Alternative Investment Management Association

Clerk of Bills Committee
Legislative Council of the Hong Kong Special Administrative Region
Hong Kong
(Attn: Miss Sharon LO and Ms Sharon CHAN)

Sent via email to: slchan@legco.gov.hk

12 January 2016

Dear Sirs

AIMA WRITTEN SUBMISSION ON FINANCIAL INSTITUTIONS (RESOLUTION) BILL

The Alternative Investment Management Association ("AIMA")[1] appreciates the opportunity to provide our views to the Bills Committee of the Legislative Council (the "Bills Committee") in relation to the Financial Institutions (Resolution) Bill (the "Bill"). Terms not defined herein have the same meanings given to them in the Bill.

For ease of reference and context, we enclose the following documents to aid our submission:

- AIMA's response on 20 April 2015 to the Administration regarding the Consultation Paper – 'An Effective Resolution Regime for Financial Institutions in Hong Kong – Second Consultation Paper - Conclusions from First Consultation and Further Policy Development' (CP2) published jointly by the Financial Services and the Treasury Bureau, the Hong Kong Monetary Authority, the Securities and Futures Commission and the Insurance Authority ("**AIMA 2015 response**"); and
- AIMA White Paper on CCP Recovery and Resolution April 2015 (the "**White Paper**") which explains our global policy position on the application of recovery and resolution initiatives to central counterparties (CCPs) .

AIMA largely supports the stated purpose of the Bill to "establish in Hong Kong a resolution regime for systemically important financial institutions (FIs) with a view to avoiding or mitigating the risks otherwise posed by their non-viability to the stability and effective working of the financial system of Hong Kong, including to the continued performance of critical financial functions and to protecting public funds".

In this submission, we express our views on two broad themes followed by comments on a few specific points raised by the Bill.

CCP Recovery and Resolution

AIMA's interest in the Hong Kong resolution regime is particularly focused on its application to non-bank institutions, namely CCPs.

[1] As the global hedge fund association, AIMA has over 1,600 corporate members (with over 10,000 individual contacts) worldwide, based in over 50 countries. Members include hedge fund managers, fund of hedge funds managers, prime brokers, legal and accounting firms, investors, fund administrators and independent fund directors. AIMA's manager members manage a combined US$1.5 trillion in global assets.

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Hedge fund managers act as buy-side participants in global cleared derivative markets and make extensive use of the efficiency and flexibility benefits offered by such contracts. Many more contracts are likely to become clearable in the near future. Hedge funds, therefore, are significant stakeholders in the resolution of a non-viable CCP. Our response, below focuses on the issue of CCP resolution. Our policy position in the context of CCP recovery and resolution are built upon in more detail within the White Paper.

Objective of resolution

The resolution objectives within the Bill are focused upon the preservation of the institution under resolution. At all times, AIMA would note our belief that it should not be an objective of resolution to return a failed CCP to viability as we believe that this would introduce moral hazard and represent a distortion of desirable market forces which remove weaker and less efficient participants from the marketplace.

It is our contention that the resolution objective for CCPs that have exhausted their internal resources (thus, excluding client margin) should be wound up in a fast and efficient manner subject to the creditor-no-worse-than-in-liquidation principle; and should minimise unnecessary loss of value and return residual margin to clients so that they may take alternative positions as quickly as possible.

AIMA would stress our belief that traditional tools used for banks resolution would not work in the context of CCP resolution. The highly concentrated and specialised nature of CCP activities means, for example, that a third party transferee is unlikely to be found for a failed CCP sufficiently quickly to make a sale of business tool an effective short term solution. Similarly, it is unlikely that public control applied through a bridge institution would add any value to the resolution of a CCP, unless emergency government liquidity were to be provided for the service lines of the CCP managed by the bridge institution.

Immediate wind-down and liquidation

Once a CCP has failed, AIMA does not see any value in attempting to preserve its functioning through public intervention, likely applying losses to clients, whilst placing stays on their relevant termination rights. From the perspective of a client, they would be in no different a financial position and would obtain positive legal certainty benefits from the immediate winding-up and liquidation of the CCP with the return of any residual margin.

In terms of resolution tools (under clause 33), the Bill currently only provides for 'stabilisation' tools and not for the winding up of a failing institution. We would suggest an additional tool be introduced, enabling the winding-up of the institution under resolution when most appropriate.

Emergency government financial support tool

Of course, AIMA accepts the possibility that a State may wish to intervene in the public interest - in the same way as is envisaged, for example, under the EU BRRD – to provide emergency financial support in order to preserve the functioning of the CCP or certain of its service lines. Such exceptional situations could exist where truly extreme and unforeseeable events have exhausted the CCPs internal capital, but only a small top-up is needed to tide the CCP over. Thus cost of extra capital required by a CCP to stay functional would be far less than the likely economic cost of a CCP's failure to the broader financial system. In order to prevent moral hazard and to reflect the fact that the CCP has failed as business, AIMA would support any government that provides emergency financial support to a CCP – however small - acquiring an 100% ownership stake in that CCP. The government would then be able to recover its financial support through the future revenues of the CCP and its eventual divesture to alternative private sector buyers.

If a government chooses to support a CCP in the public interest, AIMA believes strongly that this is a matter for the relevant government and that clients should not be compelled to contribute beyond their pro-rata contributions via tax payments as they have been obliged to clear by virtue of government intervention in the first place.

<u>Bail-in of Derivatives</u>

We note the Bill does not exclude derivatives from bail-in during a bank resolution (although it contains the standard ability for the resolution authority to make ad hoc exclusions should minimum conditions be met).

The application of the bail-in to derivatives is of concern to our members. Fundamental issues of valuation, and the nature of derivative use for most participants for hedging purposes, we believe would lead to the attempted bail-in of derivatives being more laborious and causing greater systemic disruption than their exclusion.

Where a bank is in wind-down and its derivative positions closed out (the "Bank"), it is relatively easy to see how the amounts payable by the Bank under each (netted) position, once any collateral has been applied, could be reduced by the same percentage as is applied to its other senior debt (the Relevant Percentage). However, where it is the intention that the Bank should continue trading, the close out and bail-in of derivatives will have an adverse impact on the ability of the Bank to do so, and it would unbalance both the bank and its counterparties' hedged positions.

The bail-in of derivatives would also not yield significant sums of capital. The vast majority of derivatives do not involve the exchange of the notional amount against which they are referenced, instead involving the net transfer of daily price movements on a mark-to-market or model basis. The sums obtained from bailing-in derivatives would, therefore, be minimal compared to the disruption caused by the unbalancing of hedges and other obstructions to bank counterparties' trading activities.

It of course remains an option to exclude derivatives on an *ad hoc* basis, however, we do not envisage any circumstance whereby derivatives would not need to be excluded. Thus, AIMA suggests that derivatives be excluded *ab initio.*

<u>Specific comments on the Bill</u>

We would also note the following points on the Bill:

- While we note the Bill proposes a single cross-sector resolution regime, the scope of the Bill is broad and does not distinguish between the different categories of financial entity. Scope includes any 'banking sector entity', a 'securities and futures sector entity' and 'an insurance sector entity.' This includes recognised clearing houses and licenced corporations which are non-bank, non-insurer G-SIFIs (helpfully not all licenced corporations). It also remains open for the Financial Secretary to designate or specify a financial institution as a within scope of a financial institution. We reiterate our position as stated in the AIMA 2015 response that we would prefer the development of a specific framework (either as part of this regime or a separate one) covering CCPs, to mitigate the consequences of the failure of a systemically important CCP.

- The notion of 'ceases to be viable' is broad and is based on whether the institution has contravened its conditions of authorisation, or failed to perform a duty in a way that warrants the removal of its authorisation. If this is used as the trigger for resolution, we would support the case for resolution to occur if the CCP breaches its prudential rules such that it is non-viable: for example if it falls over after only one of its largest clearing members failing.

- It is up to the resolution authority to come up with the resolution plan. We observe that this is aligned with the approach taken within the EU.

- The resolution objectives are very similar to other initiatives globally, including 'the continued performance of critical financial functions'. Condition 3 under clause 25 provides that resolution is to be initiated only when 'the non-viability of the financial institution poses risks to the stability and effective working of the financial system of Hong Kong, including to the continued performance of critical financial functions;… and resolution will avoid or mitigate those risks.' Thus the winding down of the CCP in resolution could be seen to be inconsistent with this condition, if that CCP's clearing services are regarded as a 'critical financial function;' or if its winding up could impact upon a 'critical financial function'. A 'critical financial function', nonetheless, remains undefined.

We hope you find our submission helpful and would be pleased to answer any questions or discuss our comments in further detail.

Yours faithfully,

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Alternative Investment Management Association

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20 April 2015

Dear Sirs

AIMA Response to An Effective Resolution Regime for Financial Institutions in Hong Kong – Second Consultation Paper - Conclusions from first consultation and further policy development

The Alternative Investment Management Association (**AIMA**)[1] welcomes the opportunity to provide comments on the Consultation Paper – 'An Effective Resolution Regime for Financial Institutions in Hong Kong – Second Consultation Paper - Conclusions from First Consultation and Further Policy Development' (**CP2**) published jointly on 21 January 2015 by the Financial Services and the Treasury Bureau, the Hong Kong Monetary Authority, the Securities and Futures Commission and the Insurance Authority (**the Authorities**). Our response expresses AIMA members' views on the proposals contained within CP2 and our suggestions for the final Hong Kong resolution regime in broad terms, rather than responding to the specific questions posed by the Authorities.

AIMA's hedge fund manager members have both direct and indirect relationships with large financial institutions and infrastructures. Hedge funds managers and their funds, for example, interact with banks as recipients of prime brokerage services, hold the shares and debt of large financial institutions and use the services of various financial market infrastructures (**FMIs**), including the central clearing services of central counterparties (**CCPs**). Our members recognise the importance of implementing a regime to minimise the systemic consequences of the failure of a large systemically important financial institution (**SIFI**) as long as it is sufficiently well-tailored to account for the diverse structures and business activities of different categories of SIFI.

As explained in the submission that follows, AIMA supports the application of the Hong Kong resolution regime to those Licenced Corporations (**LCs**) that are themselves designated non-bank non insurer global SIFIs (**GSIFIs**) or form part of a group which includes a NBNI GSIFI. We also believe that the cross-border recognition of foreign resolution actions is desirable, but should be provided through legislative means rather than by contract alone.

[1] The Alternate Investment Management Association (**AIMA**) is a global hedge fund association with over 1,500 corporate members (with over 9,000 individual contacts) worldwide, based in over 50 countries. Members include hedge fund managers, fund of hedge funds managers, prime brokers, legal and accounting firms, investors, fund administrators and independent fund directors. AIMA's members manage a combined US$1.5 trillion in global assets (as of March 2014).

As far as FMIs are concerned, AIMA supports the development of a specific regime to mitigate the consequences of the failure of a systemically important CCP. However, our priority is to prevent them from failing in the first instance using ‘recovery’ measures which include: (i) existing robust prudential risk and capital standards; and (ii) certain additional tools to supplement the CCP’s internal capital resources upon their exhaustion - such as contingent capital instruments and/or insurance contracts. In AIMA’s opinion, ‘recovery’ should have a clear set of objectives and tools that are distinguished from ‘resolution’. Whereas recovery seeks to return viable CCPs to financial health, we consider that resolution should be limited to the immediate wind-down and liquidation of non-viable CCPs (i.e., those which have exhausted their internal resources) with residual margin returned to participants subject to the principle of no-creditor-worse-off-than-ordinary-insolvency.

We are aware that the Authorities intend to consult further upon the issue of FMI resolution in light of the implementation of the FSB Annex to its Key Attributes of Effective Resolution Regimes for Financial Institution and respective international jurisdictions’ regimes. We look forward to responding to this consultation in due course and building upon the position described below.

If you have any questions or would appreciate further details on AIMA’s position, please contact Heide Blunt (hblunt@aima.org).

Yours faithfully,

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ANNEX

Authority co-operation and recognition of resolution actions

AIMA agrees that in order for a cross-border institution or group to be resolved effectively, cooperation between national resolution authorities is vital. We strongly recommend, nonetheless, that effective cross-border recognition or support of resolution actions – for example, the application of stays on early termination rights for financial contracts - should only be introduced through legislative action rather than relying on contractual frameworks to give effect to resolution tools.

To rely purely on contractual arrangements in lieu of legislative action could in fact risk creating a two-tier system whereby those contracts subject to cross-border resolution recognition are treated differently to those that are not. It is also impossible for many market participants to comply with such contractual recognition provisions that would in practice limit their rights. For example, those institutions with fiduciary duties to act in the best interests of their clients, such as investment fund managers, would be unable to adhere voluntarily to a contractual arrangement limiting their early termination rights for their financial contracts without breaching their fiduciary duties to their clients.

LCs

In our response to CP1 AIMA questioned the need to cover asset management firms within the final Hong Kong resolution regime. AIMA believes - and has represented to the FSB, IOSCO and the US Financial Stability Oversight Council - that hedge funds and their management firms do not pose systemic risks due *inter alia* to: the diversity of hedge fund strategies; the ability for managers to tailor liquidity offered to investors to avoid runs on the fund; the lack of leverage amongst hedge funds when compared to banking institutions; and, an increased focus on operational risks as a result of increased regulation and the competitive environment globally. We therefore endorse in the context of asset managers the Authorities' comment within CP2 that no evidence of significant disruption to the wider financial system and economic activity has been exhibited upon any LC's failure in Hong Kong over the last two decades.

However, AIMA still accepts the logic of not specifically excluding classes of LC from the resolution regime *ex ante* and leaving it open for the Hong Kong resolution regime to include LCs which are designated NBNI GSIFIs according to the FSB and IOSCO's quantitative and qualitative criteria, or form part of a group identified as including G-SIFIs.

FMIs - CCPs

As global initiatives for the promotion of central clearing continue to be implemented - including mandatory central clearing and increased margin requirements for non-centrally cleared trades – the systemic importance CCPs[2] is likely only to increase. AIMA's hedge fund manager members are active participants in global cleared derivatives markets. When clearing their derivative contracts through a CCP, a hedge fund will generally participate as a client of a clearing member (**CM**); the economic relationship between the fund and the CCP can therefore be described as one of a customer and service provider.

AIMA agrees with the majority industry opinion that efficient mechanisms to deal with the financial distress of systemically important CCPs are especially important. These mechanisms should take the very specific structure of CCPs and the nature of their business activities into account and not be based on those mechanisms designed for banks. We believe strongly that any regime covering CCPs should have a separate set of triggers, objectives and tools to those set for banks.

We also believe that, for CCPs, the prevention of failures in the first instance through 'recovery' measures is far preferable and likely more effective in meeting financial stability objectives than attempting to preserve the CCP's services or reorganise it in the course of resolution.

We make the following recommendations:

1. Introduce CCP 'recovery' framework:

We note that CP2 is focused only on the 'resolution' of failed SIFIs, rather than the 'recovery' of struggling but still viable CCPs. We believe that the introduction of a framework of tools and objectives to help avoid a CCP's failure in the first instance is highly desirable.

AIMA views recovery as measures employing the internal resources of a CCP whilst it is still viable to withstand periods of market or operational stress arising under extreme but plausible market conditions so as to return the CCP to financial health. We consider that recovery commences with the prudential requirements under relevant domestic CCP regimes and could include additional tools to provide loss absorbing capital such as limited CM rights of assessment, bail-inable contingent capital instruments (**CoCos**) and insurance/reinsurance contracts.

Recovery can be distinguished from resolution which, in our opinion, should be triggered when an institution exhausts its internal resources, thus can be viewed as being no longer viable, and should have the objectives of an immediate wind-down and liquidation of the failed CCP.

AIMA suggests that the Hong Kong CCP recovery regime have the following characteristics:

Trigger: CCP recovery could be triggered by any event that places the CCP under financial stress, including extreme market conditions leading to the failure of one or more CMs and/or operational errors.

[2] Acting as the seller to every buyer and the buyer to every seller

Objective: Recovery should aim to provide a financial buffer for the CCP to protect it from financial shocks that have led to an unbalanced book and return it to financial health using only internal resources, thus without recourse to either customer or public money. The objectives are essentially (i) to avoid the disorderly failure of a CCP in the first instance and to return it to financial health; and (ii) to ensure that this return to health is funded by those stakeholders that obtain direct benefit from the CCP's financial successes, namely the CCP's CMs, equity holders and other investors – not by clients or the public.

Mechanism: As described above, recovery starts with the CCP prudential capital rules necessary for the CCP's authorisation. AIMA notes that in 2008, CCP default waterfalls proved successful in covering losses without requiring any additional capital. Nonetheless, there may well be circumstances of market distress beyond those envisaged by CCP prudential rules, or in which the CCP has failed to comply with those prudential requirements, that result in additional uncovered losses that require allocation in order to prevent the CCP's failure. An *ex ante* framework for additional loss absorbency tools to complement the existing CCP default waterfall is therefore highly desirable.

AIMA proposes that these additional recovery tools could include:

- voluntary and limited mandatory rights of assessment of CMs
- the bail-in of a minimum amount of CoCos, debt liabilities or equity;
- activation of (re)insurance contracts; or
- the use of additional tiers of default fund contribution.

Other key points of AIMA's position on CCP recovery:

No haircuts of client margin during recovery: AIMA believes strongly that in light of the objectives of recovery and the customer relationship of CM clients with the CCP, it would be highly inappropriate to apply haircuts to client margin – either initial margin (**IM**) or variation margin (**VM**) – at the recovery stage for practical, legal and financial stability reasons.

The objective of CCP recovery is to return a private profit-seeking CCP business to financial health during a period of financial pressure. AIMA considers that it would result in significant moral hazard if customers of a CCP were to be required to pay for it to return to financial health upon its distress. This would be even more inappropriate if, for example, the CCP has failed to meet its minimum prudential capital and risk-management requirements.

We also believe that haircutting of client margin during recovery stage would be counter to the G20 initiatives to promote the central clearing of OTC derivatives with a CCP. Should it be implemented in Hong Kong, mandatory clearing effectively takes away the discretion of a derivatives market participant to undertake their own counterparty selection process as each counterparty may only have economically viable access to one or two CCPs authorised to clear a particular product. To remove the discretion of buy-side firms to choose their economic counterparty on the basis of credit risk, whilst also forcing them to accept arbitrary losses on their margin in order to protect the viability of that CCP counterparty, would be highly inappropriate.

In practice, haircutting client margin could also exacerbate contagion. For example, haircutting VM owed by the CCP would spread losses arbitrarily across the financial system amongst those participants with directional in-the-money positions with the CCP. These participants are likely to be firms or persons, for example, who use derivative contracts to hedge other underlying exposures or activities which have fallen in value, or have taken successful directional positions against particular underlying securities or other assets. Haircutting IM, in addition to being illegal in many jurisdictions, would effectively place cash-calls on participants. Under standard CCP rules, IM pools must be topped up at all times, thus haircutting client IM would require that client to provide immediate liquidity to top up that IM pool - likely during a period of market wide financial turmoil. Even if the client did not top up this IM pool, the CCP itself would then be under-collateralised and vulnerable to that participant's default.

AIMA would also note the importance of ongoing voluntary participation in the CCP in order for it to return to financial health. The possibility that the money owed by the CCP to a client could be subject to arbitrary haircuts would likely result in the cessation of voluntary participation in the CCP by clients during period of financial distress. This would impact upon both the viability of the CCP and the functioning of the underlying contract market if that contract were mandatorily clearable.

Maximise transparency throughout recovery: As we note above, ongoing voluntary participation is vital to the recovery of a CCP. Transparency is a key factor in maximising voluntary participation by clients for as long as possible during a period of financial distress and encouraging a swift return of those clients that ceased participating upon signs of the CCP's recovery. In this regard, AIMA suggests strongly that CCP participants be provided with information sufficient that they can be confident that: (i) the CCP will continue to operate normally so that delays or other inconveniences are not experienced; and (ii) their margin gains will not be at risk of an arbitrary haircut.

CP2 at page 33 describes the need for counterparties to monitor the risks posed by counterparties with investments in and/or exposure to FIs for the purposes of the conditions for resolution. In the context of CCPs as FMIs we would strongly agree and propose that the Authorities require a degree of transparency for participants into Hong Kong CCPs' financial health.

Costs of clearing to remain economically viable: AIMA notes that it would be impossible and economically unrealistic for a CCP to maintain sufficient capital to enable it to withstand *every* tail-risk eventuality. A balance must be reached between the (i) the likelihood of extreme tail-risk events that could threaten the viability of a CCP notwithstanding compliance with EMIR prudential rules, (ii) the systemic costs associated with the disorderly failure of a CCP bearing in mind the level of uncovered losses that would likely result, and (iii) the additional costs of clearing associated with such extra buffers.

Buy-side participation in the CCP auction: AIMA recommends that in order to maximise participation in CCP auctions of the unmatched positions of defaulted CMs, thus the likelihood that these unmatched positions obtain new counterparties, CCP auctions should be open to both buy-side and sell-side participants.

2. Resolution rules for immediate liquidation, not artificial preservation

AIMA considers that once a CCP has exhausted its internal resources, it should be held to meet the Hong Kong resolution regime's conditions for resolution and immediately resolved. Once the conditions for resolution are met by a CCP, we propose that the Hong Kong resolution regime's objectives should be to wind down and liquidate the CCP, with any residual margin returned to clients, subject to the no-creditor-worse-off-than-ordinary-insolvency principle.

We would recommend avoiding any protracted resolution process for CCPs that attempts to artificially preserve the functioning of the CCP in resolution, whilst placing costs of this preservation solely upon the CCP's participants - as appears to be envisaged by CP2's proposed resolution objectives based on international recommendations such as the FSB's Key Attributes. AIMA considers that this approach would likely be ineffective for CCPs and could in fact exacerbate contagion. We stress that the traditional resolution tools proposed by CP2 in the context of FI resolutions would not be appropriate for CCP resolution.

Our recommendations on CCP resolution are as follows:

Trigger: CCP resolution should commence at the point at which a CCP's internal resources described above are exhausted or highly likely to be exhausted, such that external resources would be required for the CCP to continue to function such as government capital or client margin. The CCP can be said to be 'non-viable'.

AIMA agrees with the first condition of non-viability contained listed on page 32 of CP2. However, we would recommend the amendment of the second proposed condition for financial stability for CCP resolution to refer only to the fact that resolution will serve to contain risks posed by non-viability to the general stability and effective working of the financial system, rather than the continuity of critical financial services. As we describe above and below, we disagree that the continuity of functions should be an objective of CCP resolution, instead focusing on a fast and efficient wind-down, liquidation and return of residual margins, subject to the no-creditor-worse-off-than-ordinary-insolvency principle.

Objective: AIMA believes that the principal objective of resolution should be to wind-up and liquidate the failed CCP in a fast and efficient manner, allocating losses subject to the principle of no-creditor-worse-off-than-ordinary-insolvency-proceedings. AIMA agrees with objective 3 at page 34 of CP2 and recommends that the liquidation should seek to avoid unnecessary destruction of value, whilst returning residual margin to clients as quickly as possible so that they may take alternative positions as quickly as possible, thus minimising systemic consequences.

AIMA notes that the Authorities' discussion on resolution objectives within pages 34-37 of CP2, modelled largely on the FSB Key Attribute 2.3. The proposed objectives would place an emphasis upon the continued provision of critical financial services in resolution when seeking to promote financial stability and the effective working of the Hong Kong financial system. We do not agree that these objectives are reconcilable for the failure of a prudentially regulated CCP without the provision of additional external financial support.

Mechanism: As we describe above, AIMA believes that CCP resolution should involve the immediate winding-down of a CCP's activities, the liquidation of its open positions and return of residual client margin as quickly as possible in a manner in which avoids unnecessary destruction of value and allocates losses to creditors subject to the not-worse-than-in-ordinary insolvency principle. AIMA would stress our strong belief that the resolution tools envisaged for failed bank SIFIs would be largely unsuitable for CCPs and would not serve to meet the objective of promoting the general stability and effective working of the Hong Kong financial system.

Key points of AIMA's position on CCP resolution:

No IM haircutting: As part of the winding-down and liquidation of a CCP under resolution, AIMA accepts that without additional external funding uncovered losses will remain and have to be accepted by certain participants. AIMA accepts that in this resolution, VM payments owed by the CCP to its participants may be haircut as there are no resources at the CCP remaining to make those margin payments. However, for the same reasons we describe for recovery, we would stress that client IM cannot and should not be on the table for haircuts under resolution.

Bank resolution tools inappropriate for CCPs: AIMA considers that traditional tools used for bank resolution would not work in the context of CCP recovery. The highly concentrated and specialised nature of CCP activities means, for example, that a third party transferee is unlikely to be found for a failed CCP sufficiently quickly to make a sale of business tool an effective short term solution. Similarly, it is unlikely that public control applied through a bridge institution would add any value to the resolution of a CCP unless emergency government liquidity were to be provided for the service lines of the CCP managed by the bridge institution.

Immediate wind-down and liquidation: As noted above, AIMA considers that the sole objective of resolution should be the fast and efficient winding down of the CCP and return of residual client margin. We do not consider that preferable outcomes would be obtained by a focus on preserving the failed CCP's functions whilst placing costs solely on the CCP's participants.

We would note the kinds of financial market conditions needed to result in the failure of a well regulated CCP. For example, in the EU, it should take the failure of at least three of a CCP's largest CMs to exhaust that CCP's internal resources so as to become non-viable. AIMA would suggest that three large CMs failing simultaneously would represent a scenario of such financial Armageddon that underlying contract markets would no longer function in any efficient manner and so the preservation of the CCP would be meaningless. The introduction of bank recovery and resolution measures would further reduce the likelihood of three or more simultaneous CM failures, thus would necessitate an even greater scenario of financial turmoil to bring about a CCP's resolution.

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AIMA would also express our belief that it would be undesirable to seek the preservation of functions of a CCP which has entered resolution as a result of operational issues or a lack of compliance with its prudential requirements. In such an instance broader markets may remain relatively stable, however, AIMA would be concerned that an underlying operational issue that has exhausted its internal resources would persist unrectified in the CCP, leading to further destruction of value, against the third proposed objective within CP2.

Temporary Public Ownership tool: AIMA accepts that it should remain the prerogative of an authority as a last resort to provide emergency financial support through temporary public ownership (TPO) of a CCP entering resolution so as to preserve its functioning in the public interest. We, therefore, support CP2's proposal for a TPO tool in the context of CCPs.

As we describe above, the only way that the functions of a CCP in resolution could be realistically preserved without exacerbating systemic issues caused by that CCP's failure would be for additional external resources to be provided. A properly governed TPO tool would serve this purpose well by providing requisite capital for the CCP's ongoing operations, thus preserving confidence amongst participants to continue clearing voluntarily with that CCP on the basis that their positions and margin are secure.

AIMA envisages that a TPO tool could be used in exceptional circumstances, for example, where a CCP's internal capital has been exhausted but in reality the CCP would still be operationally viable but for this simple lack of capital. We envisage that an appropriately capitalised default waterfall absorbing initial losses would mean that in most cases only a small top-up should be needed to tide the CCP over. AIMA agrees with CP2 that an additional condition should be imposed for the TPO tool to be used on a failed CCP. We suggest nonetheless that the condition currently proposed at page 62 of CP2 be amended so that the TPO tool can only be used if the financial stability benefits envisaged by the application of the TPO tool significantly outweigh those of the standard resolution mechanism of an immediate wind-down and liquidation.

We also believe that any TPO tool should seek to avoid moral hazard; thus we propose that the government should acquire a 100% ownership stake by default through the use of the TPO tool, regardless of the amount of money provided. We consider that public costs could be recovered through the CCP's future profits and an eventual divestment to a private sector buyer. In this regard, we agree with the flexibility contained within CP2's proposals for the TPO not to be subject to an arbitrary time limit, thus allowing the government to choose the most opportune time to divest the CCP based on its profitability and/or likely sale price to a private sector purchaser. For the same reasons that the sale of business tool would not be appropriate for CCP resolution, a private sector purchaser for a CCP may well be hard to come by at short notice thus it would not be in the public interest for a time limit to be applied to the TPO tool.

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AIMA
WHITE PAPER
CCP RECOVERY AND RESOLUTION

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AIMA Position on CCP Recovery and Resolution

Executive Summary

This White Paper explains AIMA's global policy position on the application of recovery and resolution initiatives to Central Counterparties (CCPs) (known in the USA as derivatives clearing organisations (DCOs), referred to collectively in this document as CCPs). It also provides an introduction to CCPs as institutions, the mechanics of central clearing, the risks posed by central clearing and relevant prudential requirements.

CCPs are mostly large systemically important (SI) financial market infrastructures (FMIs) which interpose themselves between two counterparties to a cleared derivatives trade, effectively guaranteeing the obligations under the contract agreed between the two counterparties – 'becoming the buyer to every seller and the seller to every buyer'. This helps to mitigate the credit risk of the end counterparties to the trade, as each is protected from the default of the other by the default management procedures and financial resources of the CCP. The CCP minimises its own risk by running a 'matched book' – any position taken with one counterparty is offset by an opposite position with another counterparty - thus is considered essentially credit risk neutral. However, there will always remain the possibility that a CCP could fail – be it through operational issues or through the default of sufficient numbers of the CCP's participants.

CCPs effectively centralise risk. A CCP's failure, therefore, releases this risk back into the market. We note that the ongoing commitments to undertake derivative markets reform will continue to increase the number of contracts subject to CCP clearing, thus increasing the notional value of risk held at a CCP. An instance of a large CCP's failure - as exemplified in the failure of the Hong Kong Futures Exchange clearing house in 1987 - could have significant disruptive consequences on the broader financial system, potentially requiring taxpayer funded bailouts. Rules that seek to prevent CCP failure in the first instance and minimise the systemic consequences of any failure could well be beneficial as long as they are sufficiently well tailored to the specificities of SI CCPs.

Hedge fund managers act as buy-side participants in global derivative markets and make extensive use of the efficiency and flexibility benefits offered by derivative contracts. Many contracts are currently cleared and many more are likely to become clearable in the near future. Hedge funds access CCP clearing services through their clearing members (CMs) (known in the US as futures commission merchants (FCMs), from now on referred to collectively as CMs) who are CCP participants. Hedge funds, therefore, are stakeholders in the distress or potential failure of a CCP. For this reason, AIMA has formulated a set of Policy Principles to assist global policy-makers, legislators and regulators in the development and implementation of specific rules to deal with failing and failed CCPs. These are as follows:

1. Clear and concise distinction between recovery and resolution - recovery using internal resources to return CCP to financial health, resolution to immediately wind-down and liquidate a failed CCP;
2. Client margin never haircut during recovery stage – losses in recovery to be allocated to stakeholders obtaining benefit from the CCP's financial success, not customers;
3. Losses allocated during resolution subject to the no-creditor-worse-off-than-in-ordinary-insolvency proceedings principle – any losses incurred by participants, including clients, upon the liquidation of the CCP should not be worse than ordinary insolvency;
4. Maximum transparency into the CCP's financial health for all participants – regular updates as to the financial health of a CCP implementing its recovery tools for both direct and indirect clients;
5. Emergency governmental liquidity tool – states should have a last resort option to intervene to sustain the critical functions of a failed CCP in exchange for a 100% ownership stake.

The below White Paper sets out AIMA's position in more detail. If you have any questions please contact the AIMA Markets Regulation Team.

1. AIMA's Policy Position on Recovery and Resolution of CCPs

1.1. Introduction

The Alternative Investment Management Association (AIMA) agrees that the implementation of an efficient and effective recovery and resolution regime for systemically important Central Counterparties (CCPs) is a valuable initiative. We would highlight that recovery and resolution measures are already provided to a degree under existing CCP prudential rules. For example capital requirements under EMIR require each CCP to be able to withstand extreme but plausible market conditions and the failure of its two largest clearing members. AIMA agrees, nonetheless, that additional complementary rules would still be beneficial to assist in mitigating the systemic impacts of scenarios where truly exceptional market conditions exist or the CCP does not comply with the relevant prudential framework – i.e., when the CCP prudential rules are fundamentally breached.

Significant work has already been undertaken at a global level for the recovery and resolution of systemically important banking institutions. Nonetheless, AIMA would suggest strongly against basing a CCP resolution regime upon the approach developed for the banking sector. CCPs are very different institutions, thus we believe that bank resolution tools would be inappropriate, would introduce a significant degree of complexity and uncertainty for market participants, and could prove counterproductive during periods of financial crisis.

AIMA proposes an alternative approach that attempts to distinguish and simplify the objectives and tools used at the recovery and resolution stages. It also seeks to take a more realistic approach to how a CCP could be dealt with in practice. AIMA defines the terms 'recovery' and 'resolution' differently to that envisaged by many participants and international standard setters. In our opinion a clear distinction needs to be made as follows:

- **'Recovery'** = measures employing the internal resources of a CCP to withstand periods of market or operational stress arising under extreme but plausible market conditions so as to return the CCP to financial health. We consider that recovery commences with the prudential requirements under relevant domestic CCP regimes and should include the default waterfall under EMIR as well as potential rights of assessment, bail-inable instruments and insurance/reinsurance contracts.

  AIMA would stress our position that resources to be used during recovery should be limited to those belonging to stakeholders that stand to profit financially from the business of the CCP. Customer money i.e., client VM and IM, should never be used at the recovery stage to return a profit-seeking company to viability.

- **'Resolution'** = measures taken at the point at which internal funding has been exhausted, or is unavoidably likely to be exhausted, such that external resources are required or unavoidably likely to be required for the CCP to continue operating. This should only ever be needed in truly exceptional circumstances or when the CCP has failed to meet its requisite prudential capital and operational requirements. At this point, AIMA contends strongly that the failed CCP's business activities should be quickly and efficiently wound-up, with outstanding open positions liquidated and losses allocated across creditors subject to the no-creditor-worse-off-than-ordinary-insolvency principle. Client VM in these situations would take losses.

AIMA stresses the need to avoid a protracted resolution process as is envisaged by current international recommendations that attempt to artificially preserve the functioning of a CCP whilst placing costs of this preservation solely upon the CCP's participants. We consider that this would be ineffective and could in fact exacerbate contagion. Nonetheless, if the preservation of a failed CCP's functions is considered in the public interest – for example, upon the occurrence of truly exceptional tail-risk events – we consider that a government should be able to provide emergency financial support to that failed CCP to preserve its critical functions. In return for which, AIMA proposes that the government should acquire 100% of that CCP's equity. The government would then be able to exert full control over the CCP and recoup its financial support through future profits of the CCP or the eventual divesture of its stake.

We introduce our concepts of Recovery and Resolution below.

1.2. Recovery

As we describe above, AIMA considers that 'recovery' encompasses the various mechanisms put in place by a CCP to help it survive periods of financial distress and remain viable. Recovery is the most important stage and is already covered in part by the respective CCP prudential capital requirements as found under CCP legislation such as EMIR; the default waterfall under EMIR can, therefore, be viewed as the first step of recovery. Due to the sole objective of recovery to maintain the viability of a profit making business AIMA would stress the importance that client margin never be used at this stage.

Trigger: Any event that places the CCP under financial stress, including extreme market conditions leading to the failure of one or more clearing members (CMs) and/or operational errors.

Objective: To protect a CCP from financial shocks that have led to an unbalanced book and return it to financial health using only internal resources without recourse to customer (a CCP's customers are those clients, both direct and indirect, that utilise the CCP's clearing services for their trading activities in cleared derivatives) or public money - essentially to avoid a disorderly failure of the CCP in the first instance and to ensure that this is funded by those stakeholders that obtain direct benefit from the CCP's financial successes, namely the CCP's CMs, equity holders and other investors.

Mechanism: Recovery starts with the CCP prudential capital rules contained within legislation such as EMIR which provide a strong foundation upon which CCPs are protected from disorderly failure. In 2008, existing CCP default waterfalls proved successful in covering losses without requiring any additional capital. Nonetheless, there may be circumstances of market distress beyond those foreseen by prudential rules or in which the CCP has failed to meet its requirements that mean that additional uncovered losses need to be covered so as to prevent the failure of that CCP. AIMA supports the introduction of a framework for additional loss absorbency tools to deal with such situations and complement the existing CCP default waterfall.

These recovery tools could include, in addition to existing prudential capital rules:

- **voluntary and limited mandatory rights of assessment of CMs**
- **the bail-in of a minimum amount of contingent capital instruments (CoCos), debt liabilities or equity;**
- **activation of (re)insurance contracts; or**
- **the use of additional tiers of default fund contribution.**

Voluntary and limited mandatory rights of assessment:

Limited mandatory and voluntary rights of assessment by the CCP to its surviving CMs could well be a useful tool for CCP recovery. We note that Article 43(3) of EMIR already provides for CCPs to be able to make surviving CMs provide additional funds in the event of a CM default on a limited basis.

Of course we recognise the dangers associated with unlimited cash calls and would stress that unlimited cash calls which constitute a blank chequebook should never be mandated under a CCP recovery regime. We recommend that calls are be subject to clear and transparent rules and be capped at a pre-agreed level. It would have undesirable systemic consequences to expose CMs to potentially unlimited liabilities as this would result in higher regulatory capital charges being levied on such participants, which would in turn would likely be passed on to clients in the form of more expensive clearing.

Minimum amounts of bail-inable liabilities and CoCos:

AIMA supports the principle of obliging CCPs to issue a minimum quantum of bail-inable instruments as a 'recovery' tool to complement the EMIR default waterfall with additional internal resources. We agree that such 'skin-in-the-game' has important benefits both by providing an additional layer of capital protection, but also ensuring that CCPs have a significant mutual interest with their participants of ensuring robust risk management.

This additional tranche of bail-inable equity, debt or specific Contingent Capital Instrument (CoCos) could be written-down or converted upon either: (i) the exhaustion of a defaulting CM's margin and default fund contributions; or (ii) upon any internal CCP operational or investment issue that results in uncovered exposures.

Of course, AIMA recognises that a balance must be obtained between the benefits of additional skin-in-the-game and the potential additional costs involved to the CCP of maintaining an additional layer of risk capital. Clearing must not be made excessively expensive.

Insurance/reinsurance contracts

Another recovery mechanism that we consider could prove more cost efficient than, for example, maintaining ex ante funds on an ongoing basis, and which could provide an additional layer of risk supervision is the use of (re)insurance contracts by the CCP to cover any unallocated losses at the end of the relevant CCP's default waterfall.

We would note that the significant levels of funding in a default waterfall of a CCP which take losses before the insurance contract should mean that:

(i) it is particularly unlikely that an insurance contract would need to be called upon; and

(ii) that the insured amount to be paid out in order to balance the CCP's books would not need to be excessively large.

Both factors could well help to make insurance cheaper than each CCP maintaining the same level of contingent capital ex ante. In this regard, AIMA would disagree with the insured amount of an insurance contract being set to recapitalise the CCP so as to return it to compliance with its prudential standards. We would be concerned that this could well make the contract excessively expensive. Instead we believe that such a contract should be in place as a private sector last resort to tide the CCP over and prevent its failure rather than to return it to full financial health by replenishing its default waterfall.

AIMA would also note potential oversight benefits of insurance contracts could also arise from the commercial interest in the insurance provider to investigate the operational and risk management practices of the CCP and to potentially place pressure on the CCP to rectify any shortcomings through increased premiums or denial of insurance services.

AIMA is aware that insurance companies and CCPs have entered into discussions to potentially develop insurance contracts as a tool in either the recovery or resolution of the CCP.

AIMA would support such development of tailored insurance contracts for CCPs to be engaged once the CCP's own funds have been exhausted and prior to the write down of the default fund contributions of non-defaulting CMs. It is important, however, that the cost of such insurance be considered as such costs are likely to be passed on to clients. AIMA would, therefore, not support such insurance contracts if they were to materially increase the costs of clearing.

Key points of AIMA's position on recovery:

No haircuts of client margin during recovery: AIMA believes that it would be totally inappropriate to apply haircuts to client margin at the recovery stage for practical, legal and financial stability reasons.

Haircutting client margin at the recovery stage would be counter to the G20 initiative to remove the moral hazard associated with too-big-to-fail financial institutions. The objective of CCP recovery is to return a private profit-seeking CCP business to financial health during a period of financial pressure. We contend that to require the clients of CMs – the customers of that CCP - to pay for that CCP business to return to health would introduce significant moral hazard by removing the fundamental basis for the efficient functioning of markets; the discipline imposed by the threat to owners'/managers' capital and/or jobs resulting from a failure to perform their roles to a suitable standard, such that revenues fall and their business fails. CCPs already have an artificially dominant position in the market due to the roll-out of mandatory central clearing of OTC derivatives, thus are subject to reduced competitive forces that incentivise cutting edge best practice and efficiency regarding risk management due to the fact that clients are compelled to use their services if they wish to trade a particular mandatorily clearable contract. By enabling customer money to be used by a CCP to preserve its ongoing viability through haircuts of client VM or IM, these competitive forces would be further eroded such that the CCP's risk and reward profile would be dangerously skewed, potentially leading to a reduced focus by owners and management on risk management and operational best practice whilst delivering value to customers; a heads I win, tails you lose scenario for the CCP versus its customers.

Haircutting of client margin at the recovery stage **would also be counter to the G20 initiatives to promote central clearing of OTC derivatives with a CCP**, both through mandatory clearing and punitive margin for non-cleared trades. AIMA has been supportive of the push towards central clearing of OTC derivatives and the systemic risk mitigation benefits that such entails. We accept that mandatory clearing effectively takes away the discretion of a derivatives market participant to undertake their own counterparty selection process as each counterparty may only have economically viable access to one or two CCPs authorised to clear a particular product. Nonetheless, we would contend strongly that forcing buy-side firms as CM clients to accept a particular CCP as their economic counterparty, whilst also forcing them to accept arbitrary losses on their margin in order to protect the viability of that CCP counterparty, would be highly inappropriate.

In practice, AIMA believes that such haircuts would also exacerbate contagion. Haircutting VM owed by the CCP would spread losses arbitrarily across the financial system amongst those participants with directional in-the-money positions with the CCP. These participants are likely to be firms or persons, for example, using derivative contracts to hedge other underlying exposures or activities which have fallen in value, or have taken successful directional positions against particular underlying securities or other assets. Haircutting IM, in addition to being illegal in many jurisdictions, would also exacerbate contagion by placing effective cash-calls on participants. Under standard CCP rules, IM pools must be topped up at all times. Thus haircutting client IM would require that client to provide immediate liquidity to top up that IM pool, likely during a period of market wide financial turmoil such that it is itself under significant financial stress and collateral quality assets are increasingly scarce. If the client did not top up this IM pool, the CCP itself would be under collateralised and vulnerable to that participant's default.

AIMA members also believe that the possibility of client margin haircuts as a recovery tool could in fact prevent a CCP returning to financial health as ongoing voluntary participation is essential for a CCP to remain viable – regardless of its financial position. Direct and indirect clients must, therefore, continue to clear voluntarily with a CCP in recovery for it to be able to recover. However, it is our concern that the risk of arbitrary haircuts of margin owed to clients' for their in-the-money positions would result in the cessation of voluntary participation by clients with a CCP during periods of financial distress, making it more likely that the CCP will become unviable and require resolution.

In certain situations, AIMA would also suggest that allowing a CCP to haircut client margin at the recovery stage would represent a fundamental breach of CCP prudential capital requirements under regulations such as EMIR. For example, if a CCP has run out of capital despite the failure of only one or two of its largest CMs, the CCP is clearly in breach of its conditions for authorisation under EMIR which specify that it be able to survive the failure of its largest two CMs under extreme but plausible market conditions. In addition to the issue of principle against allowing an entity in breach of its regulatory obligations to appropriate the assets of another entity to cover that breach, AIMA would contend that any CCP that has effectively run out of internal capital without meeting its regulatory obligations has internal risk management issues that mean it is no longer a viable utility. The CCP should, therefore, be wound down as a failed entity as quickly and efficiently as possible. It should not be possible for a failed CCP to appropriate its customers' funds to maintain its commercial viability where its risk management model has failed to satisfy minimum regulatory requirements.

Maximise transparency throughout recovery: As we note above, ongoing voluntary participation is vital to the recovery of a CCP. Transparency is a key factor in maximising voluntary participation by clients for as long as possible during a period of financial distress and encouraging a swift return of those clients that ceased participating upon signs of the CCP's recovery. In this regard, AIMA suggests that CCP participants must be provided with information sufficient that they can be confident that: (i) the CCP will continue to operate normally so that delays or other inconveniences are not experienced; and (ii) their margin gains will not be at risk of an arbitrary haircut. We, therefore, strongly recommend that regular detailed and reliable information is given to CCP participants as to the financial health of the CCP to which they are exposed in order for the recovery initiatives to be given the greatest chance of proving successful.

Costs of clearing to remain economically viable: AIMA notes that it is impossible and economically unrealistic for a CCP to maintain sufficient capital to enable it to withstand every tail-risk eventuality. A balance must be reached between the (i) the likelihood of extreme tail-risk events that could threaten the viability of a CCP notwithstanding compliance with EMIR prudential rules, (ii) the systemic costs associated with the disorderly failure of a CCP bearing in mind the level of uncovered losses that would likely result, and (iii) the additional costs of clearing associated with such extra buffers.

In the EU, CCPs are already subject to strict prudential standards that require extensive amounts of capital to protect against multiple CM failures and operational issues that occur in extreme but plausible market conditions. We appreciate that these buffers are not cheap to maintain, with the respective costs passed on to clients in the form of additional clearing fees. We, therefore, recognise that extra capital buffers for the recovery process beyond those maintained by an EMIR compliant CCP to cover all truly exceptional and highly unlikely tail-risk events such as the failure of a third or fourth CM would make clearing so expensive as to become economically unviable.

AIMA's proposed additional recovery tools should complement the already robust standard CCP default waterfall and so should involve a relatively small but sufficient layer of contingent protection to the CCP to enable it to continue to operate during period of significant financial distress and, perhaps most importantly, give clients sufficient confidence in the CCP's financial conditions so that they continue participating voluntarily during a period of financial stress. We suggest that the contingent and relatively small amount of protection we propose should not make clearing excessively expensive.

Buy-side participation in the CCP auction: AIMA recommends that in order to maximise participation in CCP auctions of the unmatched positions of defaulted CMs, thus the likelihood that these unmatched positions obtain new counterparties, CCP auctions should be open to both buy-side and sell-side participants.

1.3. Resolution

Once a CCP has exhausted its internal resources, AIMA members would view that CCP as non-viable. In such situations, we would propose that the CCP should be wound down and liquidated as per a clear resolution plan. We would recommend against resolution taking the form of a protracted artificial process that attempts to preserve the functioning of a CCP and/or return it to viability whilst placing any resulting costs solely upon the CCP's participants. We consider that this would be ineffective and could in fact prove counterproductive by causing greater disruption and uncertainty than simply winding the CCP down.

Trigger: Resolution should commence at the point at which a CCP's internal resources described above are exhausted or highly likely to be exhausted, such that external resources would be required for the CCP to continue to function such as government capital or client margin. Thus the CCP can be said to be non-viable.

Objective: The principal objective of resolution should be to wind-up and liquidate the failed CCP in a fast and efficient manner, allocating losses subject to the principle of no-creditor-worse-off-than-ordinary-insolvency-proceedings. AIMA recommends that the liquidation should seek to avoid unnecessary destruction of value whilst returning residual margin to clients as quickly as possible so that they may take alternative positions as quickly as possible.

Mechanism: As we describe above, AIMA believes that resolution should only involve the immediate winding-down of a CCP's activities, the liquidation of its open positions and return of residual client margin in a manner in which avoids unnecessary destruction of value, allocates losses to creditors subject to the not-worse-than-in-ordinary insolvency principle and returns client monies to enable them to enter positions with an alternative CCP as quickly as possible. The resolution tools to be used on failed systemically important banks are largely unsuitable for CCPs and would not serve to meet the particular objective of minimising the systemic consequences of a CCP's failure. If a particular State wishes to provide emergency funding support to a CCP under resolution, it should be able to do so in return for which the State obtains 100% of the CCP's equity.

Key points of AIMA's position on resolution:

No IM haircutting: As part of the winding-down and liquidation of a CCP under resolution, AIMA accepts that without additional external funding uncovered losses will remain and have to be accepted by certain participants. AIMA accepts that in this resolution, VM payments owed by the CCP may be haircut as there are no resources at the CCP remaining to make those margin payments. We would stress, nonetheless, that in both recovery and resolution, client IM cannot and should not be on the table for haircuts not resulting from that client's default as this would exacerbate contagion and, most notably, would be illegal under many jurisdictions such as the USA. For example, in the EU, IM is not a 'claim' a client has on the CCP but a collateral arrangement subject to the Financial Collateral Directive which cannot be seen as part of the CCP's estate.

Bank resolution tools inappropriate for CCPs: AIMA would stress our belief that traditional tools used for bank resolution would not work in the context of CCP recovery. The highly concentrated and specialised nature of CCP activities means, for example, that a third party transferee is unlikely to be found for a failed CCP sufficiently quickly to make a sale of business tool an effective short term solution. Similarly, it is unlikely that public control applied through a bridge institution would add any value to the resolution of a CCP unless emergency government liquidity were to be provided for the service lines of the CCP managed by the bridge institution.

Once a CCP has failed, AIMA does not see any value in attempting to preserve its functioning through public intervention by applying losses to clients whilst placing stays on their relevant termination rights. From the perspective of a client, they would be in no different financial position and would obtain legal certainty benefits from the immediate winding-up and liquidation of the CCP with the return of any residual margin.

Immediate wind-down and liquidation: As noted above, AIMA considers that the sole objective of resolution should be the fast and efficient winding down of the CCP and return of residual client margin. We do not consider that it should be an objective of resolution to return a failed CCP to viability or to preserve functions whilst placing costs solely on the CCP's participants. In line with our arguments relating to recovery, AIMA considers the objective of returning a failed CCP to viability would introduce moral hazard and represent a distortion of desirable market forces which remove weaker and less efficient participants from the marketplace. It would also be counter to the international push towards mandatory central clearing.

We also contend that, without additional emergency funding, it may not be desirable or even possible to preserve the functioning of a CCP or return it to viability during the kind of market conditions that have led to the CCP's failure. For example, if a CCP is compliant with its EMIR obligations, it should take at least three of the CCP's largest CMs to have failed in order for that CCP to have exhausted its internal resources so as to become non-viable. For three large CMs to fail simultaneously would represent a scenario of such financial Armageddon that markets would cease to function in any efficient manner such that the preservation of the CCP would be meaningless. The introduction of bank recovery and resolution measures further reduce the likelihood of three or more simultaneous CM failures, thus would necessitate an even greater scenario of financial turmoil to bring about a CCP's resolution.

It would also be highly undesirable to seek the preservation of functions and/or return to viability of a CCP which has entered resolution as a result of operational issues (rather than CM failures). In such an instance broader markets may remain relatively stable, however, AIMA would be concerned that an underlying operational issue that has exhausted its internal resources would persist unrectified, leading to further losses and a collapse in confidence amongst that CCP's participants. Failovers could easily occur upon the application of a bridge institution, in particular (a tool more appropriate to bank resolution) where the operational issue reoccurs, thus destabilising the private transferee or rendering the bridge institution ineffective. AIMA believes that a CCP that has entered resolution due to operational issues that have exhausted its internal resources is demonstrably non-viable thus should be closed and liquidated as soon as possible.

Emergency government financial support tool: AIMA would accept that it should remain the prerogative of a State - in the same way as is envisaged under the EU BRRD – to provide emergency financial support to the CCP so as to preserve its functioning and/or return it to viability if the latter is likely to be effective and in the public interest. Exceptional situations could exist, for example, where truly extreme and unforeseeable events have exhausted the CCP's internal capital and only a small top-up is needed to tide the CCP over. We suggest that it many cases the cost of this extra capital could well be less than the likely economic cost of the CCP's failure.

We recognise that the moral hazard arguments we raise against artificial preservation using external resources in recovery and resolution also apply to an emergency public funding tool and so believe that the outcome for the existing owners and managers upon the application of the tool should reflect the fact that the CCP has failed as business. In return for public funding of a CCP in resolution, whatever the amount, AIMA proposes that the relevant government acquires a 100% ownership stake in that CCP such that it becomes a state owned enterprise. We suggest that the government could then seek to recover its financial support through the future revenues of the CCP and its eventual divestment to alternative private sector buyers.

Suspension of the clearing obligation: AIMA considers that, upon the entry into resolution of a CCP which clears a contract that is subject to the clearing obligation in that jurisdiction, and no alternative CCP is readily available to clear that mandatorily clearable contract, it is important that the clearing obligation for that contract is suspended by the relevant authority. In such situations we believe that market participants should be permitted to return to bilateral trading so as to avoid exposures to counterparty credit and contagion risks.

We believe that it would be counterproductive to the G20 regulatory initiatives described above to impose a clearing obligation upon market participants when no viable CCP exists to clear them and would render the contract untradeable, exacerbating market distortions. Of course, once an alternative CCP has been found or the emergency public support tool is used to maintain the functions of a CCP in resolution, we appreciate that the clearing obligation should be reintroduced as soon as possible.

Cooperation between resolution authorities: In order for the resolution of a CCP group which includes cross-group entities and CCP participants to be most effective, AIMA strongly recommends that resolution authorities cooperate amongst themselves as to the resolution plans for the winding-down and liquidation of each CCP and their CMs or the possibility of emergency public liquidity provision.AIMA's policy position on CCP recovery and resolution.

1.4. AIMA Policy Principles

In summary, AIMA proposes the following five key Policy Principles for CCP Recovery and Resolution:

1. Clear and concise distinction between recovery and resolution - recovery using internal resources to return CCP to financial health, resolution to immediately wind-down and liquidate a failed CCP;

2. Client margin never haircut during recovery stage – losses in recovery to be allocated to stakeholders obtaining benefit from the CCP's financial success, not customers;

3. Losses allocated during resolution subject to the no-creditor-worse-off-than-in-ordinary-insolvency proceedings principle – any losses incurred by participants, including clients, upon the liquidation of the CCP should not be worse than ordinary insolvency;

4. Maximum transparency into the CCP's financial health for all participants – regular updates as to the financial health of a CCP implementing its recovery tools for both direct and indirect clients;

5. Emergency governmental liquidity tool – states should have a last resort option to intervene to sustain the critical functions of a failed CCP in exchange for a 100% ownership stake.

Annex – An introduction to central clearing and the policy debate surrounding CCPs

1. What is central clearing with a CCP?

CCPs

CCP clearing houses are highly creditworthy FMIs which participate in derivative markets by placing themselves between the buyer and seller of an original trade – thus, acting as a buyer to every seller and a seller to every buyer.

The origins of CCPs[1] can be traced back to the 1800s where clearing houses were primarily responsible for netting payments in the commodities futures markets. Clearing of exchange traded derivatives increased in importance significantly during the 1990s[2] and progressed into OTC markets during the 2000s.

CCPs are useful due to the nature of derivatives contracts, which involve payments/deliveries being made at future dates. A major risk for derivatives counterparties, therefore, is that their opposing counterparty will default on its obligations prior to the maturity/expiry date of the contract. This risk is exacerbated by the fact that the non-defaulting counterparty may well have a corresponding underlying position in the cash market for which the derivative contract serves as a hedge, relying upon the cash flows from the aforementioned derivative contract to cover any losses made on the cash position. A CCP serves to mitigate this counterparty credit risk by centralising or 'mutualising' credit risk of the end counterparties among itself and its CMs. CCPs aim to be 'market neutral' and run what is known as a 'matched book' – whereby each risk position is hedged with one or more corresponding opposite risk positions. In their normal course of business, therefore, they do not have market risk exposure.

Overall, the agreed benefits of CCP clearing can be summarised as:

a. Mitigation of counterparty credit risk by placing a highly creditworthy counterparty in the middle of each transaction;

b. Improved access to derivatives markets by reducing the need to undertake due diligence against a range of individual counterparties, thus removing the risks posed by information asymmetries that can disincentivise trading with smaller, less creditworthy, counterparties;

c. Improved margining efficiencies through the ability for the CCP to net across its various exposures as single counterparty, thus reducing the amount of margin that is needed when compared to the bilateral space.

d. Prompt close out of positions for which the relevant counterparty is unable to meet its margin obligations, minimising chances that a rogue participant can to build up extreme losses for which it is unable to cover;

e. Mutualisation of losses across CMs, providing a collective buffer against extreme events once the defaulting participant's margin and default fund contribution is exhausted.

f. Improved information availability for the public and supervisors[3]

CCPs, however, do take on large amounts of idiosyncratic counterparty credit risk. In order to manage this counterparty credit risks, CCPs utilise various techniques, dealt with in more detail below.

1 Also known in the US as derivatives clearing organisations (DCOs) – hereafter 'CCPs' and 'DCO' are interchangeable

2 Bank of England, Central counterparty clearing houses and financial stability http://www.jscc.co.jp/en/ccp12/materials/docs/11.pdf

3 Simon Firth, Derivatives Law and Practice Volume 2 at 12.011

CMs

CCPs carry out their functions through a number of large financial institutions subject to their rules, such as investment banks or broker dealers (**BDs**). In the EU these are known as clearing members (**CMs**) and in the USA they are known as Futures Commission Merchants (**FCMs**).

Similarly to members of a trading venue, **only CMs have direct access to the CCP**. All other participants can only access the CCP through a CM/FCM. CCPs place strict requirements on their CMs/FCMs in relation to capital, liquidity and operational reliability, creating an effective a buffer between the CCP and its broader customer base.[4] The CM/FCM model thus assists the CCP in its risk management by limiting its credit exposures to a small number of highly creditworthy counterparties.

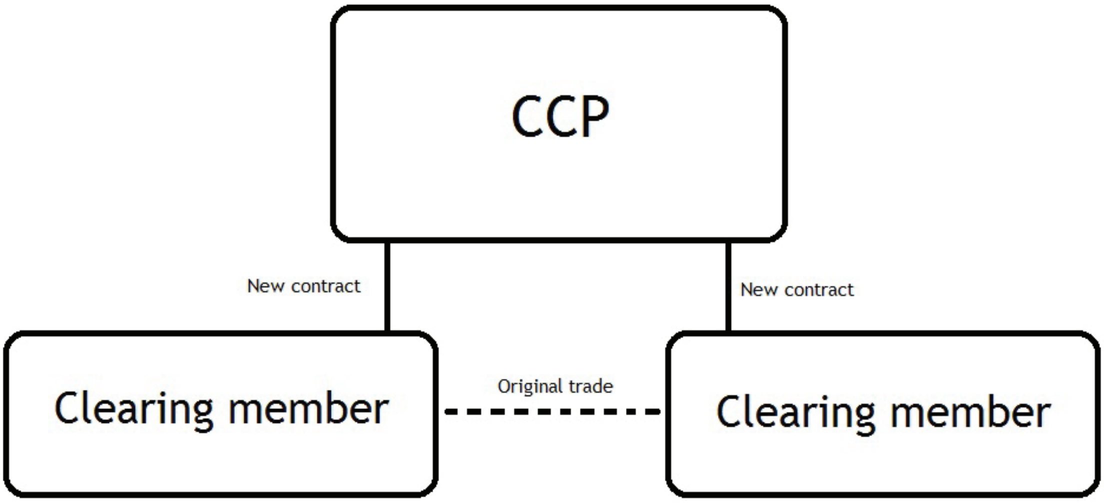
As alluded to above, CMs and FCMs clear their own trades with the CCP, but they also provide market participants with access to the CCP as clients. Such clients are often known as direct clients and include buy-side entities such as investment funds.[5]

CCPs Novation

Trading of derivatives may take place on either an exchange or OTC basis and may be undertaken between two CMs (either of which may be acting on behalf of a client); or between a single CM and its client. The process through which the original contract between counterparties is torn-up and replaced by new contracts is referred to as novation and ensures that the original two counterparties have no direct contractual exposure to one another.

When a derivative contract is entered into between two CMs, novation involves the original contract being replaced by two new back-to-back contracts between a respective CM/FCM and the CCP.[6]

Figure 1.



4 Due to the key role CMs play in risk mitigation and loss mutualisation at the CCP, this is now explicitly provided for under legislative instruments EMIR and Dodd Frank, dealt with below.

5 Clearing members must, upon request by the CCP, inform the CCP about the criteria and arrangements that they adopt to allow their clients access to the services of the CCP. They must also publicly disclose the prices and fees associated with the services they provide.

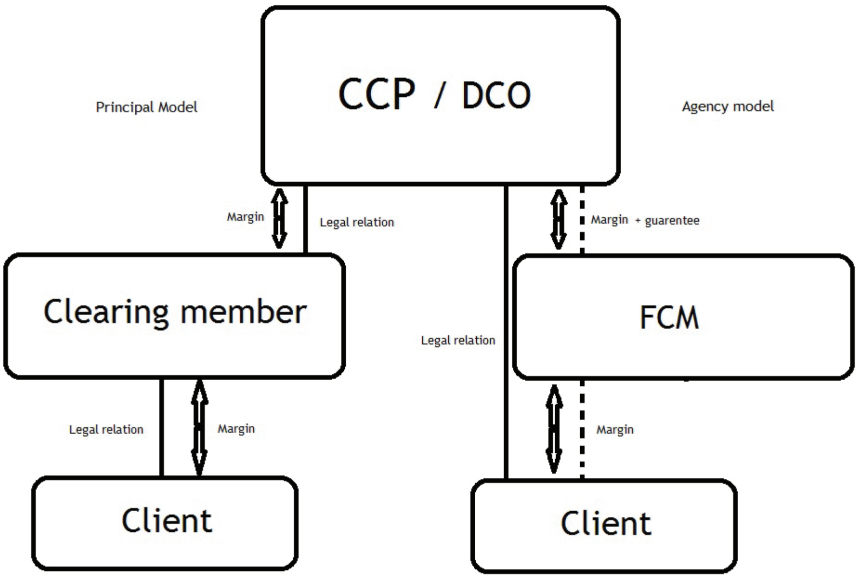
6 In the UK, for example, novation is used as a way to fulfil the requirement for UK investment exchanges to make arrangements to secure the timely discharge of the parties' rights and obligations under contracts entered into on the exchange. The CCP interposes itself in the transaction such that it acts as the focal point for the transaction.

When one or more direct clients are the end counterparties to a contract, novation will take place based on one of two different clearing models: (i) the agency model; or (ii) the principal model.

Under the principal model, which is the preferred model in Europe, the original contract is extinguished and replaced by: (i) new contracts between the CCP and each CMs as *per* novation above, and (ii) equivalent back-to-back contracts between each CM and its client. This places each client in the economic position as if it had direct legal relationship with the CCP. However, it is the CM that is responsible for passing on the economic effect of the contract to the counterparty. For example, the CM receives and answers margin calls from the CCP and passes on such calls to its client.[7]

Under the agency model, which is the mandated model in the USA, the FCM passes the trade to the DCO whereupon the original contract is extinguished and replaced by a contract between the client and the DCO, with the FCM acting as the agent of its client. This agency relationship, however, is slightly different from the ordinary agent- principal relationship as the FCM must act as a guarantor of its clients' obligations and is responsible for collecting and passing on margin to and from the CCP. This structure arose from the legal relationships involved with futures exchanges and the more lenient capital treatment for OTC contracts entered into with a DCO.[8]

Figure 2



It also remains possible for an 'indirect client' relationship to occur, through which a direct client (or 'customer' in the case of FCMs) can provide its own client with access to the CM and access to the CCP. Indirect client relationships are dealt with in the same manner as direct client relationships.

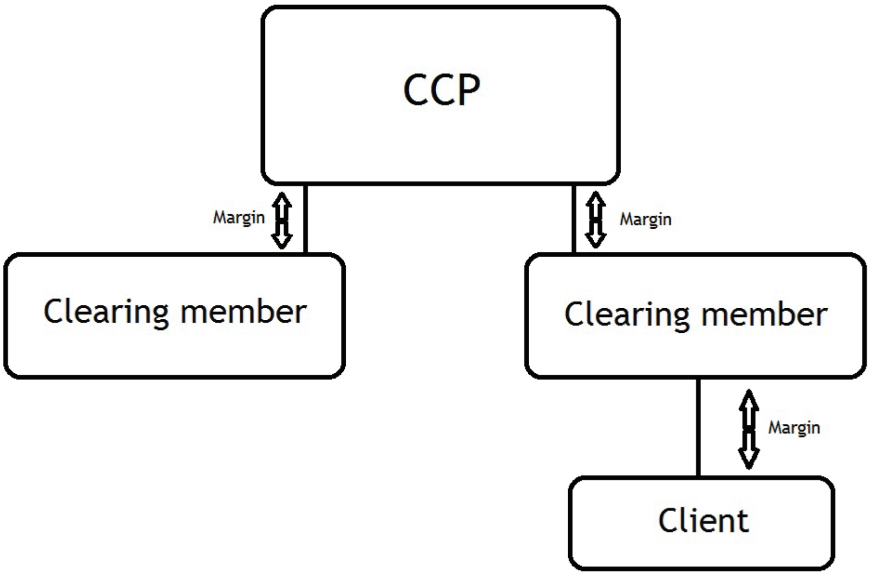
Once a contract has been novated, the CCP will utilise various practices in order to mitigate its credit risk:

7 See ISDA FOA Addendum (for principal to principal clearing relationships) which provides for the limited recourse of the client to its CM in situations of CCP default, meaning that a CM may make corresponding deductions from any client payments under a Client Transaction or Collateral Agreement.

8 Both models' descriptions assume that only one CCP is used. It is, however, anticipated that each leg of the original trade could go to a different CCP and for the different CCPs to 'interoperate' i.e., manage the risk and settlement obligations arising between them as a result of such interoperability.

Margining

Figure 3



A key risk mitigation benefit of CCP clearing is the requirement under CCP rules to exchange collateral - known as 'margin' - in addition to the exchange of relevant payment streams under the contract.[9] Under relevant rules, CMs must post margin in the form both: (i) initial margin (IM) and (ii) variation margin (VM).

IM is an upfront payment by a counterparty to cover potential adverse intra-day price movements in its portfolio and incidental close-outs. IM must be kept topped up at all times and can vary according to the particular instrument cleared. For example, higher IM requirements are likely for instruments with greater price volatility or lower liquidity. IM is usually required to be posted as cash or highly liquid securities, with minimal market and credit risk. Acceptability in the case of IM will be driven by the particular CCP's rules.

VM is a variable amount exchanged daily[10] to cover the difference in daily mark-to-market value clearing in certain circumstances mark-to-model) of a position. This can be either a positive or negative figure for each counterparty respectively. Additional margin calls may be made by the CCP in exceptional circumstances. As with IM, strict rules are maintained on the eligibility of VM instruments, often with the requirement that VM be posted in cash in certain stipulated currencies.

Each CM will pass relevant margining requirements onto their direct clients. CMs will often provide their clients with credit to cover IM and VM payments up to an agreed limit, after which more collateral must be posted.

In terms of financial stability and mitigation of counterparty credit risk, the regular exchange of VM has the benefit of each counterparty immediately realising the net profit or loss of a contract. This means that, upon maturity, the only money to be exchanged is the change in market-to-market value between the last payment date and maturity, and the exchange of any relevant principal sum (relevant for physically settled FX swaps, for example).

Another key benefit of CCP margining when compared to the bilateral space is the more efficient use of the

9 Requirement to exchange is also a regulatory requirement. Now contained under EMIR and Title VIII of the Dodd-Frank Act

10 Since EMIR and Dodd-Frank Act, by both counterparties to a trade

finite amount of collateral assets through multilateral netting. This process involves the CCP and its CMs each being able to post and receive margin to cover only their net positions in particular contracts, rather than their gross positions. For example, if a CM has seven positions with a CCP, four of which are out-of-the-money by £100k (4x£100k=**£400k**) and three of which are in-the-money by £100k (3x£100k=**£300k**), instead of a CM making four gross payments £100k to the CCP and receiving three gross payments of £100k from the CCP, the CM need only make a single net payment of £400k-300k=**£100k** to the CCP. This has the effect of reducing the liquidity and volume of collateral needed by both CMs and CCPs. This reduction in the volume of collateral needed also helps to ensure that the collateral actually posted remains of the quality necessary to perform its function during periods of broader financial distress.

Importantly from the perspective of a CCP's failure, cash collateral is usually posted on a title transfer basis, such that the CCP immediately obtains legal title to the cash so that it can use it to meet its margin payments for the back-to-back contracts against which the CCP is covering its exposure. Non-cash collateral, such as IM, is typically transferred by way of security interest only as the CCP does not need it as part of its ordinary course of business. It, therefore, remains the property of the relevant posting counterparty.

During the 2008 financial crash, UK CCPs' margin practices proved sufficient to cover losses of the high-profile defaults of Lehman and MF Global. Nevertheless, prudential regulatory standards for CCPs that deal specifically with margining have been developed in response to the G20 initiative on derivatives market reform.

In the EU, Article 41 of EMIR and its related regulatory technical standards,[11] provide for margin requirements that CCPs must place on their CMs. In particular, CCPs must impose, call and collect margins from its CMs to cover potential losses for cleared OTC contracts that result from 99.5% of volatility scenarios based on the volatility witnessed over the last 12 months and a liquidation horizon of the prior five days.[12] For exchange traded products, a 99% standard is applied, again with a 12 month volatility horizon, but a liquidation horizon of only two days prior. The quality of collateral is also regulated. Article 46 of EMIR specifies that CCPs must only accept highly liquid collateral with minimal credit and market risk.

2. How could a CCP fail?

CCPs on the whole performed well during the global financial crisis experienced in 2008-9 and the collapse of large financial institutions such as Lehman Brothers International and AIG. Since 2008-9 and the implementation of the G20 commitments for derivative markets reform, CCPs have also become subject to stricter prudential standards to ensure their financial robustness during periods of extreme economic stress.

However, notwithstanding the strength of CCP prudential and conduct of business requirements, there will always remain a tail risk, however small, of an exceptional event that could destabilise a CCP and lead to its failure. It is important, therefore, to consider the different sources of failure, the potential systemic consequences of a CCPs failure and how these may be avoided.

2.1 CM failure

A key source of risk that could lead to a CCP's failure is from the default of one or more of its CMs.

As described above, CCPs seek to ensure that they run a 'matched book' which is market neutral. In basic terms this means that for every long/short position in a particular contract accepted by the CCP for clearing, the CCP must take a corresponding short/long position – known as a 'back-to-back' position – to hedge the price movements of the first position. An example is provided within Figure 4.

11 Available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:201:0001:0059:EN:PDF and http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:052:0041:0074:EN:PDF

12 99% confidence interval is permissible when contracts are appropriately mitigated.

Figure 4

Should CM X clear a 12 month sovereign credit default swap (sovereign CDS) contract at the CCP - with the CCP taking the position of 'seller'[2] of that CDS - the CCP will enter into a back-to-back contract with CM Y, with the CCP taking the position of 'buyer'.[3] It has an economically neutral position. Should the creditworthiness of the underlying reference sovereign increase and the value of the CDS contract fall, the CCP's position as 'buyer' with CM Y would become out-of-the money. The CCP would thus become liable to post VM to CM Y to cover its loss making position. However, the CCP's position as 'seller' with CM X would become in-the-money, allowing the CCP to make an equivalent margin call upon CM X to cover its VM obligation to CM Y, maintaining its market neutral position.

In practice, the CCP's exposure to each CM will involve millions of contracts, both as buyer and seller.

Should a CM fail, the CCP may not receive sufficient VM from the failed CM to fund the failed CM's out of the money positions. The CCP may then become unable to fund its back-to-back VM obligations to its other CMs under the normal process of using the VM posted by the (now failed) CM. The CCP would, therefore, be left with an unmatched position that it must source alternative funding to cover, or absorb using its various capital funds and resources. It must be stated, of course, that acceptance of counterparty credit risk is the central reasoning behind CCP clearing. By centralising the credit risk of all contracts in one location with the specialist risk mitigation tools of the CCP and the capital buffers of both the CCP and the CMs, the effects of the manifestation of such risk are intended to be minimised. Nonetheless, the failure of a CM is an extreme manifestation of risk. The majority of instances of default for the purposes of risk management are anticipated to be of the clients of CMs, rather than CMs themselves, thus will be covered by the CMs themselves.

CCPs maintain numerous different tools, now in accordance with G20 legislative mandates, with which to deal with CM failures. These are as follows:

Default fund

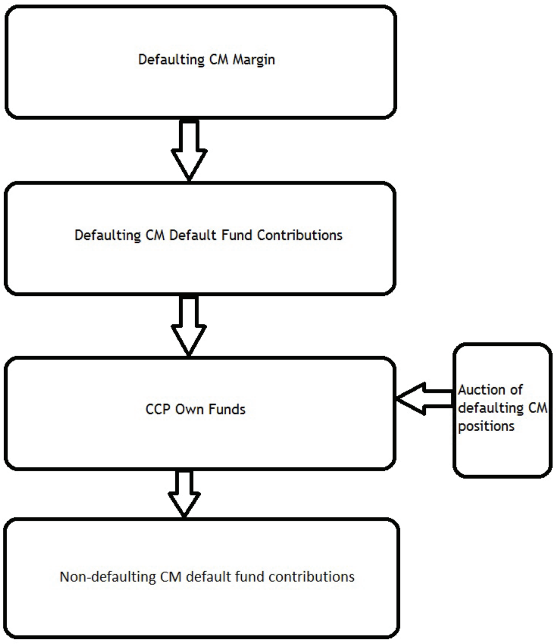
CCPs maintain additional capital buffers to cover residual unmatched positions should one or more CMs fail, so stop making VM payments to the CCP to cover out-of-the-money positions. The main buffer is known as the CCP's 'default fund'. It is composed of *ex ante* contributions from each CM and is intended to cover the losses of that CM over and above the value of the IM and VM that it has posted to the CCP.

In response to the G20 commitments for the reform of the derivatives market, various jurisdictions' national rules now include a requirement for the maintenance of a default fund by each CCP. Article 42 of EMIR requires that the CCP maintain at least one pre-funded default fund of sufficient size to enable the CCP to withstand, under extreme but plausible market conditions, the default of the largest CM or the simultaneous default of its second and third largest CM. The size of the default fund must not fall below this minimum level under any circumstances. *Ex ante* contributions are to be proportional to the exposures of each CM. It remains optional to the CCP to adopt multiple default funds to cover specific classes of instruments it clears.

Jurisdictional rules also provide the details of when access to the default fund will become permissible. Article 45 of EMIR contains the 'default waterfall' which details the order of which particular assets are utilised upon a CM default.

Under Article 45, when a CM becomes unable to meet its VM obligation to a CCP on its open positions, the CCP will first have access to the IM posted by the defaulting CM. Should this IM prove insufficient to cover the position, the CCP will then utilise the default fund contributions of the defaulting CM. Once these contributions have been used up, and the CCP still has an uncollateralised exposure to the other CMs with which it entered into back-to-back trades, it will be required to use its own funds. Only once the CCP's own funds are exhausted will it have recourse to the default fund contributions of non-defaulting CMs.

Figure 5



Default Waterfall under Article 45 of EMIR

CCP own funds

As described, above, CCP prudential rules implemented in response to the G20 commitments on derivatives market reforms require that CCPs utilise a layer of their own funds prior to accessing the default fund contributions of non-defaulting CMs. This is widely known as 'skin in the game' and is universally agreed to help match the incentives between the CCP itself and its CMs, so reducing the chances of behaviour that could lead to a default.

Such rules seek to maximise the effectiveness of skin in the game by mandating a minimum quantum of own funds to be held. Article 43 requires CCPs to maintain sufficient available, pre-funded resources to cover losses in excess of a defaulting CM's margin and default fund contributions. This capital is in addition to the general capital requirements of the CCP under Article 16 of EMIR.[13] Regulatory technical standards specify the particular calculation methodology for the minimum amount own funds.[14]

Auctioning

Upon the default of a CM, it remains possible for the CCP to attempt to find a third party that is willing to assume the out-of-the-money positions of the defaulting CM through an auction process with other CMs and buy-side participants. Finding such a third party could help to reduce the unmatched position that the CCP must cover by providing an alternative counterparty to plug the gap in margin provision.

13 See in EMIR context, Recital 33 of commission Delegated Regulation (EU) No 153/2013 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council with regard to regulatory technical standards on requirements for central counterparties available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:052:0041:0074:EN:PDF

14 Articles 43 and 45 of EMIR, for example, deal with the use of own resources of a CCP to cover potential losses that exceed those covered by relevant margin and default fund contributions. Regulatory technical standards have been developed to provide details of relevant calculation and maintenance of such own resource which specify that own resources must be maintained to a level of 25% of the basic capital requirements for business and legal risk Article 35 Delegated Regulation (EU) No 153/2013 available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:052:0041:0074:EN:PDF

The fact that the defaulting CM's residual contracts are out-of-the-money, however, means that finding a willing counterparty is unlikely – no participant will voluntarily take on a position that would put them in a worse position than a newly entered contract. Therefore, in most cases the residual contracts will have to be recalibrated so as to place the contract at zero. In this circumstance, no consideration will be paid for the contract and the CCP will obtain benefit only from being protected from any further increase in its uncovered exposure.[15]

It remains a possibility, however slim, that the market has moved in favour of the defaulting CM in the interim period between the CM's default and the auction process. In this scenario, the residual contract would place a new counterparty in a better position than would be the case had they entered into a new contract. Multiple participants may, therefore, be willing to take on the position.

Unless the market has moved in favour of the defaulting CM in the interim period, however, it remains unlikely that the CCP will be able to raise sufficient funds from this process alone to cover the unmatched position. Recourse to non-defaulting CM default fund contributions may then be permissible.

Rights of assessment

In addition to the capital resources available within the default waterfall, it is often possible for a CCP to call upon its CMs to provide additional liquidity up to a certain amount in accordance with their relevant participation agreements. Such arrangements are known as 'rights of assessment'.

Of course, these rights of assessment must balance the CCP's interest in covering its loss with the likelihood that the call for liquidity may result in further CM failures. The excessive provision for, or use of, rights of assessment could also increase the regulatory capital charges upon CMs, thus making participation harder and clearing more expensive for all users of CCPs.

2.2 Operational risk

In addition to a CM default, a CCP may fail as a result of an operational error. Such operational risk could arise from deficiencies in information systems or internal processes; human errors; management failures; or disruptions from external events, any of which could result in the deterioration of the financial condition of the CCP or the ability to otherwise render its services to clients.[16]

In the case of the Hong Kong Futures Exchange Clearing House, dealt with below, operational risks crystallised as its internal risk management procedures failed.

It is generally the case that, unlike CM defaults, losses arising from operational risks enable recourse to a CCP's own resources only and do not permit recourse to CMs' margin or the default fund.[17] The prudential rules in relation to CM defaults, therefore, are not relevant and provide no benefit towards mitigating the risks posed by the CCP to itself through operational errors, such as by a CCP wrongly assessing the margin requirements for a particular product class. In this regard, operational risks pose a significant challenge to the survival of a CCP a large proportion of total capital buffers are not applicable.

Under global derivatives market reforms, therefore, CCPs are required to hold additional own capital to cover such risks. For example, Article 16 of EMIR requires CCPs, in addition to minimum permanent CCP capital for authorisation of €7.5m, to maintain sufficient minimum amounts of capital to ensure an orderly winding-down or restructuring of the activities over an appropriate time span and an adequate protection of the CCP against credit, counterparty, market operational, legal and business risks, not already covered by prudential rules relating to the CCP's exposures to its CMs. Regulatory technical standards detail the quan-

15 This is because the original VM shortfall has not been covered. The new counterparty will, however, cover any further movement of the defaulting CM's legacy position out-of-the money, thus enabling the CCP to meet corresponding requirements to post VM to cover its back-to-back positions, whilst maintaining a matched book.

16 CPSS-IOSCO Principles of FMIs at 21

17 The prudential rules for capital, CM margining and default funds under Chapter III of EMIR, for example, are designed to mitigate risks posed by CMs to the CCP.

tification of such capital, using either a ‘Basic Indicator Approach’ or ‘Advanced Measurement Approaches’ [18] Similarly, in the US, in order to be authorised, DCOs must meet the core principles under 5b(c)(2) of the CEA, now contained under Section 7a-1 of Title 7 of the US Code.[19]

It nonetheless remains possible that an extreme operational issue could lead to the failure of a CCP.

2.3 Custody and investment risk

In addition to CM failure and operational risks, a CCP also faces custody and investment risk from the own funds and collateral assets that are held with third-party custodians. The loss of such assets could well result in credit and liquidity problems or even failure for the CCP should it become unable to locate the assets for use or if the assets are otherwise subject to capital losses. Similarly to operational risks, under respective global rules the CCP would only be able to use its own capital to absorb losses, rather than any CM margin and default fund contributions.[20]

Article 47 of EMIR provides relevant prudential rules for the investment of financial resources, requiring assets only to be invested in cash or highly liquid financial instruments with minimal market and credit risk. Margin and default fund contributions have to be deposited with operators of securities settlement systems or other highly secure arrangements. Any deposits with third parties are to be sufficiently segregated from the third party’s own assets.

It would nonetheless remain possible, for example, that an operational issue or other default of a third party custodian could leave the CCP without sufficient liquidity to cover its short term exposures. It is also possible that a large scale market crash could seriously impact upon the value or liquidity of traditionally high-quality instruments. Despite the requirement for cash and highly liquid instruments, it remains the case that no instrument can be entirely risk free such that it is uncorrelated with the broader market - correlations have been seen to increase significantly during periods of financial market stress.

2.4 Malfeasance

A residual risk which could arise in isolation or in combination with any of the above issues is that of malfeasance or criminal behaviour. For example, it is always possible that a rogue individual motivated by self-interest may attempt to misappropriate either CCP assets or client money. This is particularly hard to predict and, similarly to the above non-CM default scenarios, would not necessarily result in access to CM margin or the default fund.

2.5 Case study of HK CCP failure

Three clearing houses have failed in the last 40 years:

In 1974, the French Caisse de Liquidation failed upon a default on margin calls when sugar futures prices fell sharply and CMs had put forward trades without the consent of their clients. In 1983, the Kuala Lumpur Commodities Clearing House failed when six large brokers defaulted following a crash in palm-oil futures.

The most famous, however, is the failure of the Hong Kong Futures Exchange clearing house which failed following the global stock market crash of 1987 – ‘Black Monday’.

The failure resulted from a failure by a large futures speculator to honour HK$1bn of losses he made on the Hong Kong Futures Exchange. The Hong Kong Futures Exchange clearing house had not increased the margin requirement for the main Hang Seng Index future contract in line with the 2000% growth in turnover of the

18 Article 3 of Commission Delegated Regulation (EU) No 152/2013 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council with regard to regulatory technical standards on capital requirements for central counterparties

19 7 USC Section7a-1 - Part 39 of Title 17 of the CFR, available at: http://www.ecfr.gov/cgi-bin/text-idx?SID=df89366e1117c31116702f656a00369f&tpl=/ecfrbrowse/Title17/17cfr39_main_02.tpl

20 BoE Quarterly Bulletin 2013 – Q2 available at: http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2013/qb1302.pdf

contract experienced over the prior two years, thus did not have sufficient capital to absorb this loss and was unable to make its margin payments. This resulted in the futures exchange being forced to close as margin calls were not able to be honoured.

In addition, traders that had hedged cash equity positions using the futures markets faced losses on their cash positions due to Black Monday, without the ability to cover these with corresponding margin on their profitable futures positions. The shock was, therefore, passed on to the stock market, which also closed. The exchanges remained closed for four days, after which a government bail-out of US$500m was required to ensure brokers met margin calls.

3. Global OTC derivatives reform and the systemic importance of CCPs

3.1 Increased use of CCPs

Increased clearing

It is clear from successive reports from both national and international bodies such as the FSB that CCP clearing is already well established in exchange traded and OTC interest rate and credit derivatives markets and is increasing on an ongoing basis. Statistics as of April 2014 demonstrated that, in addition to the almost universal CCP clearing of exchange traded products, 59% of clearable OTC interest rate derivatives (including 85% of single currency interest rate derivatives) and 40% of clearable credit derivatives (including 95% of credit default swap index contracts) are currently cleared with CCPs.[21] Nonetheless, the FSB notes still that there remains significant scope for increased central clearing. The Committee on Payment and Settlement Systems (CPSS) and Technical Committee of the International Organisation of Securities Commissions (IOSCO) (together CPSS-IOSCO) note that the gross notional value of cleared products could potentially double from a notional value of $142.7tn to $268tn once national mandatory clearing initiatives are completed. This would mean that CCPs would clear 53% of all OTC derivatives traded.[22]

Increased volumes of clearing for different products is likely for two reasons: (i) natural technological progression of the OTC derivatives market; and, most importantly, (ii) the development and implementation of legislative and regulatory reforms.

G20 OTC derivative market reforms

The global regulatory response to the 2008 financial crisis has enhanced the importance of CCPs to the derivatives market. Leaders at the 2009 G20 summit in Pittsburgh, in seeking to reduce systemic risks posed by the global OTC derivatives market, committed that:

> All standardized OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest.[23]

In response to these commitments, Member States of the G20 have developed extensive new rules for all aspects of derivative markets and are currently implementing them on an ongoing basis.[24]

Mandatory CCP Clearing

A central requirement contained in most major financial services jurisdictions' legislative developments is that of mandatory CCP clearing of exchange traded derivatives and OTC derivative contracts which meet particular characteristics, including sufficient standardisation, liquidity and price reliability.

In the EU, Article 4 of EMIR provides for mandatory clearing of specified OTC derivative contracts with authorised CCPs for: (i) financial counterparties; and (ii) non-financial counterparties with gross-notional positions above a set clearing threshold.[25]

In the US, Title VII of the Dodd-Frank Act provides for the mandatory clearing of all swap transactions that are acceptable to a DCO and for the broad class of which mandatory clearing designations have been made.[26]

21 The FSB's Seventh Progress Report on OTC Derivatives Market Reforms of April 2014

22 The BCBS-IOSCO Working Group on Margining Requirements In Europe, see speech by Benoît Cœuré, of the ECB, 27 January 2014 available at: http://www.bis.org/review/r140127c.htm

23 Leaders statement available here: http://www.g20.utoronto.ca/2009/2009communique0925.html

24 According to the FSB's Seventh Progress Report on Implementation, most jurisdictions have completed the necessary reforms to legislative frameworks and are developing detailed rules where required. FSB OTC Derivatives Market Reforms 7th Progress Report on Implementation, available at: https://www.financialstabilityboard.org/publications/r_140408.pdf

25 As defined under Article 2(8) and 2(9) EMIR

26 See Section 2(h)(1)(A) of the Commodity Exchange Act and 17 CFR Part 50

Mandatory clearing designations were first made by the Commodity Futures Trading Commission (CFTC) in November 2012 for certain interest rate and credit default swaps.[27] Additional contract classes will become subject to the clearing requirement on an ongoing basis. We still await an initial clearing determination by the Securities and Exchange Commission (SEC).

Risk mitigation for uncleared trades

In addition to direct requirements for central clearing, global derivatives reforms have also introduced indirect incentives for voluntary CCP clearing of other OTC contracts through the imposition of onerous collateral and risk mitigation requirements on uncleared bilateral trades. CPSS-IOSCO published their final margin requirements for non-centrally cleared derivatives in 2013 which are intended to form the basis for relevant jurisdictional rules on non-cleared margin anticipated to become effective in 2015.[28]

Article 11 of EMIR deals with risk mitigation techniques for non-centrally cleared trades and contains specific rules which apply to all financial and non-financial counterparties, including timely confirmation and collateralisation, as well as formalised processes for daily valuation, portfolio reconciliation, portfolio compression and dispute resolution. Financial counterparties are also subject to additional capital requirements for uncollateralised risk. The European Banking Authority (EBA), alongside ESMA and the European Insurance and Occupational Pensions Authority (EIOPA) has issued a consultation on the specific risk mitigation techniques for OTC-derivative contracts not cleared by a CCP.[29] We await the European Commission's final delegated act containing regulatory technical standards. In the USA, Part II of Title VII of the Dodd-Frank Act, as transcribed into the CEA and Exchange Act, contains relevant risk mitigation requirements for swap dealers (SDs) and major swap participants (MSPs). A proposed rulemaking was issued by the CFTC in 2011 on margin requirements for uncleared trades for SDs and MSPs,[30] with an amended rulemaking published after the CPSS-IOSCO Final Report in 2014.

3.2 CCPs as systemically important financial institutions

In addition to commitments to reform the global OTC derivatives market, G20 leaders in 2009 committed to combat the moral hazard of systemically important financial institutions which are 'too-big-to-fail' and are the recipients of implicit public sector guarantees.[31] This commitment was in direct response to the 2008 financial crisis and the trillions of dollars of governmental financial assistance provided to large financial institutions by developed economies globally. It is intended that never again will the risks of financial sector behaviour be externalised such that they are left for national treasuries to cover. The G20 commitments on systemic risk and moral hazard have taken the form of initiatives for the 'recovery and resolution' of systemically important financial institutions. Such rules are intended as a more efficient and safe alternative to ordinary insolvency proceedings. As elucidated in section 4 below, the majority of work to date on recovery and resolution has been focused on banking institutions.[32] Nonetheless, the development of recovery and resolution rules for systemically important non-bank institutions is now at the forefront of global policy discussion.

27 See: http://www.cftc.gov/ucm/groups/public/@lrfederalregister/documents/file/2012-29211a.pdf 7 U.S.C. § 2(h)(1)(A) and 17 C.F.R. Part 50 (clearing)

28 Available at: http://www.bis.org/publ/bcbs261.pdf

29 Available at: http://www.eba.europa.eu/documents/10180/655149/JC+CP+2014+03+%28CP+on+risk+mitigation+for+OTC+derivatives%29.pdf

30 http://www.cftc.gov/ucm/groups/public/@lrfederalregister/documents/file/2011-9598a.pdf

31 *Addressing cross-border resolutions and systemically important financial institutions by end-2010:* Systemically important financial firms should develop internationally-consistent firm-specific contingency and resolution plans. Our authorities should establish crisis management groups for the major cross-border firms and a legal framework for crisis intervention as well as improve information sharing in times of stress. We should develop resolution tools and frameworks for the effective resolution of financial groups to help mitigate the disruption of financial institution failures and reduce moral hazard in the future. Our prudential standards for systemically important institutions should be commensurate with the costs of their failure. The FSB should propose by the end of October 2010 possible measures including more intensive supervision and specific additional capital, liquidity, and other prudential requirements.

32 The EU Directive on recovery and resolution of credit institutions and investment firms (BRRD) available here: http://register.consilium.europa.eu/doc/srv?l=EN&t=PDF&gc=true&sc=false&f=ST%2017958%202013%20INIT&r=http%3A%2F%2Fregister.consilium.europa.eu%2Fpd%2Fen%2F13%2Fst17%2Fst17958.en13.pdf

It is generally agreed that, due to their size and function, most CCPs are systemically important. It has been suggested, for example, that the disorderly collapse of a CCP could well have more grave consequences for the financial sector than the failure of a large bank.[33]

CCP risk management benefits occur through the reduction, mutualisation and orderly distribution of losses using specialist systems and utilising collateral and capital pools in the most efficient manner, for example through multilateral netting practices. CCPs in this way minimise the likelihood of credit risk events. Nonetheless, CCPs result in the centralisation of residual risk in a single location such that if a CCP were to fail in a disorderly manner, this centralised risk would manifest itself upon the financial system.

The CPSS-IOSCO Principles for financial market infrastructures describes the systemic risks posed by FMIs in greater detail,[34] in particular, through their interconnectedness with other financial institutions.[35] It is clear that the very nature of CCPs means that they have numerous common participants, direct and indirect. Large clearing members, for example, will typically participate in more than one CCP. The failure of a CCP, therefore, has the potential for disruptions to spread quickly and widely across various markets. Large CCPs linked to futures and options exchanges provide clearing services without which trading in those products on those exchanges would be especially difficult. Without trading on those exchanges, it is likely that corresponding markets upon which stocks referenced by those derivative contracts or for which the derivative are otherwise used to hedge will be impacted as traders involved in both markets fail.

This systemic importance is likely to increase as the gross notional value of CCP cleared derivatives grows and market participants become increasingly dependent upon cleared derivative products.

Due to the consequences posed by the failure of a CCP and the impossibility of entirely eliminating the possibility of such failure, policymakers globally agree that additional rules are needed through which to deal with a CCP's distress and failure in order to minimise systemic consequences and avoiding recourse to public funds.

33 Paul Tucker, See: http://www.bankofengland.co.uk/publications/Documents/speeches/2011/speech501.pdf

34 Available at: http://www.bis.org/publ/cpss101a.pdf

35 CPSS-IOSCO Principles of FMIs at 18

4. Global policy work

To date there has been broad consideration of the issue of CCP recovery and resolution at various levels, including international and domestic.

4.1 FSB

In response to the G20 commitments to mitigate systemic risks and prevent moral hazard in general, the Financial Stability Board (FSB) developed a set of 'Key Attributes of effective resolution regimes for financial institutions' (Key Attributes) upon which national regimes were anticipated to base their respective national regimes to deal efficiently with the distress and failure of systemically important financial institutions.

The Key Attributes were published in November 2011 and list 12 essential features of the resolution regimes of all jurisdictions, including: scope; the resolution authority and its powers; set-off, netting, collateralisation, segregation of client money; funding; institution specific cross border cooperation; and access to information. The Key Attributes, nonetheless, note that they are not all suitable for all sectors and all circumstances, thus the FSB has continued to develop policy for specific categories of entity, including FMIs such as CCPs.

In August 2013, the FSB issued a public consultation on the Application of the Key Attributes of Effective Resolution Regimes to Non-Bank Financial Institutions containing draft additional annexes to the Key Attributes that set out guidance on particular non-bank financial institutions. CCPs were of specific concern in the broader context of FMIs which were presumed to be systemically important. In particular, the proposed annex on FMIs stated that the Key Attributes should be applied to FMIs in a manner appropriate to their critical role in financial markets. AIMA submitted a response. The FSB Key Attributes were finally republished with the additional guidance annexes in October 2014.

4.2 CPSS-IOSCO

In April 2012 CPSS-IOSCO published a set of Principles for Financial Market Infrastructures. The principles include recommended preventative measures for CCP failure discussed above, including prudential capital levels and general credit, liquidity and default management. They also include a principle for the development of recovery plans by each CCP to articulate how it intends to deal with threats to its viability in a range of potential scenarios, subject to competent authority oversight.

CPSS-IOSCO also published a consultative report in July 2012 on the recovery and resolution of financial market infrastructures which dealt with how the FSB Key Attributes could be applicable to a resolution regime for FMIs.

A further public consultative document was published by CPSS-IOSCO in August 2013 to gauge opinions upon which to base guidance to CCPs on how to develop recovery plans to enable them to overcome threats to viability that might prevent continuation of critical services, as well as for national authorities in carrying out their responsibilities associated with the development and implementation of such recovery plans and tools. CPSS-IOSCO published their Final Report in October 2014.

4.3 US

The US have incorporated CCPs into the general rules contained within Titles I and II of the Dodd-Frank Act.

Title I requires all SIFIs in the US to prepare a resolution plan to demonstrate resolvability under the US Bankruptcy Code. Title II of the Dodd-Frank Act contains rules for an Orderly Liquidation Authority (OLA) to deal with failing a SIFI, including CCPs, by placing it into a federal receivership process, with the FDIC as receiver. The process is intended to end 'too big to fail' and associated public bailouts, and would apply if: bankruptcy would have serious adverse effects on the US financial market and no private sector alternative is available to prevent default. A number of tools are available, including bridging institutions.

No general designation of CCPs as SIFIs, however, has been made, leaving it to the discretion of the Federal Reserve Board.

4.4 EU

The EU has now adopted its Directive for bank recovery and resolution (BRRD), however, due to other priorities no European Commission proposal has yet been tabled for recovery and resolution initiatives for non-bank financial institutions.

In late 2012, the European Commission undertook a consultation seeking comments on the potential recovery and resolution of non-bank financial institutions, including CCPs. This consultation set out views on the potential regime, including possible resolution objectives, trigger points and authority powers.

During 2013, the Economic and Monetary Affairs (ECON) committee of the European Parliament developed an own initiative report on a recovery and resolution framework for non-bank institutions. This was approved unanimously by ECON in October 2013.

The report called, in particular, on the European Commission to prioritise specific legislation on the recovery and resolution of CCPs and makes certain key policy statements including that:

- CCPs should have in place comprehensive recovery arrangements which provide protection over and above the funds and resources required by EMIR;
- protection of client money should be a core objective of CCP recovery and resolution regimes. Legal certainty should be provided to all users of financial market infrastructures, including protection for those in even bargaining positions such as sound principles for how CMs pass losses on to clients once the default waterfall has been exhausted;
- losses from the failure of the CCP should first impact upon the clearing members who are paid by their clients to provide a layer of protection against the CCP;[36]
- incentives for good governance should be maximised;
- operational and investment risks should be dealt with by suspension of dividends and payment of variable remuneration or voluntary restructuring of liabilities through debt-to-equity conversion.

Due to the EP elections of 2014, this resolution is no longer binding upon the new parliament. It, however, is indicative of the general policy position.

AIMA awaits the publication of a formal legislative proposal by the European Commission which is anticipated this year.

4.5 UK

The UK has developed its own regime for dealing with the resolution of CCPs prior to the commencement of EU level work.

In 2009 the UK introduced a Special Resolution Regime (SRR) which gave UK authorities a permanent framework to deal with failing UK banks and building societies. After an HM Treasury consultation in August 2012 on broadening the financial sector resolution regime,[37] the Financial Services Act 2012 broadened the SRR to include systemically important CCPs. This will not be brought into force until relevant secondary legislation is developed, however. An additional consultation on such secondary legislation for non-bank resolution regimes was carried out in September 2013. HM Treasury in early 2015 published a code of practice for the SRR under the Banking Act 2009.[38]

36 A key benefit that clients derive from the clearing member lies in their provision of a firewall against counterparty risk in relation to both the CCP and other clearing members.

37 Financial sector resolution, broadening the regime, available at: https://www.gov.uk/government/consultations/financial-sector-resolution-broadening-the-regime

38 Available here: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/411563/banking_act_2009_code_of_practice_web.pdf

Under the Financial Services Act 2012, once a CCP is considered systemically important by the Bank of England (BoE), it will then become potentially subject to stabilisation powers. Such powers enable the BoE to make orders transferring shares or elements of the CCP's business to a private sector purchaser or bridge institution. It will also be able to direct the CCP to take or refrain from certain actions when necessary.

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