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# **MAS' APPROACH TO RESOLUTION OF FINANCIAL INSTITUTIONS IN SINGAPORE**

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**Monetary Authority of Singapore**

**AUGUST 2017**



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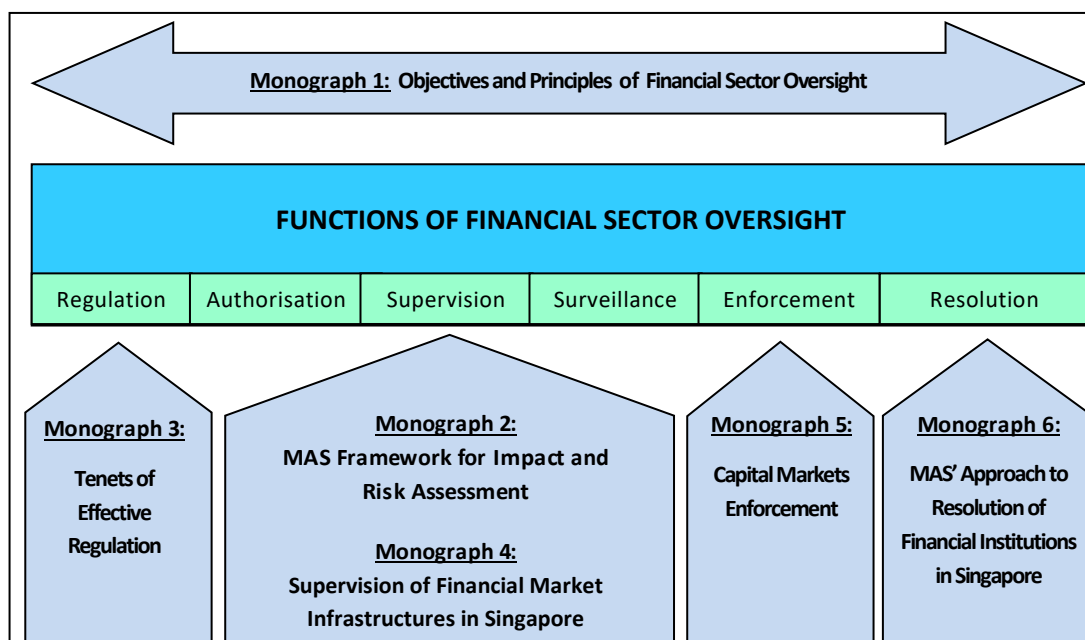
**MONETARY AUTHORITY OF SINGAPORE**

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## 1 INTRODUCTION

- 1.1 A principal objective of the Monetary Authority of Singapore (“**MAS**”) is to promote financial stability and foster a sound and reputable financial centre. MAS’ role as a financial supervisor is set out in a series of monographs on the approaches underpinning its various functions (refer to Exhibit 1). This monograph explains MAS’ role as resolution authority, as well as our approach towards resolving financial institutions (“**FIs**”) under our purview.
- 1.2 MAS, in seeking to promote and preserve financial stability, does not aim to establish a “zero failure” regime where no FI can fail. Instead, MAS seeks to reduce the risk and impact of a failure, through rigorous financial supervision coupled with robust recovery and resolution planning.
- 1.3 The Global Financial Crisis underscored the need for effective frameworks to resolve systemically important FIs. To this end, the Financial Stability Board (“**FSB**”) formulated the Key Attributes of Effective Resolution Regimes for Financial Institutions (“**Key Attributes**”), which set out the core elements necessary for an effective resolution regime. MAS has strengthened the resolution regime for FIs in Singapore in line with the Key Attributes and international developments.

*Exhibit 1: MAS Monographs on Financial Sector Oversight*



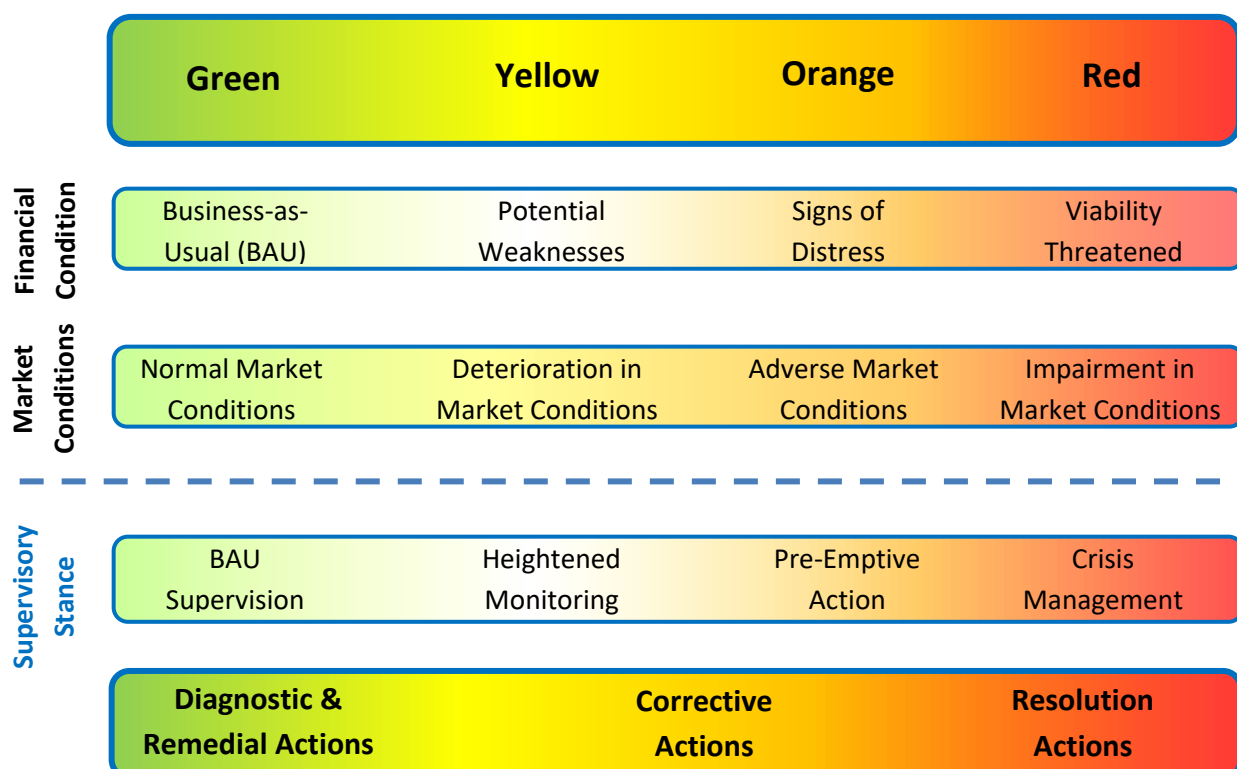
- 1.4 Section 2 of this monograph explains MAS’ crisis management framework as a continuum, starting from “business-as-usual” for an FI to its recovery, followed by resolution. Section 3 describes the objectives of resolution and explains why it is superior over liquidation under certain circumstances. Section 4 sets out MAS’

resolution regime and its role as a resolution authority. Section 5 clarifies the purpose of recovery and resolution planning (“**RRP**”) and MAS’ policy intent in the application of RRP powers. Section 6 relates to MAS’ resolution toolkit, including the circumstances under which MAS will exercise such powers. Section 7 further elaborates MAS’ approach towards financial market infrastructures (“**FMIs**”) given the sector-specific requirements and considerations. Sections 8 and 9 describe MAS’ resolution funding and creditor compensation frameworks respectively. Finally, Section 10 reiterates MAS’ stance towards cross-border cooperation.

## 2 MAS' CRISIS MANAGEMENT FRAMEWORK

- 2.1 As part of MAS' risk-based supervisory approach, FIs are subject to regular monitoring and supervision, with the intensity scaled depending on the FI's assessed risk profile and systemic impact. This approach also applies to MAS' Crisis Management Framework, which defines four stages of an FI's financial condition and MAS' corresponding supervisory stance (refer to Exhibit 2).

*Exhibit 2: MAS' Crisis Management Framework for FIs*



- 2.2 MAS' Crisis Management Framework is underpinned by both quantitative and qualitative indicators, which are regularly monitored as part of MAS' supervision of FIs. These indicators assist MAS to detect potential deterioration in the financial soundness of an FI, re-assess its risk profile, and consider appropriate supervisory actions. As an FI's risk profile deteriorates, MAS adjusts its supervisory stance by intensifying its oversight and surveillance of the FI. There will be closer monitoring and increased engagement with the FI, as well as with parent company/head office and home regulator for foreign FIs.
- 2.3 FIs are typically in the "Green" or "Yellow" stages, where routine supervisory activities comprising both on-site inspections and off-site supervision are performed to identify potential risks early and to facilitate prompt corrective actions where necessary. Concerns impacting the FI's safety and soundness are closely monitored. FIs may be

required to take effective remedial actions to address or mitigate these concerns on a timely basis.

- 2.4 There may, however, be instances where identified concerns escalate such that an FI starts to show signs of distress, or where its viability could potentially be threatened. When an FI falls into either the “Orange” or “Red” stage, the FI is expected to undertake early recovery actions to restore its financial strength and viability. MAS will correspondingly step up its supervisory oversight and take stronger intervention actions where warranted. MAS will consider taking resolution actions where it assesses that the FI is no longer viable.
- 2.5 Viability is assessed on a forward-looking basis. A non-viable FI could be: (a) no longer viable or (b) likely to be no longer viable, and has no reasonable prospect of becoming viable in the future. In assessing the viability of an FI, MAS takes into consideration broadly the circumstances below, amongst other factors:
- a. Continued deterioration in the FI’s financial condition, in terms of erosion of regulatory capital and/or assets in a manner that may be detrimental to its depositors, policy owners, investors or other creditors, including:
    - i. inability to comply with an order by MAS to increase its capital, or recapitalise on its own through the issuance of ordinary shares or other forms of regulatory capital
    - ii. increasing signs of financial distress, such as the need to trigger sales of illiquid assets
    - iii. the aggregate assets of the FI are, or will likely be, less than its liabilities such that it is assessed to be insufficient to provide adequate protection to the FI’s depositors, policy owners, investors or other creditors
    - iv. serious governance issues or risk management and control deficiencies that may significantly impact the FI’s financial condition
    - v. failure, or likely failure, of the FI to pay its liabilities and fulfil its obligations when they fall due
  - b. Inability of the FI to continue meeting regulatory and licensing requirements on an on-going basis, including:
    - i. breach of, or imminent risk of breaching key regulatory requirements, and MAS’ assessment of the FI’s ability to take effective and prompt remedial and recovery measures
  - c. Loss or likely loss of confidence in the FI by the public, financial markets, depositors, policy owners, investors or creditors. This may be characterised by:
    - i. unusually high deposit run-offs, insurance policy surrenders or withdrawals of customer’s monies and assets
    - ii. increased difficulty in obtaining or rolling over short-term funding

- iii. rapid rise in the market spread of its Credit Default Swaps
  - iv. material downgrade in its credit rating
  - v. rapid and sustained decline in its share price or market activity
- d. Actual or likely failure of recovery measures, or the recovery measures are likely to have a material negative impact on the stability of the financial system, or inability of the FI to implement the recovery measures in a timely and effective manner.

### 3 OBJECTIVES OF RESOLUTION

- 3.1 In seeking to maintain a stable financial system, MAS does not aim to prevent any FI from failing. A “zero-failure” regime is inconsistent with the principle that owners and managers of FIs should be held accountable for the safety and soundness of the FIs. Likewise, investors or customers must be responsible for their financial decisions. Moral hazard arises if investors or market participants believe that FIs will not be allowed to fail. The incentive for boards of directors and managers to take due care in managing the risks of FIs under their charge will also be eroded.
- 3.2 Nevertheless, MAS recognises that the failure of systemically important FIs can destabilise the broader financial system and inflict collateral damage on the economy, causing hardship to companies and individuals. In particular, the liquidation of a systemically important FI can adversely affect market confidence, lead to a sudden cessation of the provision of critical functions<sup>1</sup> to users of these services, and result in contagion impact to the financial system. To limit such impact, MAS has put in place a resolution regime that comprises a broad range of powers and tools to resolve non-viable FIs in an orderly manner. Systemically important FIs are also required to, pre-emptively, formulate recovery plans that set out options for prompt actions in times of distress.
- 3.3 The overarching objective of MAS’ resolution regime is, therefore, to achieve an orderly resolution when an FI is no longer viable, such that financial stability and the continuity of critical functions performed by FIs and FMIs are maintained. Resolution also seeks to minimise widespread disruption to the economy, and enable distressed FIs to be restructured or exited from the market in an orderly manner. In addition, MAS seeks to achieve the following outcomes:
- a. maintain market and public confidence in the financial system;
  - b. protect Singapore’s reputation as a credible international financial centre; ensure continuity of critical functions performed by FIs and FMIs, including payment, clearing and settlement functions;
  - c. protect the interests of depositors, policy owners and investors, in coordination with the relevant deposit and insurance schemes and arrangements where applicable;
  - d. ensure timely return of segregated client assets;
  - e. achieve fair outcomes for creditors; and
  - f. avoid or minimise exposing taxpayers’ monies to losses.

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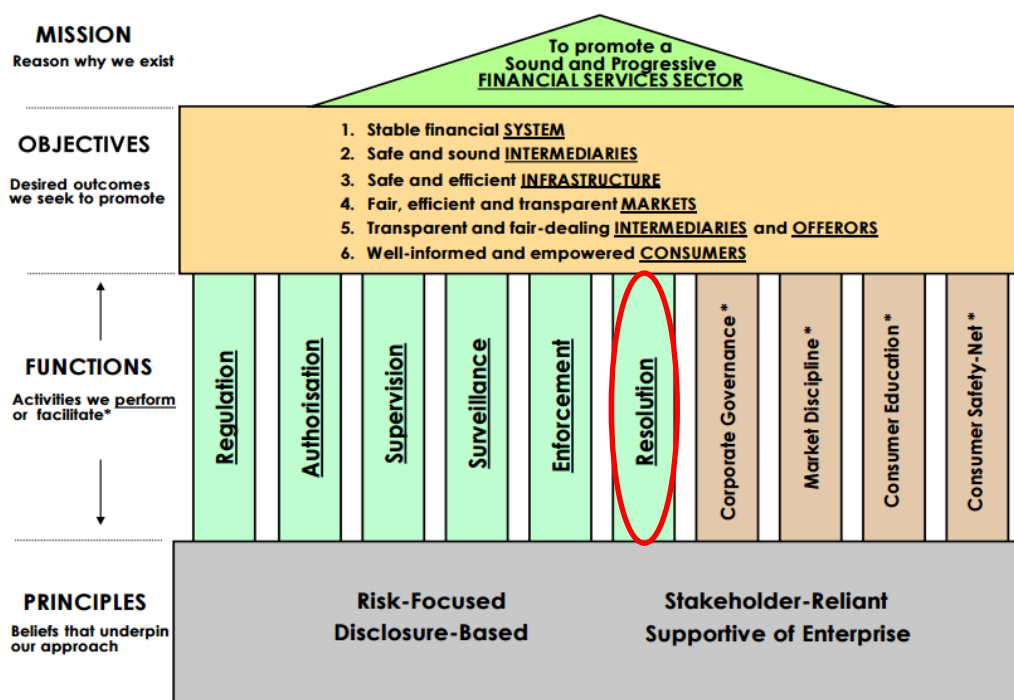
<sup>1</sup> Taking guidance from FSB, critical functions are defined as activities performed by an FI for third parties where failure would lead to the disruption of services that are vital for the functioning of the real economy and for financial stability due to the FI’s size or market share, external and internal interconnectedness, complexity and cross-border activities. Examples include certain deposit-taking and lending activities in the commercial or retail sector, payments, clearing, settlement and custody functions, amongst others.



## 4 MAS' RESOLUTION REGIME

4.1 Resolution of non-viable FIs is a core function performed by MAS. Exhibit 3 illustrates MAS' mission, objectives, functions and principles<sup>2</sup>.

*Exhibit 3: MAS' Mission, Objectives, Functions and Principles*



4.2 MAS' role as a resolution authority and its resolution powers are specified in the Monetary Authority of Singapore Act ("**MAS Act**"). These powers apply to all FIs that come within MAS' purview<sup>3</sup>. Certain resolution powers that are relevant only to specific classes of FIs are separately found in their respective legislation, such as the Banking Act, Insurance Act, and Securities and Futures Act.

4.3 In determining the resolution approach for an FI, MAS will have regard to a range of considerations, including the stability of the Singapore financial system, the interests of the affected persons prescribed for different classes of FIs<sup>4</sup> (including depositors,

<sup>2</sup> Refer to MAS' monograph on [Objectives and Principles of Financial Sector Oversight in Singapore](#) for elaboration on MAS' objectives of supervision, the functions it performs to achieve these outcomes, and the principles that guide its supervisory approach.

<sup>3</sup> Such FIs include banks, insurers, finance companies, merchant banks, operators and settlement institutions of designated payment systems, approved exchanges, recognised market operators, approved clearing houses, recognised clearing houses, licensed trade repositories, licensed foreign trade repositories, capital market services licensees and financial holding companies.

<sup>4</sup> Affected persons are prescribed under the First Schedule of the [MAS \(Control and Resolution of Financial Institutions\) Regulations 2013](#).

policy owners and investors), and the public interest. MAS also seeks to avoid unnecessary destruction of value and minimise the overall costs of resolution.

- 4.4 MAS has established a framework to regularly assess the potential impact of each FI on Singapore's financial system, the broader economy, as well as Singapore's reputation as an international financial centre. When an FI goes into distress or becomes non-viable, MAS will re-assess the potential impact, direct as well as indirect, arising from the FI's failure given the prevailing circumstances. Where the failure of an FI is assessed to have systemic repercussions or to be detrimental to public confidence, MAS is prepared to take measures, including both private sector and/or publicly-assisted solutions, to ensure an orderly resolution and preserve financial stability.
- 4.5 In the case of an FI with cross-border operations, MAS will consider the impact of its resolution actions on the financial stability in other jurisdictions. In this regard, the resolution regime envisages and provides for MAS to achieve cooperative solutions with foreign resolution authorities, where such actions are consistent with MAS' overarching objective of preserving financial stability in Singapore.
- 4.6 MAS will work closely with the FI and other stakeholders to best achieve desired resolution outcomes. These stakeholders include other agencies such as the Ministry of Finance and the Singapore Deposit Insurance Scheme ("**SDIC**"), the FI's head office or parent company, the foreign supervisory and resolution authorities as well as deposit insurance agencies, and where appropriate and necessary, the external auditors and independent valuers.

#### ***Role of SDIC***

The SDIC is the administrator of the Deposit Insurance Scheme ("**DI Scheme**") and the Policy Owners' Protection Scheme ("**PPF Scheme**") in Singapore. As the administrator, SDIC is chiefly tasked with the duties of:

- (i) collecting premiums or levy contributions from Scheme Members;
- (ii) managing the Deposit Insurance Fund ("**DI Fund**") and the Policy Owners' Protection Funds ("**PPF Funds**");
- (iii) compensating insured depositors, policy owners or beneficiaries in the event of a failure of a Scheme Member; and
- (iv) educating the public on the scope and coverage of the Schemes.

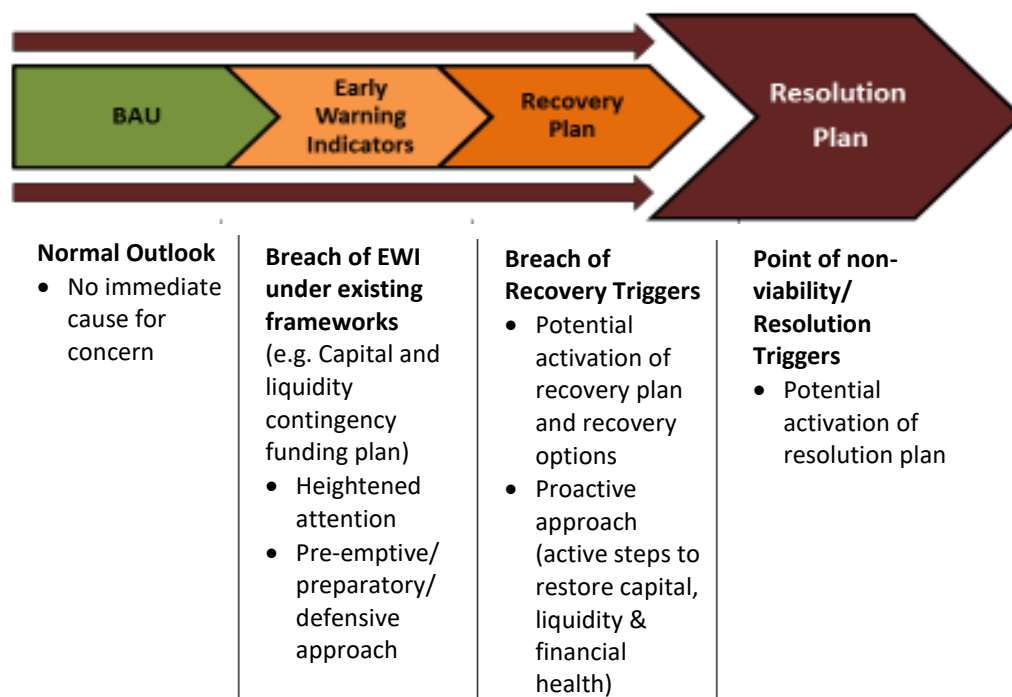
Outside of liquidation, SDIC may also be directed to use the DI or PPF Funds, as the case may be, to facilitate the timely resolution of a DI or PPF Scheme Member. This includes funding the cost of any resolution action in the case of a DI Scheme

Member, and the transfer and run-off of insurance business of a PPF Scheme Member. In directing the SDIC to use the DI or PPF Funds for resolution measures, MAS will have regard to the protection of depositors and policy owners covered under these Schemes.

## 5 RECOVERY AND RESOLUTION PLANNING

- 5.1 Recovery and resolution planning (“RRP”) is an important and pre-emptive process to ensure that recovery or resolution actions can be undertaken in a timely and orderly manner as and when the need arises (refer to Exhibit 4).

*Exhibit 4: Continuum of Distress and Potential Responses*



- 5.2 MAS is empowered to subject FIs that have been notified by MAS to the RRP requirements set out in the relevant MAS Notices and Guidelines. The powers are exercised under the MAS Act and the policy intent is to apply these requirements to FIs that are considered to be systemically important<sup>5</sup>.
- 5.3 MAS expects these FIs to appoint an executive officer as the accountable person responsible for leading and overseeing the recovery planning process, as well as for maintaining and submitting the required information to MAS to facilitate the resolution planning process.
- 5.4 As non-systemically important FIs are not expected to cause significant impact or disruption to the financial system and broader economy on a standalone basis, MAS does not intend to subject such FIs to the RRP requirements. MAS however adopts a proportionate approach and may engage these FIs on related areas, such as their

<sup>5</sup> Refer to MAS’ monograph on [MAS’ Framework for Impact and Risk Assessment of Financial Institutions](#) for further elaboration on MAS’ approach to assessing an FI’s systemic importance.

crisis management and business continuity procedures, as well as contingency capital and funding plans, during the normal course of supervision.

### Recovery planning

- 5.5 A recovery plan (“RCP”) outlines actions an FI can take to stabilise and restore its financial strength and viability under situations of severe stress. Ownership and responsibility for recovery planning lies primarily with the board and executive officers of the FI.
- 5.6 MAS generally expects FIs, that it has notified, to have the following in place:
- a. Maintain information and systems needed for the preparation, review and update of the RCPs;
  - b. Put in place robust governance structures and sufficient resources to support its recovery planning processes with clear assignment of roles and responsibilities of each person specified in the RCP;
  - c. Establish a framework of qualitative and quantitative recovery triggers that identify the points at which recovery options may be taken, taking into consideration idiosyncratic and market-wide stress scenarios;
  - d. Establish clear escalation processes upon the occurrence of a trigger event, to facilitate prompt assessment of impact and decision on the course of action;
  - e. Establish a menu of credible recovery options that can be executed within a reasonable timeframe, to address capital shortfalls and liquidity pressures under situations of severe stress;
  - f. Devise a communication plan to manage communication with internal and external stakeholders;
  - g. Ensure that outsourcing arrangements that support critical functions and critical shared services can be maintained in crisis situations and in resolution;
  - h. Assess additional requirements that may be needed in order to maintain its continued access to critical FMIs during crisis situations; and
  - i. Establish a framework to regularly test the feasibility and effectiveness of its RCP.

FIs should also ensure that their RCPs are coherent and aligned with their overall governance processes and risk management frameworks, and commensurate with the nature, scale and complexity of their operations.

- 5.7 Locally-incorporated FIs that are headquartered in Singapore are expected to develop RCPs on a group basis, taking into consideration the holding company, as well as local and overseas subsidiaries and branches. Locally-incorporated subsidiaries of foreign financial groups are expected to develop RCPs that account for local and downstream operations, including all material subsidiaries and branches in Singapore and overseas. Branches of foreign FIs may leverage on their group RCPs in whole or in part, provided that the group RCPs adequately cover and address the Singapore operations.

## Resolution planning

- 5.8 A resolution plan (“**RSP**”) describes the strategy for timely and orderly resolution, in the event of material financial distress or failure of an FI, with the aim of making feasible the resolution of FIs without severe disruption while protecting systemically important functions.
- 5.9 RSPs for systemically important FIs are developed by MAS. The RSP includes a resolution strategy, as well as an operational plan for its implementation. To facilitate resolution planning, MAS may require systemically important FIs to furnish essential information as set out in the relevant MAS Notices and Guidelines. FIs are required to maintain information and systems needed to facilitate resolution planning, which include amongst others:
- a. Organisational and legal structure, including material entities;
  - b. Core business lines and critical functions;
  - c. Inter-dependencies amongst entities and business lines, including funding and operational dependencies;
  - d. Preferred resolution strategy and options to preserve or wind down critical functions;
  - e. Potential barriers or impediments to effective resolution; and
  - f. Actions to mitigate potential barriers or impediments.
- 5.10 As part of the resolution planning process, MAS conducts resolvability assessments, based on information furnished by the FIs, to identify barriers to resolution and measures necessary to improve resolvability. MAS will discuss these issues with the systemically important FIs and home or host authorities (where applicable) through supervisory colleges, Crisis Management Groups (“**CMGs**”), or other engagement platforms.
- 5.11 MAS recognises that the RRP process is an iterative one. As part of its on-going supervision, MAS will engage and collaborate closely with the FIs in order to clarify their obligations and MAS’ expectations with regard to RRP.

## 6 RESOLUTION TOOLKIT

6.1 MAS has in place a wide range of resolution powers and tools to facilitate various strategies for resolving non-viable FIs. The powers are set out in Part IVB of the MAS Act<sup>6</sup>. Depending on the situation and to best meet our resolution objectives, MAS may use the following resolution tools singly or in combination:

a. Transfer of business or shares to a private sector acquirer

MAS has the power to transfer all or part of the business or shares of a non-viable FI to a private sector acquirer. This transaction is commonly known as a purchase and assumption (“**P&A**”); the acquirer purchases the assets and assumes the liabilities of the non-viable FI and assumes the critical functions and businesses of the non-viable FI. This allows clients to have continued access to financial services.

b. Transfer of business to a bridge entity

A bridge entity is a temporary entity that is set up to assume the critical functions and businesses of a non-viable FI. If a P&A cannot be achieved in a timely manner or if there are no suitable private sector acquirers, MAS may first transfer all or part of the FI’s business to a bridge entity, with the goal of effecting an onward sale to a private sector acquirer at a later time. This allows for the continuity of the FI’s critical functions and provides clients with continued access to financial services, while alternative strategies are being worked out.

c. Transfer of assets to an asset management company

MAS may set up an asset management company to coordinate the acquisition, management and disposal of some or all of a non-viable FI’s assets. The asset management company typically acquires the impaired assets of the FI, with the aim of allowing it to carry on its remaining viable businesses, or to be made more marketable for a potential P&A. The asset management company meanwhile manages the impaired assets to maximise recovery. This may be achieved, for instance, by holding the assets for disposal at a more opportune time, restructuring the impaired assets, or recovering the impaired asset value through seizure of collateral. The asset management company is typically dissolved when all or most of the FI’s assets are sold or liquidated.

d. Bail-in

MAS has statutory powers to bail-in the liabilities of a non-viable FI. A bail-in involves writing down or converting all or part of the non-viable FI’s unsecured creditor claims

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<sup>6</sup> Resolution powers that are relevant only to specific classes of FIs are separately found in their respective legislation i.e. the Banking Act, Insurance Act, and Securities and Futures Act.

into equity<sup>7</sup>, with the intention of absorbing losses and thus restoring the FI's viability.

To complement MAS' statutory bail-in powers and enhance the effectiveness of cross-border bail-in, instruments that fall within the scope of the bail-in regime but which are governed by foreign laws will need to include contractual bail-in clauses.

When exercising its bail-in powers, MAS will have regard to the principles of respecting the hierarchy of claims in liquidation and equal treatment of creditors of the same class.

e. Run-off<sup>8</sup>

For an insurer, MAS can choose to run-off the insurance business of the distressed insurer in order to maintain insurance coverage for policyowners. Run-off involves the discontinuation of writing new business while existing contractual policy obligations for in-force business continue to be administered. MAS may use the PPF Funds to fund the run-off of a failed PPF Scheme member.

f. Liquidation

MAS may also apply to the Court to wind-up and liquidate a non-viable FI. MAS may expedite the court process by requesting an urgent hearing of the winding-up application where this is deemed necessary. Liquidation may also be used in combination with other resolution tools where any remaining or residual assets of the FI could be liquidated to maximise recovery or to meet outstanding liabilities.

6.2 MAS' choice of resolution strategy and resolution tools will be guided primarily by our resolution objectives, as articulated in Section 3. Other considerations that MAS takes into account when deciding the resolution approach are set out below:

a. Preference for private sector solution

MAS' preference is for non-viable FIs to be resolved within the private sector to minimise moral hazard and instil market discipline. As far as possible, MAS will seek private sector solutions before exploring resolution strategies that involve government or public sector support. In the absence of viable private sector solutions, and where assisted resolution strategies are needed, the use of any public

<sup>7</sup> The liabilities within scope of bail-in for Singapore-incorporated banks and bank holding companies are unsecured subordinated debt and unsecured subordinated loans. The bail-in powers also cover any equity instrument that is not in the form of share capital, as well as contingent convertible instruments and contractual bail-in instruments whose terms have not been triggered prior to entry into resolution.

<sup>8</sup> MAS' power to place an insurer on run-off is set out in section 41(2)(a)(v) of the Insurance Act (Cap. 142).



funds will be accompanied by stringent conditions, including subsequent recovery of resolution costs from the industry as appropriate.

b. Systemic importance of the non-viable FI

One of the primary objectives of resolution is to avoid significant adverse effect on and minimise disruption to the financial sector and broader economy. Therefore, the systemic importance of the non-viable FI will be an important consideration in the choice of resolution strategy and tools used.

c. Achieving cooperative solutions with foreign authorities

For cross-border financial groups, MAS is committed to work with foreign supervisory and resolution authorities to perform resolution planning so as to achieve a coordinated resolution outcome in a crisis situation. MAS' approach towards cross-border cooperation is articulated in Section 10.

d. Cost-efficiency

MAS will seek to avoid unnecessary destruction of value and minimise the overall costs of resolution in home and host jurisdictions and losses to creditors.

e. Timeliness and expediency of resolution

MAS will, as far as possible, seek to avoid a long-drawn resolution process to limit the possible erosion of value and minimise the extent and length of disruption.

f. Creditor hierarchy

MAS will, as far as possible, seek to exercise our resolution powers in a way that respects the hierarchy of claims of creditors of the non-viable FI, and gives each creditor the priority and treatment that the creditor would have received in a liquidation. MAS will also have regard to the principle of equal (*pari passu*) treatment of creditors of the same class, although MAS retains the flexibility to depart from this principle if necessary to contain the potential systemic impact of the FI's failure, or to maximise the value of the FI for the benefit of all creditors as a whole.

g. No creditor worse-off than in liquidation ("**NCWOL**")

MAS has put in place a creditor compensation framework which gives creditors the right to compensation if they receive less in resolution than what they would have received in a liquidation of the non-viable FI. An NCWOL assessment will hence be performed whenever MAS exercises resolution powers that will directly affect shareholders' or creditors' rights. MAS will also engage a qualified independent valuation agent to determine the potential amount of compensation payable. Please refer to Section 9 on Creditor Safeguards for more details.

h. Safeguards against separating associated assets and liabilities

The use of resolution tools could affect financial arrangements (such as set-off rights, contractual netting and collateralisation agreements) that undermine their original purpose of reducing loss in the event of default of a counterparty. To provide certainty to counterparties, MAS will safeguard the integrity of such financial arrangements when transferring the assets and liabilities of a non-viable FI to another entity. Please refer to Section 9 on Creditor Safeguards for more details.

i. Continuity of insurance coverage

Specifically for insurers, where sensible to do so, MAS will strive to secure continuity of insurance coverage and payments to policyowners in considering the use of any resolution power. This stems primarily from the need to protect policyowners' interests, especially for long-term insurance contracts, as the cost of replacing the existing contract with a new one may have changed significantly since the policy was first taken out. For some general insurance policies, there is also the potential for a claim to arise many years after the policy was written.

## 7 RESOLUTION OF FMI AND FMI PARTICIPANTS

### Resolution of FMIs

- 7.1 MAS' Monograph on Supervision of FMIs in Singapore<sup>9</sup> states that all systemically important FMIs, comprising systemically important payment systems ("**SIPs**"), central securities depositories ("**CSDs**"), securities settlement systems ("**SSSs**"), central counterparties ("**CCPs**") and trade repositories ("**TRs**"), are expected to adhere to the Principles for Financial Market Infrastructures ("**PFMI**"). Under the PFMI and its additional guidance on Recovery of Financial Market Infrastructures<sup>10</sup>, these FMIs should have a comprehensive and effective recovery plan to prevent a disorderly failure.
- 7.2 Nonetheless, there may be circumstances where the resolution of these FMIs may be necessary to ensure the continuity of systemically important FMI critical functions. For example, entry into resolution should be possible where planned recovery measures do not return the FMI to viability or could compromise financial stability. MAS as the resolution authority has the responsibility to develop a resolution plan, in line with the relevant objectives and provisions of the Key Attributes and its sector-specific guidance on resolving FMIs in Appendix II-Annex 1 to the Key Attributes. MAS' role, resolution objectives, expectations on recovery and resolution planning and other elements of the resolution regime described in the various sections also apply to systemically important FMIs.

### Payment Systems

- 7.3 MAS has powers to regulate a payment system if it is considered a SIPS or a system-wide important payment system ("**SWIPS**"). SIPSs are systems whose disruption could trigger, cause or transmit further disruption to participants or cause systemic disruption to the financial system of Singapore. SWIPS are systems whose disruption could affect public confidence in payment systems or the financial system of Singapore but pose negligible systemic risk to financial stability.
- 7.4 The MAS Electronic Payment System ("**MEPS+**") is the only SIPS in Singapore. It is a real time gross settlement system for large-value SGD interbank funds transfers. As the system is owned and operated by MAS, MEPS+ is not expected to prepare any recovery or orderly wind-down plan. Central-bank-operated FMIs such as MEPS+ are not subject to the Key Attributes.

<sup>9</sup> Refer to MAS' monograph on [Supervision of Financial Market Infrastructures in Singapore](#).

<sup>10</sup> Refer to [CPSS-IOSCO, Principles for Financial Market Infrastructures, April 2012 \(the PFMI\)](#) and [CPMI-IOSCO, Recovery of financial market infrastructures, October 2014](#).

- 7.5 The Fast And Secure Transfers (“**FAST**”), Singapore Dollar Cheque Clearing System (“**SGDCCS**”), US Dollar Cheque Clearing System (“**USDCCS**”), Interbank GIRO System (“**IBG system**”) and NETS Electronic Fund Transfers at Point of Sale (“**EFTPOS**”) are considered SWIPS. While the Key Attributes are only applicable to SIPS, MAS is aware that any disruption to a SWIPS may also affect public confidence in payment systems or the financial system of Singapore. Hence, MAS requires these payment systems to have comprehensive and effective recovery plans, as well as to subject them to the relevant provisions of the Key Attributes.

### **Capital Market FMIs**

- 7.6 As the capital markets regulator, MAS is responsible for the supervision of capital market FMIs which comprise CSDs, SSSs, CCPs and TRs in Singapore. These FMIs have the potential to trigger or transmit systemic disruptions due to their critical functions in the Singapore capital markets and are therefore deemed to be systemically important.
- 7.7 Given their important role in financial markets, MAS’ resolution regime is applied to these FMIs in a manner that is appropriate to the type of critical functions they provide, and that meets the objectives and provisions of the Key Attributes. For instance, in the case of a CCP, MAS supports efforts by CCPs, clearing members and market participants to achieve a successful default management or recovery process and to reduce the likelihood of resolution. Nonetheless, where entry into resolution is necessary to maintain financial stability, MAS is empowered under the MAS Act and the Securities and Futures Act to carry out an orderly resolution, including to enforce any outstanding contractual obligations under the CCP’s rules and arrangements, return the CCP to a matched book where losses arise from a clearing member default, continue to temporarily operate the CCP, and transfer critical functions to a third party. In respect of the resolution of CCPs, MAS takes reference from the FSB Guidance on CCP Resolution and Resolution Planning, which provides additional guidance on resolution planning for CCPs to maintain or restore the continuity of CCPs’ critical functions.

### **FMI Participants**

- 7.8 The safe and efficient operations of FMIs in Singapore should not be affected by the resolution of any FMI participant. To support financial stability, MAS has implemented legal safeguards to minimise such potential disruption. The operations of these FMIs will not be disrupted should a moratorium be imposed during the

resolution of any FMI participant<sup>11</sup>. MAS has legal safeguards in place to ensure that there is no disruption during a partial transfer of a participant's business during resolution. All collateral or assets under custody can continue to be used by the FMI in a default arrangement, providing certainty to the participant's transactions cleared or settled on FMIs.

- 7.9 On the other hand, maintaining access to critical FMI services is essential to ensuring that an FMI participant's critical functions can continue throughout resolution without disruption and for restoring stability and market confidence. Hence, the rules and procedures of FMIs governing participation requirements and participants' defaults should not hamper the orderly resolution of participants in the FMI.

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<sup>11</sup> The moratorium is imposed where there is compulsory transfer of business or shares, bail-in and restructuring of share capital.

## 8 RESOLUTION FUNDING

### Overview of Resolution Funding Arrangements

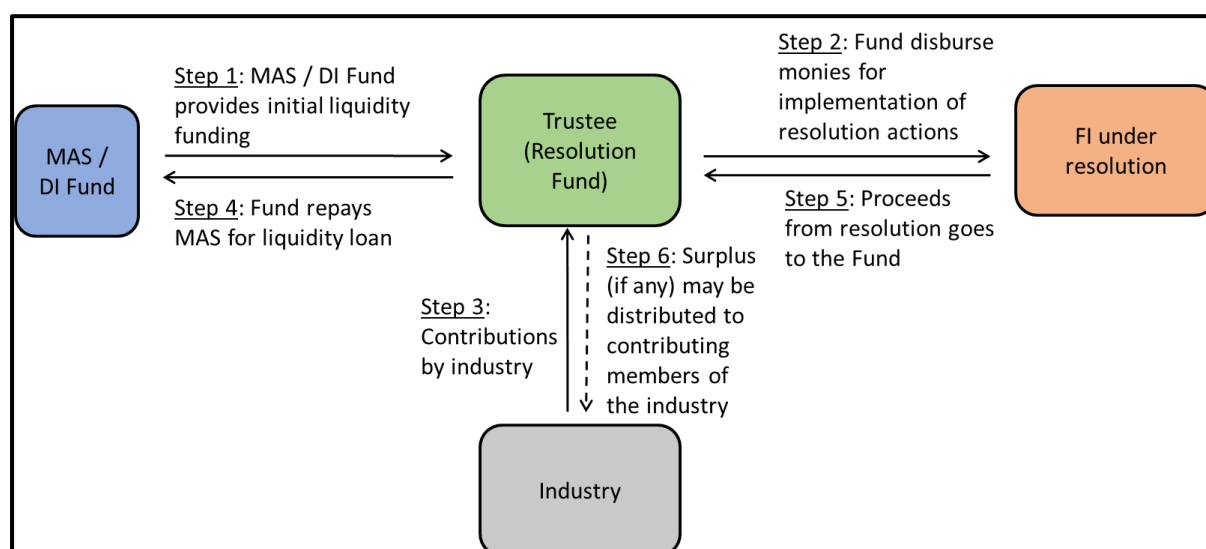
8.1 For the successful and orderly resolution of a non-viable FI, it is important to establish resolution funding arrangements to ensure timely and adequate funding for the implementation of resolution measures. However, funding support should be provided in a manner that protects public funds. Accordingly, MAS has set out a financing framework with the following principles:

- a. MAS may provide temporary liquidity to support the implementation of resolution measures.
- b. Any costs incurred in resolving an FI will first be borne by that FI. Losses will be imposed on its shareholders and unsecured subordinated creditors to the fullest extent possible or appropriate.
- c. Where the above is insufficient, resolution costs will be recovered via contributions from the FI's industry.
- d. Where there are excess monies residing in the resolution fund after the resolution, these surpluses may be distributed back to the contributing FIs.

8.2 To support the above arrangements, the MAS Act provides for the establishment of a resolution fund, managed by a trustee.

8.3 A schematic to illustrate the flow of funds is set out in Exhibit 5 below.

Exhibit 5: Resolution Cost Recovery Process (after losses have been borne by the FI under resolution to the fullest extent possible or appropriate)



### Choice of an ex post recovery mechanism

- 8.4 The recovery of resolution costs incurred will take place on an *ex post* basis i.e. once it is clear how much needs to be recovered from the industry. While an *ex ante* resolution fund will provide a ready source of financing in the resolution of an FI, the building up of a credible *ex ante* fund entails significant opportunity costs and is inefficient for the industry. An *ex post* resolution fund more appropriately balances the elements of timeliness, cost and efficiency.
- 8.5 The recovery of resolution costs imposed via levies on industry members will, among other factors considered relevant, take into account the following:
- i. Systemic importance and risk of the contributor;
  - ii. Benefit derived from resolution of the resolved FI or the resolution regime in general; and
  - iii. Economic or financial conditions of the contributor.
- 8.6 Further, to address sectorial idiosyncrasies, MAS will put in place sector-specific arrangements for the recovery of resolution costs from banks, insurers, capital market FMIs, payment system operators and settlement institutions<sup>12</sup>.
- 8.7 However, where privately-financed *ex ante* funds exist, such as the DI Fund and PPF Funds, these may be tapped on to implement resolution measures.

### Uses of the resolution fund

- 8.8 The resolution fund may only be used to the extent necessary to support effective implementation of resolution measures. Prior to using the monies in the resolution fund, MAS is required to have regard to whether private sector funding can be obtained by the FI and whether appropriate losses have been imposed on unsecured subordinated creditors and shareholders of the FI. A non-exhaustive list of purposes for which the resolution funding arrangements may be used is as follows:
- a. To facilitate temporary public ownership of an FI under resolution, including initial capital for a bridge entity or asset management company;
  - b. To meet the operating costs of a bridge entity or an asset management company;
  - c. To meet administrative costs incurred in the implementation of any resolution measure, including interest costs and the cost of advisory services procured in

<sup>12</sup> The sector-specific arrangements will be prescribed in the MAS (Control and Resolution of Financial Institutions) Regulations 2013.

- effecting the resolution, for example, cost of independent valuation of the FI and cost of external legal advice;
- d. To meet creditor compensation claims and any associated costs that may arise from the implementation of a resolution measure;
  - e. To provide guarantees in relation to the transfer of the assets or the liabilities of an FI under resolution, a resolved FI, a bridge entity or an asset management company;
  - f. To meet the cost of selling or transferring all, or any part, of the assets, liabilities, or obligations of an FI under resolution, a resolved FI, a bridge entity or an asset management company; or
  - g. To make loans to the FI under resolution, a resolved FI, a bridge entity or an asset management company.
- 8.9 MAS will not preclude the use of resolution funding arrangements to recapitalise an FI under resolution. However, the use of the resolution fund for recapitalisation purposes will be carefully considered, and utilised only after losses have been imposed on the FI's unsecured subordinated creditors and shareholders to the fullest extent possible or appropriate.

#### **Use of the DI Fund for the resolution of banks**

- 8.10 In the resolution of a DI Scheme Member<sup>13</sup>, the DI Fund could be tapped on as an *ex ante* financing component. However, its use will be subjected to the following criteria:
- a. DI Scheme Members only – The DI Fund will only be used to support the resolution of a DI Scheme Member.
  - b. Equivalent cost criterion – The amount drawn on the DI Fund will be capped at the amount that would have been paid out in a depositor payout situation for that particular DI Scheme Member in resolution (i.e. if the DI Scheme Member had been liquidated<sup>14</sup>).
- 8.11 Similar to the use of the resolution fund, the DI Fund will be used for resolution purposes after losses have been imposed on the FI's unsecured subordinated creditors and shareholders to the fullest extent possible or appropriate.

<sup>13</sup> DI Scheme Members are full banks and finance companies.

<sup>14</sup> This is the estimated cost of depositor payout, net of asset recoveries.



### **Use of the PPF Funds for the resolution of insurers**

- 8.12 In the resolution of a PPF Scheme Member<sup>15</sup>, the PPF Funds could be tapped on as an *ex ante* financing component to facilitate either (i) the transfer of the whole or part of the insurance business of a non-viable PPF Scheme member to another insurer; or (ii) the run-off of the insurance business of a non-viable PPF Scheme member.

### **Payment Systems and Capital Market FMIs**

- 8.13 Payment systems consist of operators and their respective settlement institutions (“SIs”). Costs for the resolution of payment system operators will be recovered from levies imposed on the participants of the resolved payment system operator. No cost will be recovered from other payment system operators and their participants. SIs are banks and their settlement function cannot be isolated from their banking functions and will be resolved as banks. They will therefore be subject to the same resolution funding arrangements for banks.
- 8.14 Unlike banks and insurers, there is no existing *ex ante* fund available to implement resolution measures for capital market FMIs. As such, costs of resolution of capital market FMIs will be done on an *ex post* basis (e.g. through levies on participants in the capital markets or transaction levies on users of any capital market infrastructure).

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<sup>15</sup> PPF Scheme Members are insurers licensed by MAS to carry on direct life business (other than captive insurers) or direct general business (other than captive insurers or specialist insurers).

## 9 CREDITOR SAFEGUARDS

- 9.1 MAS' resolution regime incorporates a number of safeguards to protect the interests of creditors in a resolution. These comprise:
- a. a creditor compensation framework to provide creditors and shareholders the right to compensation if they receive less in resolution than what they would have received in a liquidation of the non-viable FI. This is the NCWOL safeguard; and
  - b. protections for financial arrangements to ensure that the use of resolution tools does not undermine the original purpose of the arrangements to reduce counterparty risk.

- 9.2 Provision of creditor safeguards provides greater certainty and clarity to creditors on their outcomes in resolution.

### **Creditor Compensation Framework**

- 9.3 The NCWOL safeguard provides assurance to creditors by capping their losses at what they would have incurred had the non-viable FI been liquidated. The safeguard is triggered when MAS exercises resolution powers that directly affect shareholders' or creditors' property permanently. This is where MAS:
- a. exercises powers on an FI to effect (i) a compulsory transfer of business, (ii) a compulsory transfer of shares, (iii) a compulsory restructuring of share capital, or (iv) bail-in; or
  - b. recognises a resolution action of a foreign jurisdiction on a Singapore entity of an FI, which is similar to MAS' powers set out in (i) to (iv) above.
- 9.4 When an FI is put into resolution and the NCWOL safeguard is triggered, the Minister in-charge of MAS will appoint an independent valuer to assess if any creditor or shareholder of the FI had been made worse-off under the resolution of the FI than if the FI had been put into liquidation.
- 9.5 The Minister will appoint a valuer based on the following criteria:
- a. Independence from both MAS and any other relevant public authority, and the FI in resolution. The valuer should not have any material interest in common or in conflict with any of these parties, as well as the significant creditors and shareholders of the FI. The Minister will also consider any other factors which may be perceived to influence the valuer's judgment; and
  - b. Capacity of the valuer, based on whether the valuer has relevant experience and expertise, knowledge of the insolvency framework and adequate technical and

human resources to carry out the valuation, commensurate with the nature, size and complexity of the FI.

- 9.6 The appointed valuer will assess:
- a. the amount that each creditor and shareholder of the FI would have received had the FI been put into liquidation under Singapore's winding-up proceedings immediately before the date the FI was put into resolution; and
  - b. the value of what each creditor and shareholder has received as a result of:
    - i. resolution actions exercised by MAS on the FI, or resolution actions exercised by a foreign jurisdiction on the FI which have been recognised by MAS; and
    - ii. eligible compensation under the law of a foreign jurisdiction governing the resolution of the FI (if applicable).

If the amount computed in (a) is greater than that computed in (b) for any creditor or shareholder, that creditor or shareholder would be entitled to compensation of the difference between the amounts under (a) and (b).

- 9.7 MAS will prescribe valuation principles and assumptions that the appointed valuer will be required to follow in conducting this assessment<sup>16</sup>.

#### **Funding of Compensation**

- 9.8 The NCWOL safeguard is not expected to incur disproportionate costs, given that resolution generally preserves the value of a distressed FI to a greater extent than does liquidation. Any compensation payable will be paid from the resolution fund. The resolution fund will also be used to fund the cost of the valuation, including the remuneration of the appointed valuer.

#### **Appeals**

- 9.9 Any person who is dissatisfied with the appointed valuer's decision on the person's eligibility for compensation or compensation amount has a right to appeal to the High Court. Thereafter, an aggrieved party may further appeal to the Court of Appeal with respect to the decision of the High Court.
- 9.10 Appeals may not be lodged after the resolution fund established in relation to the resolution of the FI is dissolved.

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<sup>16</sup> These will be prescribed in the MAS (Control and Resolution of Financial Institutions) Regulations 2013.

### Protection of Financial Arrangements

- 9.11 The integrity of protected financial arrangements will be preserved when MAS exercises its resolution powers under the MAS Act, in particular where there is a transfer of part but not the whole of the business (including assets and liabilities) of the non-viable FI during resolution.
- a. **Secured liabilities:** MAS will ensure that secured creditors' claims are not separated from the assets securing the liabilities.
  - b. **Set-off and netting arrangements:** In relation to financial contracts (such as derivatives and commodities contracts), MAS will ensure that there is no cherry-picking of contracts (i.e. selectively transferring individual contracts with a particular counterparty that are subject to the same set-off or netting arrangements). Such contracts will be transferred in their entirety or not transferred at all to protect the interests of the counterparties.

## 10 CROSS-BORDER COOPERATION

- 10.1 MAS aims to have a high level of cooperation with foreign supervisory and resolution authorities for cross-border crisis management and resolution planning. MAS endeavours to engage and collaborate closely with the home and host supervisory and resolution authorities to achieve credible and feasible RRP of systemically important FIs. For financial groups with cross-border operations, MAS recognises that the application of resolution powers to specific entities, businesses or operations could impact the group as a whole and the financial stability in jurisdictions where the group operates. MAS is committed to achieve coordinated and cooperative solutions with foreign authorities as far as possible.
- 10.2 As the home resolution authority for the locally-incorporated FIs, MAS will consider the potential impact of our resolution actions on the financial stability in host jurisdictions, and work closely with key host authorities to achieve an optimal and coordinated resolution outcome for the group. As a host authority to a large number of international and globally-systemically important FIs (“G-SIFIs”) operating in Singapore, MAS is committed to coordinating closely with the head offices and home authorities to take supporting actions necessary for an orderly resolution of the group, where such actions are consistent with our objectives of preserving financial stability in Singapore. MAS also seeks to avoid unnecessary destruction of value and minimise the overall costs of resolution in both home and host jurisdictions.
- 10.3 MAS’ statutory framework for cross-border recognition enables MAS to recognise and give effect to foreign resolution actions upon request for a coordinated resolution. In determining whether a foreign resolution action should be recognised, MAS takes into account factors such as whether the foreign resolution action will have a widespread adverse effect on the financial system or economy of Singapore, whether it discriminates against creditors resident in Singapore, whether it is against the public interest, and whether it has material fiscal implications.
- 10.4 Close cooperation amongst the home and host authorities is critical to the orderly resolution of a cross-border FI. MAS takes several measures to enhance crisis preparedness and to coordinate the development of group RRP for a cross-border FI:
- a. As a home resolution authority, MAS organises supervisory colleges for the banking and insurance groups headquartered in Singapore on a regular basis. These supervisory colleges serve as a platform to share and discuss resolution-related matters with host supervisory and resolution authorities. The supervisory colleges have been effective avenues to exchange views on resolution issues.

MAS periodically reviews the need to set up a dedicated CMG as the RRP process for these banks and insurers become more advanced.

- b. As a host authority, MAS actively participates in CMGs of G-SIFIs with significant presence in Singapore. MAS has also signed multilateral institution-specific Cooperation Agreements with CMG members and home resolution authorities of these FIs to enhance cooperation and information sharing in the planning, crisis management and resolution stages.
- c. MAS has entered into Memorandum of Understanding (“**MOUs**”) with key host supervisory/resolution authorities of the local systemically important financial groups. MAS periodically reviews the scope of these MOUs and enhances the scope of cooperation where necessary.