



Monetary Authority of Singapore

Response to Feedback Received

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Response to Feedback Received on Guidelines on Liquidity Risk Management (Banks)



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1. Preface

- 1.1 On 29 August 2025, the Monetary Authority of Singapore (MAS) issued a consultation paper on the Guidelines on Liquidity Risk Management (the “Guidelines”) for banks, merchant banks and finance companies in Singapore (hereafter collectively referred to as “Banks”). The proposed Guidelines build on the Guidelines on Risk Management Practices – Liquidity Risk, which were issued in 2013 and apply to all financial institutions. The updated Guidelines provide greater clarity on MAS’ supervisory expectations for Banks on the management of liquidity risk.
- 1.2 The consultation closed on 29 September 2025, and MAS would like to thank all respondents for their contributions. The list of respondents and their submissions are provided in Annexes A and B.
- 1.3 MAS has carefully considered the feedback received and incorporated it, as appropriate, in finalising the Guidelines. Comments that are of wider interest, together with MAS’ responses, are set out in sections 2 to 14 below.

2. Proportionality

- 2.1 Many respondents welcomed MAS’ approach that the Guidelines are to be applied in a proportionate manner but sought additional elaboration and examples on how the extent and intensity of liquidity risk management practices would vary given different Banks’ profiles. Two respondents suggested applying a tiered approach with differentiated expectations based on Banks’ risk profiles and scale, especially for smaller foreign bank branches with limited liquidity risk.
- 2.2 Two respondents sought clarification on whether foreign bank branches can leverage their head office’s liquidity risk management policies and procedures to meet the expectations under the proposed Guidelines. Other respondents also sought clarification on the application of proportionality to specific aspects of the Guidelines, such as the list of management reports under paragraph 18.19 in the contingency funding plans section.



- 2.3 Clarifications were also sought on the "good practices" outlined in boxed items in the Guidelines, particularly whether these represent minimum supervisory expectations applicable to all Banks, or references to good practices that Banks may adopt.

MAS' Response

- 2.4 As set out in paragraph 1.3 of the Guidelines, the Guidelines are intended to provide a principles-based approach to allow Banks to implement liquidity risk management frameworks and practices that are appropriate to their specific circumstances and risk profiles. For instance, Banks with simpler business models and limited liquidity transformation activities may adopt simpler frameworks. MAS has included examples to illustrate the application of proportionality in the Guidelines.
- 2.5 MAS expects a Bank to establish comprehensive liquidity risk policies and procedures that are aligned with its liquidity risk appetite and strategy. Foreign bank branches operating in Singapore may have policies, procedures and frameworks based on those of the head office, provided they meet MAS' expectations under the Guidelines. Where there are specific issues or liquidity risks that are unique to the Singapore operations, these policies and procedures should address them specifically. A new paragraph (paragraph 1.4) has been added in the Guidelines to make this clear.
- 2.6 On the specific application of proportionality, MAS clarifies that the list of liquidity management reports under paragraph 18.19 in the contingency funding plan section is intended to be illustrative rather than prescriptive. Banks can choose to generate and prioritise such reports based on their specific circumstances and their relevance to particular stress events, in line with the proportionality principle outlined in the Guidelines. Responses to other proportionality-related comments are addressed in the respective sections below.
- 2.7 The "good practices" outlined in boxed items are not minimum supervisory expectations applicable to all Banks, but rather examples of approaches that some Banks have implemented. They serve as references for Banks to consider and adapt based on their specific circumstances, business models, scale and complexity. MAS has added paragraph 1.3 in the Guidelines to clarify the nature of these good practices.



3. Governance

Board of directors and senior management

- 3.1 A respondent suggested that while the board retains oversight of the overall liquidity risk management framework, it should have the flexibility to delegate the approval of working-level liquidity policies, such as the stress testing framework, liquidity procedures and practices, to a senior management committee.
- 3.2 Two respondents raised queries on MAS' governance expectations for foreign bank branches. In particular, one respondent enquired whether the local Asset and Liability Committee (ALCO) could assume all oversight responsibilities of the board for a foreign bank branch that does not have a board of directors. A separate respondent suggested that MAS should explicitly state that board-level governance expectations apply only to locally-incorporated banks or branches with material liquidity risk, whereas foreign bank branches should be allowed to rely on head office's governance structure where appropriate, especially for oversight of liquidity risk strategy and contingency funding plan. The respondent also suggested that the foreign bank branch's governance processes on reporting and review should not duplicate existing group-level processes which are already subject to the home regulator's oversight.

MAS' Response

- 3.3 For a Bank incorporated in Singapore, the "board of directors" as used from Section 3 onwards refers to the board of directors or a board-level committee delegated by the board. MAS recognises that boards may appropriately delegate certain liquidity risk management responsibilities to senior management committees, such as ALCO, but they retain accountability.
- 3.4 For a Bank that is incorporated outside Singapore, the "board of directors" would be a governing body or committee that sits above local management and is responsible for the oversight of the Bank in Singapore. This governing body or committee should be able to provide effective oversight of local management. To enhance clarity, MAS has edited footnote 5.



- 3.5 Foreign bank branches may manage their liquidity risk as part of the head office’s group-wide liquidity risk management framework. However, local senior management is expected to have adequate visibility into how the liquidity risks to which the Singapore operations are exposed are being managed. Local management remains accountable for ensuring that group frameworks adequately address local considerations and regulatory requirements specific to the Singapore branch. They should also be able to demonstrate to MAS how they discharge their oversight responsibilities, even when relying on group frameworks and processes.

Training

- 3.6 A respondent sought guidance on what constitutes an “adequate training programme” under paragraph 3.3, specifically whether MAS expects structured training such as formal courses, simulations, or assessments beyond basic documentation and briefings.

MAS’ Response

- 3.7 The purpose of the training programme is to equip staff to develop a thorough understanding of their roles and responsibilities, gain familiarity with the Bank’s liquidity risk management processes and crisis protocols, and be able to respond effectively during stress events, as set out in the Guidelines. Banks should be able to demonstrate that their chosen approach achieves these outcomes.

4. Risk Appetite

- 4.1 A few respondents sought clarifications on the flexibility that Banks have in expressing their liquidity risk appetite. A respondent commented that Banks should have the flexibility to determine whether intraday liquidity risk measurement is treated as a limit or a risk appetite given its operational nature. In addition, a respondent asked to clarify whether risk appetite statements could be expressed in the form of board-approved limits, instead of formal written statements. The respondent suggested that while risk appetite statements could remain generic, specific key aspects such as intraday exposures, currency mismatches and stress tests could be managed through board-approved limits with additional supporting operational limits.



- 4.2 A respondent sought clarification on whether foreign bank branches can adopt a group-consistent approach when setting liquidity risk appetite, noting that foreign bank branches' liquidity frameworks would largely align with those of the head office.
- 4.3 A respondent sought clarification on whether the documentation requirement in section 4 of the Guidelines necessitates a local risk appetite statement with all risk appetites across various risk types included.
- 4.4 A respondent suggested transforming the risk appetite section into a mandatory requirement for a formal, documented, and board-approved "Comprehensive Liquidity Risk Appetite Statement" with prescribed core components including qualitative goals, quantitative metrics, stress scenarios, business strategy linkages, and breach severity levels with mandatory actions.

MAS' Response

- 4.5 Banks are to articulate the level of liquidity risk they are willing to assume, which should be approved by the board as set out in paragraph 3.2(a) of the Guidelines. The risk appetite should cover the key aspects of liquidity risk facing the Bank, which could include intraday risk for a Bank that runs significant intraday risk. Banks can choose a range or a combination of qualitative descriptions and quantitative measures, provided the approach is clearly documented and effectively governs the Bank's liquidity risk-taking activities. Paragraphs 4.2 and 4.3 have been amended for greater clarity.
- 4.6 MAS recognises that foreign bank branches typically manage their liquidity risk as part of head office's group-wide liquidity risk management framework. As such, foreign bank branches can continue to adopt a group-consistent approach for setting liquidity risk appetite, provided this adequately reflects local considerations and meets MAS' expectations under the Guidelines.
- 4.7 Paragraph 4.3 of the Guidelines sets out MAS' expectations for Banks to clearly document their liquidity risk appetite. This does not prescribe a specific format or require that all risk appetites across various risk types be consolidated into a single document. Banks may document their liquidity risk appetite as a standalone statement or as part of a broader risk appetite framework document, provided that the liquidity risk appetite is clearly articulated and effectively communicated within the Bank.



- 4.8 Instead of MAS mandating specific core components for liquidity risk appetite statements, it is important for Banks to consider the relevant specific components to be included given their individual risk profiles. The Guidelines establish expectations for Banks to set risk appetites that cover key elements of liquidity risk (paragraph 4.2), express this through qualitative descriptions and quantitative measures (paragraph 4.3), and establish operational limits and controls (paragraph 4.4).

5. Policies and Procedures

- 5.1 Two respondents noted that foreign bank branches typically adopted their parent group's management framework and were subject to their home jurisdiction's regulations. The respondents sought clarification on the arrangements or guidelines that MAS would provide in situations where differences arise between home regulations and MAS requirements, particularly where the Singapore branch has a simple business profile and a small balance sheet.
- 5.2 A foreign bank subsidiary sought clarification on board approval requirements for liquidity risk management policies. The respondent adopts group-approved liquidity policies and procedures from its head office to maintain consistency across all group entities. The respondent sought to understand whether MAS expects its local board to approve these existing group-approved policies and procedures.
- 5.3 Two respondents sought clarification on the prescribed timeline for reviewing policies and procedures at least annually. They suggested that the timeline should not be prescriptive, highlighting that some foreign bank branches typically follow their head office's review frequency, while other Banks have assigned different review frequencies for different types of policies, depending on the nature and level of detail within the policies. For instance, high-level policies covering risk management principles and frameworks may be reviewed less frequently than sub-policies or procedures, given that core risk standards and frameworks do not necessarily change on an annual basis.

MAS' Response

- 5.4 As with other risk types, Banks should assess whether the parent group's framework adequately addresses the risks specific to the Singapore branch's operations in meeting



the expectations set out in MAS' Guidelines. Banks should identify any gaps and implement additional measures, where needed, to address gaps or Singapore-specific risks. Banks should highlight potentially conflicting obligations between their home jurisdictions' regulations and MAS' expectations.

- 5.5 For foreign bank subsidiaries operating in Singapore, the local board is expected to approve all key policies that apply to the Singapore operations. This ensures local accountability and adequate oversight, confirming that group policies and procedures are appropriately tailored to the local context and fully meet the expectations set out in the Guidelines.
- 5.6 On the timeline for policy review, MAS expects Banks to review their policies regularly. In general, an annual review allows Banks to ensure policies remain current and effective. Banks should justify their policy review frequency and why this chosen frequency is sufficient to ensure that policies remain current, relevant and effective in managing liquidity risk. Paragraph 6.2 of the Guidelines has been updated.
- 5.7 MAS acknowledges that Banks may adopt tiered policy structures with different review frequencies. MAS notes that "review" does not always lead to policy changes. It is a governance discipline to validate that existing policies remain fit for purpose. This is particularly important for high-level policies and frameworks that form the foundation of liquidity risk management.

6. Risk Measurement and Evaluation

Cash flow projection

- 6.1 A respondent sought clarification on whether MAS expects cash flow projection under business-as-usual conditions to be run at branch level for foreign branches.
- 6.2 A respondent noted that behavioural assumptions used in liquidity risk management and those applied in Interest Rate Risk in the Banking Book (IRRBB) modelling of non-maturing deposits may not be directly comparable due to different objectives, behavioural segmentation and assumptions, and time horizons. The respondent also highlighted that



it would be inconsistent to assess the coherence of behavioural assumptions for deposits but not loans.

MAS' Response

- 6.3 For cash flow projection and other liquidity risk management areas, the Guidelines set out key principles and expectations whilst giving Banks the flexibility to develop methodologies appropriate to their specific circumstances.
- 6.4 For business-as-usual analyses, foreign bank branches may use contractual cash flow projections without applying behavioural assumptions if they assess such projections adequately capture or are appropriately conservative for their liquidity risk profiles. For instance, this may be considered for a foreign bank branch that is primarily funded by wholesale funding arrangements, where contractual cash flow projections may be a reasonable reflection of its liquidity risk profile under business-as-usual conditions. Paragraph 8.18 of the Guidelines has been added to clarify this.
- 6.5 On the comparability of behavioural assumptions between liquidity risk management and IRRBB, MAS recognises that these frameworks serve different risk management objectives and may appropriately employ different assumptions and scenarios. Nonetheless, there should be some coherence in how the underlying behavioural characteristics of customer segments are understood and described across frameworks. A Bank should be able to justify any significant divergence in behavioural assumptions between its liquidity risk and IRRBB frameworks, particularly where such differences could understate potential risks.¹ Paragraph 8.17 of the Guidelines has been amended to better reflect these considerations. The point about maintaining the coherence of behavioural assumptions between liquidity risk management and IRRBB is meant to be a general principle that applies across all material balance sheet components, where relevant.

Longer-term liquidity needs

- 6.6 A respondent sought clarification on how Banks should interpret the references to “longer-term liquidity needs over one year” in the context of liquidity risk management practices. In particular, the respondent asked if this is referring to explicit projections and

¹ For the avoidance of doubt, a Bank is not expected to directly map the assumptions used for its liquidity management with its IRRBB risk management.



monitoring beyond the one-year horizon, or whether it is more appropriately viewed as a broader consideration of structural funding stability, serving as guiding principles rather than distinct monitoring requirements.

MAS' Response

6.7 The references to “longer-term liquidity needs over one year” in paragraph 8.5 of the proposed Guidelines and “longer-term periods” in paragraph 9.3 are intended to ensure Banks understand their liquidity profiles and identify any material funding gaps beyond the one-year horizon so that they can take appropriate mitigating actions in a timely manner. For example, if a Bank identifies a significant funding shortfall beyond the one-year horizon, early planning allows it to secure funding through a range of measures, taking into account market conditions.

Funding diversification

6.8 A respondent commented that foreign bank branches where funding is predominantly sourced from the group should be allowed to take comfort in funding diversification at the group level, as this would better reflect their actual risk exposure.

6.9 Another respondent asked whether Banks are expected to set explicit quantitative limits for managing concentration risks, or whether qualitative monitoring with appropriate governance escalation processes would be sufficient.

MAS' Response

6.10 Foreign bank branches that rely primarily on funding from the group should have a robust understanding of the reliability and availability of that funding under stressed conditions. They should also assess the potential constraints to such funding in determining whether to diversify their funding sources.

6.11 On concentration risk limits, certain concentration metrics may warrant internal quantitative limits or triggers, while other metrics may be sufficiently managed through qualitative monitoring and governance escalation procedures. Banks may use quantitative and/or qualitative approaches, so long as they are effective in identifying, monitoring and managing concentration risks, including under stressed conditions. Material concentrations should be incorporated in stress test scenarios. If using qualitative

monitoring, a Bank should have clear documentation, well-defined escalation procedures, and robust senior management/board oversight to ensure timely mitigation actions.

7. Management Information System, Monitoring, Control and Reporting

Scope of group level management information system (MIS) expectations

7.1 A respondent sought confirmation that the group-level expectations, such as the expectations in paragraph 9.2 for Banks' MIS to calculate liquidity positions in each of the currencies in which they conduct business on a group basis, apply only to locally-incorporated Banks.

MAS' Response

7.2 Yes. The respondent's understanding is correct. Paragraph 9.2 of the Guidelines has been amended to clarify this.

Real-time reporting and calculation of liquidity positions on an intraday basis

7.3 Respondents sought clarification on the calculation of liquidity positions on an intraday basis under paragraph 9.3 of the Guidelines. A respondent asked whether this referred to intraday liquidity reports on real-time gross settlement system (RTGS) nostro balances, payments, and receipts. Another respondent asked whether Banks are expected to have a liquidity stress test reporting frequency on an intraday basis or could use a mix of real-time information on an intraday basis to supplement existing daily liquidity stress test reporting.

7.4 Two respondents expressed concerns about the cost and feasibility of building real-time capabilities. Specifically, a respondent commented on paragraph 9.9, highlighting that real-time capabilities would require unreasonably large infrastructure investments for Banks with less complex and modestly sized activities. The respondent suggested that similar benefits could be achieved through alternative mitigations, such as holding appropriate liquidity buffers based on stress scenario analysis. Another respondent commented on paragraph 10.3 regarding real-time reporting expectations, citing external



constraints such as industry infrastructure and external information sources. The respondent suggested adopting a best-effort approach with continuous improvements and less frequent reporting for liquidity positions that do not change on a daily basis.

MAS' Response

- 7.5 A Bank should be able to make a reasonably quick and accurate assessment of its overall liquidity position at any point within the day. This allows it to determine if additional funding is needed – whether intraday or overnight. The assessment may include monitoring of balances kept in the RTGS system, nostro balances, expected and actual payment flows, available liquidity sources, and other relevant information depending on the Bank's business model and liquidity risk profile. The complexity of this task would scale with the complexity of the Bank's operations.
- 7.6 Paragraph 9.3 is not intended to require liquidity stress test reporting frequency on an intraday basis. MAS agrees that a mix of real-time information on an intraday basis can be used alongside existing daily liquidity stress test reporting.
- 7.7 To be clear, Banks are not expected to implement real-time monitoring systems when such capabilities would be disproportionate to their risk profile. However, while holding appropriate liquidity buffers is an important risk mitigant, Banks still need the capability to assess their liquidity positions in a timely manner.

Early warning indicators (EWIs)

- 7.8 A few respondents requested flexibility in defining EWIs for the five broad categories stated in paragraph 9.7 and asked whether it is mandatory to monitor all EWIs or whether a proportionate set of EWIs that are commensurate with the Bank's size, complexity and risk profile would suffice.
- 7.9 A respondent noted that some of the EWIs specified in the Guidelines overlapped with indicators which are already monitored and reported under other reports or policies (e.g., delinquencies ratio under credit risk, and negative publicity monitored by its executive office). The respondent asked whether it can rely on its existing governance structures to monitor and escalate these indicators, rather than create separate monitoring processes.



MAS' Response

7.10 Banks can decide to use the EWIs in paragraph 9.7 or other EWIs, taking into consideration the nature, size and complexity of their activities. Paragraph 9.7 of the Guidelines has been updated to reiterate this point.

7.11 Banks should assess whether the existing monitoring and escalation frameworks (e.g., frequency of monitoring, the relevant parties to be notified, and escalation procedures) are sufficient for liquidity risk management purposes.

Mandatory reporting framework

7.12 A respondent suggested establishing a concurrent reporting framework with minimum reporting schedules that require simultaneous submissions to the board, senior management, and MAS. The proposal includes a reporting structure defining specific report types with prescribed content, frequency, and recipients. The respondent also recommended mandating that all reports be submitted to MAS to eliminate information asymmetry.

MAS' Response

7.13 Instead of MAS requiring a standard reporting framework, Banks should determine their internal reporting regime that best captures the liquidity risk profile of their operations and provides comprehensive and decision-useful information for their board and senior management to provide oversight. A standard reporting framework may be less effective than a well-designed, tailored framework that allows Banks to include information that best reflects the nature, size and complexity of their operations. MAS already receives liquidity information through regulatory returns and supervisory engagements, and will continue to assess the adequacy of Banks' internal reporting frameworks during inspections.

8. Stress Testing and Scenario Analysis

Stress testing for foreign bank branches

- 8.1 Noting that it was mentioned under paragraph 11.3 of the proposed Guidelines that foreign bank branches are expected to conduct stress tests on their Singapore operations only, a respondent inquired if global stress tests conducted by the head office that include the Singapore branch operations would suffice to meet MAS' expectations.
- 8.2 A respondent sought clarification on whether the stress testing expectations in sections 11 and 15 can be applied using a risk-based approach, considering the bank's risk profile and business complexity. The respondent noted that for foreign bank branches that rely largely on head office for funding and liquidity support, local stress testing complexity may be reduced or supplemented by head office stress testing results.

MAS' Response

- 8.3 Foreign bank branches may leverage head office stress testing frameworks provided they can demonstrate that such frameworks adequately capture the Singapore branch's liquidity risk profile and cover the scope outlined in the Guidelines.
- 8.4 Foreign bank branches may apply and adapt existing head office liquidity policies and procedures (including scenarios) for stress testing, provided the head office scenarios adequately capture the Singapore-specific risks. Otherwise, the Singapore branch should establish additional local scenarios as needed. Should the Singapore branch rely on stress tests performed by head office, Singapore branch-level results should be shared with the Singapore branch in a timely manner. The Singapore branch management remains responsible for understanding and acting upon the stress test results that have a material impact on Singapore operations.
- 8.5 A new paragraph (paragraph 11.6) has been included in the Guidelines to clarify the above.

Frequency of stress test

- 8.6 A respondent asked how the frequency of stress testing will vary across different types of Banks.



MAS' Response

- 8.7 Regular liquidity stress testing enables timely identification of potential sources of liquidity strain. Given that liquidity risk profiles and situations may change rapidly, timely stress testing is essential.
- 8.8 The existing guidance in paragraph 11.2 sets out a risk-based and proportionate approach to the frequency of stress testing. In practice, larger and more complex banks typically conduct stress tests daily or weekly to maintain adequate oversight of their liquidity positions, whilst smaller and simpler banks may test less frequently, such as monthly, based on their risk profiles. In addition, Banks are expected to maintain the capability to conduct ad hoc stress tests when circumstances warrant. MAS expects Banks to have a clearly documented policy on stress testing frequency, approved by senior management and reviewed periodically. The chosen frequency should be justified by the Bank's assessment of its risk profile and market conditions. The Guidelines has been updated to provide clearer guidance.

Stress test assumptions and review

- 8.9 Noting the list of factors to consider when assessing “stickiness” for different types of deposits/ funding in paragraph 11.15 of the Guidelines, a respondent sought confirmation that these factors are intended to be applied proportionately and where relevant to each Bank’s funding profile, rather than as a prescriptive checklist.
- 8.10 Another respondent sought clarification on what qualified as “independent reviews” of stress test scenarios and assumptions as stated in paragraph 11.27 of the Guidelines. The respondent asked whether such reviews can be performed by internal audit, an external third party, other independent functions, or if management/board-level oversight committees (e.g., Risk Committee, ALCO) with appropriate expertise would also be possible options.

MAS' Response

- 8.11 The factors outlined in the Guidelines for assessing deposit/funding "stickiness" are provided as a reference for Banks to consider given their specific circumstances.



8.12 MAS expects reviews of stress test scenarios and assumptions to be performed by parties who are not involved in setting the assumptions and methodology, possess appropriate expertise and are in a position to provide effective challenge. In the absence of suitably qualified reviewers who were not involved in setting the assumptions and methodology due to a Bank's limited operation in Singapore, it is possible for a management oversight committee or the Bank's head office to perform the review, provided they have the appropriate expertise. As this may not align with the typical understanding of “independent”, the word has been deleted from paragraph 11.27 of the Guidelines to avoid confusion. The reviews serve to validate the soundness of the methodology and challenge assumptions so that the scenarios being run remain appropriate and relevant to the Bank.

8.13 In all cases, senior management is expected to oversee the implementation of the stress testing process and exercise judgement in assessing the appropriateness of the scenarios and assumptions, as mentioned under paragraph 3.3(k) of the Guidelines. Separately, MAS expects the Bank's internal audit function to audit and provide assurance of the overall stress testing process.

Reverse stress testing

8.14 A respondent sought clarification on whether foreign branches are expected to undertake reverse stress tests at the local level, if reverse stress tests performed by the group already captured local vulnerabilities.

MAS' Response

8.15 Reverse stress testing is useful for Banks, as it enhances understanding of vulnerabilities and trigger points specific to Singapore operations, which helps improve contingency planning tailored to local conditions. Such considerations may not be adequately captured in reverse stress tests performed at group-wide exercises.



9. Maintenance of Liquid Assets

- 9.1 A respondent noted that paragraph 12.7, footnote 18 of the proposed Guidelines, states that liquid assets may be monetised via repo, outright sales, and central bank facilities such as MAS' Intraday, Standing and SGD Term Facilities. The respondent asked whether MAS recognises the short-term liquidity facilities of other central banks (e.g., the US Federal Reserve, ECB, HKMA and BOE), where Banks have documented access and pre-positioned collateral.
- 9.2 Another respondent noted that paragraph 12.8 states that a Bank may utilise its stock of liquid assets to meet its liquidity needs, even if this results in the Bank falling below regulatory liquidity requirements. The respondent sought clarification on whether this also extends to asset requirements in other regulatory ratios such as the Asset Maintenance Requirements, even though the intent of the paragraph refers specifically to liquid assets used for meeting regulatory liquidity requirements.

MAS' Response

- 9.3 The footnote in paragraph 12.7 provides examples of central bank facilities. Banks may include liquidity facilities provided by other central banks in their liquidity management toolkit if these facilities are accessible when needed and Banks are operationally prepared to use them. It is essential for Banks to regularly assess and test their ability to access relevant central bank liquidity facilities to ensure operational readiness. The reference to regulatory liquidity requirements in paragraph 12.8 of the Guidelines refers to applicable regulatory requirements for the Liquidity Coverage Ratio (LCR) or Minimum Liquid Assets (MLA) as stipulated in MAS Notice 649. This does not extend to eligible assets held to meet Asset Maintenance Requirements (AMR) under MAS Notice 640, and Banks are not permitted to utilise eligible assets designated for compliance with AMR requirements under the flexibility provided in paragraph 12.8.



10. Individual Currency Liquidity Risk Management

Identification of significant currency

10.1 A respondent sought clarification on whether the identification of significant currency by a foreign bank branch may be performed on a consolidated basis at the head office level, provided the significant currencies are freely transferable and convertible.

MAS' Response

10.2 MAS expects foreign banks to identify significant currencies at the Singapore branch level. This is because currency exposures and liquidity needs of the Singapore branch may differ from those at the consolidated head office level, and a branch-level assessment helps ensure that local liquidity risks are identified and addressed. The definition of significant currency is explained under footnote 14 of the Guidelines, where a threshold of 5% of the Bank's total liabilities serves as a guide, and Banks should assess whether this adequately captures the key currencies to which they are exposed. In addition, Banks should consider other relevant factors (such as qualitative considerations) when determining the list of significant currencies given their operating model and risk profile. The Guidelines have been revised to clarify this.

Clarifications on acceptable liquidity back-stop arrangements for significant currency positions

10.3 A respondent noted MAS' expectations that Banks with significant liquidity risk positions in specific currencies should negotiate liquidity back-stop facilities and develop broader contingency strategies. The respondent sought clarification on whether central bank liquidity facilities (such as MAS Standing Facility and SGD Term Facility) would be recognised as acceptable back-stop arrangements; the extent to which Banks may rely on intragroup committed or head office support facilities in that currency, provided legal, regulatory and operational constraints on transferability are appropriately assessed; and whether MAS expects Banks to maintain third-party committed facilities in every significant currency, or whether this requirement will be applied proportionately, focusing on material currencies where risks cannot be adequately mitigated by central bank or intragroup arrangements.



MAS' Response

10.4 Central bank facilities are recognised as acceptable liquidity back-stop arrangements for eligible counterparties, provided they are operationally ready and accessible. MAS liquidity facilities (i.e., MAS Intraday Liquidity Facility, MAS Standing Facility, and MAS SGD Term Facility) are examples of acceptable back-stop arrangements for eligible counterparties.

10.5 Banks may rely on intragroup committed and/or head office support facilities provided that they appropriately assess and account for various sources of constraints (e.g., legal, regulatory, and operational) on liquidity transferability as outlined in paragraphs 13.4 and 13.5 of the Guidelines. Banks should also refer to paragraphs 11.25 and 18.18 on the consideration of availability of support from head office during stress, especially when the entire group faces difficulties, and should plan for scenarios where such support may be unavailable or unreliable.

10.6 On third-party committed facilities, MAS expects that Banks focus these arrangements on significant currencies where other mitigants do not provide sufficient assurance of liquidity availability during stress. Banks should assess the adequacy of their overall liquidity back-stop framework considering the specific risk profile and materiality of each currency exposure.

Customer currency repayment risk

10.7 Paragraph 14.5 of the Guidelines addresses liquidity risk from foreign currency lending to domestic borrowers who may lack natural foreign currency earnings, where sudden devaluations may render borrowers unable to service loans, creating liquidity pressures for the lending bank. A respondent shared that the expectation to assess borrowers' foreign currency exposures, risk profiles, and access to foreign currency earnings would be very challenging for liquidity risk management teams to demonstrate, and is more appropriately handled through credit risk management.

MAS' Response

10.8 The intent of paragraph 14.5 is not to require liquidity risk management teams to conduct a granular assessment of individual borrowers' foreign currency exposures or earnings. This is more appropriately addressed through credit risk management processes. Rather,



the paragraph seeks to highlight that currency mismatch at the borrower level can, in aggregate, give rise to liquidity risk for the Bank, and that this should be adequately considered in the Bank's overall liquidity risk management framework. To the extent that a Bank is aware of substantial currency mismatch risk among its borrowers, it should factor this into its liquidity stress testing scenarios. Paragraph 14.5 of the Guidelines has been revised to clarify this intent.

11. Intraday Liquidity Risk Management

Liquidity buffer

11.1 Respondents sought clarification on three aspects of MAS intraday liquidity and standing facilities, namely whether and to what extent these facilities can be included as part of the intraday liquidity buffer calculation, whether there should be specific limits or additional stress assumptions when relying on such facilities, and whether intraday buffer requirements differ between local branches and standalone subsidiaries of foreign banks.

MAS' Response

11.2 MAS intraday liquidity and standing facilities can be considered as part of a Bank's liquidity risk management tools. However, Banks should note the eligibility criteria of the facilities and that drawing down on the facilities requires maintaining sufficient eligible collateral that can be pledged in a timely manner. This is also contingent upon the Bank having built operational readiness to access these facilities when needed. Reliance on central bank facilities should be subject to appropriate constraints and stress considerations to ensure prudent liquidity risk management.

11.3 Banks should also maintain diversified sources of intraday liquidity, including readily available cash, to ensure resilience against operational disruptions or constraints in accessing collateral. For instance, if eligible assets are not immediately accessible due to location, custody arrangements, or operational issues, the Bank may be unable to draw on the facilities.

11.4 Intraday liquidity buffer sizing should be informed by the Bank's stress test results, intraday payment patterns, and operational capabilities. The degree to which intraday

buffers should be maintained on a standalone basis depends primarily on Banks' operational structure and ability to transfer liquidity intraday (during normal and stressed conditions), as well as currency-specific considerations. Banks should assess whether there are impediments to transferring intraday liquidity between legal entities or jurisdictions, including legal, operational, regulatory, or internally set constraints, and the availability of liquidity sources in the relevant currencies during stress.

Applicability of Guidelines to foreign bank branches that are indirect payment system participants

11.5 Respondents provided comments on the application of intraday liquidity expectations for banks operating through intermediary arrangements:

- A respondent sought clarification on how expectations in paragraph 15.3 apply to foreign bank branches that are not direct participants in MEPS+ (Singapore's RTGS) and rely on correspondent banks for their payment and settlement activities. The respondent recommended that MAS either establish differentiated expectations for such institutions or provide guidance on how these Banks can demonstrate compliance through their correspondent banking arrangements rather than through direct operational controls.
- A respondent noted that the extent of intraday liquidity management differs significantly between Banks that are RTGS direct participants and non-direct participants. It observed that paragraph 15.4 sets out guidelines that appear more applicable to Banks with real-time access to view and manage the timing of intraday liquidity flows held with other banks and custodians. As a non-direct RTGS participant, the respondent explained that it relies on correspondent banks and intraday credit facilities to manage the timing of intraday liquidity flows on a day-to-day basis.
- A respondent requested that MAS distinguish between different nostro account arrangements. Specifically, where a Singapore branch uses nostro accounts held by its sister branch (which has direct payment, clearing and settlement relationships and robust intraday liquidity management procedures covering all group entities), the respondent argued that the Singapore branch should not be required to establish additional or duplicate intraday liquidity management procedures for currencies already effectively managed at the sister branch level.



MAS' Response

11.6 Banks that are not direct MEPS+ participants are still exposed to intraday liquidity risks that need to be managed. The extent and sophistication of intraday processes and controls should be commensurate with the materiality of the intraday liquidity risks. Effective management of intraday liquidity risks often involves the Bank:

- Understanding and monitoring intraday liquidity risks arising from their operational model, including the timing and nature of payment obligations and the adequacy of arrangements with correspondent banks;
- Ensuring appropriate arrangements with correspondent banks to support timely settlement of time-specific obligations and other priority payments, including having timely access to information on account balances and payment activity;
- Maintaining adequate intraday liquidity sources, such as maintaining minimum balances in correspondent bank accounts and/or having access to intraday liquidity facilities;
- Monitoring the adequacy of liquid resources and account balances;
- Having contingency plans to address potential disruptions, such as issues with correspondent banking arrangements or operational disruptions that may affect the Bank's ability to access liquidity support;
- Conducting stress testing that reflects reliance on correspondent banks, including scenarios where uncommitted credit facilities may not be available or where there are delays in expected inflows.

11.7 The points highlighted in the paragraph above would generally apply to Banks that manage intraday liquidity through their sister branch nostro arrangements.

Intraday liquidity stress testing

11.8 A respondent sought clarification on whether a Bank that already monitors intraday liquidity usage (i.e., the gap between cash inflow and outflow) would still be required to conduct intraday liquidity stress testing.

11.9 Regarding paragraph 11.1 of the Guidelines, a respondent asked whether the expectation is for the Bank to incorporate intraday as one of the tenor buckets in the liquidity stress tests or whether this is a requirement in the context of stress scenario definition for the liquidity stress tests.



- 11.10 Regarding paragraph 15.4(f) of the Guidelines, another respondent asked if MAS would accept intraday liquidity stress testing conducted at the group consolidated level for branches with centrally managed liquidity risk and fully match-funded books.

MAS' Response

- 11.11 Intraday liquidity stress testing serves a different purpose from routine monitoring as it helps a Bank to identify vulnerabilities under a range of adverse scenarios to determine if its intraday liquidity sources and buffers are adequate.
- 11.12 MAS expects Banks to develop stress scenarios that include intraday liquidity shocks and assess their impact on intraday liquidity requirements and available sources. Factoring intraday liquidity stresses into the overall liquidity stress testing allows Banks to assess the impact of intraday liquidity stresses on overall liquidity buffer. The respondent's mention of incorporating intraday as a tenor bucket in the overall liquidity stress testing is one way of doing so.
- 11.13 A Bank may place reliance on intraday stress testing done at the group or regional level if such testing adequately captures and addresses the branch's intraday liquidity risks. To be clear, if a Bank is exposed to very limited intraday liquidity risk (e.g., due to minimal time-specific obligations, pre-funding of payments), intraday liquidity stress testing would not be needed. A new paragraph (paragraph 15.18) has been included to address this.

SRP50 metrics

- 11.14 A respondent sought clarification on whether the reference to the SRP50 metrics under paragraph 15.7 is intended primarily as supervisory guidance for internal monitoring purposes, or whether there are future plans to incorporate these metrics into formal regulatory reporting requirements. The respondent is seeking MAS' guidance to help better prepare for future reporting obligations.
- 11.15 Another respondent sought clarity on specific expectations for certain suggested items such as intraday liquidity reporting requirements (e.g., SRP50 metrics), as they would create a disproportionate burden for Banks that do not operate as nostro providers or have limited SGD activities.



MAS' Response

11.16 MAS does not intend to introduce regulatory reporting requirements for intraday liquidity metrics at this time. Should MAS decide to do so, sufficient time will be provided for Banks to prepare accordingly.

11.17 Nonetheless, Banks should assess their exposures to intraday liquidity risk and the monitoring tools appropriate to intraday liquidity risk management. Banks should also consider and implement the SRP50 monitoring tools that are relevant to their business model and liquidity risk management needs. Banks with material intraday liquidity risks should be prepared to share with MAS their internal intraday liquidity reports upon request.

Local payment infrastructure

11.18 A respondent asked whether MAS intends to further enhance the local payment infrastructure and make intraday data on payment flows more accessible to Banks, similar to the availability of intraday Real-Time Gross Settlement data in Hong Kong.

MAS' Response

11.19 MAS is reviewing enhancements to its RTGS system, the MAS Electronic Payment System (MEPS+), to make participants' payment flow information in MEPS+ more accessible, as part of its regular enhancement cycles. MAS will provide more details in due course.

12. Asset Encumbrance and Collateral Management

12.1 Regarding paragraph 17.12(b) in the proposed Guidelines, a respondent was of the view that simulating scenarios involving “high cash and collateral calls” within an exercise would not be feasible.



12.2 A respondent asked for clarification on MAS' expectations on the disclosure of asset encumbrance risk (under paragraph 17.3), in particular, whether such disclosure is through public disclosure requirements in MAS Notice 651.

MAS' Response

12.3 MAS expects a Bank to demonstrate genuine operational capability to mobilise cash and collateral quickly when needed. This would require some level of actual execution or comprehensive end-to-end testing that goes beyond desktop exercises. While it may not always be practical to execute high-value cash and collateral transfers solely for testing purposes, Banks should test their operational capabilities through approaches that demonstrate genuine readiness. This could include conducting real activities at smaller sizes to verify that systems, processes, and staff can execute the full workflow, or testing all operational steps short of final execution to verify that each component works. Banks could also conduct exercises under compressed timeframes or outside normal business hours to test responsiveness, and regularly execute routine collateral movements to maintain operational familiarity. Paragraph 17.12 of the Guidelines has been revised to clarify this.

12.4 The disclosure of asset encumbrance risk here refers to the public disclosure requirement under Table 11-56 of MAS Notice 637, which applies only to a Bank incorporated in Singapore. MAS has removed the reference to such disclosure from paragraph 17.3 of the Guidelines to avoid the impression that there has been an expansion of scope.

13. Contingency Funding Plan (CFP)

Foreign bank branches

13.1 Two respondents asked whether the CFP of a Singapore branch of a foreign bank could be covered under the head office level CFP, which contains details on liquidity support that the head office would provide to the branch in the event of a crisis.



MAS' Response

13.2 MAS expects foreign bank branches in Singapore to maintain a CFP for their Singapore operations, which may reference or build on the head office CFP. The Singapore branch's CFP should include details specific to the local branch, such as Singapore-specific operational procedures and the interaction with head office, local currency considerations, and local channel network management where relevant.

Communication plans and social media monitoring

13.3 Regarding paragraph 18.21(d) on communication plans and social media monitoring, a respondent asked if group-level arrangements would suffice or if branch-specific capabilities had to be developed.

MAS' Response

13.4 Foreign bank branches may leverage group-wide arrangements for communication plans and social media monitoring. However, the local CFP should document how these group-level arrangements apply to the Singapore branch, including how time zone differences would be managed, the specific roles and responsibilities of the Singapore branch staff, and arrangements for monitoring Singapore-specific news and social media channels where relevant.

CFP activation triggers

13.5 A respondent commented on establishing an explicit linkage between the activation triggers of the CFP and breaches of a Bank's quantitative risk appetite statement. The respondent proposed amending paragraph 18.7 to require that CFP activation criteria be pre-determined and explicitly linked to breaches of quantitative thresholds within the risk appetite, such as when a "Red" severity breach occurs.

MAS' Response

13.6 MAS acknowledges the intention to establish more direct linkages between risk appetite breaches and crisis response mechanisms. However, while breaches of risk appetite thresholds may serve as a trigger for CFP activation, Banks should retain flexibility to activate their CFPs based on a broader range of indicators and circumstances. Effective liquidity risk management requires Banks to be proactive. It may be prudent to activate



the CFP before a formal risk appetite breach occurs, particularly when EWIs suggest deteriorating conditions. The Guidelines therefore expect Banks to determine their CFP activation criteria based on a combination of quantitative triggers and qualitative judgement, tailored to their specific risk profiles and operating environments, while also emphasising the importance of not being reliant on expert judgement alone to ensure timely activation when circumstances warrant.

Independent review of EWI monitoring and escalation procedures

13.7 Regarding paragraph 18.8 of the Guidelines which states that “A Bank should have its EWIs monitoring and escalation procedures independently reviewed and tested”, a few respondents sought clarification on which parties would be considered appropriate to conduct the required independent review and testing.

MAS’ Response

13.8 The reviews could be conducted by parties independent of the EWIs monitoring and escalation procedures. Such parties can include the risk management functions (if the EWI monitoring and escalation procedures are established and performed by the first line of defence), internal/external auditors, or other third parties with relevant expertise. Paragraph 18.8 has been revised to clarify this.

CFP testing

13.9 The Guidelines highlighted various aspects of CFP testing. One of which relates to testing end-to-end processes which may be implemented during CFP activation to verify a Bank’s operational readiness. In particular, it mentioned the following as one potential area for testing: moving and posting collateral under simulated adverse conditions (e.g., late in the day, different time zones for Banks with overseas operations), to verify operational readiness. A respondent highlighted operational challenges in testing collateral transfer processes under simulated adverse conditions, noting constraints such as custodian operating hours and limited 24/7 operational capabilities.

13.10 Another respondent commented that systemic infrastructure breakdowns, such as disruptions to MEPS+ or multiple payment system failures, should be excluded from CFP testing. It argued that such systemic risks are beyond individual banks’ control.

MAS' Response

- 13.11 MAS noted the operational constraints highlighted. Banks are expected to test what is operationally feasible, including feasible operational steps, workarounds, escalation arrangements and alternative funding or collateral mobilisation actions. Where operational constraints exist, Banks should consider whether these can be mitigated or removed over time to enhance operational resilience. In the meantime, Banks should duly reflect such operational constraints in their CFPs (e.g., the lead times needed for the CFP actions to be effected).
- 13.12 While systemic infrastructure disruptions are beyond an individual bank's control, contingencies still need to be developed as such disruptions can occur. For example, staff will need to be familiar with contingent workarounds if access to a payment system is disrupted. During CFP testing, Banks could consider testing the activation of these alternative processes so that staff can become familiar with the required actions during such events. As liquidity/payment flows may also slow because of these alternative processes, Banks should consider how they would bridge any liquidity gaps due to such delays.

14. Transition Period

- 14.1 Many respondents found MAS' proposed six-month transition timeline challenging and requested 12 to 18 months instead. They cited the need for adequate time to plan, implement and test system enhancements required for certain Guideline expectations. Foreign bank branches highlighted that they required additional time for internal socialisation and head office approvals, as implementation depends on head office resources and systems. One respondent suggested a phased approach, prioritising governance, risk appetite and policies within 6 to 12 months, whilst allowing 12 to 18 months for more complex elements such as management information systems. Respondents emphasised that a longer transition period would enable thorough, well-governed and sustainable implementation, thereby supporting both regulatory objectives and operational resilience.



MAS' Response

14.2 MAS will extend the transition period from 6 months to 12 months; however, Banks should roll out what they are able to before the 12-month mark and not delay implementation until then.



Annex A

List of respondents to the consultation paper on Guidelines on Liquidity Risk Management (Banks)

1. Asia Securities Industry & Financial Markets Association (ASIFMA)
2. Bloomberg
3. Daiwa Capital Markets Singapore Limited
4. Green Link Digital Bank Pte. Ltd.
5. MUFG Bank, Ltd.
6. Standard Chartered Bank (Singapore) Limited
7. The Korea Development Bank
8. Prof Andrew Koh from École Supérieure Robert de Sorbon
9. Deutsche Bank entities in Singapore which requested confidentiality of submission
10. Natixis SA Singapore branch which requested confidentiality of submission
11. 4 respondents which requested confidentiality of identity
12. 21 respondents which requested confidentiality of identity and submission

Please refer to Annex B for the submissions.

Annex B

Submissions from respondents to the Consultation Paper on Guidelines on Liquidity Risk Management (Banks)

Note: The table below only includes submissions for which respondents did not request confidentiality for both the submissions and identity.

S/N	Respondent	Responses from Respondent
1.	Asia Securities Industry & Financial Markets Association (ASIFMA)	Question 1. MAS welcomes comments and suggestions on the areas of the proposed Guidelines that require further clarification or adjustments. On behalf of our members, ASIFMA respectfully offers the following comments and requests for clarification on specific aspects of the proposed Guidelines. Our suggestions are outlined below: 1. Proportionality and Applicability to Foreign Bank Branches: Referring to section 1.5 (as with all other guidelines issued by MAS, banks should apply the Guidelines in a proportionate manner, taking into account the nature, size, and complexity of their activities), we encourage MAS to adopt a tiered, risk-sensitive liquidity regime for branches of foreign banks. Smaller branches with limited scale and low liquidity risk should be subject to reduced requirements, thereby aligning obligations with actual risk exposure. MAS's existing supervisory risk ratings (AML, operations, cybersecurity) could be extended to include, for example, a liquidity sub-rating, enabling transparent calibration of supervisory intensity. Clear size thresholds (e.g., total assets, wholesale/external funding volumes) can be used to define tiers. For branches of global banks operating under robust home liquidity regimes and group recovery and resolution frameworks, MAS should permit recognition of parent liquidity governance—subject to enforceability and legal constraints. Such a proportional design will maintain strong supervision without overburdening smaller branches, respect global banks' existing liquidity systems, focus MAS's resources on higher-risk entities, complement MAS's emphasis on proportionality, leverage credible precedent, and help make Singapore a more attractive location for global banking operations. In addition, we encourage MAS to consider the following aspects regarding the Head Office–Branch relationship: ○ Conflicting Head Office Requirements: Branch entities typically adopt the parent group's management framework and are subject to home jurisdiction(s). We seek clarification on the arrangements or guidelines that MAS would provide if differences arise between home regulations and MAS

S/N	Respondent	Responses from Respondent
		requirements, particularly where the branch entity subject to the MAS regime has a simple business profile and a small balance sheet (as defined by MAS). ○ Framework documentation for foreign bank branches: A foreign bank branch may rely on the same documentation as its Head Office when acting as a solo entity (regulated by the foreign home jurisdiction). Since the MAS Guidelines on Sound Risk Management were written, MAS has permitted increasing reliance on the home jurisdiction regulator. Therefore, while specific local Singapore liquidity requirements remain, we propose that liquidity policy documentation be aligned with that reviewed and approved by the home regulator. ○ Expectations for Foreign Bank Branches: We request further clarification on the application of the stated requirements in this consultation paper for foreign bank branches. For example, while expectations for stress testing have been specified, there are no such guidelines for other areas, such as cash flow projection. ○ Roles and Responsibilities of Board and Senior Management: We would like to inquire whether the local Asset and Liability Council could assume all oversight responsibilities of the Board under section 3 for a foreign bank branch that does not have a Board of Directors. 2. Group Policies and Procedures: Sections 5 (Liquidity Strategy and Incentives), 6 (Policies and Procedures), and 7 (Risk Identification) would particularly benefit from allowing firms and banking subsidiaries to utilize group policies and procedures, in a manner similar to what is permitted under Sections 13 and 18. ○ Stress Testing and Scenario Analysis (Section 11): We seek clarification on whether the assessment of significant currency by a Singapore branch of a foreign bank may be performed on a consolidated basis at the Head Office level, provided the significant currencies are freely transferable and convertible. ○ Contingency Funding Plan (“CFP”, Section 18): We would appreciate clarification on whether the CFP of a Singapore branch of a foreign bank can be covered under the Head Office level CFP, which contains details on liquidity support that the Head Office would provide to the branch in the event of a crisis. 3. Distinction Between Good Practices and Minimum Standards: While the paper highlights various observed “good practices,” it remains unclear whether MAS expects all banks to implement these practices or if they are intended merely as recommended benchmarks. A clearer distinction between minimum supervisory expectations and references to good practices would greatly facilitate effective implementation planning. 4. Risk Appetite (Section 4.2): Under section 4.2, it says “The Risk Appetite should be clearly documented...” We would like to inquire if this is equivalent to having a Local Risk Appetite Statement with all risk appetites across various risks included.

S/N	Respondent	Responses from Respondent
		Question 2. MAS seeks comments on any other aspects of liquidity risk management that have not been covered in the proposed Guidelines and warrant further guidance from MAS. ASIFMA would like to respectfully offer some comments for consideration on specific aspects of liquidity risk management from the proposed Guidelines: 1. Intraday Liquidity Management: We would like to inquire whether MAS intends to further enhance the local payment infrastructure and make intraday data on payment flows more accessible to banks, similar to the availability of intraday Real Time Gross Settlement (RTGS) data in Hong Kong. 2. Use of Central Bank Facilities: The Guidelines reference the availability of MAS intraday liquidity and standing facilities. We would appreciate clarification from MAS on the following points: - Whether access to these facilities may be considered as part of the intraday liquidity buffer. - Whether reliance on such facilities should be subject to specific limits or additional stress assumptions. 3. Calibration of Intraday Liquidity Buffers: While the paper notes that buffer levels should be informed by stress test results, further guidance from MAS would be helpful on the following points: - The extent to which MAS' intraday liquidity facilities may be relied upon when determining buffer sizes, as opposed to a requirement to hold unencumbered liquid assets independently. - The degree to which intraday buffers are expected to be maintained on a standalone basis for local branches v.s. standalone subsidiaries of foreign banks. 4. Request for Additional Engagement: The industry seeks further engagement on Sections 9 and 15, as well as on expectations regarding intraday liquidity issues more broadly. We note that foreign bank branches and subsidiaries typically maintain conservative High Quality Liquid Asset buffers and possess the capability to ringfence and control outflows. Question 3. MAS seeks comments on the proposed transition period of six months In response to the consultation on the proposed Guidelines, the industry respectfully recommends that MAS extend the transition period from six months to a minimum of twelve months, and potentially up to eighteen months. This recommendation is based on several key considerations: the introduction of numerous new and amended requirements, together with more detailed expectations for liquidity risk management, will necessitate substantial adjustments to existing processes and systems. Many of these requirements, including those related to stress testing, will require significant technological development and infrastructure enhancement. Additionally, branches of foreign banks operating in Singapore may need additional time for internal socialization of the guidelines and for securing the

S/N	Respondent	Responses from Respondent
		necessary approvals from their head office stakeholders before implementation can begin and be completed. The complexity of adapting reporting frameworks and ensuring the comprehensive applicability of the guidelines across varying branch setups further underscores the operational challenges presented by a six-month timeline. Extending the transition period to twelve or eighteen months will allow institutions to implement the requirements in a thorough, well-governed, and sustainable manner, thereby supporting both regulatory objectives and operational resilience.
2.	Bloomberg	Question 1. MAS welcomes comments and suggestions on the areas of the proposed Guidelines that require further clarification or adjustments. Preface - Bloomberg recognises that the proposed Guidelines on Liquidity Risk Management are directed at banks, merchant banks, and finance companies supervised by MAS, and not at service providers including Bloomberg. Nonetheless, we welcome the opportunity to provide comments as an interested stakeholder. Bloomberg supports the banking sector in Singapore and globally by offering data, analytics and technology solutions that are widely used in liquidity risk measurement, monitoring and reporting. Given this role, we have a practical interest in the clarity, consistency, and feasibility of supervisory expectations, as these directly affect how banks can operationalise their liquidity risk frameworks and reporting obligations. Our response is therefore offered in the spirit of supporting MAS' objectives to strengthen banks' liquidity risk management. We aim to share observations on implementation considerations, data and technology enablers, and global market practices that may help ensure the Guidelines are both effective and operationally workable. Paragraphs 5.1-5.5 - Structural Hedging Practices - We suggest that MAS could expand the guidance on structural hedging. For example, by clarifying the expectations for documenting structural hedge programmes, governance and effectiveness testing, and recognise the role of swaps and other instruments in managing duration gaps in retail portfolios. We think this enhanced clarify would encourage consistent, prudent use of hedging strategies and align with guidance from other regulators, such as the UK Prudential Regulation Authority (PRA), which has recently emphasised transparent structural hedging policies. Paragraphs 8.5, 8.15-8.16 - Clarification on Behavioural Assumptions - The proposed Guidelines recognise the importance of behavioural assumptions for cash flow projections. We would appreciate it if MAS could provide additional clarification on or examples of (i) non-maturity deposits (NMDs), including decay rate and beta assumptions; (ii) loan prepayment behaviour; (iii) deposit stickiness in digital banking contexts. We think that this will be valuable to the industry as clearer regulatory expectations would support more consistent modelling across banks, while still allowing for proportionality. We have seen this in the European Banking Authority (EBA)'s guidance, for example, which requires an ongoing validation of such assumptions.

S/N	Respondent	Responses from Respondent
		Paragraph 9.9 - Enhancing News and Social Media Monitoring Capabilities - The proposed Guidelines provide examples of good practices observed in news and social media monitoring by Banks in Section 9.9. We recommend that MAS places stronger emphasis on implementing real-time, structured monitoring tools that can operate around the clock and feed directly into liquidity dashboards, risk systems, or escalation workflows to provide early monitoring capabilities within banks for news-induced liquidity events. The technology exists today for structured, machine-readable newsfeeds that allow banks to detect shifts in sentiments and identify negative news and analytics at the level of an individual bank, financial instrument or sector, enabling precise surveillance and faster escalation. The relevance of such monitoring has been underscored by recent stress events. In the case of Silicon Valley Bank, several short sellers raised public red flags in the months before its collapse. A systematic approach to monitoring negative news and social media commentary would have highlighted these warnings and enabled earlier assessment of liquidity concerns. Similarly, sentiments on Evergrande in China had been trending negatively for months before the firm's distress became acute; news and sentiment analysis could have provided an early indication of mounting risk. Looking ahead, effective liquidity risk management will depend not just on a bank's ability to monitor news and social media, but also on its ability to ingest and analyse diverse, real-time, and often unstructured datasets, which may include, for example, supply chain disruption alerts, geopolitical risk indicators, and real-time capital flow data that go beyond traditional market data. By developing the capability to integrate these external data sources into their early warning systems, banks can move from a reactive to a proactive stance, identifying potential contagion risks before they manifest as acute liquidity events. Paragraph 11.2 - Frequency of Liquidity Stress Testing - Section 11.2 states that "The extent and frequency of stress testing should be commensurate with the size and complexity of the Bank and its liquidity risk exposures, as well as with the relative importance of the Bank within the financial system.". While the proportionality principle is appropriate, we believe further clarification is needed on minimum expectations. Specifically, MAS could clarify what frequency is considered appropriate for smaller local banks versus larger, more complex international banks. Given the variability of liquidity conditions throughout the year and the rapid emergence of stress episodes, we would suggest that MAS set annual testing as a minimum baseline, supplemented by ad hoc testing during volatile market conditions or at MAS' request. This would be consistent with the approach taken by other regulators such as the European Central Bank (https://www.bankingsupervision.europa.eu/activities/stresstests/html/index.en.html), the Australian Prudential Regulation Authority (https://www.legislation.gov.au/F2025L00653/latest/text), and the Hong Kong Monetary Authority (https://brdr.hkma.gov.hk/eng/docId/docId/getPdf/20200828-1-EN/LM-1.pdf), which have required reviews to be done at least annually.

S/N	Respondent	Responses from Respondent
		Paragraph 11.6 - Reverse Stress Testing - We agree with MAS' recommendation requiring banks to conduct reverse stress testing, in addition to conventional scenarios. Reverse stress testing helps identify the conditions under which a bank's liquidity position would become unsustainable, thereby strengthening contingency funding plans, limit-setting, and early-warning indicators. Including reverse stress testing in the Guidelines will also bring MAS in line with leading international practices, like the European Supervisory and Markets Authority Liquidity Stress Testing Guidelines (https://www.esma.europa.eu/sites/default/files/library/esma34-39-897_guidelines_on_liquidity_stress_testing_in_ucits_and_aifs_en.pdf). Paragraph 11.11 - Recognition of Dynamic Balance Sheet Assumptions in Net Interest Income (NII) Projections - MAS could consider explicitly acknowledging the use of dynamic balance sheet assumptions in NII forecasts, including business growth, product mix shifts, and reinvestment strategies. This is because static assumptions can understate realistic management actions, whereas dynamic assumptions allow banks to reflect forward-looking strategies. To this extent, the Basel Committee of Banking Supervision (BCBS) Principles and HKMA Supervisory Policy Manual on Interest Rate Risk on the Banking Book (IRRBB) both recognise the use of dynamic balance sheets where appropriately governed. Paragraph 11.19 - Identifying the Most Reliable High Quality Liquid Assets (HQLA) - When identifying HQLA, there are several key factors that banks need to consider. For example, under MAS Notice 649 on Minimum Liquid Assets and Liquidity Coverage Ratio, certain categories of HQLA are assumed not to suffer material price declines over a 30-day stress horizon. In addition, the proposed Guidelines (Para 11.19) require banks to account for "potential price changes and valuation erosion under different stress scenarios" when valuing liquid assets. In addition, HQLA are expected to be traded in large, deep and active repo or cash markets characterised by a low level of concentration. We would appreciate clarifications on how MAS expects banks to demonstrate compliance with this requirement: (i) How should banks reconcile Notice 649's treatment of HQLA with the Guidelines' requirement to assume 30-day price declines? (ii) How should banks evidence that HQLA meet the "large, deep and active market / low concentration" criterion in practice? Paragraph 12.7 - Recognition of Central Bank Facilities - Para 12.7, footnote 18 states that liquid assets may be monetised via repo, outright sales, and central bank facilities such as MAS' Intraday, Standing and SGD Term Facilities. We would like to ask MAS to clarify whether MAS recognises the short-term liquidity facilities of other central banks (e.g. the US Federal Reserve, ECB, HKMA, BOE, etc), where banks have documented access and pre-positioned collateral. Question 2. MAS seeks comments on any other aspects of liquidity risk management that have not been covered in the proposed Guidelines and warrant further guidance from MAS.

S/N	Respondent	Responses from Respondent
		1. Guidance on Scenario Analysis for NII and Economic Value of Equity (EVE) (Para 11.1-11.6) We suggest that MAS could consider providing more explicit methodological expectations for NII and EVE scenario analysis, alongside liquidity stress tests. Clear guidance on the types of interest rate shocks (parallel and non-parallel basis), time horizons, and treatment of embedded optionality (prepayments, caps/floors) would help banks and vendors align methodologies. In this regard, we have observed that internationally, the Basel Committee (BCBS, July 2024 IRRBB recalibration, EBA Guidelines and UK PRA Rulebook amendments have set out reference shocks to promote comparability. MAS could adopt a proportional approach, retaining flexibility but signaling supervisory expectations more explicitly. 2. Benchmarking and Proportionality Bloomberg welcomes MAS' efforts to strength liquidity risk management practices. While MAS' principle-based approach is appropriate, we think that cross-bank comparability can be enhanced without imposing rigid uniformity by: - Signaling that MAS supervisors may request standardised BCBS shock runs during reviews (as already envisaged under Section 11.2); - MAS encouraging banks to benchmark their behavioural assumptions against reference parameters set out in international guidance. For example, the Basel Committee's IRRBB standards provide indicative decay allocations for non-maturity deposits (e.g. percentages by repricing brackets), while the EBA Guidelines impose caps on average maturities (e.g. 5-year maximum for certain stable deposits) and require regular monitoring. Similarly, the UK PRA's Pillar 2 methodologies expect independent validation and supervisory challenge of assumptions, and the HKMA's Supervisory Policy Manual (IRRBB-1) specifies conservative default assumptions that banks must justify if deviated from. Our recommendation aim to provide constructive clarification that would (i) enhance comparability across banks; (ii) support proportionate implementation; and (iii) align MAS' framework with international standards while retaining flexibility for Singapore's market context. By signaling that MAS supervisors may refer to such reference shocks and caps when reviewing local banks' assumptions, MAS can strike a balance between principle-based flexibility and cross-bank comparability. This approach would also provide banks with clearer benchmarks for calibration while allowing proportional adjustments to local market conditions. 3. Supervisory Dialogue and Industry Roundtables We encourage MAS to consider hosting technical roundtable or working groups with banks and vendors following the roll-out of the Guidelines on a regular basis or as and when necessary. To that end, Bloomberg would be pleased to support MAS in this initiative by participating in such dialogues, or leveraging on our platform and network to help convene industry stakeholders for these important

S/N	Respondent	Responses from Respondent
		discussions. Such regulator-industry discussions will facilitate better alignment on modelling standards, allow the industry to share implementation challenges, and provide MAS with market feedback on proportional application. To this extent, the ECB and PRA frequently engage industry working groups during major supervisory guideline updates and this has been much appreciated by the industry.
3.	Daiwa Capital Markets Singapore Limited	Question 1. MAS welcomes comments and suggestions on the areas of the proposed Guidelines that require further clarification or adjustments. Paragraph 1.5 - The Merchant Bank appreciates MAS's recognition on the Bank's business model, operational complexity, and the scale of its activities in the application of the proposed guidelines. While point 1.5 in the Background section acknowledges these factors, the Bank wishes to underscore their importance in ensuring that regulatory objectives are met while maintaining business viability and operational efficiency Question 2. MAS seeks comments on any other aspects of liquidity risk management that have not been covered in the proposed Guidelines and warrant further guidance from MAS. No comment Question 3. MAS seeks comments on the proposed transition period of six months The Merchant Bank respectfully requests that MAS consider granting a longer lead time following the finalization of the guidelines. This is to ensure adequate time for planning, implementation and testing, particularly in view of the technology investments that may be necessary to meet some of the requirements.
4.	Green Link Digital Bank Pte. Ltd.	Question 1. MAS welcomes comments and suggestions on the areas of the proposed Guidelines that require further clarification or adjustments. We have no comment. Question 2. MAS seeks comments on any other aspects of liquidity risk management that have not been covered in the proposed Guidelines and warrant further guidance from MAS. We have no additional comment. Question 3. MAS seeks comments on the proposed transition period of six months We respectfully request for the transition period to be extended to one year. This would provide adequate time to prepare for the adoption of the new guidelines, including internal coordination and system readiness over a full fiscal year. The extended timeline would also help manage resource demands.
5.	MUFG Bank, Ltd.	Question 1. MAS welcomes comments and suggestions on the areas of the proposed Guidelines that require further clarification or adjustments. Paragraph 9.2 - We understand that the application of the Guidelines on a group basis applies only to locally-incorporated Banks. For example, in Section 9.2, the requirement for the bank's management information system (MIS) to calculate liquidity positions in each of the currencies in which it conducts business, on a



S/N	Respondent	Responses from Respondent
		group basis, would be applicable for locally-incorporated Banks only. Please let us know if the understanding differs from MAS' intent. Question 2. MAS seeks comments on any other aspects of liquidity risk management that have not been covered in the proposed Guidelines and warrant further guidance from MAS. NIL Question 3. MAS seeks comments on the proposed transition period of six months We would like to request for a longer transition period to implement the requirements. We suggest that MAS consider prioritising the implementation of key guidelines components such as governance, risk appetite, policies etc. within 6-12 months. For other more complex components such as development of MIS and monitoring capabilities, we propose a longer transition period of 12-18 months, as these initiatives typically require broader stakeholder engagement, system enhancement, and data alignment.
6.	Standard Chartered Bank (Singapore) Limited	Question 3. MAS seeks comments on the proposed transition period of six months The Bank would like to propose Jan 1st 2027 as effective date for the transition to the proposed guidelines to allow Banks to address any required Policy/Standards or systems/MI buildouts that may be required.
7.	The Korea Development Bank	Question 1. MAS welcomes comments and suggestions on the areas of the proposed Guidelines that require further clarification or adjustments. Paragraph 15.7 - Subject: Query on Potential Reporting Requirement for SRP50 Metrics We note that paragraph 15.7 of the Proposed Guidelines refers to the SRP50 Liquidity Monitoring Metrics under the Basel Framework, which include various tools for monitoring intraday liquidity usage and availability. May we kindly seek clarification on whether MAS' reference to these SRP50 metrics is intended primarily as supervisory guidance for internal monitoring purposes, or whether there are future plans to incorporate these metrics into formal regulatory reporting requirements. We would appreciate MAS' guidance on this point to help us better align our internal processes and ensure readiness, should any reporting obligations be envisaged. Paragraphs 8.4 and 9.3 - Subject: Clarification on References to Longer-Term Liquidity Horizons in the Proposed Guidelines We noted that paragraph 8.4 of the Proposed Guidelines refers to cash flow projections covering "short and medium-term horizons up to one year, and longer-term liquidity needs over one year." We also note that paragraph 9.3 highlights the need for banks to monitor liquidity positions across progressively wider time bands for longer-term horizons, in addition to intraday and daily monitoring for shorter horizons. We kindly seek

S/N	Respondent	Responses from Respondent
		MAS' clarification on how banks should interpret the references to "longer-term liquidity needs over one year" and "longer-term periods" in the context of liquidity risk management practices. In particular, may we understand whether this is intended to call for explicit projections and monitoring beyond the one-year horizon, or whether it is more appropriately viewed as a broader consideration of structural funding stability, serving as guiding principles rather than distinct monitoring requirements? Subject: Seeking Clarity on Implementing Proportional Application in Liquidity Risk Guidelines The approach of proportional application appears in several sections of the proposed guidelines, where MAS indicates that liquidity risk management should reflect the size, nature, and complexity of a bank's activities (e.g., 3.1.2, 8.10, 11.2, etc.). We would appreciate further clarification on this point. In particular, it may be helpful if MAS could more explicitly reflect that the extent and intensity of liquidity risk management requirements, including stress testing practices, should be commensurate with each bank's profile. Such clarification would support a more proportionate and risk-sensitive application of the guidelines across institutions with differing business models.
8.	Professor Andrew Koh from Ecole Supérieure Robert de Sorbon	Suggested Improvements: 1. Elevate and Define the Risk Appetite Statement (RAS) (Section 4: Risk Appetite) Suggestion: Transform Section 4 from a set of principles into a mandatory requirement for a formal, documented, and board-approved Comprehensive Liquidity Risk Appetite Statement. This statement should be distinct from the overall bank RAS or a key component of it. Proposed Wording (New Sections 4.4, 4.5, 4.6): 4.4 The Comprehensive Liquidity Risk Appetite Statement: A Bank must establish a formal, written Comprehensive Liquidity Risk Appetite Statement that is approved by the Board at least annually. This statement shall be the primary governance document defining the maximum level of liquidity risk the Bank is willing to assume. 4.5 Core Components: The Statement must, at a minimum, include: (a) Qualitative goals for liquidity risk management. (b) Quantitative risk appetite metrics and limits (e.g., minimum survival horizon, maximum concentration limits, currency mismatch limits, intraday limits). (c) The specific severe but plausible stress scenarios against which the quantitative appetite is calibrated. (d) Clear linkages to the Bank's business strategy, capital plan, and overall risk appetite.

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		(e) Definitions of breach severity levels (e.g., Amber, Red) and the mandatory actions and escalations for each. 4.6 Dissemination and Culture: The Risk Appetite Statement must be effectively communicated throughout the Bank to ensure all relevant staff understand its implications for their activities. Rationale: A formal, standalone document ensures clarity, accountability, and serves as an unambiguous reference point for all liquidity decisions and reporting. 2. Mandate a Concurrent, Tiered Reporting Framework (New Section 10.4 and integration into Section 3 & 9) Suggestion: Introduce a new subsection that explicitly mandates a standardized reporting schedule with concurrent submissions to the Board, Senior Management, and MAS. The content and frequency should be tiered based on the recipient and the Bank's risk profile. Proposed Wording (New Section 10.4): 10.4 Concurrent Reporting Framework: A Bank must establish a formal liquidity risk reporting framework that ensures concurrent dissemination of reports to the Board, relevant Senior Management committees, and the MAS. a) Minimum Reporting Schedule: <table><tr><th>Report Type</th><th>Content (Examples)</th><th>Frequency</th><th>Recipients (Concurrent)</th></tr><tr><td>Standard Management Report</td><td>Compliance with RAS limits, key metrics (LCR, NSFR, MLA, MCB), funding concentrations, early warning indicators.</td><td>Monthly</td><td>Senior Management, MAS</td></tr><tr><td>Board Liquidity Report</td><td>High-level overview of risk profile vs. appetite, material limit breaches, stress test results, key emerging risks.</td><td>Quarterly (or each Board meeting)</td><td>Board, MAS</td></tr><tr><td>Stress Testing Report</td><td>Detailed results of all required stress tests, including impact on capital</td><td>Quarterly</td><td>Senior Management, Board, MAS</td></tr></table>	Report Type	Content (Examples)	Frequency	Recipients (Concurrent)	Standard Management Report	Compliance with RAS limits, key metrics (LCR, NSFR, MLA, MCB), funding concentrations, early warning indicators.	Monthly	Senior Management, MAS	Board Liquidity Report	High-level overview of risk profile vs. appetite, material limit breaches, stress test results, key emerging risks.	Quarterly (or each Board meeting)	Board, MAS	Stress Testing Report	Detailed results of all required stress tests, including impact on capital	Quarterly	Senior Management, Board, MAS
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			and P&L, and adequacy of contingency plans.		
		Breach & Incident Report	Immediate notification of any material breach of the Risk Appetite Statement or liquidity incident.	Immediate (Within 24 hours)	Senior Management, Board, MAS
		b) MAS Submission: Reports shall be submitted to MAS via a designated portal or method specified by MAS. The Bank must maintain records of all submissions. Rationale: Concurrent submission eliminates information asymmetry, ensures MAS has a real-time view of the Bank's governance, and holds the Board and Senior Management directly accountable for the same information provided to the regulator. 3. Integrate RAS with Existing Sections (Governance - Section 3) Suggestion: Amend the Board and Senior Management responsibilities to explicitly include the approval and monitoring of the Comprehensive RAS and the concurrent reporting regime. Proposed Wording (Section 3.2): 3.2 (a) approving the Bank's Comprehensive Liquidity Risk Appetite Statement and any material deviations from it; **3.2 (d) staying informed about the Bank's overall liquidity profile by reviewing regular reports on its liquidity position... and ensuring these reports are concurrently submitted to MAS." Proposed Wording (Section 3.3): 3.3 (g) regularly reporting to the board on key risks and developments, in accordance with the concurrent reporting framework..." Rationale: Embeds the new requirements directly into the core governance duties of the Board and Senior Management. 4. Link Contingency Funding Plan (CFP) to RAS Breaches (Section 18: CFP) Suggestion: Explicitly link the activation triggers of the CFP to breaches of the Quantitative Risk Appetite Statement. Proposed Wording (Section 18.7): 18.7...The criteria for CFP activation should be pre-determined and must be explicitly linked to breaches of quantitative thresholds within the Comprehensive Liquidity Risk Appetite Statement (e.g., a "Red" severity breach). While qualitative judgment remains important, over-reliance on subjective expert judgement should be avoided to prevent delays in CFP activation.			



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		• Rationale: Creates an objective, pre-defined trigger for crisis response, directly tethering day-to-day risk management to the emergency contingency plan.