Guidance on financial resources to support CCP resolution
Response by Sir John Dermot Turing

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Respondent’s details
The respondent’s details are as follows:

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The publication of this response is authorized.

The initiative taken by the FSB to provide Guidance on Financial Resources to support CCP Resolution is to be welcomed, and the respondent is grateful for the opportunity to be able to contribute to the discussion.

Preliminary observations
The FSB’s proposed Guidance concerns financial resources to support CCPs undergoing resolution. The proposed Guidance approaches the topic by analyzing the scenarios which may lead to a need for resolution, and then looking at the possible sources and shortfalls of available resources. That approach is not to be criticized, but it assumes that the resolution authority will have a clear vision of the purpose for which the resources are needed. Before considering the detail of the proposed Guidance, it may be worth briefly revisiting that purpose.

The objectives of CCP resolution. As currently formulated, the objective of CCP resolution is ‘the pursuit of financial stability’ and resolution should ‘ensure the continuity of critical CCP functions … without exposing taxpayers to risk of loss’.

Faced with this objective, a resolution authority may feel that a CCP needs to be restored to a status of business-as-usual, whatever the cost of doing so, and whatever the consequences. Too rigid an interpretation of the objectives, along such lines, would lack the flexibility which ought to govern policy implementation in a situation which is likely to be unprecedented, dangerous, and fast-moving. Resolution authorities will be faced with an immensely difficult task, and it is not going to be helpful to be told that they must rescue the CCP and that the rescue must not affect taxpayers. Those objectives should be ideals, not obligations. It may be useful to resolution authorities if the Guidance were to reiterate expressly the objectives of resolution and the approach which is recommended to resolution authorities. In doing so, the following additional thoughts may be relevant.

The challenges of time and uncertainty
The biggest problems confronting the resolution authority will be time and uncertainty. With every day that passes, there are new transactions which, unless clearing is suspended, will add to the challenge. The markets will be volatile, so every passing day could imply loss of value of collateral while apparent exposures rise, encouraging precipitate action. The problem of uncertainty is likely to
be the reason that a CCP is entering resolution: the reason why the CCP’s own recovery toolkit appears to be inadequate for the circumstances is likely to be that the losses cannot be effectively and quickly quantified. The wide swings in prices immediately after the failure of Lehman Brothers illustrates how hard it will be to get a ‘valid’ price in a default auction or catastrophic cyber failure, when the market cannot properly judge the worth of anything. In time, as the picture becomes clearer, the markets will settle down, and more ‘realistic’ pricing (in other words, where the standard deviation of independently provided quotes reduces to typical levels) will become possible. What the CCP needs, above all, during this period, is the ability to pause the whole system. Current resolution authority toolkits do not focus on suspensive abilities; reaching for extra cash is not, at least in the first stages, the solution. If, after mature reflection, the CCP is wholly out of financial resources, further mature reflection should be given to the way forward.

Considerations beyond continuity and taxpayer exposure
The two factors mentioned in the objectives of CCP resolution should not be the only matters present to the mind of the resolution authority. Resolution authorities ought, in most circumstances, to have at least the following additional considerations in mind:

- What the consequences of restoration of the CCP to normal service would be, in particular as regards the wider economy, end-users and their customers, moral hazard, and the burden on taxpayers when the limit of stakeholder financial support is reached.
- How realistic it is to expect non-taxpayer stakeholders to foot the bill without passing out intolerable financial burdens into the wider economy; and whether it is fair for the taxpayers of the CCP’s home state to be the only backstop for the residual costs of restoring an internationally active CCP which provides a service to users from many countries.
- What alternative strategies are available, which might include suspending the clearing obligation and/or new registrations while a longer-term solution is found, voluntary transfers of part portfolios to other CCPs, a shared settlement between stakeholders and taxpayers.

In summary, the FSB’s proposed Guidance on financial resources is to be welcomed, but logically the assessment of resources by a resolution authority comes after the choice of route out of the mess has been made. Since the issue of CCP resolution first came to policymaker attention around 10 years ago, much has been learned, and it would be appropriate to conduct a review of the options and tools available to resolution authorities in the light of the experience and new thinking which has been obtained, possibly as part of a five-year review of the FSB’s 2017 Guidance.

Step 1 – identifying loss scenarios
(1) Default v non-default losses
The list of default and non-default scenarios presented in section 1.1 is helpful and appears to be thorough. The following comments might be made.

It should be stressed that a pure distinction between ‘default’ and ‘non-default’ losses is not achievable. Sources of loss which appear to fall more naturally into a ‘non-default’ category will overlap with default losses, as the following examples show.

- A CCP suffers from the failure of a custody or treasury product provider. As shown by the FSB’s own analysis of central clearing interdependencies, the population of service providers providing custody and treasury products to CCPs is highly correlated with the

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1 BCBS, CPMI and FSB, 2018. Analysis of Central Clearing Interdependencies
population of clearing members or their affiliates. Accordingly, a custody or treasury service provider failure is almost certainly itself a *member* default – just a more difficult and more complex one.

- A data, custody or treasury service provider may not itself fail but may suffer a database outage which means that it cannot deliver on the services required: the CCP which loses its access to margin, to position, exposure and adequacy-of-cover information, will find it difficult to make realistic margin calls, receive deliveries of collateral and payments and so forth. Non-payment of margin is usually an event of default. A CCP recognising the origins of the problem is unlikely to overreact by calling defaults, but the problem is not likely to be that simple. The provider suffering the outage may be the victim of a cyberattack which is more widespread. In such circumstances there is a danger of panic in the markets, reduced trust in solvency of market providers, volatility and even defaults as liquidity dries up. Actual defaults may follow, and a CCP must act quickly.

- A CCP suffers a major systems outage which deprives it of a view of its positions, obligations, collateral holdings etc vis-à-vis its members. Margin calls become impossible. Once news of the outage is known, members and their clients will tend not to perform any obligations relating to the cleared products until the picture becomes clearer. Non-performance is exactly what is experienced during default scenarios, and has the tendency to spread infectiously.

It is tempting to deal with default and non-default losses separately because there are separate pools of financial resources to address them. The prevailing philosophy is that ‘CCP capital’ (resources contributed by shareholders, rather than members) backstops non-default losses whereas the ‘default waterfall’ (resources contributed by members, plus the CCP’s skin-in-the-game) covers defaults. This distinction is false; the following observations can be made.

- What appears to argue against a single comprehensive loss management approach is a theoretical notion that ‘default losses are brought to the system by the members’ whereas ‘non-default losses are the exclusive responsibility of management’. In fact, that distinction is specious, not only because of the overlap between the categories of loss. As the risk model of the CCP is the responsibility of management, the very possibility of a default loss is something which is under management control. It would always be possible for management to reduce the likelihood of default losses to a tiny amount by racking up margin levels, though this may be unpopular with clearing members. Furthermore, where mandatory-clearing products are concerned, the risk is not ‘brought to the system by the members’: much of the cleared volume originates with end-users, not members, and the members are not responsible for the clearing mandate.  

- Shareholders in a CCP will be anxious to protect their investment, and thus to limit their liability for losses of any sort. Members will be anxious to ensure that funds and collateral committed to the mutual loss-sharing arrangements of the default waterfall are not exposed to other risks over which they have no control. However, the amount of resources available in the form of CCP capital is very small when compared with the resources contributed to the default waterfall.  

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It is therefore suggested that, in principle, it is unwise to have separate funds when the aetiology and progression of a loss event may straddle the ‘divide’ between default and non-default cases. The possibility for overlap between the two loss categories suggests that it would also be unwise to encourage CCPs to develop separate response strategies and resource-usage protocols as if the categories were isolated: it could lead to delay, uncertainty, increased loss and litigation. Better would be to ensure that CCPs and resolution authorities have considered all loss scenarios in the round and have all the options available in all circumstances. It is suggested that the Guidance discuss this issue up front, so as to provide maximum help to resolution authorities ahead of a crisis.

(2) Resolution before recovery
Paragraph 1.1(iv) of the proposed Guidance suggests as a ‘default loss scenario’ that the resolution authority may decide to initiate resolution before the CCP’s recovery plan is applied. This paragraph is confusing, since it implies that action by a resolution authority could itself cause losses. Presumably something different is intended. Further explication would be desirable, especially as to conditions in which the tools available to the CCP (which are essentially the same, apart from the transfer-of-business tool, as those available to the resolution authority) might more likely to threaten financial stability than in formal resolution.

(3) Non-compliance with recovery actions
Various paragraphs of the proposed Guidance (1.1(iii), 1.2(iii), 1.2(iv)) rightly invite resolution authorities to consider the possibility that stakeholders could fail to comply with expected recovery obligations. The circumstances of recovery and resolution are likely to bring to the fore unwillingness to provide unconditional and unlimited financial support for a CCP, especially if a stable future is not assured and/or the reasons for the failure of the pre-existing status quo are uncertain or controversial. What is at stake is the overall fairness, or balance of pain-distribution; if the CCP’s recovery plan has incorrectly predicted how the pain should be shared, there will be resistance. Perceptions of unfairness may arise in light of the differential treatment of shareholders and members, a subject which is considered further below under the heading ‘Treatment of CCP equity’.

Even obligations which appear to be legally binding may be at risk of unenforceability in recovery and resolution situations. Some of the relevant legal considerations can be summarized as follows.

- Recapitalization obligations imposed on shareholders by contract may not be effective. Under English law, a shareholders’ agreement which purports to oblige shareholders to provide supplementary funds in a recovery situation could result in the company being recharacterized as having unlimited liability or that the provision is ineffective.⁴
- Discretionary powers in contractual arrangements (such as CCP rulebooks) are not freely exercisable and should be exercised in good faith, and not arbitrarily or unreasonably.⁵ Such challenges could arise where the CCP has carried out tear-up at prices chosen by the CCP, elected to continue VMGH where VMGH cannot be shown to be a complete solution to its difficulties, increases initial margin levels in a crisis, etc.
- A CCP which decides to implement a recovery plan is likely to be regarded as a quasi-public body whose decision-making is subject to judicial review; decisions may be quashed, and

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their implementation stayed, if found to be unreasonable, actuated by immaterial considerations, disproportionate, or biased.  

- The above assessment is of English law, though it is highly likely that similar considerations apply in Civil Law systems. Concepts of reasonableness in decision-making and good faith may lead to similar difficulties of enforcement and challenge in many legal jurisdictions.

The upshot of this analysis is that apparently ‘binding’ obligations set out in rulebooks are vulnerable to non-compliance if the relevant obligor considers the steps being taken unfair. It is not at all clear that a resolution authority stepping into the shoes of a CCP to enforce the same actions would fare better. Accordingly, the proposed Guidance is right to encourage resolution authorities to look with scepticism on the apparent rights and obligations set out in recovery documentation, and to formulate alternative contingency plans. It may be thought desirable to indicate the areas of possible vulnerability in the Guidance, since in many cases (qualified) legal opinions on rulebooks will have been supplied to supervisors, and their existence may be misleading if a resolution authority assumes that the existence of a legal opinion implies complete and unconditional enforceability in all circumstances.

Step 2 – evaluation of existing resources and tools

Quite rightly the proposed Guidance repeatedly encourages resolution authorities to ‘understand’ the rules of CCPs. The difficulty of implementing that simple principle should not be underestimated. CCPs’ rules, especially as regards default management, default fund application, the default waterfall, VMGH and other recovery tools, are exceedingly complex, detailed and unlikely to be readily understood by anyone other than a legal specialist. It follows that a resolution authority must invest time and resources of its own in learning the intricacies of its CCPs’ rules, ensuring adequate absence cover and continuity of know-how.

‘Understanding’ goes further than the content of the rules, and includes being able to predict to a degree the impact the implementation of any relevant discretionary power will have on the various stakeholders. Implicit in the concept is thus the need for up-to-date data on the profile of the cleared positions, the extent to which they are client transactions, and any skewed directionality of the transactions among sub-sectors of the market.

The Guidance might usefully spell out in more detail the FSB’s expectations as regards ‘understanding’.

Step 3 – assessing resolution costs

Under this heading, it may be appropriate to mention that ‘costs’ of resolution may, under some legal systems, include the ‘costs’ of running the CCP under resolution. The costs may not be limited to the out-of-pocket expenses of the resolution authority but can sometimes mean the entire outgoings of the CCP’s business. Such costs frequently rank as a super-priority claim on the assets of the entity in resolution; they may be a highly significant drain on the limited assets of the troubled CCP, exacerbating losses of the members and end-users whose claims are already at risk or being written down through the application of VMGH.

The Guidance may wish to alert resolution authorities to this possibility in their jurisdiction.

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Step 4 – gap analysis

Valuation

The greatest challenge in evaluation of existing resources and tools is valuation – not of the resources, but of the losses giving rise to the need for additional resources. In default scenarios, the need for resolution is likely to have arisen because of failure of the CCP’s default management process, which envisages the valuation of a defaulter’s positions through the mechanism of an auction to discover close-out prices. If the auction has failed, that implies that the value of the positions – and the amount of resources needed to close them out – cannot at present be ascertained.

In this situation it could be a fruitless exercise to try to come up with an elaborate valuation of the available resources and the shortfall which may result. The proposed Guidance under para 4 would appear to err on the side of elaborateness, which may not always be feasible or appropriate.

Furthermore, not all the resources assigned to cover losses may actually exist. Various reasons (apart from market revaluation of collateral) may contribute to unreliability of assets:

- in non-default scenarios, access to custody assets and cash may be impaired, and accurate data on the holdings may not be available
- in default scenarios, VMGH may not function as intended if variation margin payers are unable to meet their obligations owing to extreme price movements.

It is suggested that the Guidance might encourage resolution authorities to approach the shortfall analysis in a more conceptual, qualitative manner than as presently set out. While the financial gap is the focus of the Guidance, at all stages a resolution authority ought to have in mind that there are various options for concluding the resolution process, not all of which involve plugging that gap.

Step 5 – evaluating means of addressing gaps

It is argued above that a CCP entering resolution may have no available or feasible source of extra funding to call upon which has not already been tried under the CCP’s own recovery program. If the problem is an unsatisfactory close-out and valuation of defaulted positions, with one or more failed auctions, what the CCP really needs is time. Over a period of weeks the volatility in markets should subside, and the portfolio to be auctioned may be able to be revalued successfully. The question which the resolution authority may need to focus on is less how to raise enough cash, than how to hold the system together for long enough. Accordingly, the list of tools set out in para 2.1 of the proposed Guidance may not be sufficient.

The current toolkits suggested for CCP resolution in some jurisdictions7 draw heavily on the toolkit developed for banks in resolution. CCPs are, of course, not banks, so it would not be surprising to find that the bank tools are ill-adapted to CCP resolution. Further tools to consider, which the FSB may wish to include in its Guidance or elsewhere, include the following:

- Suspension of clearing will prevent the problem in the CCP being exacerbated as more positions are added to an already unmanaged book. Where the cleared transactions emanate from an organised exchange, it may be necessary to suspend trading on the

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exchange; where the transactions are subject to a clearing mandate, the authority should have the power to order a suspension of the mandate.\(^8\)

- Suspension of action against the CCP (including members’ rights against the CCP) to close out, or to withdraw collateral, or to initiate proceedings for non-payment, or anything similar, may be helpful to buy time for further action. The equivalent suspension period for resolution of banks in Europe expires at the end of the next business day after the resolution authority takes action.\(^9\) CCPs may need much longer; for banks, where a business transfer is effective and can be done quickly, only a short suspension is needed. Further debate on this important tool, including checks and balances if a long period of limbo is indicated, seems to be desirable.

- It may be desirable for the CCP’s supervisor to have a power to issue directions to the CCP’s shareholders. Such a power could be used, in principle, to unblock shareholder resistance to recapitalization, to restrain exercise of shareholder rights such as enforcement of dividend entitlements, or to bring about management changes or even changes of ownership.

- Encouraging the CCP to have additional, contingently available, layers of financing may be a useful pre-resolution tool. Examples include catastrophe insurance and issuance of credit-linked notes.

**Treatment of CCP equity**

Part II of the proposed Guidance is concerned with the circumstances in which the shareholders’ interest in the CCP should bear losses. However, by characterizing the problem as one of ‘CCP equity’ the impression is created that, even if the CCP is insolvent, the shareholders might be entitled to be bailed out by members or even other persons. It may be less confusing for readers if the section were renamed ‘shareholders’ responsibility for losses in resolution’ instead of ‘treatment of CCP equity’.

**The constraints of insolvency**

If the CCP has insufficient assets to pay all its debts it is ‘insolvent’. For these purposes one must have regard to future and contingent claims, not just claims which are ‘past due’. It is axiomatic, and underpinned by statute and case law, that in insolvency the creditors’ rights then become paramount; shareholders’ concerns can only be addressed once the creditors have been paid in full. Attempts to circumvent the statutory order of priority in distribution of assets will be struck down.\(^10\)

Against this background it is hard to understand some of the suggestions in Part II of the proposed Guidance. In various places (introductory section, para 6 first set of bullets, para 7(ii), etc) the implication is that creditors could be left unpaid, notwithstanding the insolvent of the CCP, while shareholders would retain some financial interest in the CCP. If that is intended, the mechanism for achieving it and the grounds for such a radical departure from ordinary insolvency policy should both be explained in much more detail. Guidance which recommends a different approach should be tested for legal viability before being finalized.

It should, of course, be mentioned that not every case of resolution will involve insolvency. A first step which ought to be taken by the resolution authority, which will be a helpful guide to the boundaries of acceptable action, should be to check whether the CCP is formally insolvent. In

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\(^8\) Cf. Regulation (EU) No 648/2012 (EMIR), art 6a.


practice, the position is likely to be highly uncertain, given the difficulty of valuing liabilities and collateral in the fast-moving and volatile conditions of a CCP resolution.

The following further observations concerning insolvency may also be noted:

A shareholder’s interest is not a write-downable liability
The investment made by shareholders cannot be regarded as a ‘liability’ in an insolvency situation. Shareholders’ claims are only relevant if all other classes of claimant have been satisfied, and as indicated above it is legally invalid to alter that ranking by contract. The concept of ‘writing down’ a shareholder’s ‘entitlement’ is meaningless, therefore.

The Guidance presumably envisages that shareholders’ funds should take the first losses in some resolution situations where the CCP is solvent (thereby potentially imposing a need for recapitalization in order to meet minimum capital requirements), rather than expecting members to provide additional resources. If the CCP is insolvent, there are no ‘shareholders’ funds’, since all assets are needed for payment of creditors, and any losses which should be borne by the shareholders can only be satisfied if the shareholders directly inject new funds.

The drafting of the Guidance should be amended to remove the confusing references to writing down shareholders’ interests, and to explicate more fully the mechanisms through which shareholders can be required to bear losses where this is the intended policy outcome.

Margin
It is sometimes suggested that a formal insolvency procedure for a CCP would work to the detriment of providers of initial margin (‘they would lose everything’). This is not correct. Initial margin is provided either in title-transfer form (cash deposits or title-transfer securities collateral) or under a security interest (pledge, charge, lien or however named in the relevant legal system). In either case the insolvency process provides protection for the margin-provider:

- Title transfer structures involve set-off of the countervailing claims (of the CCP for the closed-out positions, and of the margin provider for the value of the margin). Unless the CCP has widely over-margined the positions (which seems unlikely in a resolution situation) the net outstanding claim of a margin provider will typically be small, and the alternative scenario (perhaps the more likely) is that the margin provided is actually insufficient to cover the positions leaving the margin provider with a net obligation owing to the CCP.
- Security interest arrangements only expose the margin provider to loss if the CCP has failed to safeguard the margin provided with due diligence and proper segregation. Unless this type of failure is the cause of the CCP’s insolvency, the margin providers will have their assets returned in full once they satisfy their obligations to the CCP.

NCWOL
The No Creditor Worse Off safeguard is frequently mentioned. In understanding the NCWOL test, it is first necessary to understand who the creditors protected by the safeguard might be:

- Self-evidently a shareholder is not a ‘creditor’, so is unable to avail itself of the safeguard. In various places, the proposed Guidance suggests otherwise (especially at the foot of page 16), and should be corrected accordingly. NCWO does not mean No Shareholder Worse Off, as in an insolvent liquidation no shareholder will receive anything.
- As the proposed Guidance points out (Part II introduction, second para), for the purposes of applying NCWOL one should first assume full implementation of the CCP’s rules for loss allocation. Setting aside the discretionary elements of those rules, which will make the
NCWOL exercise very difficult, one might assume therefore that all VMGH powers will have been used by the CCP. VMGH has the effect that variation margin gainers whose gains were haircut by the CCP cease to be creditors for the variation margin forgone. They are, like contributors to the default fund after it has been utilized, worse off with VMGH than if liquidation had been implemented before VMGH.

Determining ‘which creditors’ are to be judged no worse off, and decisions on timing of policy action, involve policy choices which may be open to challenge.

However, since NCWOL is a device for protection of creditors, rather than shareholders, any discussion of this safeguard in Part II (which concerns shareholders’ interests) is out of place, and likely to be confusing. It is suggested that the references to NCWOL should either be removed, or the relevance of this concept explained much more fully where it is mentioned.

Conversion of claims to equity stakes (para 7(ii))
The conversion of creditors’ claims to equity is a route taken in the structures for resolution of banks. Although banks differ from CCPs in many respects, it may be thought that CCPs’ creditors will be wholesale financial market participants able to accept such a conversion without difficulty. The following additional considerations could also be relevant:

- Clearing members which are regulated financial firms (presumably the majority) will suffer adverse regulatory capital treatment in holding an equity stake in a CCP. The short-term impact may be no greater than taking a loss, but in future years the holding will constitute a continuing capital deduction. Finding a structure which facilitates disposal of such a holding may be necessary.
- Clearing members clearing client positions as principal may be unwilling to accept equity stakes referable to their clients’ transactions.
- Clients whose positions are unfulfilled and convertible to equity pose a range of additional questions, including: (i) the absence of privity of contract with the CCP, making it harder to impose a settlement on them if they are not directly bound by the CCP’s rules; (ii) the nature of the clients being different from clearing members and potentially not ‘wholesale financial market participants’ readily able to accept CCP equity; (iii) the more directional nature of client positions in cleared products, which may mean that clients are apparently being preferentially selected for unwelcome treatment in the resolution process.

As a separate point, in the first two bullet points on page 19, it is suggested that clearing members who have experience a variation margin gains haircut might be eligible for compensation, including in the form of CCP shares. The difficulty with this proposal is that in many cases the effect of VMGH is not to suspend, but to completely cancel the claim of the member whose gain was forgone. Any treatment which treats a gains haircut as a suspended claim could be regarded as creating a ‘contingent liability’ for the CCP, which in turn might jeopardize its solvency. It may be appropriate to adjust the Guidance to acknowledge that members whose variation margin gains have been cut may be ineligible for the proposed treatment.

Bridge CCP (para 7(iii))
Transfer of the CCP’s business to a bridge CCP is not a simple as the summary in the proposed Guidance might suggest. The considerations which will apply will include the following; some of these points might usefully be added to the Guidance or other FSB publications.

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• Multi-service CCPs may be able to be split up so that the viable services, together with their associated default funds and systems, continue in a clean vehicle.¹²

• Where the CCP in resolution has only a single service, it will be highly unlikely that some class of creditors can be identified to be left behind in the ‘remnant CCP’. A CCP’s creditors are its members. One possibility could, theoretically, be to identify the problem positions which the CCP has been unable to resolve, and leave them in the ‘remnant CCP’, but even this is unlikely to be feasible. One safeguard which will typically apply is that members’ ‘netting sets’ cannot be broken up in taking resolution action.¹³

• Even if these difficulties do not arise, the ‘bridge CCP’ must be capitalized. If there is any uncertainty about the (possibly negative) value of what is being transferred, that will be difficult. Furthermore, the owners of the bridge CCP will need to ensure that the bridge entity complies with statutory capital requirements and has access to infrastructures such as payment and securities settlement systems.

• If the bridge entity is owned directly or indirectly by the State, the implication is that taxpayers’ funds have been used in the resolution process; the extent to which this is compatible with the FSB’s resolution objectives should be spelt out more clearly in the finalized Guidance.

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¹³ Cf. EU Proposal for a Regulation on CCP recovery and resolution (see footnote 7), art 56 (per original proposal).