**Response to the ESMA report**
**"First Report for Consultation: Central Clearing Solutions for Pension Scheme Arrangements "**

## Introductory Comments

ISDA and FIA (together the Associations) welcome the opportunity to respond to ESMA's "First report for consultation: central clearing solutions for pension scheme arrangements (PSA)".

The Associations focus in this response on topics that affect the clearing market. For questions directed to pension scheme arrangements please refer to responses from the pension fund industry.

Our understanding is that the primary concern of PSAs being subject to mandatory clearing is the availability of liquidity in tail scenarios of extreme rates moves. Their main concern is the ability to achieve certainty of access to liquidity to pay cash VM and in particular connected to the reputational as well as commercial impacts of a potential default on margin calls.

While market-based tools like collateral transformation by the clearing member (CM) or the repo market will be able to support PSAs in normal times, these tools are not guaranteed to work in extreme stressed markets unless regulators are prepared to make relevant changes to bank capital rules, leverage ratio and the GSIB framework which provides pension funds guaranteed access to repos in stressed conditions without disproportionate cost. Otherwise, we believe that only a central bank backed collateral transformation facility would be a credible solution for the cash VM problem as described in ESMA's report to provide additional security. We also propose potential options, requiring further in-depth feasibility analysis, how central bank access could be intermediated to allow a last resort solution for PSAs.

We would also like to emphasize the need to re-visit current exemptions for the clearing obligation for PSAs in the context of Brexit. It is important to keep in mind that after the end of the transition period, UK PSAs will be considered as third country entities and therefore lose the EU EMIR PSA exemption while in the UK EMIR on-shored version, EU PSAs will still benefit from it. This would create an un-level playing field between the EU and UK market participants.

Not being exempt from the clearing obligation under EU rules could have the two negative consequences:

- UK PSAs may prefer to contract with UK dealers over EU dealers post-Brexit to benefit from the clearing exemption.
- EU fund vehicles set up for EU28 PSAs that include UK PSAs as investors will no longer benefit from any exemption post-Brexit, making Europe a less desirable jurisdiction for those vehicles.

**Questions**

1. Do you agree with the description made of the portfolios of EU pension funds as well as their use of derivatives? In particular, do you agree that PSAs use derivatives to build synthetic long-dated positions in order to overcome the availability of suitable sovereign or corporate bonds alternatives? Please elaborate on the reasons for your answer.

We refer to responses by pension funds and their industry associations.

2. Do you have any data with respect to the structure of PSAs' portfolios? In particular regarding the duration gap which derivative strategies are designed to address?

We refer to responses by pension funds and their industry associations.

3. Do you have any data on the volume and nature of the activity of PSAs in cleared and non-cleared OTC derivatives markets, within each asset class, and any related systemic risk they might pose to the financial system? What portion of non-cleared derivatives would be replaceable by cleared products if the impediments to clearing were removed?

We refer to responses by pension funds and their industry associations but would note the 2018 study by ISDA and Pension Europe on "Potential demand for clearing by EU Pension Funds"[1] estimated that a clearing mandate for European pension funds including UK funds would increase cleared IM by ca. €85bn, more than the total client IM at SwapClear in 2018.

4. Do you think that PSAs fulfilling the clearing requirement would have significant consequences on their investment strategies, including any shift in their cash and non-cash asset al-location? Please elaborate on the reasons for your answer and provide numerical data sup-porting your answer where available.

We refer to responses by pension funds and their industry associations.

5. Are there further considerations, other than investment strategies mentioned above, either driving or constraining the use of derivatives for PSAs?

We refer to responses by pension funds and their industry associations.

[1] https://www.fsb.org/wp-content/uploads/ISDA-Pensions-Europe-joint-response.pdf

6. Do you agree with the description of the challenges met by PSAs to post variation margin in cash? Please elaborate on the reasons for your answer.

We agree with the description of the challenges met by PSAs to post variation margin (VM) in cash, namely:

- PSAs are often asset-rich and typically do not exhibit high allocation towards cash.
- Holding liquidity buffers in the form of cash or very short dated instruments is problematic in designing portfolios of assets that match PSA's liability profiles.
- Short term assets and cash constitute a yield drag, reducing portfolios' investment returns, which compounded over a number of years may potentially represent a significant dent in the expected income for retirees.
- Cash deposits, it exposes PSAs to concentrated credit risks to the banking sector, as opposed to sovereign or non-financial corporate risk.

7. Do you have any data with respect to the value and/or share of cash holdings in PSAs' portfolios? Can you provide estimates of how much those would need to be increased to service cash variation margin calls?

We refer to responses by pension funds and their industry associations.

8. Do you have any data with respect to estimated changes in variation margin for your out-standing contracts for a +/- 1% parallel shift in the yield curve for: a) cash VM of centrally cleared contracts, b) cash VM for OTC contracts, c) bonds VM for OTC contracts, and d) for all your outstanding contracts?

We refer to responses by pension funds and their industry associations.

9. Can you provide data on the prevalence of acceptance of non-cash collateral in the context of bilateral OTC trades? And conversely on the limitations imposed by counterparties to post initial margins in the form of cash?

<u>Initial margin for bilateral OTC trades</u>

Without regulatory requirements, pension funds generally do not post IM for bilateral OTC trades because of their high credit worthiness. In some instances, banks may post IM to pension funds.

Post phase 5 and 6 implementation of the mandatory margin requirements for uncleared derivatives (EMIR Margin rules), some pension funds will be required by regulation to post IM for bilateral OTC derivatives. Under the EMIR Margin rules initial margin can be posted as both cash and non-cash collateral. Contrary to VM, IM is exchanged on a gross basis and is subject to strict segregation requirements. IM is thus predominantly posted as non-cash collateral. Therefore, for bilateral IM there is no cash issue.

VM for bilateral OTC trades:

This is highly dependent on the terms of the bespoke bilateral agreement. Cash collateral agreements, bond collateral agreements and a mixture of both are all common. Historically, banks used to accept certain non-cash collateral like high quality government bonds as VM collateral on bilateral OTC transactions from PSAs. However, accepting non-cash collateral represents a problem for banks in terms of the leverage ratio (LR)[2]. These leverage ratio rules only permit cash VM posted on bilateral OTC derivatives to offset against replacement costs of the transactions. Issues are exacerbated as some banks might have significant stock with PSAs already.

Banks therefore are increasingly requiring PSAs to post cash VM on bilateral OTC derivatives transactions which undermines the pension fund clearing exemption. Increasingly PSAs are required to post cash as VM, either because of LR rules for bilateral OTC derivatives transactions or because they choose to clear the trades.

Hence a robust clearing solution needs to be found so that PSAs can carry on accessing OTC derivatives market for the purpose of financial solvency management.

10. Can you provide data on the size of the yield drag from holding cash buffers to service variation margin calls in cash? Possibly differentiating between drag from under-investment and costs of funding temporary high liquidity demands?

We refer to responses by pension funds and their industry associations.

11. Are you (or are you aware of) a PSA which is a direct clearing member to a CCP? How have you addressed the issues regarding the posting of cash VM?

We are only aware of PSAs being direct CMs at CCPs for repo clearing, not OTC clearing, and this is via a sponsored clearing model (or hybrid clearing model). The sponsored clearing model has some other benefits for PSAs when compared to typical client clearing models as it reduces, but does not eliminate, reliance on banks as CMs.

However, the obligations of a sponsored member (the PSA) at one of the European CCPs that currently offer repo clearing (LCH and Eurex) are different to the traditional OTC clearing models as

[2] This is set out in page 155, paragraph 2, of Annex: leverage ratio of https://www.bis.org/bcbs/publ/d424.pdf. This states that only cash VM received by banks is allowed to offset replacement cost: Quote "*CVMr is the cash VM received that meets the conditions…*"
The above leverage ratio rules has not been changed and should not be confused the widely publicized leverage ratio rule change where IM from cleared trades is allowed to offset risk exposure set out in https://www.bis.org/bcbs/publ/d467.pdf .

they have been adapted to address the challenges that these entities face regarding access to cash. At Eurex, repo clearing VM can be posted in securities after the IM and VM obligation has been netted down. At LCH, VM must be settled in cash but this is done through CMs providing access to their cash account for the settlement of cash VM on behalf of their sponsored member client.

This does not necessarily mean that while some PSAs have become sponsored members of a repo clearing segment, that they've been able to overcome the "cash for VM" issue as the clearing models have built-in adaptations to the "cash for VM" requirement.

As an aside, we don't agree with the assumption in paragraph 3 of the consultation that "*This requirement to post cash VM requires counterparties directly interfacing CCPs, and so potentially PSAs should they become direct members*". Posting cash VM does not require direct interfacing with the CCP. If the PSA is a clearing client, the cash VM would be passed through by its CMs. In any case, the cash VM issue is independent on whether the pension fund is a direct CM, a client of a direct CM or participant in a hybrid clearing model.

Please also see the response to question 18, which covers in more detail why PSAs would unlikely become CMs.

12. Can you indicate whether you have considered becoming a direct clearing member to a CCP for the purpose of clearing mandated contracts? If not, what were the reasons against becoming a direct member? Specifically, were there other considerations beyond the issue of cash variation margins?

We refer to responses by pension funds and their industry associations.

13. Do you agree that the central clearing of OTC derivatives by PSAs by June 2023 at the latest is the ultimate aim? Do you agree that the entry into force of this requirement should be subject to regulatory and market developments enabling market participants to develop appropriate technical solutions within that period? Please elaborate on the reasons for your answer.

Whilst we agree in theory with the objective to subject PSAs to the CO and that finding a solution would be better for all market participants, all necessary market developments would need to be in place in sufficient time to get enough comfort that the solution is workable. The deadline should not be linked to an arbitrary date, but to all preconditions being satisfied. In designing a solution and regulatory timeframes, PSAs should be given enough time to operationally implement and on-board the clearing solution as well as any other ancillary regulatory requirements that are triggered upon the clearing exemption expiring (e.g. derivatives trading obligation).

We however note that pension funds are likely to experience pressure in the bilateral market (see question 9 and the next question) and have an interest in the issue to be solved quickly.

14. In the hypothetical scenario where the exemption were to be made permanent, do you think that there would be a price handicap for less-liquid non-cleared contracts vis-à-vis the cleared alternatives? Can you provide estimates of the size of the price differential and the impact, also in terms of yield drag on PSA portfolios?

Leverage ratio rules and bank capital requirements – as explained in our response to question 9 - make non-cleared markets increasingly unworkable for PSAs unless they post cash as VM, undermining the exemption.

It is extremely difficult to quantify the pricing impact. Banks constrained under capital or LR rules might not only price transactions taking capital requirements and LR into account, but could be increasingly unwilling to take on positions that are penalized by bank capital rules (e.g. they could refuse to trade non-cleared OTC derivatives transactions when they have to accept high quality government bonds as VM).

Should PSAs be exempted on a permanent basis, regulation aimed to incentivize clearing would increase cost for PSAs, for instance:

- Leverage ratio rules, unless HQLA L1 assets are allowed to offset replacement cost of LR exposure calculation. This would bring the leverage ratio rules to be in line with the NSFR rules which do permit HQLA L1 assets posted as variation margin to offset replacement cost.
- The CVA capital charge, should the exemption under the Capital Requirements Regulation (CRR 2) for PSAs expire[3].
- Other Basel rules (including SA-CCR and Basel 3 revision) could penalize PSA portfolios and make them unworkable to trade.

15. Under the new regime provided in EMIR Refit with respect to the scope of application of the clearing obligation and the calculation of the positions, do you expect to be or not subject to the clearing obligation once the clearing exemption has come to an end?

We refer to responses by pension funds and their industry associations.

Nevertheless, it is worth mentioning that even in cases where some smaller PSAs could benefit from a clearing exemption under EMIR Refit they would remain subject to margin requirements for uncleared OTC derivatives and, as explained in our response to question 9, accepting non-cash collateral for bilateral trading is also an issue for banks in terms of the leverage ratio.

[3] See also section F7 at page 71ff of the report “Incentives to centrally clear over-the-counter (OTC) derivatives-- A post-implementation evaluation of the effects of the G20 financial regulatory reforms – final report” (https://www.fsb.org/wp-content/uploads/R191118-1-1.pdf)

16. Do you agree with the pre-conditions for a workable solution as described in paragraph 51? Please elaborate on the reasons for your answer.

We agree with the conditions overall.

It is very important that the solution does not impose a cost on end users which would be disproportionate compared to the policy objectives. It is also important that the solution is robust enough to be relied upon in both normal and stressed market conditions, not least since there is a concern for PSA as to the reputational as well as commercial impacts of a potential default on margin calls.

However, we question whether the objective of financial system resilience will be promoted by forcing pension funds to clear. Pension funds are real money funds with low risk but very directional portfolios. The directional portfolios offset liability risk, which when combined with the high credit worthiness means they do not pose much systemic risk in the bilateral OTC market.

However, one could argue that forcing these large directional portfolios to clear and be required to post cash VM could introduce systemic risk. Due to the often directional portfolios it could also be difficult to either port or close them out if the CM terminates its services or defaults, or if the PSA enters technical default because they are unable to meet cash VM calls in the short-time frame required for clearing even though they are asset rich.

17. Are there any other features that the solution should try and achieve?

Smaller PSAs (i.e. not only large institutions) should be able to implement the solution.

Although the Small Financial Counterparty (SFC) regime introduced by EMIR Refit would provide a permanent clearing exemption for certain smaller PSAs this will not mitigate this issue. For reasons set out in our answer to question 14,

- the non-cleared markets are becoming more unworkable and so these smaller PSAs may need to clear to access OTC derivatives and
- the cash VM issue still exists for non-cleared markets due to the leverage ratio rule.

18. Do you agree with the statement that no or few PSAs were onboarded with the status of clearing members, but instead clear as direct clients of a clearing member? Do you think that this situation may evolve in the coming years? Please elaborate on the reasons for your answer.

We agree with the finding that most pension funds that are clearing voluntarily do so in the capacity as direct clients of a CM. Participation as direct CM would solve the clearing capacity issue but will not resolve the cash VM issue. However, as with other funds with strict investment policies, pension funds would not be in a position to participate in the default management process:

- PSAs might neither have the available funds, operational capacity nor the risk appetite to bid in the auction.
- PSAs may not be allowed to pay into the default fund of a CCP.
- PSAs may not be in a position to hold assets in the defaulter's portfolio, as this would violate investment guidelines or regulation.

PSAs may also not satisfy some of the barriers to clearing, for instance minimum capital requirements.

There are concerns from other CMs of how the large directional portfolios that pension funds typically own would be managed in default situation in terms of close-out.

A potential model for PSAs could be hybrid clearing models, where the PSA is a direct member, but does not have to participate in the default management process, or has a sponsor who will participate for the pension fund instead. Such models would however not solve the issue of scarce clearing capacity, as the PSA still would need to have a sponsor, which would attract capital requirements. We note that these models are mostly untested for OTC derivatives.

We also note that these hybrid models are not yet well established for OTC derivatives clearing.

**None of the above models resolve the cash VM issue.** Any desire for entire direct access clearing models for PSAs, should it be possible to create given the obstacles, are centred around trying to reduce reliance on CMs and resolve issues around CM capacity and CM termination risk issues.

19. Do you agree that relying on collateral transformation services already offered by clearing members to their direct clients may be part of the solution? Please elaborate on the reasons for your answer.

Collateral transformation services are already offered on a commercial basis by CMs to their clients, for instance to insurers, who are subject to the clearing obligation. However, these services might not be widespread and it is not clear that securities-to-cash transformation are being commonly offered across the industry, and any such offerings are unlikely to meet PSAs' size requirements.

CMs and clients enter into repo transactions on a regular basis on both liquid and illiquid collateral. Banks are well positioned to facilitate the collateral transformation in normal market conditions and have been providing these services for a long time on a commercial basis.

However, collateral transformation services with banks cannot be fully relied upon in extreme stressed market conditions.

The consultation paper separates collateral transformation by CMs and the use of the repo market. We would like to note that the difference is not that clear-cut: while some documentation might be part of the clearing relationship, collateral transformation for clearing clients will be usually performed by the CM's repo desk.

All market-based tools like collateral transformation by banks are helpful for obtaining cash for PSAs and need to be exhausted before any central bank backed collateral transformation facility is used.

We are however also mindful that relying on collateral transformation services has the same shortcoming than other solutions that rely on the CCP, the CM or third parties including the "general repo market": liquidity in repos can vanish on short notice, especially in extreme stressed market conditions, as has been observed in September 2019 or recently during the COVID crisis, when repo markets did not function well for the buy-side. These issues would have been much worse had pension funds be required to clear.

Quote from ICMA paper" The European repo market and the COVID-19 crisis"[4]:

"*While the demand to access the repo market increased during the height of the crisis, banks' capacity to intermediate that access did not. Buy-side participants report an increased reliance on the repo market as fund outflows drove the need to generate cash against holdings, as well as to meet margin calls against derivatives positions as volatility increased. However, it would seem that banks struggled to keep pace with client demand. Many report limiting business to top tier clients, with no capacity for new business. Banks further report that in light of the heightened volatility, it was more a case of RWA (risk weighted assets) limits becoming the binding constraint on business, rather than the Leverage Ratio, particularly for one-directional business flows (such as net borrowers of cash).*"

Therefore, we believe a central bank backed collateral transformation facility is required.

20. To what extent has the constraint on the bank clearing members' capital requirements been eased and now allows for their role of collateral transformation to be better fulfilled?

According to empirical evidence during the recent COVID-19 crisis as documented in the ICMA paper "The European repo market and the COVID-19 crisis" (quoted in our response to question 19), these constraints have not been sufficiently reduced.

Paragraph 71 of the consultation paper refers to a minor change[5] to banks' capital requirement for reverse repos that allows banks to cap their exposure to the amount of cash lent and suggests that this change might allow banks to offer more collateral transformation services. As the report states, the leverage ratio is only one constraint, others are risk weighted assets, balance sheet size and funding. We believe that the reasoning that a bank would have the same leverage capital charge if they keep cash on the balance sheet compared to exercising  a reverse repo with a pension fund is misleading. While the statement might be formally correct, a bank would plan its liquidity in line with the requirements and it would be unlikely that a bank has funding for reverse repos readily available. There are also timing consideration between the repo market, where most transactions are done in the morning and intraday margin calls, which can happen over the entire day.

Relaxed capital requirements would certainly remove additional constraints and allow a bank to offer more collateral transformation services, but it might not automatically guarantee that the bank will be willing or able to perform these services in extreme stressed periods.

[4] https://www.icmagroup.org/assets/documents/Regulatory/Repo/The-European-repo-market-and-the-COVID-19-crisis-April-2020-210420.pdf

[5] We were unable to identify the "minor change" that the consultation is referring to.

21. Do you think that modifying the calculation of the leverage ratio might have an impact on the offer on repo intermediation activities by banks and be a part of the solution? Please elaborate on the reasons for your answer.

While it will help, modifications do not fully resolve cash VM issue as there is no guarantee that a provider of cash is available for PSAs in extremely stressed conditions. PSAs need a reliable provider of cash in extremely stressed conditions that are not balance sheet constrained. We therefore believe that a central bank backed solution is the only option.

Modifying the calculation of the leverage ratio to "permit both cash and non-cash forms of initial margin and variation margin received from a client to offset the replacement cost and potential future exposure for client cleared derivatives only"[6] was very helpful to facilitate client clearing. However, this rule change does not affect other constraints like capital and balance sheet size and therefore cannot address the cash VM issue for PSAs.

This modification in the leverage ratio will however not affect unrelated businesses. Reverse repos with clearing clients will for instance affect risk weighted assets and the balance sheet size. The modification of the leverage ratio rules for client cleared derivatives will not affect these constraints.

Authorities should try to limit constraints with the aim to ease the pressure on the repo markets. The simplest solution should be to remove HQLA L1 assets from leverage exposure. This will provide more availability of bank repo services to clients, but we still believe that central bank backed liquidity transformation facility will be required for additional security as there could still not be a full guarantee in extremely stressed conditions.

22. Can you elaborate on issues you have encountered, or risks you perceive, in relying of clearing members to provide collateral transformation services, including transformation into cash to meet variation margin requirements? Is this a service that is available to you? If not, what are the obstacles?

We refer to responses by pension funds and their industry associations.

23. What is your view on solutions based on collateral transformation via the repo market? Do you think that initiatives on collateral transformation solutions via the repo market constitute one possible solution? What other solutions are worth exploring?

All market-based tools like collateral transformation via the repo market are helpful for obtaining cash for PSAs and need to be exhausted before a central bank backed collateral transformation facility is used. Market based collateral transformation services cannot be fully relied upon in extremely stressed market conditions.

The repo market moving towards cleared repos for pension funds could help increase capacity as cleared repos are more capital efficient for banks and therefore banks may be more willing to trade

[6] https://www.bis.org/bcbs/publ/d467.htm

on this basis rather than engaging in bilateral repos. However, it is only available for large pension funds who can access the sponsored clearing model, and currently not many CMs support this model so the capacity for this is low.

Repo clearing does not solve the cash VM issue either. Firstly, there is no guaranteed provider of cash unless regulators are prepared to make relevant changes to bank capital rules, leverage ratio and the GSIB framework, secondly clients would still be subject to banks' balance sheet constraints as clients can access repo clearing through sponsored CM banks only and finally these services are only available to the largest PSAs. Therefore, a central bank backed collateral transformation service would still be required.

24. Do you think that the repo market is suitable for PSAs' needs? If not, what are the impediments for PSAs to access the repo market? Please elaborate on the reasons for your answer, specifying if these are related to cost, operational complexities or regulatory constraints.

Please see above under question 23.

25. Do you have any data with respect to PSAs' potential liquidity demand in business-as-usual? Also, do you have any data with respect to PSAs' maximum liquidity needs in stressed market conditions?

We refer to responses by pension funds and their industry associations.

26. Do you think that PSAs fulfilling their liquidity needs via the repo market will have strong implications on this market's liquidity and procyclicality? Can you provide quantification of the risk of the likelihood of a failure of market-based repo solutions to meet PSAs' needs? Under which conditions?

We believe that PSAs fulfilling their liquidity needs via the repo market will have strong implications on this market's liquidity and procyclicality. Stressed markets are characterized by large moves in market rates, which in turn will lead to large VM calls. Therefore, PSAs will have increased funding requirements at times when the repo market will not function well. If PSAs were subject to a clearing obligation, systemic and pro-cyclicality risk would be increased.

Please refer to the ICMA report for additional information.

27. Do you think that there is agreement or evidence that the impact of the limitations of the solutions explored so far would be such that there is a need for devising and developing some form of emergency liquidity tools? If so, under which scenarios and how could such tools actionably and realistically be deployed?

As mentioned, all market-based tools like collateral transformation via the CMs or the repo market are helpful for obtaining cash for PSAs. In extremely stressed times these tools can however not be fully relied upon as there is no guarantor of cash and PSAs have to rely on banks' willingness to deploy balance sheet to access those markets. Therefore, we believe a reliable central bank backed collateral transformation facility is required for extremely stressed markets.

Our view is that the required certainty of liquidity can only be provided by the central bank in extremely stressed times. To avoid central banks having to establish a direct relationship with a large number of PSAs, intermediation by a robustly regulated entity is required.

We propose the hierarchy of solutions as set out below to provide PSAs with liquidity in all market scenarios.

Notably, any solution would only work if committed repos are made available across a number of banks (to address credit risk), meeting the size and demand of PSAs in all market conditions and at reasonable cost to them so that pensioners are not disproportionately affected.

Commercial banks

In most market conditions, intermediation between central bank liquidity and other market participants are typically performed by commercial banks, either as a collateral transformation service or via the general repo market. Commercial banks are already fully equipped for this purpose and possess the necessary licenses, business processes and central bank access. Moreover, bank regulation is already designed to cover collateral transformation.

To facilitate and support the ability of commercial banks to continue to provide liquidity during extreme stressed market conditions, like just seen during the COVID-19 crisis, changes should be made to the bank capital rules, leverage ratio and the GSIB framework so that collateral transformation services by commercial banks can be guaranteed for PSAs in all market conditions and be available in a timely manner without incurring disproportionate cost. The recent exclusion of US treasuries from the leverage ratio calculation by the US Fed during the COVID-19 crisis is a good example of supporting the repo market in the short term.

Even with changes to the regulatory framework, commercial banks might not be able to fully guarantee liquidity to PSAs under these extreme stressed market conditions and therefore a final resort solution would need to be established to provide additional security.

Below we list three potential options that could provide such "last resort" liquidity for extreme scenarios. Not all members agree how realistic each of the solutions could be at this stage. For all these options further in-depth feasibility analysis is required and additional obstacles could be identified during this analysis. FIA, ISDA and their members stand ready to support ESMA with such analysis or to respond to further consultations.

We note that all these options for "last resort" liquidity depend on willingness and ability by the central banks to provide liquidity as central banks may currently be constrained under their existing mandates. The feasibility of any of these solutions will therefore to a large extent be driven by the central banks.

Any solution would need to be operable without distortion of the market in all market conditions to ensure availability when required.

Intermediation via trading venues in conjunction with repo clearing

Under this option, a trading venue would intermediate between the central bank and PSAs. Basic potential "building blocks" of the infrastructure are already in place and in use. Central bank backed liquidity should not distort the market.

To avoid the central bank taking credit risk and potentially to avoid a requirement for on-boarding PSAs to central bank systems, this solution requires that such repos are cleared.

This solution would not be exclusive and could potentially fit into the existing trading ecosystem. There would not be any capital issues for the trading venue as the venue only provides execution. Intermediation would be covered by CCPs, offering regular repo clearing services. CCPs would not take any additional risk versus their normal operations.

This solution may only work for large PSAs, and modifications will be required to extend to smaller PSAs.

Should the above solution not be feasible, intermediation by a dedicated utility or fund could be utilized.

Intermediation via a dedicated utility set up for this function

A dedicated utility steps between the PSA and the central bank: The utility executes a reverse repo with a PSA against collateral eligible at the central bank and then executes a back-to-back repo with the central bank. This utility would provide these services only.

A variation of this could be a fund for this purpose. The fund could have strict restrictions around it and could intermediate between pension funds and central bank.

Such a utility or fund (entity) can be tailored for the requirements and ring-fenced from other activities. The central bank can oversee this entity and have full control over how it operates and is regulated.

This entity would have to be newly established, including the governance and appropriate regulatory requirements surrounding this option. Such scenario could prove to be a time consuming and costly exercise as such entity may need to obtain a bank license accompanied by all constraints of market based liquidity provision that would apply to this solution, which could defeat the purpose. An appropriate framework and rules would need to be established ensuring that such an entity could not distort the market with central bank backed liquidity.

The intermediation by a dedicated utility of fund could be explored as a solution for small PSAs who would not otherwise get access to repo clearing to take advantage of the previous solution "intermediation via trading venues and in conjunction with repo clearing".

Finally, this entity will require seed capital and there might be competition issues surrounding the management or ownership of such entity.

Intermediation via a CCP

Under this potential solution, a CCP would step between the PSA and the central bank and act as the repo counterparty to both: The CCP would execute a reverse repo with a PSA against collateral eligible at the central bank and then execute a back-to-back repo with the central bank.

Central banks are already involved in the supervision of CCPs through direct oversight arrangements and/or supervisory colleges and have a good understanding and knowledge of the CCP's soundness and level of robustness based on this, albeit the intermediation service will be a different service not covered by current CCP regulations. However, this could give rise to a potential conflict of interest since the central bank would then have supervisory information and insight gathered in its capacity as the CCP's regulator (or as being part of the supervisory CCP structure) whilst also having a commercial relationship with the CCP. Any potential conflict of interest between the central bank as supervisor and other participants would therefore need to be carefully considered when selecting a solution and appropriately managed.

The purpose of a CCP is to manage and safeguard clearing and neither CCPs nor the applicable regulation was designed for collateral transformation or other commercial activities. Robust mechanism must be in place to ensure that risks from this provision of liquidity does not spill over to the clearing function, not even in a recovery or resolution situation. The intermediation service therefore would need to be ring-fenced from the clearing function and be separately capitalized. Some EU CCPs do have bank licenses in place in the EU, where constraints like the leverage ratio is not applicable. Were these CCPs to offer commercial services like collateral transformation, they will be under the same regulation and constraints as commercial banks, which would defeat the purpose of this solution.

28. In the hypothetical scenario where central banks extended liquidity support to PSAs, can you provide estimates of the costs, also in terms of infrastructure, ancillary requirements, and regulatory obligations that this option would entail? Can you express the cost in term of yield drag on PSAs performance, especially vis-à-vis the null option of increasing cash allocation in PSAs' investment portfolios?

It is difficult to quantify these arrangements before more details, like potential regulation are known. All options above would entail some set-up cost.

29. What type / form of emergency liquidity tools do you think could be deployed? And whom should they be accessible to? In particular, is there any tool other that central bank liquidity that you would recommend to ESMA to consider?

Only central bank emergency liquidity would resolve the problem. Pension funds have large one-directional portfolios and the total amount of cash required could potentially be significant.

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FIA's mission is to:

- support open, transparent and competitive markets,
- protect and enhance the integrity of the financial system, and
- promote high standards of professional conduct.

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