Monetary Authority of Singapore

GUIDELINES ON LIQUIDITY RISK MANAGEMENT PRACTICES (FUND MANAGEMENT COMPANIES)

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GUIDELINES ON LIQUIDITY RISK MANAGEMENT PRACTICES (FUND MANAGEMENT COMPANIES)

1. Introduction

1.1 These Guidelines, issued pursuant to section 321 of the Securities and Futures Act 2001 [“SFA”], aim to provide guidance to Fund Management Companies [“FMCs”] on sound liquidity risk management practices with respect to the management of collective investment schemes [“CIS”]. These Guidelines apply to holders of a capital markets services licence for fund management.

1.2 These Guidelines should be read in conjunction with the provisions of the SFA, the Securities and Futures (Licensing and Conduct of Business) Regulations (Rg. 10) [“SF(LCB)R”], Code on Collective Investment Schemes [“CIS Code”] and other relevant legislation, as well as other guidelines and FAQs issued by MAS. In particular, the requirements on authorised schemes under the CIS Code will continue to apply to operators of such schemes. FMCs should also continue to take into account MAS’ Guidelines on Risk Management Practices that provide guidance on general risk management practices for financial institutions supervised by MAS.

1.3 In addition to the liquidity risk management practices set out in these Guidelines, an FMC should consider adopting the standards, best practices and guidance note issued by the International Organisation of Securities Commissions [“IOSCO”][1] and the Financial Stability Board[2], where relevant.

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[1] These standards include
- (i) Final Report on Revised Recommendations for Liquidity Risk Management for Collective Investment Schemes published in May 2025
- (ii) Guidance for Open-ended Funds for Effective Implementation of the Recommendations for Liquidity Risk Management published in May 2025
- (iii) Final Report Anti-Dilution Liquidity Management Tools – Guidance for Effective Implementation of the Recommendations for Liquidity Risk Management for Collective Investment Schemes published in December 2023; and
- (iv) Final Report on Principles on the Suspension of Redemptions published in January 2012.

[2] Final Report on Liquidity Preparedness for Margin and Collateral Calls published in December 2024

1.4 Effective liquidity risk management of CIS is important to mitigate potential mismatches between the liquidity of the CIS' underlying assets and the redemption terms under which the CIS is offered to investors. It minimises the risk whereby an FMC is unable to meet investors' redemption requests in an orderly manner, and seeks to provide fair treatment of investors, including those who have not made redemption requests.

1.5 Investor redemptions are not the only source of potential liquidity demands for a CIS. Liquidity demands may also arise from margin or collateral calls from derivative counterparties where leverage and/or derivatives are used as part of the investment strategy of the CIS. An FMC managing such CIS should consider these potential sources of liquidity risks as part of its liquidity risk management framework.

2. Applicability of the Guidelines

2.1 MAS recognises the heterogeneity in the business models of FMCs and the fund structures that they employ. Open-ended CIS[3] that are offered to retail investors typically provide them the right to redeem units on a daily basis, and with little or no advance notification. On the other hand, CIS that are offered to non-retail investors could have less frequent redemption cycles. Nonetheless, these CIS can typically invest in a wider range of assets which could include less liquid or distressed assets. In this regard, it is pertinent for managers of CIS to put in place effective liquidity risk management frameworks and practices, such that their CIS remain capable of fulfilling redemption requests in a timely manner when there are significant fund withdrawals. Generally, an FMC is expected to apply and adopt the liquidity risk management practices set out in these Guidelines in a manner that is proportionate to its size, scale and complexity of its business and the profile of the funds that it manages.

Role of FMC

2.2 An FMC may be appointed to different roles in the management of a CIS (e.g. investment manager, sub-manager or advisor). The applicability of these Guidelines to an FMC should be determined based on the substance of the FMC's role in the

[3] Refers to open-ended CIS that are constituted in Singapore and have been authorised by MAS

CIS design phase and subsequently, the management of the investment portfolio of the open-ended CIS. The FMC should document its reasons for the sections or guidance in this set of Guidelines that it has assessed not to apply in their context, as part of its liquidity risk management programme. For instance, an FMC in Singapore which is involved in the product design or responsible for the portfolio management of open-ended CIS and has discretionary authority for making investment decisions for the CIS is expected to implement the liquidity risk management practices set out in these Guidelines. On the other hand, the Guidelines would not apply to an FMC which do not have discretionary authority for the CIS, such as FMCs which provide research or non-discretionary advice to another FMC.

2.3 Similarly, sub-managers which only manage a portion of the portfolio may not have influence or control over the fund's overall strategy or its redemption terms. In this regard, the requirements under the initial design of product section will not be relevant to sub-managers who are not involved in the CIS design phase. They are nonetheless expected to operate the portfolio in line with the liquidity risk management parameters set out by the main manager, and to monitor the liquidity of the delegated portfolio under the arrangement. In addition, sub-managers may take reference from the main manager's liquidity risk management policies and procedures, instead of having an entire distinct set of policies.

2.4 Conversely, an FMC in Singapore which delegates investment management to sub-managers should convey the portfolio mandate and liquidity profile to the sub-manager and retains responsibility to monitor and manage the overall liquidity profile of the CIS.

Recognised CIS

2.5 The comparability of the regulatory requirements in the jurisdictions in which CIS are constituted to MAS' regulatory requirements is relevant in the context of recognised CIS. MAS does not expect an FMC which acts as a representative[4] for recognised CIS to duplicate the liquidity risk management processes in Singapore. Notwithstanding, such FMC should provide adequate disclosure to investors on the liquidity approach adopted by the CIS as per paragraphs 4.16 to 4.18. The FMC should also be kept apprised of developments in the CIS that impact investors in

[4] The representative for recognised scheme acts as a liaison between investors and the foreign manager.

Singapore, including the activation of liquidity management tools[5]. In its capacity as representative, the FMC should consider appropriate updates on such developments to the investors.

Closed-ended CIS and CIS with lock-up period

2.6 An FMC which manages closed-ended CIS and CIS with lock-up periods should put in place a liquidity risk management framework which takes into account potential sources of liquidity risks at certain stages of the life cycle of the CIS and provide for appropriate liquidity management tools. For example, an FMC which manages illiquid funds should not allow frequent redemptions and should consider their ability to liquidate assets in order to meet their obligations to customers or other counterparties at the point of expiry of the lock-up period, termination or divestment of the fund.

2.7 These Guidelines are not applicable to segregated mandates and funds which are set up for a single institutional investor.

Exchange-traded funds

2.8 Exchange-traded funds ["ETFs"] have structural features that are distinct from other types of CIS. An FMC that manages or acts as sponsor to ETFs should consider incorporating requirements set out in the IOSCO's Final Report on Good Practices Relating to the Implementation of the IOSCO Principles for Exchange Traded Funds published in May 2023.

3. Governance

3.1 The liquidity risk management process must be an integral part of an FMC's broader risk management process. Regulation 13B(1)(a) of the SF(LCB)R requires an FMC to put in place a risk management framework to identify, address and monitor the risks associated with the customer assets that it manages. This includes the liquidity

[5] These are tools to aid FMCs in the management of liquidity needs. Examples of liquidity management tools include swing pricing, suspension, redemption gates and anti-dilution levy. Some liquidity management tools (e.g. swing pricing) can be used under normal market conditions, if they are provided for under the fund's offering documents. However, there are other liquidity management tools (e.g. suspension of redemptions) for extraordinary market conditions and should be used in the best interest of fund investors collectively.

risks associated with the CIS managed by the FMC. The ultimate responsibility for liquidity risk management, which include the alignment of a CIS' redemption terms with its investment strategy, and the selection and calibration of liquidity management tools, remains with the FMC.

3.2 An FMC's liquidity risk management process must be supported by sound governance. In this regard, the Board and senior management of an FMC should maintain a liquidity risk management function, and subject it to effective oversight.

3.3 There should be clear responsibility and accountability in an FMC for implementing its liquidity risk management framework, and monitoring and managing the liquidity risks associated with its CIS. This includes establishing clear accountability and decision-making processes for the design and activation of liquidity management tools under both normal and stressed market conditions. The FMC should set out the circumstances under which such tools may be activated and define the roles and responsibilities of the decision makers.

3.4 It is important that key individuals in the liquidity risk management function have sufficient stature to discharge their duties effectively. They should also have direct access to the Board and senior management to highlight issues or concerns in carrying out their duties.

3.5 As liquidity risk can be affected by other types of risks, the Board and senior management of an FMC should have an adequate understanding of the potential interactions between liquidity risk and other risk types (e.g., asset market liquidity, credit, market, operational, legal, reputational, strategic and environmental) and consider these interactions in their decision-making processes.

3.6 An FMC which manages open-ended CIS with daily dealing is expected to have in place a dedicated and independent risk management function whose responsibility includes liquidity risk management. Other FMCs that do not offer products to retail investors and have assessed that the CIS they manage have less frequent redemption terms, are minimally expected to designate a senior staff to be responsible for liquidity risk management. An FMC can leverage on global risk management functions where relevant and does not need to replicate the function in Singapore. Such FMC must have access to the policies, processes and records which are relevant to the portfolios or CIS managed in Singapore.

Liquidity risk management policies and procedures

3.7 An FMC's liquidity risk management policies and procedures should cover the entire product life cycle of a CIS. These policies and procedures should be reviewed regularly and updated as and when there are material changes which affect the liquidity profile of the CIS, so that they stay current and relevant. Where the FMC introduces a CIS which invests in a new asset class, or if the investor profile of the CIS has changed substantially, the FMC should assess whether its policies and procedures for liquidity risk management should be updated to take into account these developments.

3.8 An FMC should also have review, escalation and remediation processes in place for any breaches or non-adherence to the policies and procedures, such as breaches of internal liquidity thresholds. Last but not least, an FMC should maintain records of their liquidity risk management processes and systems.

3.9 It is important that an FMC is able to meet the liquidity needs of the CIS that it manages in an orderly manner, which may include meeting redemption requests at short notice during stressed situations. Therefore, the FMC should proactively consider contingency plans that enable the FMC to readily assess and decide on the actions required in a liquidity disruption or stress.

Contingency plans

3.10 Contingency plans should be commensurate with the liquidity risks inherent in the CIS, which would be determined by factors such as but not limited to its redemption terms and permitted cash holdings. Contingency plans should also be periodically tested, to the extent practicable, to allow the contingency arrangements to be exercised without delay and in a transparent, fair and orderly manner. To this end, the FMC is strongly encouraged to articulate clearly in its internal policy the parties responsible for making decisions on the activation of the contingency plan and the exercise of applicable liquidity management tools, and the steps to be taken in the event of a liquidity issue. An FMC should exercise judgement in the interest of investors when deciding on the appropriate liquidity management tools to use and steps to be taken when executing the contingency plan.

4. Initial Design of Product

4.1 The evaluation of liquidity risk that a CIS may face throughout the product cycle and the implementation of arrangements to set the foundation for effective liquidity risk management should begin at the product design stage. During the design of the CIS, an FMC should consider the potential sources of liquidity risks applicable to the CIS and incorporate the assessment of such risks in their liquidity risk management framework. This includes liquidity demands associated with margin and collateral calls and investor redemptions.

4.2 When assessing liquidity risks arising from margined and collateralised transactions, the FMC should consider the CIS' overall investment strategy and market exposure. The FMC should consider factors such as but not limited to (i) size and type of margined and collateralised activities; and (ii) concentration of exposure across different asset classes and counterparties.

Consistency between CIS’ investment strategy and redemption terms

4.3 To reduce liquidity mismatches, an FMC should consider whether the CIS’ dealing (subscriptions and redemptions) arrangements are aligned with investors’ expectations, as well as its investment strategy and the liquidity profile of the underlying assets. The FMC should also consider and implement liquidity management tools that may be used as part of robust liquidity management practices. Annex A provides scenario-based examples illustrating how different fund types can align the liquidity of a CIS with its redemption terms.

4.4 The dealing frequency of the CIS, as well as notice and/or settlement periods for redemptions, should reflect the overall liquidity of the underlying assets held by the fund under both normal and stressed market conditions. The FMC should assess that the subscription and redemption policy of the CIS is realistic and appropriate, taking into consideration the profile of the underlying investors of the CIS, as well as the investment strategy and liquidity of the assets that the CIS will invest in, and the tools in place to manage the CIS’ liquidity.

4.5 To this end, an FMC managing CIS that allocates a significant proportion[6] of their assets to illiquid assets[7] should have lower redemption frequency than daily dealing and/or implement longer notice or settlement periods. The liquidity of a financial instrument refers to its ability to be readily converted into cash at a value that is close to its fair price under normal market conditions. Please refer to Chapter 1.2(i) of the CIS Code for further guidance on the determination of liquidity.

4.6 An FMC managing open-ended CIS should maintain redemption terms that are consistent with the investment strategy and reflect the portfolio's liquidity profile under both normal and stressed market conditions. This alignment should be maintained during product design and on an on-going basis.

4.7 Fundamentally, an FMC should be able to demonstrate to investors how a CIS' liquidity is aligned with the redemption terms and the suite of liquidity management tools and measures provided.

Liquidity management tools

4.8 The activation of liquidity management tools can help to manage the liquidity of a CIS in various ways.

(a) Quantitative-based liquidity management tools allow an FMC to limit the liquidity available to redeeming investors when faced with increased redemption requests, thereby maintaining orderly fund operations during periods of market stress. For example, suspension of redemptions and redemption gates could pace out or provide relief on the rate of redemption and help to minimise the risk of transacting at fire-sale prices.

(b) Anti-dilution liquidity management tools ["ADTs"] operate by passing on the estimated costs of liquidity to transacting investors, thereby addressing investor dilution. Examples of ADTs[8] are swing pricing, valuation at bid or ask prices, dual pricing, anti-dilution levy and subscription/redemption fees.

[6] Investing approximately more than 30% of assets under management in illiquid assets is likely to constitute "a significant proportion"

[7] Refers to investments that cannot be readily converted to cash without significant impact on their value or within a reasonable timeframe (e.g. weeks or months), due to factors such as limited secondary market trading, high transaction costs, or market impact considerations.

[8] As set out in IOSCO Final Report for ADTs – Guidance for Effective Implementation of the Recommendations for Liquidity Risk Management for CIS

4.9 The use of such tools should ultimately be aimed at according fair treatment to all investors, including those who remain invested in the CIS. Investors who remain invested in the CIS should not be made to bear a disproportionate share of the costs associated with meeting redemption requests.

4.10 An FMC should adopt a diversified approach to liquidity management, utilising both quantitative-based tools and ADTs to address their distinct purposes. A combination of varied liquidity management tools allows an FMC to respond more effectively to specific market conditions and different liquidity stress scenarios whilst maintaining fair treatment of all investors. To this end, an FMC managing a CIS should have provisions in place for at least one appropriate liquidity management tool, preferably an ADT, and not rely solely on suspension or redemption gating.

4.11 To mitigate material investor dilution, an FMC managing open-ended CIS, particularly those investing mainly[9] in less liquid assets[10], should make provisions for at least one ADT. Where the use of ADTs under normal market conditions may not be suitable, such as in the case of certain types of money market funds, an FMC should nonetheless make provisions for at least one ADT as a contingency measure during stressed market conditions.

Imposition of liquidity costs to transacting investors

4.12 To safeguard all investors' interests especially during market stress, an FMC should implement measures so that investors who redeem or subscribe bear the liquidity costs associated with their transactions. An FMC should have provisions to factor in liquidity costs when calibrating the liquidity management tools.

4.13 During activation of ADTs, an FMC especially when managing open-ended CIS should impose the explicit and implicit costs of subscriptions and redemptions on investors who are redeeming from or subscribing to the CIS.

(a) Explicit transaction costs – An FMC should incorporate transaction costs that are explicitly charged to the CIS for the acquisition or disposal of assets.

[9] Investing approximately more than 50% of assets under management in less liquid assets is likely to constitute "mainly investing"

[10] Refers to investments that can generally be converted to cash within a reasonable timeframe under normal market conditions, but their liquidity may be materially affected during market stress.

These include brokerage fees and commissions, trading levies and settlement fees.

(b) Implicit transaction costs – An FMC should consider costs that are incurred indirectly upon acquisition or disposal of assets, which include market impact costs estimated on a best effort basis. These include:

- Bid-ask spread: An FMC should, on a best-efforts basis, obtain bid-ask spreads from more than one pricing source. Where bid-ask spreads may not be readily observable for certain assets (e.g. corporate bonds) due to unavailable or less reliable data, the FMC could estimate liquidity costs using alternative approaches such as sourcing indicative spreads from commercial databases, deriving estimates from comparable liquid assets, or applying internal or third-party valuation models.
- Market impact cost: Large transactions can exhaust available liquidity and cause trades to occur at less favourable prices. Market impact refers to the additional trading cost when a CIS' transaction is large enough to influence market prices. An FMC could estimate the market impact cost by taking reference from previous transactions under similar market conditions to compare the indicative prices provided by brokers against the price at which the order was executed. The FMC could also utilise in-house or third-party models to make estimates based on analyses of previous and similar transactions or relevant data models.

4.14 Liquidity costs, particularly implicit costs, may be harder to estimate during market stress, which may lead to investor concerns about unfair penalties due to inaccurate cost calculations. An FMC could analyse variations in spread and/or price volatilities (based on the underlying assets of the CIS) under stressed and normal market conditions to better proxy actual transaction cost across time and different market developments.

4.15 Fundamentally, the FMC should be able to demonstrate that its estimation is reasonable and reflects the open-ended CIS' portfolio characteristics. The FMC should also review and refine its methodology for estimating liquidity costs, including market impact costs, as more data and experience become available.

Disclosures to investors

4.16 Disclosures relating to the liquidity of the CIS allow investors to make an informed determination as to whether their liquidity risk appetite matches the liquidity risk profile of the fund. As such, the FMC should include clear and simple-to-understand disclosures in the CIS' offering documents to explain the general approach that the FMC may take, the objectives of the liquidity management tools that are provided for in the CIS' constitutive documents, the circumstances under which such tools may be activated, and the impact that such tools may have on investors' redemption rights. An FMC should consider providing greater transparency regarding the activation of ADTs through enhanced disclosure. Examples of enhanced disclosures on the use of ADTs are set out in the scenario-based examples in Annex A.

4.17 Specifically for open-ended CIS, an FMC should also provide the following within its disclosure:

(a) An overview of the CIS' investment strategy and the potential liquidity risks;
(b) The features of the redemption terms, such as the dealing frequency, lock-up period, and/or notice and settlement periods; and
(c) The objective and circumstances under which the tools may be activated.

4.18 Where the CIS is distributed through third-party distributors, the FMC should partner with its distributors to communicate these implications effectively to end-investors.

5. Ongoing Liquidity Risk Management

5.1 An FMC is expected to monitor and manage the liquidity risk of a CIS throughout its lifecycle. This includes ongoing monitoring of investors' profile and redemption patterns and conducting regular assessments on the liquidity profile of the CIS' liabilities and assets. This is to facilitate the FMC's ability to anticipate or identify an emerging liquidity shortage before it occurs and take appropriate steps to minimise disruption or detriment to investors. An FMC should also regularly monitor market depth, liquidity and concentration of their portfolio positions, so that liquidity risks arising from margin and collateral calls are adequately managed and mitigated. This section describes some of the considerations that are relevant to an FMC's ongoing monitoring and management of liquidity risk.

5.2 The assessment of the profile and liquidity needs of investors could include reviews of the investors' historical redemption patterns and expected future liquidity demands of the CIS at different stages of its life cycle under varying market conditions. For example, the FMC could actively engage key investors so that it is aware if they intend to make any large redemptions, to enable the FMC to assess the liquidity implications on the CIS and take appropriate steps to manage the redemption in an orderly manner. Where the CIS is distributed through third-party distributors and granular investor information is not available to the FMC, the FMC should take reasonable steps to monitor aggregated information about funds flows, overall investor profile and concentration of the CIS, such as through establishing arrangements with fund platforms and distributors to keep abreast of subscriptions and redemptions via the various distribution channels and customer segments.

5.3 The investment strategy, liquidity profile and redemption policy of the CIS are also relevant factors which have implications for the FMC's ongoing liquidity risk management process. Any changes to the underlying assumptions which affect liquidity risk assessment at the initial design of the CIS would also have to be taken into consideration when reviewing the processes during the life of the CIS. These processes include but are not limited to, assessing the liquidity of underlying assets of the CIS, determining the internal liquidity thresholds and performing stress testing.

5.4 Regular reviews should also be performed to assess the effectiveness of the liquidity management tools applied and whether additional tools should be put in place to manage liquidity mismatches and provide fair treatment of all investors, where relevant.

Factors to consider during assessment of liquidity of CIS' assets

5.5 In order to facilitate the FMC's ability to meet its redemption obligations and other liabilities, the FMC should integrate liquidity as one of the relevant considerations in the FMC's investment management decisions. The FMC should also regularly assess and evaluate the liquidity of the underlying assets of the CIS, individually and on a portfolio basis.

5.6 The FMC should monitor the CIS' liquidity risk to ensure that the CIS can meet all margin and collateral obligations under normal and stressed market conditions, whilst maintaining sufficient contingency funding.

5.7 In performing the assessment, an FMC could:

(a) use appropriate liquidity metrics or indicators relevant to the CIS' investment strategy. For instance, an FMC may consider the number of days and cost to liquidate assets without significant market impact, redemption coverage ratio, bid-ask spread volatility, average daily turnover or trading frequency and market depth, where available;
(b) consider other quantitative and qualitative factors, such as asset class, credit quality, asset and investment concentration and cash flow projections;
(c) monitor the use of temporary borrowing to meet redemptions; and
(d) consider the use of collateral arrangements and appropriate haircuts for collaterals and monitor the liquidity of underlying securities held as collateral, especially when these holdings amount to a significant portion of the CIS' net asset value ["NAV"].

Establishing internal thresholds for CIS' liquidity

5.8 An FMC should establish appropriate internal thresholds for the CIS' liquidity which are proportionate to the redemption obligations and liabilities of the CIS as part of their ongoing liquidity risk monitoring procedures. These thresholds should act as early warning indicators to flag potential deterioration in the CIS' liquidity and for the FMC to conduct further liquidity analysis as part of its risk management process. The FMC should implement formalised processes to monitor these indicators and escalation and reporting procedures. This allows the FMC to take remedial actions on a timely basis when the analysis reveals vulnerabilities. Stricter liquidity requirements should be imposed for daily dealing CIS, which may, for example include requiring the CIS to hold a larger proportion of liquid assets, as compared to a CIS which allows redemption of units on a less frequent basis.

Suspension of redemptions

5.9 The FMC may suspend redemptions under exceptional circumstances after having determined that a suspension is in the best interest of investors. Essentially the FMC should be able to demonstrate that the objective criteria for reaching the decision to suspend are met and that any alternative course of action, such as sale of remaining fund assets, has been considered and assessed to be not feasible and/or not in the best interest of investors. The decision to suspend redemptions should be reviewed and approved by the senior management and/or Board of the FMC. This decision and the reason(s) for the suspension should also be documented. Further, the FMC should work closely with its distributors and other service providers to inform the relevant stakeholders (e.g. investors and regulators) of developments relating to the suspension. The FMC should also regularly re-assess whether to continue with the suspension against the interests of its investors, with a view to resuming normal operations as soon as practicable. Where redemptions have been suspended, the FMC should not accept new subscriptions. Any suspension of redemptions and activation of gating measures should be notified to MAS immediately.

6. Stress Testing

6.1 A good liquidity risk management framework does not only consider redemptions or margin calls in a business-as-usual setting. The FMC should also satisfy itself that the CIS can withstand liquidity stresses during extended periods of market disruptions or idiosyncratic concerns. The FMC should complement its liquidity risk management tools with regular stress testing. Liquidity stress testing of the CIS should be performed at a frequency relevant to the specific CIS. An FMC is strongly encouraged to perform more regular stress tests on CIS with daily dealing, or CIS which are more susceptible to varying market conditions, such as those which invest in thinly traded markets.

Factors to consider in stress test

6.2 An FMC is strongly encouraged to consider factors that may enhance the effectiveness of their stress tests. The FMC is encouraged to take into account a combination of stress factors that can happen concurrently (e.g. a sudden increase in redemptions may coincide with or contribute to the worsening of market liquidity for the underlying CIS assets and the ease of unwinding the portfolio). The FMC could consider using stress test scenarios based on (i) backward-looking historical market conditions and redemption patterns of the CIS; and (ii) forward-looking hypothetical scenarios, where appropriate. In general, the FMC should explore extreme but plausible scenarios in their stress tests. Examples of factors that the FMC can consider in its stress testing include the following:

(a) a specific redemption amount which is a percentage of the fund size (e.g. highest historical or worst-case redemption rate);
(b) a simulation of the behaviour of different types of investors;
(c) redemption by its largest investor(s) or distributor(s);
(d) market shocks leading to margin and collateral calls by multiple counterparties; and
(e) the actions which may be taken by the FMC's counterparties that may be experiencing liquidity stresses, and that may have knock-on effects on the FMC.

The FMC should apply stress factors consistently to all assets of a CIS during stress testing, where appropriate.

6.3 As the stress test results could provide useful insights on the FMC's liquidity risk management processes, the FMC should have in place reporting channels to escalate significant findings to the relevant governance bodies with oversight of the liquidity risk management process, where appropriate.

Review of stress test assumptions

6.4 As financial markets and the operating environment are dynamic, stress test scenarios and assumptions should correspondingly not remain static. Hence, an FMC should regularly review the reasonableness and relevance of its stress test assumptions and satisfy themselves that stress tests are based on reliable and up-to-date information. The FMC should maintain proper documentation on the key features of the stress tests, such as the choice of stressed scenarios used, assessment of the stress tests results, considerations on the need to take further actions and the actual actions taken to address the issues identified from stress test results. The feedback from actual stress events experienced by the FMC could also be used to improve the quality of future stress tests.

6.5 If the FMC decides not to perform stress testing, the FMC is expected to maintain documentation of the rationale as these factors should be considered when the FMC reviews this decision on a regular basis. The decision not to perform stress testing should be reviewed and approved by the senior management and/or Board of the FMC.

Annex A: Scenario-Based Examples on Redemption Terms, Investment Strategies, Liquidity Management Tools and Disclosures

The scenarios in this Annex are illustrative examples to guide implementation and are not intended to be exhaustive.

Scenario A: CIS investing only in liquid assets

If an open-ended CIS invests only in liquid transferable securities, daily redemption may be appropriate. Nevertheless, the FMC should take a prudent approach by considering the concentration of these assets in the portfolio and the likelihood that these normally liquid assets may become illiquid during periods of market stress and assess whether additional measures such as ADTs are required.

Where ADTs such as swing pricing are provided, the FMC should disclose the framework governing their use, including how the tools operate, the methodology for calibrating the swing factor, the key factors used in determining activation thresholds, and the circumstances in which they may be activated. For example, an FMC may explain in its disclosures that activation of ADTs takes into account factors such as investor dealing activity, prevailing market conditions, the liquidity profiles of the CIS' assets and transaction costs.

Such disclosures should be sufficiently informative to enable investors to understand the operation of the tools, without requiring the disclosure of specific numerical thresholds and detailed calibrations of liquidity metrics.

Scenario B: CIS investing mainly in less liquid instruments

When structuring an open-ended CIS that invests mainly in less liquid instruments such as over-the-counter derivatives and unrated or non-investment grade corporate debt securities, the FMC should carefully consider the appropriateness of the redemption frequency.

Where frequent redemption (e.g. daily or weekly) is to be offered by the open-ended CIS, the FMC should have provisions for ADTs and consider whether further liquidity management measures such as longer notice or settlement periods are required. These should be in addition to quantitative-based liquidity management tools such as suspension and redemption gating, which may be activated on an exceptional basis.

The FMC should design a comprehensive framework with preventive tools (such as notice period and anti-dilution mechanisms) used proactively, and quantitative-based liquidity management tools (such as gating or suspensions) reserved for exceptional circumstances.

Scenario C: Fund-of-funds [“FoF”]

When structuring an open-ended FoF, the FMC should consider the liquidity characteristics of the underlying funds and whether they are appropriately aligned with the overall liquidity profile of the FoF.

In addition, the redemption terms of a FoF should be aligned with the redemption terns of its underlying funds. The notice and settlement periods of the FoF should likewise take into account the notice and settlement periods of the underlying funds, such that there is adequate time for the redemption proceeds from the underlying funds to be made available to meet redemptions at the level of the FoF.

As part of product design, the FMC should consider the merits of having provisions for ADTs at the level of the FoF. ADTs at the FoF level could take various forms, such as:

(a) fixed or range-based subscription and redemption fees that reflect the blended cost of transacting in the underlying funds, taking into account the dealing terms, redemption fees, and other liquidity costs of the underlying funds;
(b) redemption-in-kind for institutional investors, where permitted by the dealing terms of the underlying funds; or
(c) a tiered anti-dilution levy, where the levy applied varies according to the size of the redemption, relative to the NAV and the estimated cost of meeting that redemption.

Where such ADTs are provided at the FoF level, the FMC should disclose the framework governing their use, including how the tools operate, the basis on which any applicable fee or levy is determined, and the circumstances in which they may be applied. The FMC should also disclose to investors the compounding effects of the liquidity management tools deployed by the underlying funds. For instance, an FMC should consider alerting investors that the activation of an ADT like swing pricing or anti-dilution levy by an underlying fund may be absorbed into the NAV of the FoF.

Scenario D: CIS investing mainly in illiquid assets

When structuring a CIS that invests mainly in illiquid assets, the FMC should consider the investment strategy and liquidity profile of the CIS' assets, in determining whether it is more appropriate for the CIS to adopt a closed-ended structure.

Where a closed-ended structure is adopted, the FMC should determine the appropriate length of the term of the CIS, and the approach towards orderly realisation or distribution of assets at the end of the CIS' term.

If an open-ended structure is adopted, notwithstanding the CIS' investments in mainly illiquid assets, the FMC should consider setting redemption terms and frequency that are aligned with the illiquid nature of the underlying assets. Such CIS should generally offer infrequent redemption (for example, quarterly or yearly) and adopt liquidity management tools calibrated to the CIS' portfolio and investor base.

Such liquidity management tools may include, but are not limited to:

(a) formal redemption caps that limit aggregate redemptions to a specified percentage of NAV per dealing period, with excess redemption requests deferred, for example, on a pro rata basis;
(b) "hard" or "soft" lock-up arrangements, for example, a time-limited early redemption fee, that act as a disincentive for early redemption; and
(c) extended redemption notice and settlement periods that reflect the time needed to realise or rebalance portfolio investments in illiquid assets in an orderly manner.

In marketing the CIS, the FMC should disclose the illiquid nature of the underlying assets, the redemption frequency and notice and settlement period as well as key information on the use of these tools, including redemption terms, the operation of any redemption cap programme, the terms of any "hard" or "soft" lock arrangements and associated fees.