



Monetary Authority of Singapore

Guidelines
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Guidelines on Resolution (Banks) - Resolvability



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Guidelines on Resolution (Banks) - Resolvability

1. Introduction

- 1.1 MAS Notice 654 on Recovery and Resolution planning (“MAS Notice 654”) provides that resolution plans developed by the Authority are to facilitate the effective use of resolution powers with the aim of making feasible the **orderly resolution of a bank**. Orderly resolution minimises impact on financial stability and allows systemically important functions to continue with minimal disruptions. Resolution planning involves developing a substantive resolution strategy for a bank and an operational plan for its implementation.
- 1.2 A key aspect of resolution planning is the assessment of resolvability aimed at achieving a bank’s preparedness for a potential resolution. The Authority conducts regular resolvability assessments, based on information furnished by relevant banks, to identify potential impediments to the implementation of the resolution plan for the bank and measures necessary to improve its resolvability¹.
- 1.3 To be considered resolvable, a bank should have adequate financial resources available, in the context of resolution given its resolution strategy, to absorb losses, recapitalise and meet its obligations while minimising taxpayers’ exposure to loss, and be able to continue business operations and critical functions² during resolution and through restructuring post resolution. A bank should also be able to communicate and co-ordinate effectively with relevant stakeholders to support its orderly resolution and restructuring. In this context, the Guidelines to MAS Notice 654 provides guidance to banks on the contingency analysis that a bank needs to conduct to assess its resolvability i.e. banks are expected to play an active role in the process of identifying and removing potential impediments to resolution.
- 1.4 **These Guidelines on Resolution - Resolvability (“Guidelines”) provide further guidance on the actions that a notified bank should undertake to be considered resolvable and should be read in conjunction with MAS Notice 654 and Guidelines to MAS Notice 654.** These are not to be taken as exhaustive, as every bank will need to consider how its specific group structure, geographical reach, business and operating model may give rise to additional impediments to resolution and what capabilities it should develop to address or remove these impediments.

¹ Pursuant to Sections 53 and 54 of the Financial Services and Markets Act 2022 (“FSM Act”), the Authority may require banks to provide relevant information for the purpose of resolution planning or to take specified measures for the purpose of removing or addressing the impediments to orderly resolution.

² The continuation of business operations and critical functions may be subject to changes as the bank under resolution may be restructured such that business activities can be changed, including any parts being sold or wound down.

- 1.5 A bank should ensure that the expectations set out in these Guidelines are also met in respect of all material entities in its consolidated group (for a local bank) or Singapore sub-group (for a foreign bank), where prior development and maintenance of these capabilities would be needed to support the orderly resolution of its consolidated group or Singapore sub-group as a whole.³
- 1.6 The Authority recognises that banks already have in place relevant capabilities and arrangements for crisis management and recovery planning purposes. Banks may suitably leverage these existing capabilities and arrangements and where necessary, enhance or update them to incorporate resolution-specific risks and expectations outlined in these Guidelines.
- 1.7 A foreign bank in Singapore may be able to leverage on the capabilities of the group where relevant and should be able to demonstrate how these can be relied upon to meet the expectations set out in these Guidelines. This includes ensuring that such group capabilities continue to be available to support the foreign bank in Singapore even while the bank's group or its Head Office may be in distress.
- 1.8 The work to achieve an appropriate level of resolvability is an iterative process between the Authority and the bank. As part of regular resolvability assessments, the Authority will engage and collaborate closely with each bank to clarify its obligations and the Authority's expectations. Where there are potential impediments to resolvability, the bank should propose measures and milestones to address them within a reasonable timeframe. The Authority will review and discuss these issues with the bank and its home or host authorities (where applicable) and may direct the bank to improve its capabilities to ensure resolvability.

2. Definitions

- 2.1 In these Guidelines –

“Authority” means the Monetary Authority of Singapore;

“bank” means –

(a) a bank incorporated in Singapore; or

³ The maintenance and submission of required information for resolution planning shall continue to be conducted in accordance with MAS Notice 654 and Guidelines to MAS Notice 654.

(b) in the case of a bank incorporated outside Singapore, the branches and offices of the bank located within Singapore;

“critical functions” refer to activities performed by a bank for third parties, where failure of such function would lead to the disruption of services that are vital for the functioning of Singapore’s economy and financial stability due to the bank’s size or market share, external and internal interconnectedness, complexity and cross-border activities;

“financial market infrastructure” (FMI) means a multilateral system among participating financial institutions, including the operator of the system, used for the purposes of recording, clearing, or settling payments, securities, derivatives, or other financial transactions”. It includes payment systems, central securities depositories, securities settlement systems, central counterparties, and trade repositories;

“FMI intermediary” means an entity that provides clearing, payment, securities settlement and/or custody services to banks in order to facilitate the banks’ direct or indirect access to an FMI.

“foreign bank” means a bank incorporated outside Singapore or a foreign-owned bank incorporated in Singapore;

“group” includes the bank’s Head Office or parent company, subsidiaries, affiliates, and entities (including their subsidiaries, affiliates and special purpose entities) that the bank exerts control over or that exerts control over the bank;

“home resolution authority” means –

- (a) in the case of a local bank, the Authority; or
- (b) in the case of a foreign bank, the resolution authority which is responsible for formulating or implementing the group resolution strategy applicable to the foreign bank in Singapore;

“local bank” means a bank incorporated in Singapore, which banking group is headquartered in Singapore and which the Authority has consolidated supervisory authority over;

“loss-absorbing instrument” in relation to a bank means –

- (a) an ordinary share of the bank; or

- (b) an instrument or a liability that is an eligible instrument in relation to the bank, that satisfies the criteria set out in a written notice issued under section 57B of the Financial Services and Markets Act 2022 (“FSM Act”);

“**notified bank**” means a bank which has received a direction issued by the Authority under section 52(1) of the FSM Act;

“**total loss-absorbing capacity**” in relation to a bank, means the sum of the values of the following, determined in accordance with a written notice issued under section 57B of the FSM Act –

- (a) any loss-absorbing instrument (not being a liability) that has been issued by the bank;
- (b) any loss-absorbing instrument that is a liability that is owed by the bank;
- (c) any other financial resource that the bank holds,

that may be used to absorb losses of the bank and to facilitate the recapitalisation of the bank;

“**resolution event**” occurs when any of the resolution measures as defined in section 91, Part 8 of FSM Act has been taken in relation to a bank.

- 2.2 Except where defined in these Guidelines or if the context otherwise requires, the expressions used in these Guidelines have the same meanings as in the Banking Act 1970, FSM Act and Notice 654.

3. Elements of Resolvability

3.1 Governance and management oversight

- 3.1.1 **A bank should put in place robust governance arrangements and sufficient resources to support the preparation and implementation of the resolution strategy developed for it⁴.** Minimally, the bank should have governance arrangements to support:

⁴ Pursuant to section 53, Part 7 of FSM Act, the Authority may prepare plans for the orderly resolution of a bank and may for that purpose issue a direction to the bank requiring the bank to provide, within the time and in the form and manner set out in the direction, any information or document that the Authority may reasonably require for that purpose.

- (i) timely and accurate maintenance and reporting of information both regularly and on an ad hoc basis prescribed for the bank by legislative instruments for resolution planning, resolvability assessment and conduct of resolution;
- (ii) effective oversight of activities to support resolution planning, resolvability assessment and execution of resolution strategy in crisis; and
- (iii) sound and timely decision-making on resolution-related matters.

3.1.2 The board and senior management of a bank should exercise oversight of the bank's capabilities to support resolution planning, including maintaining and submitting the required information, and identifying and addressing impediments to resolvability⁵. The resolution planning process should be integrated into a bank's overall governance processes and risk management framework and supports the preparation and implementation of the resolution strategy developed for the bank. This includes processes for sourcing and analysing relevant data, reviewing, challenging and approving key assumptions, methodology, financial modelling, and measures to address impediments to resolvability.

3.1.3 A bank should have dedicated resolution planning staff who are competent, actively contribute to the overall group resolution planning activities, and are able to provide effective support in a resolution scenario. The roles and responsibilities of each person involved in the resolution planning process should be clearly assigned within the bank. A bank should also be able to identify key job roles⁶ and ensure that they would be suitably staffed and incentivised in resolution. In determining its staffing in resolution, a bank should take into consideration potential staff turnover in such a scenario, the need to replace management to restore confidence, and the large number of business-as-usual and resolution-specific actions staff will have to execute to support orderly resolution.

3.1.4 A bank should establish clear lines of responsibility, escalation and approval processes for regular reporting of resolution planning matters⁷ to the bank's board and senior management. This should include having robust feedback loops and escalation channels to ensure board and senior management's active engagement and oversight of resolution matters and to facilitate timely decisions and actions in the context of resolution before, during and after resolution measures have been taken in relation to the bank ("a resolution event"). The bank's board and

⁵ Pursuant to paragraph 5.1(a) of MAS Notice 654, a bank must appoint an executive officer to oversee the bank's capabilities to support resolution planning.

⁶ Key job roles are those roles where a vacancy in resolution may present an obstacle to the effectiveness of resolution and any subsequent restructuring.

⁷ Key matters could include the bank's progress on addressing impediments to resolvability, revisions to the bank's internal governance framework for resolution planning matters, the Authority's expectations and recommendations on resolution planning as well as international developments.

senior management should ensure that strategic decisions⁸ take into account the impact on resolvability.

3.1.5 In addition, in the case of a foreign bank, the board (if any) and senior management in Singapore should be well informed about the group resolution strategy, and be able to support the preparation needed for the smooth execution of its group resolution strategy and resolution plan. There should be clear escalation and communication processes in place on how the foreign bank interacts with its parent holding company(ies) or parent bank, the resolution entity for the foreign bank⁹, and group, including any subsidiaries and branches held by the foreign bank, on resolution matters.

3.1.6 As noted in paragraph 1.7 above, a foreign bank in Singapore may be able to leverage on the capabilities of the group where relevant, subject to the bank having a local team which meets the following conditions:

- (i) having local accountability and governance for resolution and representation at the group level forum;
- (ii) ability to provide input on assumptions and methodologies relevant to the local entity and considerations specific to Singapore;
- (iii) ability to access and provide relevant source data and resolution-related information of the bank to the Authority in a timely manner; and
- (iv) ability to explain to the Authority the key judgements and specific assumptions, data and forecasts that are needed for the bank.

3.2 Loss absorption and recapitalisation capacity

3.2.1 A bank should maintain sufficient total loss-absorbing and recapitalisation capacity to enable the implementation of an orderly resolution and allow it to emerge from resolution sufficiently well capitalised to continue complying with regulatory requirements and sustain market confidence. The Authority will require the bank to have an appropriate level of total loss-absorbing capacity taking into account the preferred resolution strategy¹⁰.

⁸ Such key strategic decisions could include legal entity restructuring, acquisition or disposal of entities, changes to booking model, outsourcing arrangements, intra-group interdependencies and changes to operations and IT environment.

⁹ A resolution entity is the entity on which resolution measures are taken. Each resolution entity, together with its subsidiaries that are not themselves resolution entities, form a “resolution group”.

¹⁰ The preferred resolution strategy is determined by the Authority in the case of a local bank or the home resolution authority in the case of a foreign bank.

3.2.2 A bank should have capabilities to monitor its total loss-absorbing capacity, in particular:

- (i) its current and projected level of total loss-absorbing capacity and their maturities where applicable; and
- (ii) relevant contractual provisions and features of individual loss-absorbing instruments, such as write-down/conversion and ranking in creditor hierarchy.

3.2.3 A bank should have plans for maintaining its level of total loss-absorbing capacity and ensure that any plans to issue loss-absorbing instruments are reasonable and consistent with their business plans and expected market conditions. The bank should also develop internal policies detailing the relevant decision-making body in charge of meeting these issuance targets and any relevant remedial actions to be taken if such targets are not met.

3.2.4 In the case of a local bank, it should also:

- (i) maintain sufficient total loss-absorbing capacity at the level of its subsidiaries, having regard to all applicable local regulations; and
- (ii) develop a credible and feasible mechanism to upstream losses from its subsidiaries to the parent entity.

3.2.5 As set out in paragraph 3.2.1, **a bank should put in place internal processes and management information systems (MIS) capabilities, where applicable, that support the execution of a bail-in resolution strategy.** More specifically, the bank should:

- (i) assess if there are or could be any difficulties that may impede the write-down/conversion of loss-absorbing instruments, and address these impediments;
- (ii) confirm¹¹ with internal or external legal experts that contractual bail-in provisions meet all applicable regulatory requirements and remain legally enforceable under applicable laws. Where such contractual provisions provide for either write-down of the loss-absorbing instrument or conversion of the loss-absorbing instrument to equity only, the bank should demonstrate that this will support the preferred resolution strategy;
- (iii) provide to the Authority in a timely manner upon request, a complete and accurate set of information relating to all its loss-absorbing instruments¹²; and

¹¹ This should be done at the point of issuance, as well as when there are any changes to regulatory or legal frameworks that may affect the enforceability of contractual bail-in provisions.

¹² Examples of information that the Authority may request include:

- (iv) have operational procedures on how the write-down/conversion of specific loss-absorbing instruments will be executed.

3.3 **Liquidity and funding in resolution**

3.3.1 **A bank should maintain liquidity and funding capabilities to support orderly resolution.** These capabilities should enable the bank to reasonably estimate its liquidity and funding needs in the lead up to resolution, during and after the resolution (“resolution timeline”), appropriately monitor and report its liquidity position including available liquid assets, and effectively identify and mobilise collateral while monitoring asset encumbrance levels.

3.3.2 **A bank may leverage existing capabilities developed for regulatory compliance, liquidity risk management, contingency funding planning, and recovery planning when developing the same capabilities for resolution purposes.** Where existing capabilities are utilised, the bank should demonstrate that these capabilities adequately address resolution-specific liquidity risks and factors. This must be appropriately contextualised for the bank’s idiosyncratic circumstances, and should include the following:

- (i) operational liquidity needs associated with the relevant resolution strategy (e.g. bail-in execution or transfer of business).
- (ii) behavioural assumptions specific to resolution that may differ from business-as-usual stress behaviour, for example, accelerated deposit outflows, loss of secured funding, or collateral calls triggered by a change in legal status or credit rating that may be more severe than those modelled under stress scenarios used in recovery planning.
- (iii) access to central bank facilities, including whether the bank in resolution can continue to access liquidity facilities and on what terms, and whether collateral availability is maintained.

Liquidity measurement and reporting capabilities

3.3.3 **A bank should maintain capabilities to measure and report its liquidity positions on a timely basis.** Such reports should be made available on a T+1 basis or more rapidly when necessary to ensure timely decision-making during critical periods. These capabilities should capture all

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- (i) The unique identifier of the instrument;
 - (ii) The amount issued in SGD or foreign currency;
 - (iii) Outstanding principal amount in SGD or foreign currency;
 - (iv) Accrued interest on the instrument;
 - (v) Date of the next interest payment;
 - (vi) Date of the next (partial) redemption payment;
 - (vii) Trading venue(s) where the instrument is traded;
 - (viii) Where the instrument is settled and cleared in; and
 - (ix) Where the instrument is custodied in.

relevant dimensions and factors contributing to the determination of the liquidity position. The bank should be able to project cash inflows and outflows on an intraday basis¹³ and over various time horizons with appropriately granular time bands. This includes daily time bands for at least 90 days in the lead up to resolution and from the point of entry into resolution.

- 3.3.4 A bank should determine and justify appropriate frequency and format for internal reporting of liquidity metrics, including estimates of liquidity and funding needs in resolution.** The bank should have processes in place to increase the frequency of reporting to the Authority, including minimally on a daily basis, throughout the resolution timeline until the bank's liquidity needs have stabilised.
- 3.3.5 A bank should be able to rapidly adjust assumptions for key drivers of liquidity and funding needs, and haircuts on available liquid assets across different periods in the resolution timeline¹⁴.** The capabilities for rapid adjustment of assumptions should be able to cater to different circumstances that the bank might face in resolution, such as potential actions by counterparties. A bank should also be able to rapidly incorporate actual crisis conditions into its estimates of liquidity and funding needs in resolution.
- 3.3.6 A bank should have the capability to perform liquidity analysis for currencies deemed material ("material currencies")¹⁵ for each of its material entities and for the group as a whole.** A bank should also assess whether this adequately captures the material currencies to which it is exposed¹⁶, including those that could become material in resolution due to group restructuring. The bank should assess how its liquidity needs in each material currency evolves through the resolution timeline.

¹³ The bank should be able to:

- (i) Identify the timing and magnitude of its large intraday payment obligations and expected inflows across material currencies (as defined in paragraph 3.3.6) and payment systems;
- (ii) Produce intraday liquidity positions that are sufficiently granular to distinguish between different settlement windows, or other operationally meaningful time bands relevant to the markets in which the bank participates; and
- (iii) Identify and quantify intraday liquidity buffers and available collateral that could be mobilised to cover shortfalls within the day.

¹⁴ As a general principle, a bank should continue to obtain sign-off at an appropriately senior level for any parameter or assumption change, with documentation and audit trails maintained in accordance with the bank's own governance processes. A bank may however wish to consider maintaining ex-ante documentation of the range of assumptions considered plausible under different resolution scenarios and the parameters corresponding to those scenarios, so that adjustments can be made quickly by reference to pre-approved parameters rather than requiring fresh analyses and approvals under time pressure.

¹⁵ A material currency refers to a currency where the aggregate liabilities of a bank or banking group denominated in that currency amounts to 5% or more of its total liabilities.

¹⁶ For example, the operating currency of a strategically important subsidiary within a banking group may be considered material even if its exposure is less than 5%.

- 3.3.7 **A bank should maintain capabilities to perform liquidity analysis at both material entity level and consolidated group level for resolution purposes, assessing materiality in the context of the preferred resolution strategy.** For single point of entry strategies, analyses should cover the whole resolution group, while multiple point of entry strategies require separate analyses for each resolution group. The scope should also include entities providing critical functions, representing significant portions of balance sheet or business activities, and those with important liquidity management roles within the group.

Collateral management

- 3.3.8 **A bank should maintain capabilities to identify and mobilise assets that can be used to generate liquidity in resolution.** This includes identifying different groups of marketable and non-marketable assets that can be monetised through sales, repurchasing arrangements, or pledged as collateral in central bank facilities, at both the material entity level and consolidated group level. The bank should be able to identify unencumbered collateral on a spot basis and project collateral balances, including how they evolve during stress scenarios. This includes identifying important information such as currency, asset class, eligibility for central bank facilities, and encumbrance status.
- 3.3.9 **A bank should continually maintain up-to-date asset valuations that can be quickly revised as market conditions change during the resolution process.** The bank should be able to measure, monitor and report on aggregate levels of asset encumbrance and project changes in unencumbered assets available at different stages of the resolution timeline. A bank should have a framework that considers the time required to mobilise different asset classes and reflect this impact in cashflow estimations. The bank should document the steps required and expected timeframes for mobilising and monetising assets, including those located outside their home jurisdiction and across different time zones.

3.4 Operational continuity in resolution (OCIR)

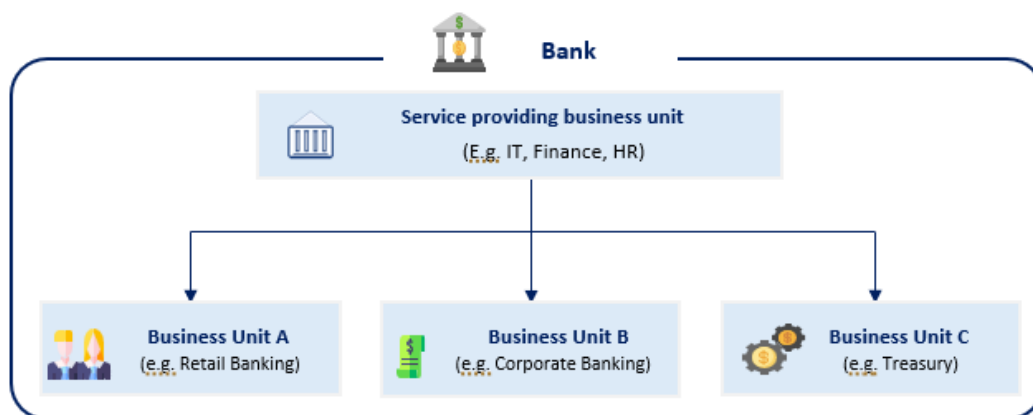
- 3.4.1 Operational continuity in resolution refers to the ability to continue critical shared services that are necessary to maintain the provision or facilitate the orderly wind down of a bank's critical functions in resolution. It is a key aspect of resolution planning for banks, and a lack of adequate arrangements for operational continuity is likely to impair a bank's resolvability.
- 3.4.2 Appropriate contingency arrangements should be in place to provide for continuity in resolution, to enable the continued operation of the bank's critical functions and critical shared services. Likewise, there should be adequate measures such that outsourcing arrangements which support critical functions and critical shared services can be maintained in resolution.

- 3.4.3 As there are potential parallels between operational continuity in resolution and operational continuity for business continuity management (BCM), some banks may have leveraged the work carried out for BCM purposes to support the implementation of appropriate contingency arrangements to secure OCIR. Nevertheless, the bank should take note that notwithstanding the correlation and parallels, it should not be assumed that the functions and services critical in business-as-usual operations are similarly critical in a resolution. Likewise, OCIR arrangements aim to address specific risks to operational continuity in a resolution scenario, and it cannot be assumed that the measures to address BCM can also address OCIR risks. **The bank should carry out a separate analysis on what are specifically critical shared services and OCIR arrangements necessary to support an orderly resolution.**

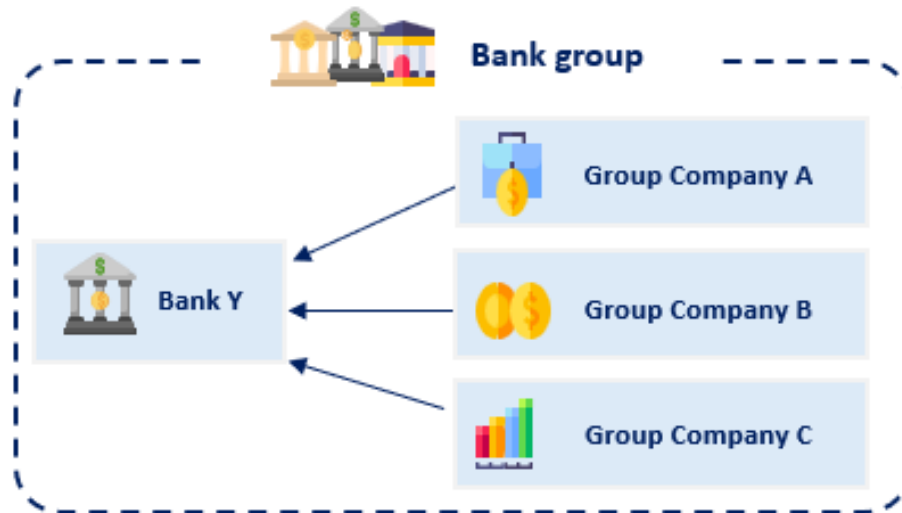
Service delivery models and resolvability

- 3.4.4 A bank can organise the provision of services for the performance of its activities (i.e. its service delivery model) in several ways:

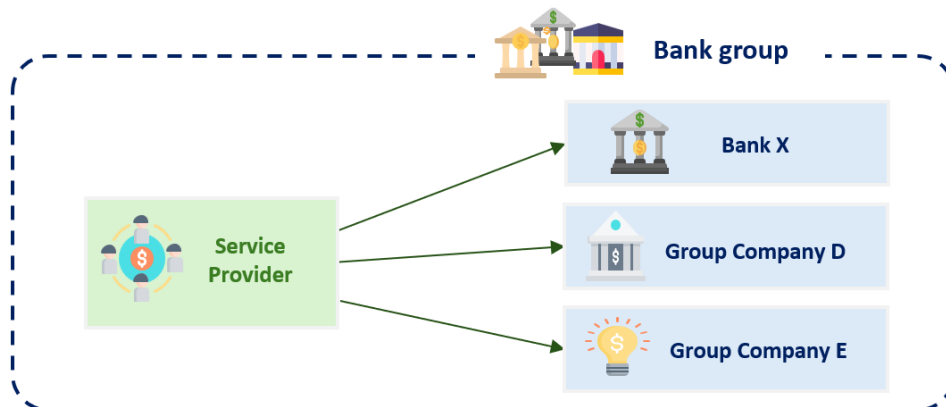
- (i) Intra-entity model: Services are provided by a business unit within the bank itself to one or more of its other business units



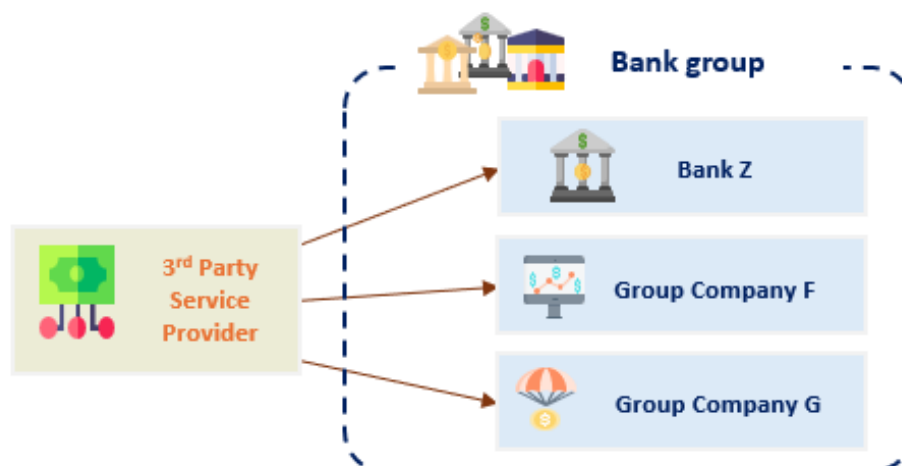
- (ii) Inter-entity model: Services are provided by a company within the bank's group (that is not a service company)



- (iii) Intra-group service company model: Services are provided by a dedicated intra-group service company



- (iv) Third-party service provider model: Services are provided by a third-party service provider.



- 3.4.5 These models are not mutually exclusive, and many banks employ a mixed service delivery model that combines different models. While each model has specific strengths and weaknesses, the bank should determine the service delivery model or combination of models that is most appropriate for its business operations to secure continuity of the critical shared services during resolution and to facilitate separability and post-resolution restructuring. Operational continuity arrangements should take into account the different service models used across the group and how they interact.

Identification and mapping of interconnectedness for operational continuity

- 3.4.6 **A bank should comprehensively identify all critical shared services (whether provided by intra-group providers or by third parties),** as well as operational assets (both owned, licensed or leased), functions and staff, necessary for the continuity of critical functions and the core business lines needed for the effective implementation of the resolution strategy and any consequent post-resolution restructuring. The bank should also maintain a clear taxonomy of critical shared services and conduct comprehensive, regularly updated mapping between critical shared services to critical functions, core business lines, legal entities related contractual arrangements, as well as relevant operational assets, functions and staff which support their provision and their location. The information underpinning the mapping should be organised in systems or portals (“service catalogue”) in an accessible and searchable form, such that the bank is able to readily produce relevant information in a flexible manner to facilitate securing OCIR and related restructuring.

Assessment and mitigation of risk to operational continuity

- 3.4.7 **A bank should comprehensively assess risks to OCIR, including any risks posed by its particular service delivery models, on an ongoing basis,** and be able to demonstrate that the measures it has taken or is taking sufficiently address and mitigate any risks identified to improve preparedness for resolution and to facilitate post-resolution restructuring.
- 3.4.8 **In assessing and addressing risk to OCIR, a bank should consider the relevance and implementation of the following arrangements:**
- (i) Contractual provisions and service level agreements: A bank should have clear and comprehensively documented contractual arrangements and service level agreements for both intra-group and third-party critical shared services that cannot be terminated, amended or suspended by the service providers solely as a result of entry into resolution of the bank or any of its group companies. For avoidance of doubt, the bank should also determine the applicability of regulation 33 of Financial Services and

Markets (Resolution of Financial Institutions) Regulations 2024 to arrangements involving financial contracts.

Where contractual amendments are not feasible, a bank may adopt alternative mitigants to manage the risk of contractual vulnerabilities arising from a resolution event. Alternative mitigants could include, for example, pre-positioning sufficient funds to support the continued provision of critical shared services in resolution, or factoring the contractual risk into the bank's overall resolution planning and financial resource assessments. The bank should be able to demonstrate, including through testing, that the critical shared services can continue to be provided in resolution. The bank should also document instances where contractual amendments have been sought but could not be achieved, including the steps taken to negotiate amendments and the reasons why they were unsuccessful.

- (ii) Robust pricing structures: A bank should strive to have cost and pricing structures for services that are predictable and transparent, enabling any future charges for critical shared services to be either known or calculable. The pricing structure should be sufficiently clear and easily understood, enabling the bank to determine at a sufficiently granular level the charges for each critical shared service. Pricing for services provided under the inter-entity or the intra-group service company model should be structured on an arm's length basis with clear links, where relevant, between the original direct cost of the service and the allocated cost. Additionally, the pricing structure should not alter solely as a result of entry into resolution of the bank or any of its group companies.
- (iii) Management information systems (MIS): A bank should put in place arrangements and models, which are supported by a clear taxonomy of critical shared services and should maintain up-to date mapping of critical shared services to legal entities, core business lines and critical functions. A bank should have MIS that allows for timely reporting on the provision or receipt of critical shared services on a legal entity and line of business basis, including information about ownership of assets and infrastructure, pricing, contractual rights and agreements, as well as outsourcing arrangements.
- (iv) Financial resources: A bank should consider whether its providers of critical shared services have sufficient resources to facilitate operational continuity of critical functions in resolution, as well as its own capabilities to estimate and pay for such services. In all cases, the bank should have sufficient financial resources to cover the resolution phase and to facilitate the subsequent restructuring period. A bank should maintain close communications with a third-party service provider as regards to continued payment to help manage the risks of early termination.

- (v) Operational resilience and resourcing: Critical shared services should be operationally resilient and have sufficient capacity (for example, human resources and expertise) to support any related restructuring following the failure of an entity or entities within the group (“group entity”). In the case of intra-entity, inter-entity and intragroup service company models, a bank should put in place appropriate arrangements for maintaining sufficient human resources and expertise for the provision of critical shared services, and in particular, plan for the retention of critical employees necessary for the provision of critical shared services in resolution. In any event, critical shared services should not be unduly affected by the failure or resolution of other group entities.
- (vi) Use of and access to operational assets: A bank should secure and maintain the rights of use of, as well as timely access to assets that are required for OCIR. Access to operational assets by the critical shared services provider, the serviced entities, business units as well as the Authority and any third parties appointed to assist the Authority in discharging its functions should not be disrupted by the failure or resolution of any particular group entity. In some cases, this may require that operational assets essential to the provision of critical shared services are owned or leased by the same legal entity providing those critical shared services (that is, by the bank or by the intra-group service company, depending on the model used). Where this is not the case, contractual provisions to ensure rights of access could be considered. The bank should have arrangement in place for service recipients to have continued access to shared assets directly where appropriate. Continued access to IT, intellectual property and operational services during the restructuring period should be considered as part of resolution planning.
- (vii) Management oversight: A bank should properly manage its OCIR arrangements both in business-as-usual and in resolution and have sufficient management oversight in place to ensure the continued provision of essential critical shared services to the bank. In particular, for intra-entity, inter-entity and intragroup service company models, the bank should ensure that the service providers themselves have sufficient management oversight to ensure the continued provision of critical shared services. This is to ensure that services continue to be provided in resolution without relying on senior staff from certain business lines that may be wound down or that may no longer form part of the same group.

A bank should consider maintaining an operational continuity playbook or documented and tested procedures that would describe the actions and steps in order to facilitate operational continuity following its entry into resolution.

3.5 Access to financial market infrastructure (FMI) services

3.5.1 In the resolution of a bank, the effective implementation of the resolution strategy and the continued performance of critical functions could depend on the maintenance of access to certain FMI services (“critical FMI services”) without disruption. As such, continuity of access to such critical FMI services represents a key aspect of resolution planning for banks.

3.5.2 **A bank should establish the necessary processes and arrangements to maximise the likelihood of maintaining the continuity of access across different periods of the resolution timeline, to FMIs and to payment, clearing, settlement and custody services provided by intermediaries.** To facilitate an orderly resolution, a bank’s continuity of access to FMI capabilities should cover all critical FMI services for the bank, regardless of the mode of participation, whether the FMI service is accessed through direct participation or indirect participation in the FMI.

Identifying, mapping and assessing dependencies on FMI service providers

3.5.3 **A bank should identify all critical FMI service providers (FMIs and FMI intermediaries) and carry out a comprehensive mapping exercise covering:**

- (i) the FMIs and FMI intermediaries that provide critical FMI services to the bank, including a mapping of these critical FMI services (and the inter-dependencies between these services necessary for maintaining access) to the legal entities, core business lines, critical functions, products as well as services within the bank; and
- (ii) the relevant regulatory authorities of the providers of critical FMI services.

For each of these relationships, the bank should maintain up to date information regarding:

- (i) the expected financial and non-financial requirements and conditions for continued access to the service, including in a resolution scenario; and
- (ii) a mapping of the usage and size (if known) of the credit facilities (committed or uncommitted) it may receive, if any, from providers of FMI services or from other third-party sources.

3.5.4 **A bank should also maintain related information to facilitate continuity of access to these critical FMI services**, including requirements and conditions needed for continuity of access and the usage and size of committed and uncommitted credit facilities received from providers of critical FMI services.

- 3.5.5 **A bank should keep the information underpinning the mapping referred to in paragraphs 3.5.3 and 3.5.4 up-to-date and organised in service catalogues in an accessible and searchable form,** such that the bank is able to readily produce relevant information in a flexible manner to facilitate securing OCIR and related restructuring.

Understanding the requirements for continued access

- 3.5.6 **A bank should engage with critical FMI service providers to the bank to understand how they are likely to respond to a bank in resolution,** and assess the nature and extent of any additional requirements that FMIs and FMI intermediaries may impose ahead of and during a resolution, in order to obtain a clear understanding of the conditions for continued access to critical FMI services.

Contingency planning for dealing with termination or suspension of access to critical FMI services

- 3.5.7 **A bank should prepare an FMI contingency plan which should include a high-level impact analysis on the ability of the bank to continue performing its critical functions should access to providers of critical FMI services be terminated or suspended,** and document the consequences of any termination or suspension to the bank's access to critical FMI services on its ability to perform its critical functions. The bank should also identify in the contingency plan what actions the bank would take to mitigate this impact, including their feasibility and time to implement.

Contingency planning to meet conditions of access to FMI services in resolution

- 3.5.8 **A bank should also outline in its FMI contingency plan the measures that it has implemented to support uninterrupted and continued access to critical FMI services in a resolution or a smooth transfer or winddown of activities.** This includes:
- (i) operational, governance, and communication arrangements, including human resources that would be deployed to operationalise the plan during resolution;
 - (ii) the information the provider of critical FMI services has indicated would be essential for its risk-management decision-making, the plan for delivering this information and the potential constraints or risks in providing this, specifically bearing in mind the need for information to be delivered promptly;
 - (iii) nature and extent of any additional requirements to which it may become subject as part of this response;

- (iv) whether the likely response of the critical FMI service providers to the bank's entry into resolution would be automatic or subject to the discretion of the provider of critical FMI services;
- (v) how the critical FMI service provider would decide whether to impose additional requirements, how this would be notified to the bank and the timelines for compliance;
- (vi) what actions the bank should take either in advance or during the applicable scenario to reduce or otherwise mitigate the additional requirements or to avoid termination or suspension of access; and
- (vii) other measures supporting resolution action.

Contingency planning to meet liquidity requirements

3.5.9 As part of contingency planning, **a bank should specifically develop and document how it would mobilise the financial resources necessary to maintain continuity of access to critical FMI services.** Contingency plans should detail any anticipated liquidity requirements¹⁷ and how the bank would expect to meet them.

3.6 Cross-border recognition

3.6.1 **A bank should have adequate arrangements in place to facilitate the cross-border recognition and effectiveness of resolution actions.** For agreements¹⁸ governed by any law other than the law of Singapore, the bank should (where applicable) include contractual terms that are effective and enforceable under such law to:

- (i) ensure that the write-down and conversion of liabilities would be effective and enforceable in that third country.
- (ii) address the risk of early termination of specified contracts upon entry into resolution to limit any impact on the bank's stability and the wider financial system that may otherwise occur as a result of resolution.

3.6.2 **A bank should ensure that where its loss-absorbing instruments are governed by any law other than the law of Singapore, the contract includes a provision such that the parties to the contract agree that the loss-absorbing instrument is subject to the Authority's bail-in powers**

¹⁷ This also encompasses payments to vendors and staff that are necessary to sustain the continued provision of critical FMI services during the resolution period.

¹⁸ These refer to the following:-

- (i) in respect of sub-paragraph (i) of paragraph 3.6.1, eligible instruments as defined under Regulation 28 of the Financial Services and Markets (Resolution of Financial Institutions) Regulations 2024, and
- (ii) in respect of sub-paragraph (ii) of paragraph 3.6.1, specified contracts as defined under Regulation 33(5) of the Financial Services and Markets (Resolution of Financial Institutions) Regulations 2024.

under the FSM Act. Pursuant to Regulation 30 of the Financial Services and Markets (Resolution of Financial Institutions) Regulations 2024, before issuing any loss-absorbing instrument, the bank is required to provide to the Authority a legal opinion, by a person qualified to practise law in the jurisdiction of the governing law of the contract, confirming the enforceability of this provision.

- 3.6.3 **A bank should ensure that specified contracts defined under Regulation 33(5) of the Financial Services and Markets (Resolution of Financial Institutions) Regulations 2024, include provisions that explicitly state that the parties to the contracts agree to be bound by the Singapore stay powers** under the FSM Act restricting the early termination of such contracts notwithstanding the bank's entry into resolution.

3.7 Information systems and data requirements

- 3.7.1 **A bank should maintain adequate MIS that can produce accurate, complete and timely information necessary for resolution planning, resolvability assessment and the implementation of resolution plan¹⁹.** The bank should establish adequate governance, quality assurance and continuity arrangements to ensure that its MIS capabilities meet this objective. For a foreign bank, where such information is prepared by other entities within the group, the bank is responsible for ensuring that the MIS capabilities of the relevant group entities meet this objective.
- 3.7.2 **A bank should establish processes that enable accurate, consistent and timely data collection and aggregation across different functions and entities** across the bank and the group. There should be **clear roles and responsibilities** for the preparation, review and reporting of the relevant data, and the co-ordination of the information exchange between the bank, the Authority and relevant stakeholders. There should be clear documentation of the source and ownership of data, and the assumptions and methodologies used, where applicable, in the preparation of such data and information.
- 3.7.3 **A bank should put in place quality assurance processes to ensure that its MIS can produce accurate, complete and timely information necessary for resolution planning, resolvability assessment and conduct of resolution under time pressure.** This should include periodic

¹⁹ This includes information required as set out MAS Notice 654 and its accompanying Guidelines, and other information requests by the Authority. The MIS should also be able to support restructuring efforts (see paragraph 3.10) to enable the bank to return to a viable business model that meets relevant regulatory requirements on an ongoing basis and is sustainable in the long-term.

testing²⁰ and upgrading of MIS capabilities. Lessons learnt, identified areas for improvement and the related remedial actions should be reported to the bank's board and senior management.

- 3.7.4 **A bank should make arrangements to ensure continuity of its critical MIS capabilities throughout the stress continuum** across different periods of the resolution timeline, both for transferred and remaining entities after the execution of any restructuring plan.

3.8 Valuation

- 3.8.1 **A bank should have valuation capabilities that facilitate a valuer²¹ to conduct timely and robust valuations to support the execution of the bank's resolution strategy.** In the event of a bank in distress, the Authority may need to carry out multiple valuations at different points during a resolution timeline, to inform the Authority's decisions throughout the stress continuum and the resolution process. These include assessments of the value of the assets, liabilities and equity of the bank in distress to help inform the Authority's determination of the viability of the bank, support the choice and execution of resolution actions and estimate the outcomes for creditors had the bank entered insolvency instead of resolution.

- 3.8.2 **A bank should ensure that it has accurate, complete and relevant data, information systems, models and methodologies that facilitate a timely and robust valuation.** In addition, **the bank should be able to co-ordinate expediently and effectively around the valuation process.** This includes providing the valuer with timely access to relevant staff, data and information, model outputs, model assumptions and methodology, and internal testing and validation reports. This would enable a valuer to familiarise itself quickly with the bank's capabilities and assess their reliability.

3.9 Communication

- 3.9.1 **A bank should maintain a comprehensive communication plan to provide timely and consistent communication to internal and external stakeholders including authorities from jurisdictions where the bank has operations,** commencing from the time the bank is in distress up to the post-resolution stage during the restructuring phase. The bank should aim to provide clarity as to the implications of the resolution, with the aim of maintaining internal and external

²⁰ This includes testing of robustness of processes to ensure accuracy, completeness and timeliness of resolution-related information maintained or submitted to the Authority, or scenario simulation exercises. A foreign bank may participate in such testing conducted by its parent holding company's or as part of the parent bank's group-wide testing exercises.

²¹ This includes an independent valuer who is appointed by the Authority to produce the valuations required for resolution.

stakeholders' trust and confidence, provide clear and accurate information, and minimise financial and reputational damage .

3.9.2 The communication plan should provide clarity on:

- (i) who does the communication;
- (ii) how, what and when to communicate;
- (iii) whom the communication should be made; and
- (iv) what communication channels and infrastructure to be used to deliver these communications.

3.9.3 **A bank should have processes in place** to ensure an effective execution of the communication plan in close coordination with the Authority.

3.10 Restructuring

3.10.1 **Once a bank is stabilised following entry into resolution²², the bank and its group should be able to plan and execute restructuring effectively and on a timely basis to address the causes of failure, enable the bank to continue its critical functions, and return to a viable business model that meets relevant regulatory requirements on an ongoing basis and is sustainable in the long-term.** This is often described as restructuring which is executed over time after the use of resolution measure(s). In the case of a foreign bank, the bank's restructuring should support and be consistent with its group restructuring plans of the ultimate parent which are in line with the requirements or expectations applicable in the home jurisdiction.

3.10.2 While a bank can build on or use its restructuring options identified as recovery options under its recovery plan²³, the bank should evaluate and consider if these restructuring options envisaged under recovery planning remain feasible and appropriate for restructuring given the circumstances facing the bank. The bank should also identify additional restructuring options

²² This will be after the use of resolution measure(s) where restructuring is necessary to return the bank and its group to a viable business model.

- Under an open-bank bail-in, the bank will need to plan and execute restructuring accordingly to return the bank to long term sustainability.
- If the resolution includes an immediate sale of the bank, the acquirer may leverage on the bank's restructuring plans and capabilities for its post-acquisition integration of the bank's operations.
- Where an immediate sale is unlikely, and the bank and group are transferred to a bridge entity for a longer period of operation (e.g. up to two years), the bridge entity will leverage on the bank's restructuring plans and restructuring capabilities to restructure the operations accordingly.

²³ Developing capabilities for restructuring options, whether under a bank's recovery plan or to enable further restructuring following entry into resolution, will also provide optionality for its resolution itself where transfer tools may be used.

that are not in its recovery plan²⁴ and that are relevant and actionable in delivering benefits for the bank's business reorganisation and its long-term business model sustainability.

- 3.10.3 **As having different options is important for restructuring once a bank is stabilised following entry into resolution, the bank should focus on building its capabilities, including having necessary information systems to evaluate and determine its eventual restructuring plan and how the various options will be executed, taking into consideration the circumstances then.** A bank should be able to provide analyses on how its restructuring plan meets the objectives in paragraph 3.10.1, including assessing the impact of restructuring on the financial ratios, capital and liquidity funding of the bank and on operational arrangements and human resources needed to support restructuring.
- 3.10.4 **In a bank's planning, the bank should ensure that the structure, complexity and interdependencies of the bank or its group or both, do not impede restructuring and can support the menu of restructuring options that may be implemented.** Interdependencies include interconnections between entities, assets and liabilities, related services, human resources, supporting infrastructure and other financial, legal and IT systems or contractual arrangements.

4. Testing And Self-Assessment of Capabilities to Support Resolution

- 4.1 **A bank should ensure that its capabilities to support resolution and the related management oversight and processes are fit for purpose through comprehensive testing²⁵ and validation on a regular basis, having regard to the expectations set out in these Guidelines.** Testing and validation activities may take several forms or a combination thereof, including internal audit reviews, validation by independent third parties, thematic reviews, testing and dry runs or simulation exercises. These seek to confirm that the bank's existing capabilities adequately address resolution-specific risks²⁶ and that the capabilities and procedures operate as intended.

²⁴ For example, these restructuring options might not have been suitable as recovery options as they cannot be executed to deliver the capital and liquidity resources needed in time to prevent the bank from failing.

²⁵ A foreign bank may participate in such testing conducted by its parent holding company's or as part of the parent bank's group-wide testing exercises.

²⁶ For instance, for liquidity and funding in resolution, the scope should cover methodologies and assumptions, capabilities and governance arrangements including decision-making processes and related documentation. Such testing should project,

The appropriateness of testing and validation activities, including their nature and frequency, should be reviewed regularly.

- 4.2 A bank should document test outcomes and incorporate the outcome of these reviews into its work plans to maintain and make progress on its resolvability²⁷. Where appropriate, the bank should incorporate relevant lessons learned into updates of decision-making processes, playbooks and procedures. The bank should also ensure timely remediation of any gaps identified. **The test outcomes, lessons learned and areas for enhancement should be reported to the bank's board and senior management.**
- 4.3 A bank should perform an annual self-assessment on its preparedness for resolution based on the expectations set out in this document, identify areas that the bank should make further progress on and establish timelines for remediation. The bank's board and senior management should endorse the self-assessment before submitting it to the Authority.

measure, monitor and report on liquidity and funding needs while assessing the ability to mobilise collateral for third-party funding under various sufficiently severe stress scenarios.

²⁷ For instance, for liquidity and funding in resolution, test outcome should inform strategies to address potential liquidity and funding shortfalls, including foreign currency mismatches, within the context of preferred resolution strategies.