this stage, though a system review is also possible as necessary at earlier stages.

[11] Any action in breach of CCP rules naturally becomes subject to deliberation by CCP's disciplinary measures assessment committee.

At the same time, as shown in the latter part of page 2 of Appendix 3, in the Capped Period, withdrawal should become effective at the end of the Capped Period provided that position is closed out without 30 business days prior notice requirement regardless of the timing of withdrawal notice.

When a financial crisis materializes following an actual default of a member, a resigning member having completed position close-out should opt to be exempted from the obligation to participate in Default Auctions, provided that its Guarantee Fund is consumed in priority to other members, and on the condition that the resigning member remains subject to Guarantee Fund obligation after conditions for withdrawal are fulfilled as mentioned in proposal 6 below, and conditions for withdrawal are fulfilled by the completion of position close-out. The rationale is that if participation in Default Auctions becomes mandatory even after the completion of position close-out and the timing of withdrawal is extended, new positions would be created following Default Auctions and the resigning member 1) is required to fund for the purpose of additional Initial Margin posting and 2) could be subject to additional Guarantee Fund obligation up to the sum of Guarantee Fund (Funded Obligation) and One-time Guarantee Fund Assessment (Unfunded Obligation, the same amount as Funded Obligation), and the risk of chain default of the resigning member could be increased as a result.

6. **Guarantee Fund obligation after conditions for withdrawal are fulfilled during the Capped Period** – A resigning member should continue to be subject to the Guarantee Fund obligation up to the sum of the Guarantee Fund (Funded Obligation) at the time of the first default and One-time Guarantee Fund Assessment (Unfunded Obligation, the same amount as Funded Obligation) during the Capped Period even after conditions for withdrawal are fulfilled. At the end of the Capped Period, the withdrawal becomes effective and the resigning member should no longer be subject to the obligation.

As shown in the latter part of page 1 of Appendix 3, under JSCC's CDS clearing rules, a resigning member is exempted from the Guarantee Fund obligation following the approval of withdrawal. Non-defaulting members are incentivized to obtain approval of withdrawal by closing out position as early as possible to escape from Guarantee Fund obligation that the CCP may impose should a clearing member default.

Under severe financial crisis, this kind of mechanism is considered to potentially increase the stress in the market and exacerbate the crisis by triggering a rush to close out positions to exit from CCP.

Therefore, we propose to change the mechanism so that a resigning member continues to be subject to the Guarantee Fund obligation up to the sum of the Guarantee Fund (Funded Obligation) and One-time Guarantee Fund Assessment (Unfunded Obligation, the same amount as Funded Obligation) during the Capped Period even after conditions for withdrawal are fulfilled, as shown in the latter part of page 2 of Appendix 3.

With the proposed mechanism, a resigning member owes the same obligation in the Capped Period regardless of the timing of fulfillment of conditions for withdrawal and thus the risk of a rush to close out positions to exit from the CCP mentioned above is considered to be mitigated.

7. **Obligation to participate in Default Auctions before the completion of position close-out** – A resigning member (a clearing member having submitted a withdrawal notice) should continue to be subject to the obligation to participate in Default Auctions held following a member's default until position close-out is completed and conditions for withdrawal are fulfilled. A resigning member having completed position close-out and fulfilling conditions for withdrawal should be exempted from the obligation to participate in Default Auctions subsequently held during the Capped Period, provided that its Guarantee Fund is consumed in priority to other members.

As shown in the latter part of page 1 of Appendix 3, under JSCC's CDS clearing rules, a resigning member is subject to the obligation to participate in Default Auctions should a member default after withdrawal notice but before JSCC's approval of withdrawal. On the other hand, a resigning member is exempted from the obligation to participate in Default Auctions should a member default after JSCC's approval of withdrawal.

As shown in the latter part of page 2 of Appendix 3, we propose that a resigning member is subject to the obligation to participate in Default Auctions if conditions for withdrawal are fulfilled by the completion of position close-out before a member's default, rather than CCP's approval of withdrawal, based on the same logic as the current rules.

A downside with the argument that a resigning member should be subject to the obligation to participate in Default Auctions in the Capped Period is that the resigning member having completed position close-out to withdraw from the CCP acquires new positions at Default Auctions and while trying to close out the new positions to exit, another member could default, necessitating participations in more Default Auctions.

In light of the proposed rolling 30 business days Capped Period in case of multiple defaults, the current mechanism could not only effectively deny members' option to exit, but increase the risk of chain default by subjecting a resigning member to the obligation to participate in Default Auctions more than necessary. Therefore, the system should be designed so that a resigning member should be exempted from the obligation to participate in Default Auctions subsequently held during the Capped Period, provided that the Guarantee Fund is consumed in priority to other members, while the resigning member remains subject to the obligation to participate in Default Auctions held following a member's default after the fulfillment of conditions for withdrawal by the completion of position close-out.

As shown in Appendix 4 "Auction method", Default Auction method in respect to OTC derivatives is generally "Standard Auction"[12] in case of less standardized products (such as IRS) and "Modified Dutch Auction" in case of standardized products (such as CDS).

In a Default Auction held in the form of Standard Auction method, the bidder is required to acquire the entire portfolio of the defaulting member. It is considered to be less optimal for a resigning member having closed out its position to effect withdrawal to acquire such a large number of trades and positions.

On the other hand, in a Default Auction held in the form of Modified Dutch Auction method, the bidders are supposed to acquire a part of the portfolio of the defaulting member, therefore it would be possible for a non-defaulting member having completed position close-out to limit new positions to a manageable size. Nevertheless, even if a Default Auction is held in the form of Modified Dutch Auction, it is not considered to be adequate to subject a

[12] Default Auction in the form of Modified Dutch Auction is still possible in case of IRS, depending on the portfolio composition of the defaulted member. It is generally said that Modified Dutch Auction has a higher probability of success.

resigning member having closed out its position to effect withdrawal to the obligation to participate in Default Auctions, due to the same reason as above.

8. **Participation in Default Auctions permitted for a member having fulfilled conditions for withdrawal** – A resigning member having completed position close-out, fulfilled conditions for withdrawal and opted to be exempted from the obligation to participate in Default Auctions subsequently held during the Capped Period, provided that its Guarantee Fund is consumed in priority to other members, should be permitted to participate in Default Auctions subsequently held during the Capped Period. In case the resigning member acquires new positions following Default Auctions and cannot close it out during the Capped Period, conditions for withdrawal are not fulfilled at the end of the Capped Period and withdrawal is not considered to be effective. The resigning member, therefore, continues to be subject to Guarantee Fund obligation required of the CCP members even after the end of the Capped Period.

However, even if the obligation to participate in Default Auctions held after the fulfillment of conditions for withdrawal as mentioned in proposal 7 above, in view of ensuring CCP's stability under severe financial crisis, it is also considered to be beneficial to retain as many auction participants as possible for the sake of the success of Default Auctions. Therefore, the WG proposes to introduce a mechanism that a resigning member having completed position close-out, fulfilled conditions for withdrawal and opted to be exempted from the obligation to participate in Default Auctions subsequently held during the Capped Period, provided that its Guarantee Fund is consumed in priority to other members, should be permitted to participate in Default Auctions subsequently held during the Capped Period.

In the system which obliges a resigning member having fulfilled conditions for withdrawal by the completion of position close-out after submitting withdrawal notice in the Capped Period to participate in Default Auctions but enables the member to opt not to participate under certain conditions as mentioned above, there is a concern that although the member participates in Default Auctions held following subsequent default (to avoid penalty imposed in case of non participation), it might submit extremely bad prices with an intention not to acquire positions in Default Auctions.

In order to address this concern, the WG proposes a mechanism for the CCP to identify such prices based on Appendix 6, "The definition of extremely bad price in a Default Auction and prioritized utilization of the Guarantee Fund" as soon as an auction is completed, covering all the clearing members having participated in the auction, without limiting to the resigning member having fulfilled conditions for withdrawal by the completion of position close-out.

In case extremely bad prices are identified, as a penalty, Guarantee Fund of the clearing member having submitted the prices is consumed in priority to other members in the loss sharing of non-defaulting members' Guarantee Fund after all the auctions held in the Capped Period.

Separate to the above, in order to attract as high bid prices as possible in Default Auctions, an incentive mechanism is to be introduced which gives the bidders a subordinated status in utilization of Guarantee Fund in each auction. In case a member with a senior status in utilization of Guarantee Fund acquires positions in Default Auctions, that status is cancelled for the remaining Capped Period and the subordinated status at that auction is also cancelled.

In relation to proposals 1 to 7 above, the status of clearing members at the time of default is classified into four types; namely, “clearing member not having submitting withdrawal notice”, “clearing member having submitted withdrawal notice (conditions for withdrawal not having been fulfilled)”, “clearing member having fulfilled conditions for withdrawal (position close-out is completed after withdrawal notice)”, and “clearing member having withdrawn from the CCP (at the end of the Capped Period after fulfilling conditions for withdrawal)” and member’s obligation at each status is summarized in Appendix 5 “Summary of obligations at each status under DMP” for your reference.

9. ***Ex ante* rules relating to position transfer to other CCPs and recapitalization** – the CCP should establish *ex ante* rules to enable a clearing member to transfer its position to other CCPs (e.g. LCH SwapClear, SGX-DC) as an alternative option to close-out of all the net open positions in CCP. Also, the CCP should, prior to financial crisis, develop its recapitalization plan to be prepared for the depletion of its contribution to financial safeguard (e.g. currently JPY4 billion in case of JSCC CDS clearing).

“Close-out of all the net open positions” at the bottom of the waterfall in Appendix 1 “Risk Waterfall of JSCC CDS clearing, namely, close-out of all the net open positions held by non-defaulting members, is considered to be a labor intensive and time consuming process and it is not necessarily a desirable process in view of smooth default management, especially in IRS clearing whose transaction volume is expected to be significantly large.

Therefore, WG proposes to JSCC to establish *ex ante* rules to enable a clearing member to transfer its position[13] to other CCPs (e.g. LCH SwapClear, SGX-DC) as an alternative option, while keeping the above option in the waterfall. A smooth default management could be possible if non-Japanese financial institutions and some Japanese financial institutions already clearing JPY IRS and CDS as a clearing member of CCPs abroad transfer[14] their positions to CCPs abroad especially under such worst case scenario as financial crisis in our country where Japanese clearing members chain default.

Also, under JSCC CDS clearing rules, in case “”Default Fund contribution by JSCC (capped at JPY 4bil)” as shown in Appendix 1 is consumed, the CCP is not required to replenish it. Therefore, CCP’s financial stability remains significantly impaired in case of multiple defaults in a short period of time.

WG considers that JSCC should plan to capitalize itself in normal situations with the worst case scenario in mind and also establish *ex ante* rules relating to recapitalization which enable JSCC to proactively recapitalize itself when a sign of financial crisis becomes visible.

10. **Legally enforceable framework concerning clearing business continuity** – the CCP should establish a legally enforceable framework concerning clearing business continuity even after multiple defaults in a short period of time to ensure legal certainties around 1) the CCP’s claim against defaulting clearing members, 2) continuing clearing business of OTC derivatives without being affected by that of other products (such as listed products) operated under the same legal entity in case of the CCP running multiple products (e.g. JSCC), and 3) restructuring of the CCP by segregating its assets subject to close-out of all the net open positions held by non-defaulting members from the assets newly

[13] It can also be an option for the positions of a defaulting member to be entirely transferred to another CCP by holding auction among clearing members of such CCP. We strongly expect major CCPs to discuss more concrete mechanism.

[14] The incentive to transfer positions is considered to be large especially if non-defaulting members have opposite positions in CCP abroad. Also, position transfer from LCH SwapClear to JSCC could also be possible if *ex ante* position transfer rules are established between them.

acquired by clearing after a series of defaults (similar to restructuring of failed banks using bad bank vs. good bank segregation scheme).

It is critical for JSCC to continue clearing business in a stable manner even in the case of multiple defaults in a short period of time in an effort to address a financial crisis. Therefore, we consider JSCC should establish a legally enforceable framework to ensure legal certainties.

In the first place, legal uncertainties need to be eliminated in light of the Japanese bankruptcy regime with respect to JSCC collecting claims from defaulting members. It is considered to be an important precondition for JSCC to collect claims from defaulting members and return a certain portion of them to non-defaulting members having shared loss in various manners when the CCP and non-defaulting members hold a discussion to consider additional loss sharing.

Also, since JSCC operates clearing business of multiple products under the same legal entity, in case a clearing member of both OTC derivatives and listed products default, for example, legal transparency needs to be ensured to avoid a situation where the default management process of OTC derivatives cannot be proceeded because the default management process of listed products has not been completed.

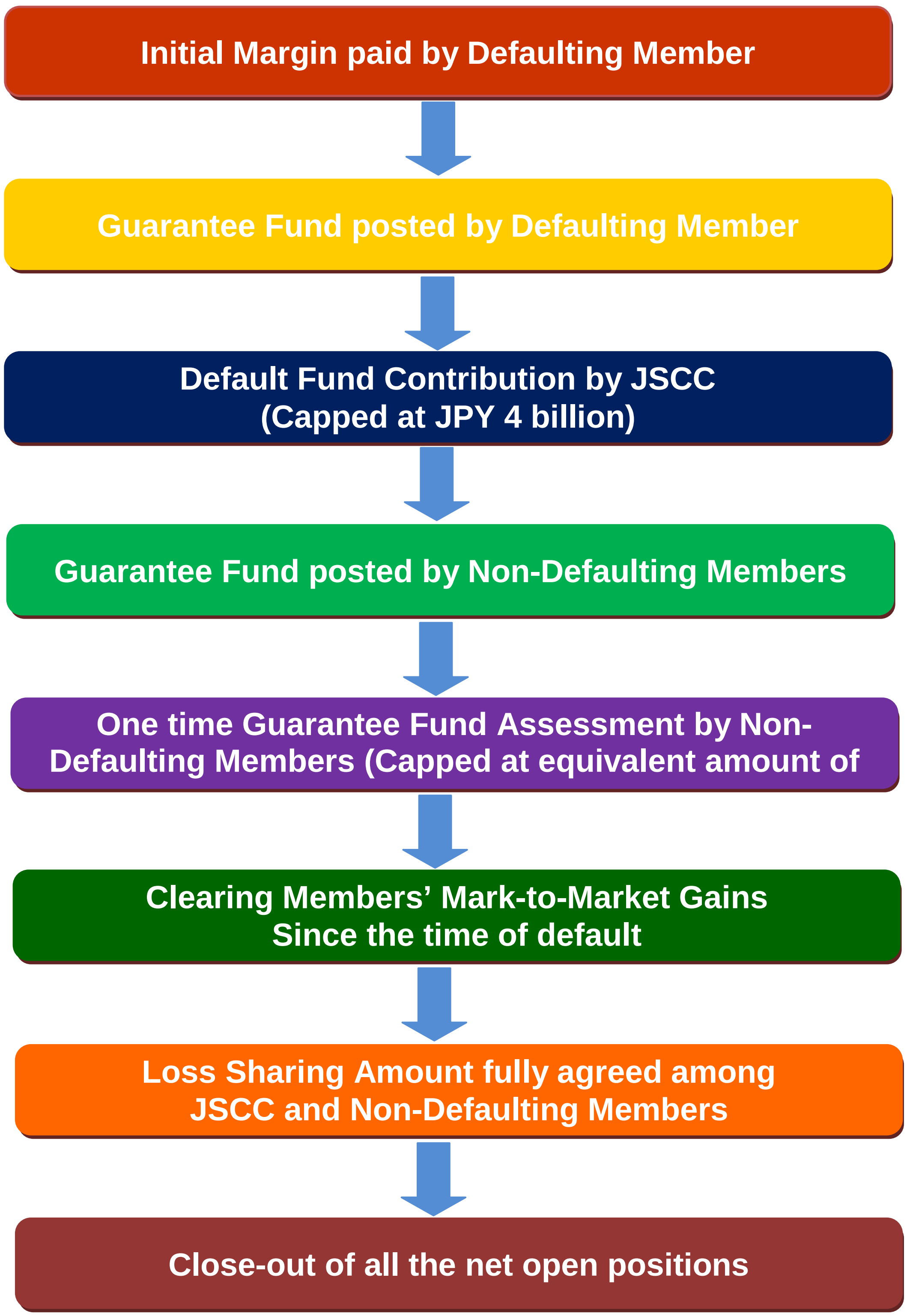
Furthermore it is advisable that the restructuring scheme of the CCP is established beforehand to prevent the CCP from defaulting due to insolvency in case of close-out of all the net open positions held by non-defaulting members by segregating the assets subject to a close-out in account A from the assets newly acquired by clearing after a series of defaults in account B by way of self trust for example, similar to the restructuring of failed banks using bad bank vs. good bank segregation scheme.

ISDA Japan DMP Working Group member list

Aozora Bank
Bank of America Merrill Lynch
Bank of Tokyo-Mitsubishi UFJ
Barclays Capital
BNP Paribas
Citi
Credit Suisse
Deutsche Bank
Goldman Sachs
J.P.Morgan Chase
Mitsubishi UFJ Morgan Stanley
Mitsubishi UFJ Trust and Banking
Mizuho Bank
Mizuho Corporate Bank
Mizuho Securities
Morgan Stanley MUFJ
Nomura Securities
Resona Bank
Royal Bank of Scotland
Shinsei Bank
Sumitomo Mitsui Banking Corporation
Sumitomo Trust and Banking
UBS
Linklaters
Nishimura & Asahi

Appendix 1

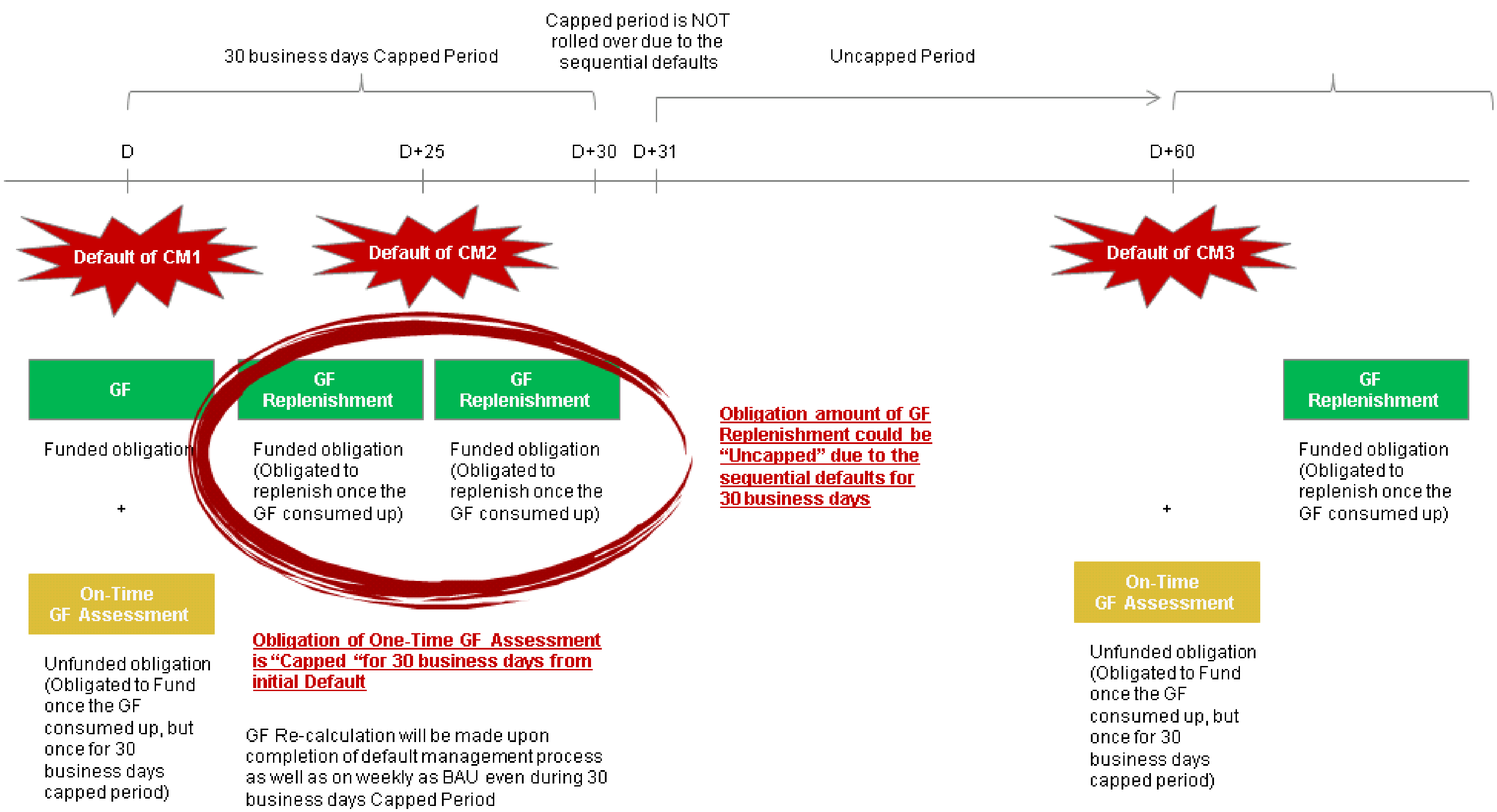
Risk Waterfall by JSCC CDS CCP



Appendix 2

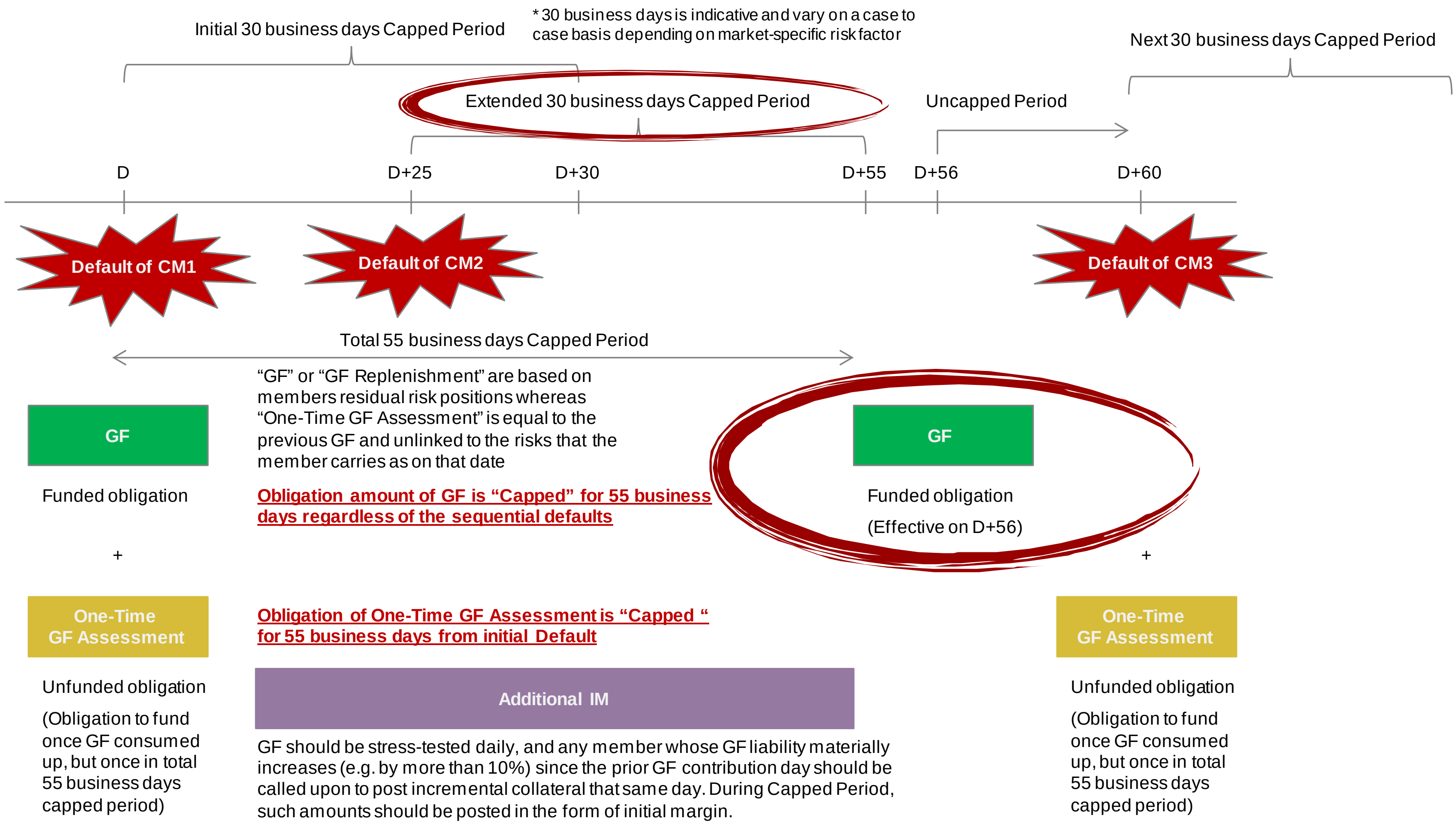
Obligation of Guarantee Funds & Additional Initial Margin

JSCC CDS Clearing



Appendix 2

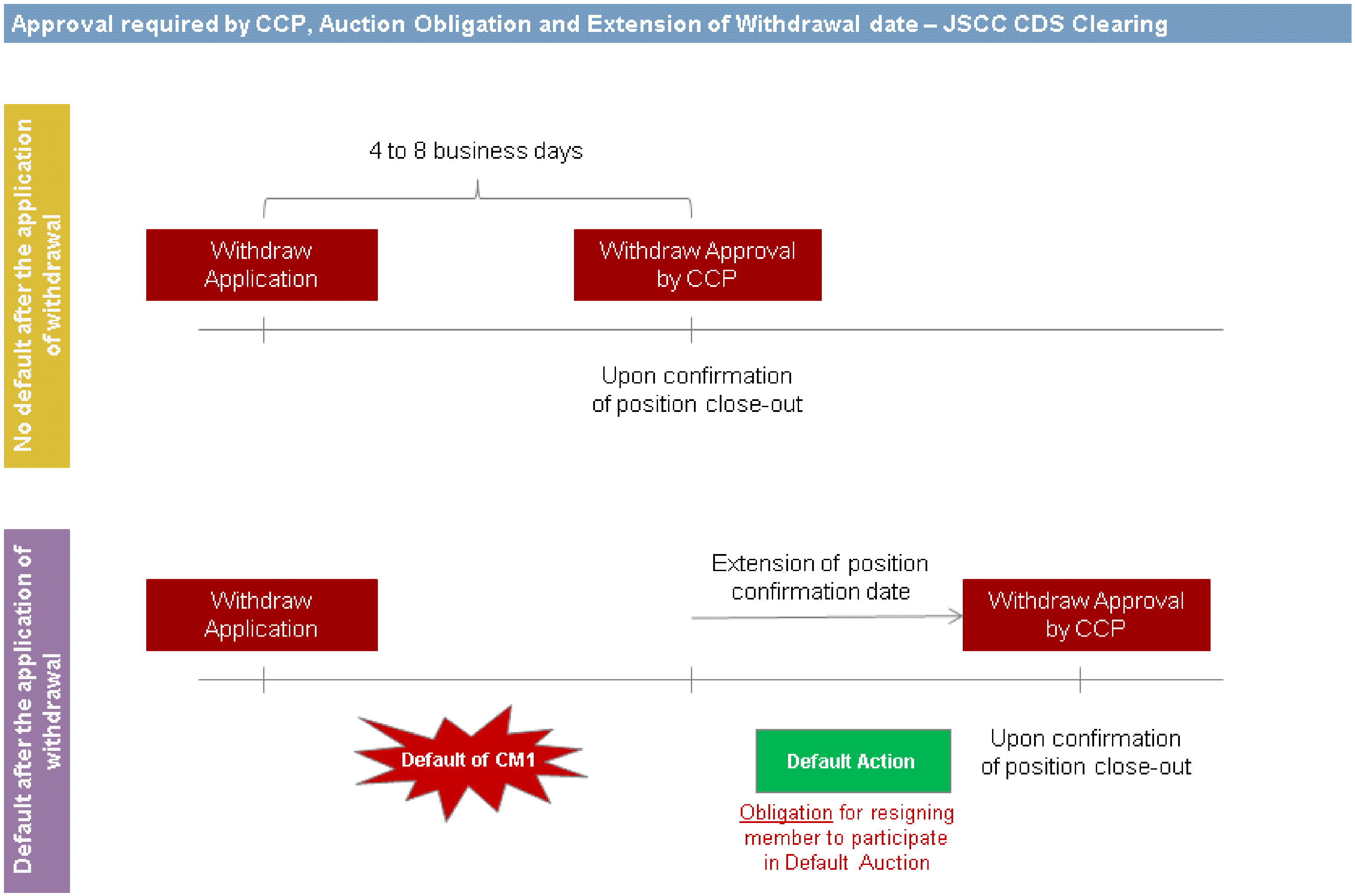
Draft Proposal by ISDA Japan CCP DMP Working Group



Appendix 3

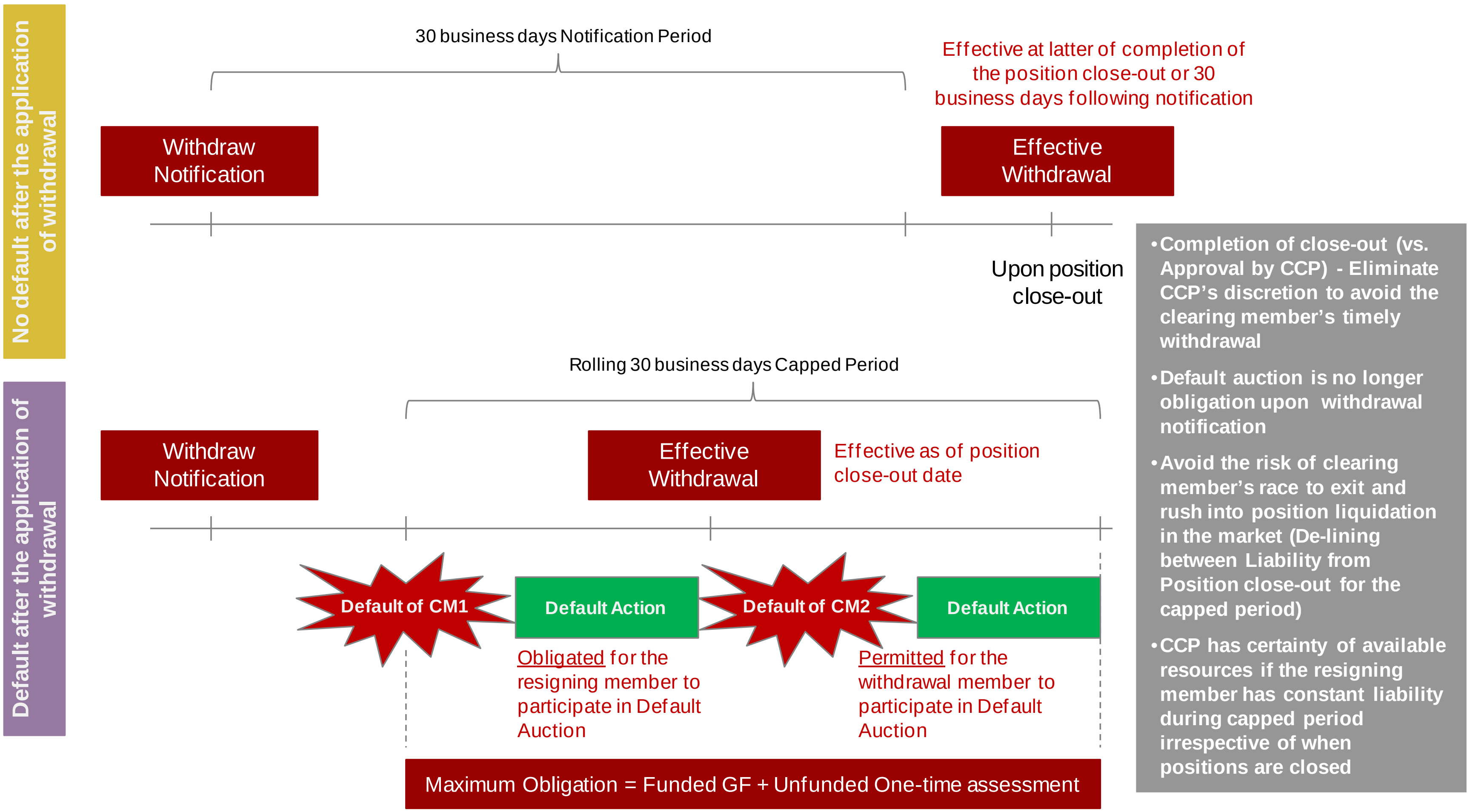
Clearing Members withdrawal Rules and Obligations

JSCC CDS CCP Clearing



Appendix 3

Draft Proposal by ISDA Japan CCP DMP Working Group



Appendix 4

Standard Auction vs. Modified Dutch Auction

Standard Auction – Traditional Model

Five Non-defaulting members bid on an Auction portfolio

Clearing Member 1: 100% at 47

Clearing Member 2: 100% at 48

Clearing Member 3: 100% at 46

Clearing Member 4: 100% at 45

Clearing Member 5: 100% at 43

If Minimum bid price = 45, the Auction succeeds at 48

Clearing Member 2: 100% at 48

Clearing Member 1: 100% at 47

Clearing Member 3: 100% at 46

Clearing Member 4: 100% at 45

Clearing Member 5: 100% at 43

Position transfer to Clearing Member 2 at 48

Modified Dutch Auction – JSCC CDS Clearing

Five Non-defaulting members bid on an Auction portfolio

Clearing Member 1: 20% at 49, 30% at 51

Clearing Member 2: 10% at 48, 10% at 50

Clearing Member 3: 10% at 44

Clearing Member 4: 30% at 46, 20% at 47

Clearing Member 5: 10% at 43, 20% at 45

100% of Auction portfolio filled out from the lowest price of 43 to the highest price of 48. The Auction succeeds at 48

Clearing Member 5: 10% at 43

Clearing Member 3: 10% at 44

Clearing Member 5: 20% at 45

Clearing Member 4: 30% at 46

Clearing Member 4: 20% at 47

Clearing Member 2: 10% at 48

Clearing Member 1: 20% at 49

Clearing Member 2: 10% at 50

Clearing member 1: 30% at 51

Position transfer to Clearing Member 2, 3, 4, & 5 at 48

Appendix 5

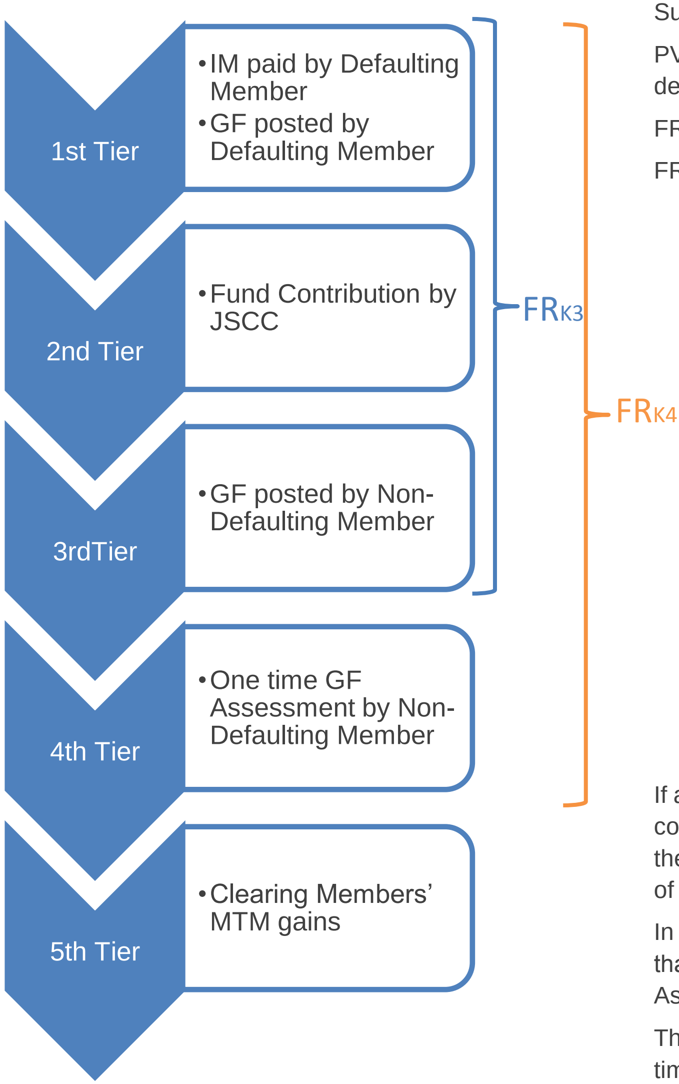
Summary of obligations at each status under DMP

		①	②	③	④	Memo
Status at the time of default	Terms used in ISDA paper (also used in discussions)	Clearing members not having submitted withdrawal notice	Clearing members having submitted withdrawal notice (not having completed position close-out and conditions for withdrawal not having	Clearing members having fulfilled conditions for withdrawal (position close-out is completed after withdrawal notice, including the case where it is completed before the	Clearing members having withdrawn from CCP (at the end of the Capped Period after fulfilling conditions for withdrawal)	
	Membership	Clearing member	Clearing member	Clearing member	Non clearing member	
	Withdrawal notice	Not submitted	Submitted	Submitted	Submitted	
	Position close-out	Not completed	Not completed	Completed	Completed	
Obligation in relation to default	Guarantee Fund obligation (up to 2 x Funded Obligation) in the Capped Period	Applicable	Applicable	Applicable	Not applicable	
	Participation in Default Auctions	Applicable	Applicable	Applicable (exempted if Guarantee Fund is consumed up in priority to other members)	Not applicable	It is considered to be too restrictive not to give an option not to participate in Default Auctions to status ③ members, and therefore a member is exempted if its Guarantee Fund is consumed up in priority to other members in the relevant Capped Period. (Status ③ members are exempted from participating in Default Auctions subsequently held in the relevant Capped Period once having accepted prioritized utilization of Guarantee Fund. They are allowed to participate in Default Auctions in the Capped Period if they wish, even after having accepted prioritized ulitization of Guarantee Fund)
	Additional obligation after 2 x Funded Obligation is consumed up in the	Not applicable	Not applicable	Not applicable	Not applicable	Based on Proposal 1, Guarantee Fund obligation of non-defaulting members in the Capped Period is limited to 2 x Funded Obligation. Additional Guarantee Fund or Initial Margin is not required in the relevant period. (Except for members having significantly increased their positions in the Capped Period as per Proposal 3)
	Loss sharing using mark to market gains	Applicable	Applicable	Applicable (mark to market is considerd to be zero if position is closed out before the first default)	Not applicable	In a system where members having fulfilled conditions for withdrawal are exempted, members are incentivized to close out positions as early as possible in order to avoid the loss sharing.
	Participation in discussions on loss sharing	Applicable	Applicable	Not applicable	Not applicable	Since an unanimous vote is required in decision making, if members intending to exit are included in a discussion, they might always vote against any additional loss sharing proposals. (Nevertheless, members including status ③ members do not owe any additional obligation without their consent in loss sharing scheme decided in a discussion. Status ③ members are also invited to a discussion without voting rights)
	Position close-out	Applicable	Applicable	Not applicable	Not applicable	
Penalty imposed on "extremely bad prices" in a Default Auction		Applicable	Applicable	Applicable	Not applicable	→ Since bidding at the minimum price is a common issue among status ①, ②, ③ members to some extent or other, penalty is imposed on all the members. CCP determines "extremely bad prices" based on Appendix 6 "The definition of "extremely bad prices" in a Default Auction and prioritized utilization of Guarantee Fund" as soon as a Default Auction is completed. (The determination of "extremely bad prices" is objectly made, based on the portfolio present value of the defaulting member and the outstanding balance of Guarantee Fund.) → In case "extremely bad prices" are identified, as a penalty, the Guarantee Fund of the clearing member having submitted the prices is consumed up in priority to other members in the loss sharing of non-defaulting members' Guarantee Fund after all the auctions held in the Capped Period. → Separate to the above, in order to attract as high bid prices as possible in Default Auctions, an incentive mechanism is to be introduced which gives the bidders a subordinated status in utilization of Guarantee Fund in each auction. (The subordinatied status is applicable only to the relevant Auction and not to Default Auctions subsequently held in the relevant Capped Period and thereafter.) In case a member with a senior status in utilization of Guarantee Fund acquires positions in Default Auctions, that status is cancelled for the remaining Capped Period and the subordinated status at that auction is also cancelled.
Re-entry		With regards to a new request for membership (including a re-entry request as well as a new entry request) submitted <u>after the Guarantee Fund of non-defaulting members is consumed up to cover the loss caused by defaulting members</u>, CCP committees (IRS committee and CDS committee in case of JSCC) <u>review the entry rule</u>.				In review of entry conditions, sufficient care is taken so that revised conditions neither constitute an effective entry barrier nor produce issues of fairness such as preferential treatment of existing members.

Appendix 6

The definition of "extremely bad price" in a Default Auction and prioritized utilization of Guarantee Fund

JSCC's default fund



Logic

Supposing

PV_1 = PV of the defaulting member's portfolio at the time of default,

FR_{K3}=The sum of the 1st to 3rd priority in default fund, and

FR_{K4}=The sum of the 1st to 4th priority in default fund,

- The 4th priority in default fund is used if Default Auction is completed below the price "PV_1-FR_{K3}" (all the participants submit a price below "PV_1-FR_{K3}").
- It is proposed that the Guarantee Fund of the non-defaulting member (the 3rd priority) having submitted a price below "PV_1-FR_{K3}" is used in priority (Extremely bad price 1).
- Based on the same logic, it is proposed that in addition to the Guarantee Fund of the non-defaulting member (the 3rd priority) having submitted a price below "PV_1-FR_{K4}" , One-time Guarantee Fund Assessment is also used in priority (Extremely bad price 2).
- Prioritized utilization of "PV_1-FR_{K3}" and "PV_1-FR_{K4}" mentioned above is limited within each priority (i,e, the 3rd priority and 4th priority respectively).

If an auction is completed by the bidding price which consumes up all the fund in the 3rd priority and 4th priority, the Guaranty Fund (One-time Guarantee Fund Assessment) of all the members is entirely consumed up.

In other words, the bidding price is based on the assumption that the bidder's Guarantee Fund (One-time Guarantee Fund Assessment) is also fully consumed up.

Therefore, it could be argued that the Guarantee Fund (One-time Guarantee Fund Assessment) of the member having submitted such bidding price should be consumed up in priority to other members.

Example

- PV_1=30billion
- PV_2(hedged PV of the defaulting member's portfolio at the time of auction)=27billion
- FR_{K3}=117billion
  - Initial Margin of the defaulting member=5billion
  - Guarantee Fund of the defaulting member＝3billion
  - JSCC's contribution ＝5billion
  - The sum of non-defaulting members' Guarantee Fund=104billion
- FR_{K4}=221billion
  - One-time Guarantee Fund Assessment of the non-defaulting members（the same amount as Guarantee Fund）＝104billion
- Extremely bad price 1：below ▲87billion up to ▲191billion
- Extremely bad price 2：below ▲191billion