



Monetary Authority of Singapore

**GUIDELINES ON LIQUIDITY RISK MANAGEMENT
PRACTICES FOR FUND MANAGEMENT COMPANIES**

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GUIDELINES ON LIQUIDITY RISK MANAGEMENT PRACTICES FOR FUND MANAGEMENT COMPANIES

1. Introduction

1.1 These Guidelines, issued pursuant to section 321 of the Securities and Futures Act (Cap. 289) ["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:

- (a) Licensed FMCs, which hold a capital markets services licence for fund management; and
- (b) Registered FMCs, which are registered under paragraph 5(1)(i) of the Second Schedule to the Securities and Futures (Licensing and Conduct of Business) Regulations (Rg. 10) ["SF(LCB)R"].

These Guidelines do not apply to holders of a capital markets services licence for real estate investment trust management.

1.2 These Guidelines should be read in conjunction with the provisions of the SFA, the 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, FMCs should consider adopting the standards and best practices issued by the International Organisation of Securities Commissions ["IOSCO"]¹, where relevant.

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

¹ These standards include the Principles of Liquidity Risk Management for Collective Investment Schemes and the Principles on the Suspension of Redemptions that provide guidance on the management of liquidity and suspension of redemptions in open-ended funds.

terms under which the CIS is offered to investors. It minimises the risk whereby FMCs are unable to meet investors' redemption requests in an orderly manner, and seeks to ensure fair treatment of investors, including those who have not made redemption requests.

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 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, open-ended 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 open-ended CIS to put in place effective liquidity risk management frameworks and practices, to ensure that their CIS remain capable of fulfilling redemption requests in a timely manner when there are significant fund withdrawals. Generally, each FMC should consider how best to apply and adopt the liquidity risk management practices set out in these Guidelines, taking into account the size, scale and complexity of its business and the profile of the funds that they manage.

Role of FMC

2.2 FMCs 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 CIS design phase and subsequently, the management of the investment portfolio of the open-ended CIS. FMCs should document their reasons for the sections or guidance in this set of Guidelines that they have assessed not to apply in their context, as part of their liquidity risk management program. For instance, FMCs in Singapore which are involved in the product design or responsible for the portfolio management of open-ended CIS and have discretionary authority for making investment decisions for the CIS are expected to implement the liquidity risk management practices set out in these Guidelines. On the other hand, the Guidelines would not apply to FMCs 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 LRM 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, FMCs in Singapore which delegate investment management to sub-managers should convey the portfolio mandate and liquidity profile to the sub-manager, and retain 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 FMCs which act as a representative² for recognised CIS to duplicate the liquidity risk management processes in Singapore. Notwithstanding, these FMCs should ensure that there is adequate disclosure to investors on the liquidity approach adopted by the CIS as per para 4.4. The FMCs should also be kept apprised of developments in the CIS that impact investors in Singapore, including the activation of liquidity management tools³. 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 Liquidity risk management may be less critical for closed-ended CIS and CIS with lock-up periods. These FMCs should be mindful of potential sources of liquidity risks at certain stages of the life cycle of the CIS. For example, FMCs which manage illiquid

² The representative for recognised scheme acts as a liaison between investors and the foreign manager.

³ 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.

funds 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-of-one which are set up for a single institutional investor.

Exchange-traded funds

- 2.8 The Guidelines are applicable to FMCs that manage Exchange-traded funds [“ETFs”]. ETFs may have additional liquidity considerations compared to a typical open-ended CIS. Authorised participants [“APs”] facilitate the creation and redemption of ETF shares, and provide liquidity in the secondary market. In this regard, when adopting the principles set out in the Guidelines, FMCs that manage ETFs are expected to consider the liquidity of both the underlying assets and the liquidity of the ETFs in the secondary market as part of their liquidity risk management framework. Some relevant considerations include the mode of redemption, the availability of APs, the efficiency of the arbitrage function performed by the APs and the prices at which the ETFs trade in the secondary market.

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 FMCs to put in place a risk management framework to identify, address and monitor the risks associated with customer assets that it manages. This includes the liquidity risks associated with the CIS managed by FMCs.
- 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 ensure that the firm has 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. 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.

3.4 FMCs which manage retail CIS with daily dealing are 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. FMCs can leverage on global risk management functions where relevant, and do not need to replicate the function in Singapore. These FMCs must be able to 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

3.5 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 warrant an update to take into account these developments.

3.6 FMCs 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, FMCs should maintain records of their liquidity risk management processes and systems.

3.7 It is important that FMCs are able to meet the liquidity needs of the CIS that they manage 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

3.8 Contingency plans should 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 ensure that the contingency arrangements can 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. FMCs 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, FMCs 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. In addition, the FMC should consider liquidity management tools that may be used, and provide adequate disclosure to investors on the terms, circumstances and implications of these tools.
- 4.2 The dealing frequency of the CIS should reflect the overall liquidity of the underlying assets held by the fund, and vice versa. 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.

Liquidity management tools

- 4.3 The activation of liquidity management tools, such as suspension of redemptions, redemption gates and swing pricing, can help to manage the liquidity of a CIS in various ways. 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. 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 redemptions.

Disclosures to investors

- 4.4 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 liquidity management tools that are provided for in the CIS' constitutive documents, and the impact that such tools may have on investors' redemption rights. 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 FMCs are 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. 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.

Factors to consider during assessment of liquidity of CIS' assets

- 5.4 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.
- 5.5 In performing the assessment, FMCs could:
- (a) use appropriate liquidity metrics or indicators, such as the number of days and cost to liquidate assets without significant market impact and redemption coverage ratio;
 - (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.

Establishing internal thresholds for CIS' liquidity

- 5.6 FMCs 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 indicators for the FMC to conduct further liquidity analysis as part of its risk management process. 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

- 5.7 The FMC may suspend redemptions under exceptional circumstances after having determined that a suspension is in the best interest of investors. Essentially the FMC is expected to ensure 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 the 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 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 FMCs are strongly encouraged to consider factors that may enhance the effectiveness of their stress tests. FMCs are 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 FMCs 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; and
- (c) redemption by its largest investor(s) or distributor(s).

As the stress test results could provide useful insights on the FMC's liquidity risk management processes, FMCs 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

6.3 As financial markets and the operating environment are dynamic, stress test scenarios and assumptions should correspondingly not remain static. Hence, FMCs 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. FMCs 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.

6.4 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.