Resolution Regime – Code of Practice

VIR-1	**The HKMA's Approach to Valuation in Resolution**	V.1 - Consultation

Purpose

Section 196 of the Financial Institutions (Resolution) Ordinance (Cap. 628) ("FIRO") empowers the Monetary Authority ("MA") as the resolution authority in relation to banking sector entities to issue a code of practice ("Code of Practice") about any matter relating to the functions given to the MA as a resolution authority by the FIRO.

This publication is a chapter of the Code of Practice. It sets out guidance on the MA's approach to valuation in resolution ("VIR"), including the valuations required under the FIRO, their purposes, valuation methodologies and relevant considerations, with a view to facilitating the preparation by authorized institutions ("AIs") to support the execution of VIR.

For avoidance of doubt, each chapter of the Code of Practice should be read in the context of, and in conjunction with, the other chapters, as appropriate. This chapter of the Code of Practice should therefore be read in the context of all other chapters, especially in conjunction with chapter RA-2, "The HKMA's Approach to Resolution Planning" ("RA-2")[1] and chapter VIR-2, "Resolution Planning – Valuation in Resolution Capabilities" ("VIR-2")[2] of the Code of Practice.

The guidance in this chapter is of a general nature and does not take into account the particular circumstances of any individual AI. In case of any conflict between this chapter and the FIRO, the FIRO prevails.

Unless otherwise stated, terms used in this chapter have the same meaning as defined in the FIRO; and references to sections in this chapter are to those of the FIRO.

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[1] https://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/resolutions/RA-2_The_HKMA_approach_to_resolution_planning.pdf

[2] https://brdr.hkma.gov.hk/eng/doc-ldg/docId/20251209-4-EN

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Application

All AIs, and any other entities which may be subject to valuations under the FIRO, i.e. an AI's holding company(ies) and affiliated operational entity(ies).

Structure

1. Introduction
2. Statutory requirements
3. Valuation methodology and output
4. Valuation process
5. Group-wide resolution considerations

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1. Introduction

1.1 In respect of a failing AI, there are three broad stages of any resolution execution process[3], namely (i) contingency planning, during which preparatory actions are taken by the MA (with assistance from the AI) to ensure readiness for an orderly resolution of the AI as its proximity to failure increases, while the AI itself may also take recovery actions to restore its financial strength and viability, (ii) stabilisation, where there is a need to resolve an AI and one or more stabilization options are applied by the MA to resolve the AI, and (iii) restructuring and exit, where changes are made to the structure and business model of the AI or its constituent parts to address the root causes of failure and restore its long-term viability.

1.2 The FIRO mandates valuations to inform certain key decisions under the FIRO across the resolution process. These are pre-resolution valuations to support timely and appropriate decisions by the MA in relation to the timing of resolution initiation and the choice of stabilization option(s) to resolve and stabilise a failing AI for the purpose of achieving the resolution objectives, and a post-resolution valuation to support the decision by an independent valuer appointed under the FIRO on the eligibility of a pre-resolution creditor or pre-resolution shareholder of an affected entity[4] to a payment of compensation if they receive, as a result of the resolution of that entity, less favourable treatment than would have been the case had winding up of the entity commenced immediately before its resolution was initiated. By establishing transparency and fairness, valuations help ensure the resolution process remains credible and equitable, thereby safeguarding market confidence.

1.3 Conducting VIR is an inherently complex task, requiring analysis of a substantial amount of data and information under tight timelines and uncertain conditions. It involves the use of specific methodologies that are based on intricate assumptions and judgements. This chapter outlines the

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[3] See paragraph 1.3 of RA-2.

[4] An affected entity refers to an AI, its holding company or its affiliated operational entity, in respect of which a Part 5 instrument is made under the FIRO.

valuations required under the FIRO as well as the MA's approach to them taking into account industry practices to facilitate the development of capabilities and arrangements for supporting timely and robust VIR ("VIR capabilities") by AIs. This chapter also covers the valuation considerations in a group-wide resolution where the MA acts as a host resolution authority.

1.4 This guidance is based on a stylised resolution execution process and is not intended to be exhaustive or definitive. Given the variations in AIs' sizes, business models and resolution strategies, it is not practical to prescribe a "one size fits all" approach to VIR. Furthermore, the actual approach to VIR will depend on the facts and circumstances at the time.

1.5 In developing his approach to VIR, the MA has drawn on international practices to ensure alignment of approaches, considering the need for cross-border cooperation to achieve positive resolution outcomes for AIs which have cross-border operations.

1.6 The rest of this chapter outlines the VIR required under the FIRO and sets out how the MA anticipates VIR will generally be carried out. Section 2 of this chapter sets out the statutory requirements for VIR. Section 3 of this chapter provides details on the valuation methodology and output. Section 4 of this chapter explains the valuation process. Lastly, Section 5 of this chapter provides guidance on the considerations for VIR in the context of group-wide resolutions.

2. Statutory requirements

2.1 The FIRO provides the MA with a set of stabilization options to manage the failure of an AI. To support the effective use of those stabilization options and to apply the "no creditor worse off than in liquidation" ("NCWOL") safeguard for pre-resolution creditors and pre-resolution shareholders, the FIRO mandates that the following valuations be conducted.

Pre-resolution valuation

2.2 Under section 35(1), before the MA applies a stabilization option to, or makes a capital reduction instrument in respect of, a within scope financial institution, it must make a valuation[5] for informing any decisions to be made as to any of the following matters—

(a) *whether the conditions for applying a stabilization option or making a capital reduction instrument are satisfied;*
(b) *if the conditions for applying a stabilization option are satisfied, which stabilization option to apply;*
(c) *the extent to which—*
  (i) *any Additional Tier 1 capital instrument or Tier 2 capital instrument should be written off or converted through the making of a capital reduction instrument; or*
  (ii) *any liabilities or securities eligible to be the subject of a bail-in provision should be cancelled, modified, converted or otherwise dealt with through the making of a bail-in provision in a bail-in instrument;*
(d) *what is to be transferred by a securities transfer instrument or property transfer instrument;*
(e) *the value of any consideration due in respect of whatever is so transferred.*

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[5] Section 35(2) provides that if a valuation was made before the MA made a capital reduction instrument in respect of a within scope financial institution, the MA may apply a stabilization option without making a fresh valuation.

2.3 Regarding the nature of the valuation to be made under section 35(1), section 36 prescribes that the valuation must—

(a) *be fair in all the circumstances, be based on prudent and realistic assumptions, including assumptions as to rates of default and severity of losses, and take into account—*
 (i) *if appropriate, available information from which a market price for assets and liabilities could be derived; and*
 (ii) *accounting principles to the extent that they are relevant in assisting in the making of a valuation that is suitable for the purpose for which it is being made;*

(b) *not assume that any financial support or assistance will be provided, directly or indirectly, to the financial institution by the Government, a public body or a public officer, other than in the ordinary course of business;*

(c) *take account of the fact that expenses incurred by the resolution authority in connection with the application of a stabilization option to the financial institution may be recovered from the financial institution; and*

(d) *take account of the fact that, if the application of a stabilization option to the financial institution includes the use of resolution funds for a purpose mentioned in section 178(4)(a) or (b), interest or fees may be charged in respect of the funds used and recovered from the financial institution.*

Appointment of section 10 entity to assist in pre-resolution valuation

2.4 Depending on the specific circumstances, the MA may conduct a pre-resolution valuation by himself or, pursuant to section 37(1), appoint a section 10 entity to assist in the making of such valuation, in relation to the entity concerned. In appointing a section 10 entity to assist, the MA must, pursuant to section 37(2), be satisfied that the section 10 entity—

(a) has the expertise, experience, and resources that are, in the opinion of the MA, necessary for the section 10 entity to be able to assist in the making of a valuation under section 35(1); and

(b) does not have an actual or material interest in common or in conflict with the entity concerned, or a member of the same group of companies of the entity concerned, that could influence, or be reasonably perceived to influence, the section 10 entity's judgement in assisting in the making of a valuation under section 35(1) in relation to the entity concerned.[6]

Post-resolution valuation

2.5 Part 6 of the FIRO provides for the NCWOL safeguard. Under section 102, any pre-resolution creditor or pre-resolution shareholder of an affected entity who has received, is receiving or is likely to receive, as a result of the resolution of that entity, less favourable treatment than would have been the case had winding up of the entity commenced immediately before its resolution was initiated is eligible for a payment of compensation.

2.6 To apply the NCWOL safeguard, section 101 requires an independent valuer[7] to make a valuation ("NCWOL valuation") in relation to an affected entity and decide whether any pre-resolution creditor or pre-resolution shareholder is eligible for a payment of compensation. Section 103(1) further requires that in making the NCWOL valuation, the independent valuer must—

(a) assess the treatment that a pre-resolution creditor or pre-resolution shareholder, or a class of pre-resolution creditor or pre-resolution shareholder, would have received if winding up of the affected entity had commenced immediately before its resolution was initiated;

(b) assess the actual treatment that the pre-resolution creditor or pre-resolution shareholder, or the class of pre-resolution creditor or pre-resolution shareholder, has received, is receiving or is likely to

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[6] Section 37(3) provides that the acts of an entity acting as a section 10 entity would remain valid despite the fact that it is afterwards discovered that there was a defect in the appointment of the section 10 entity, other than a defect arising because the section 10 entity did not meet the criteria specified in section 37(2).

[7] Please refer to paragraphs 2.12 to 2.16 for the requirements in relation to the appointment of an independent valuer.

receive as a result of the resolution of the affected entity, disregarding any compensation that may be payable under this Part and any clawback order made under Part 8; and

(c) if there is a difference between the treatment mentioned in paragraph (a) and the treatment mentioned in paragraph (b), assess the amount of that difference.

2.7 Pursuant to section 103(2), the independent valuer must apply the following valuation assumptions and principles set out in Schedule 7 to the FIRO in assessing the value of the winding up treatment[8] in relation to an affected entity:

(a) an assessment is to be made as if any stabilization option applied to the entity had not been applied and as if no other stabilization option would be applied to the entity;

(b) it is to be assumed that any assets of the entity available on a winding up of the entity would have been distributed on the winding up to creditors in accordance with the priorities established by section 265 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32);

(c) an assessment is to be made as if any financial support or assistance provided, directly or indirectly, to the entity by the Government, a public body or a public officer, other than in the ordinary course of business, was not provided;

(d) the possibility of any support or assistance mentioned in paragraph (c) is to be disregarded.

2.8 In addition to the valuation assumptions and principles set out in Schedule 7 to the FIRO, the Secretary for Financial Services and the Treasury ("SFST") may make regulations under section 105(1) to specify assumptions to be made and principles to be applied by the independent valuer, and to prescribe a process for the conduct of the NCWOL valuation.

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[8] Defined in section 94 as the treatment mentioned in section 103(1)(a), which has been replicated in paragraph 2.6(a) of this chapter.

2.9 Furthermore, section 103(3) provides for a rebuttable presumption that the resolution treatment[9] is not less favourable than the winding up treatment in relation to a liability (whether arising under a contract or otherwise) owed by the affected entity to a pre-resolution creditor in either of the following circumstances during resolution:

(a) a bail-in instrument is made in respect of the affected entity but the liability is not subject to any bail-in provision contained in the instrument resulting in the liability continuing as a liability of the affected entity on the same terms; and

(b) the liability is transferred to another entity under a Part 5 instrument and that other entity is subject to the liability on the same terms as those on which the affected entity was subject to it.

2.10 If the assessment of the independent valuer is that the resolution treatment is less favourable to a pre-resolution creditor or pre-resolution shareholder than the winding up treatment, the independent valuer must make a decision under section 104(2) that the pre-resolution creditor or pre-resolution shareholder is entitled to a payment of compensation of an amount equal to the amount of the difference in accordance with the assessment.

2.11 Under section 106, the decision made by the independent valuer would take effect three months after the notice of the decision was given, if no application is made by a pre-resolution creditor, pre-resolution shareholder or the MA to the Resolution Compensation Tribunal under section 107(1) for a review of the decision. Otherwise, the decision would take effect when the Resolution Compensation Tribunal confirms, varies or substitutes the decision, or if the application is withdrawn, at the time when it is withdrawn.

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[9] Defined in section 94 as the treatment mentioned in section 103(1)(b), which has been replicated in paragraph 2.6(b) of this chapter.

Appointment of independent valuer

2.12 To ensure the independence of the independent valuer making the NCWOL valuation, section 96 prescribes that the independent valuer is to be appointed by an appointing person, who in turn is to be separately appointed by the Financial Secretary under section 95. The MA, as soon as practicable after making for the first time a Part 5 instrument in respect of an affected entity, must notify the appointing person in writing of that fact, after which the appointing person must appoint an independent valuer as soon as practicable.

2.13 Under section 96(3), the appointing person may only appoint as an independent valuer a person whom the appointing person is satisfied meets the appointment criteria specified in Schedule 2 to the FIRO, including that the person must not be a public officer and must have the necessary expertise, experience and resources to be able to perform the functions of an independent valuer in relation to the entity concerned. There must be no circumstances that would prevent, or give rise to a reasonable perception that they would prevent, the person from being able to perform impartially and independently the functions of an independent valuer in relation to the entity concerned. This includes the person not having an actual or material interest in common or in conflict with the affected entity or its group companies that could influence, or be reasonably perceived to influence, the person's judgement in the performance of the functions of an independent valuer in relation to the entity concerned. In addition, the person must not have offered services to, or have had business or other relationships with the affected entity or its group companies in the past three years prior to appointment as an independent valuer that could influence, or be reasonably perceived to influence, their judgement in the performance of the functions of an independent valuer in relation to the entity concerned[10].

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[10] Section 96(9) provides that the acts of a person acting as an independent valuer remain valid despite the fact that it is afterwards discovered that there was a defect in the appointment of the independent valuer, other than a defect arising because the independent valuer did not meet the appointment criteria specified in Schedule 2 to the FIRO.

2.14 To avoid any conflict that may, or may be perceived to, influence neutrality in performing of the functions of an independent valuer, section 96(4) prohibits the appointing person from appointing as an independent valuer a person who is, or who has been within the previous five years, a section 10 entity in relation to the resolution authority. Therefore, if the MA has appointed a section 10 entity to assist in the making of a pre-resolution valuation under section 35(1), the independent valuer to be appointed under section 96 for the NCWOL valuation following such resolution must be a different person.

2.15 Section 96(5) provides that the appointment of the independent valuer is to be made on terms and conditions approved by the Financial Secretary, including terms and conditions as to the keeping of records and accounts.

2.16 The appointment of a person as the independent valuer cannot be revoked by the Financial Secretary, the appointing person, or the MA. Section 98 empowers the Resolution Compensation Tribunal to revoke the appointment only if, in its opinion, the person is incapable of performing the functions of an independent valuer, is not performing the functions of an independent valuer impartially and independently, is guilty of serious misconduct, and/or no longer satisfies the appointment criteria specified in Schedule 2 to the FIRO (and referred to in paragraph 2.13 above). The MA, a pre-resolution creditor or a pre-resolution shareholder could apply to the Resolution Compensation Tribunal for such revocation.

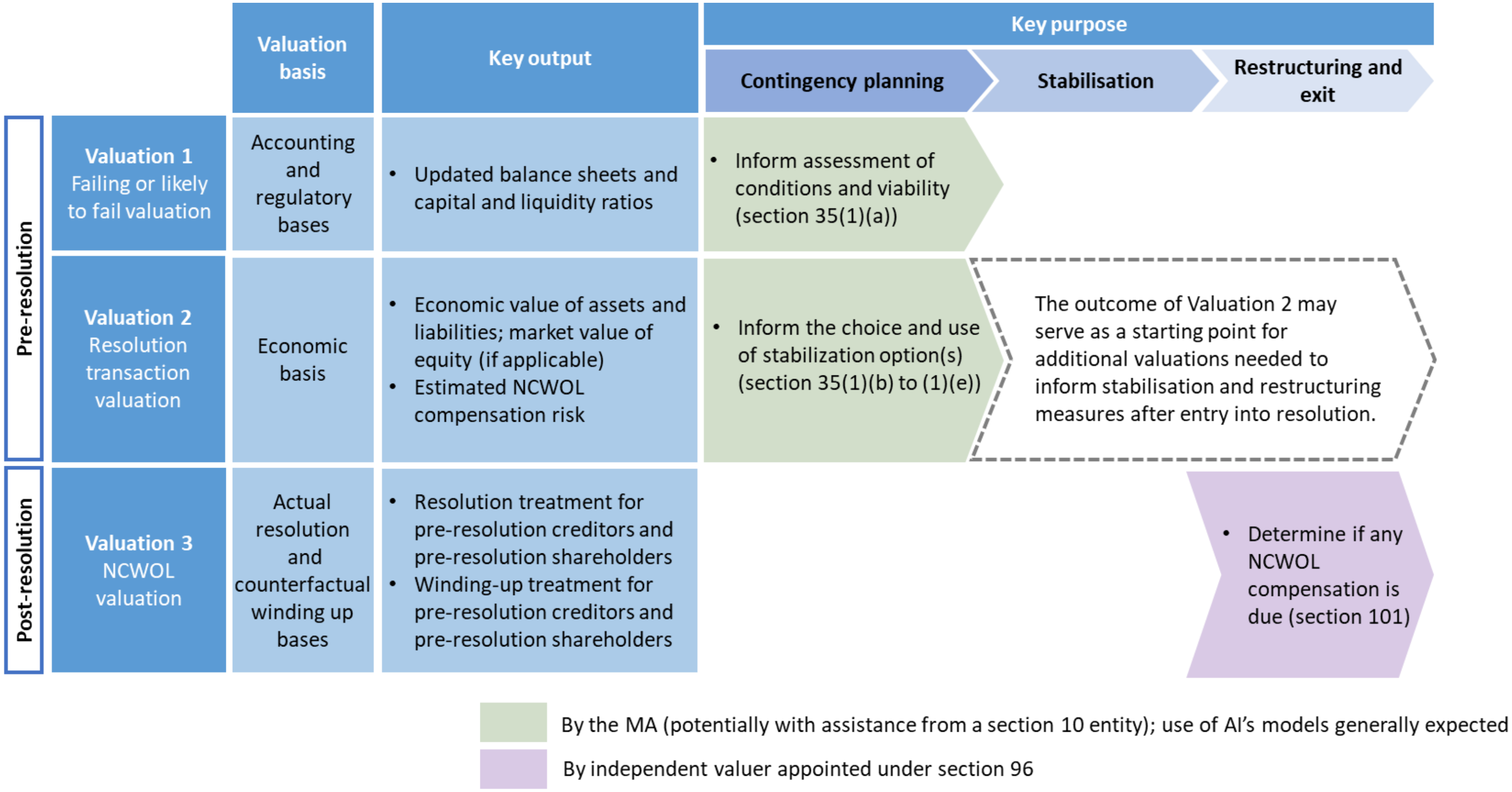
3. Valuation methodology and output

3.1 Under the FIRO, valuations are required to inform certain key decisions across the resolution process. To this end, the MA expects three sets of valuations to be made:

(a) Failing or likely to fail valuation (Valuation 1);
(b) Resolution transaction valuation (Valuation 2); and
(c) NCWOL valuation (Valuation 3).

The key aspects of these valuations are summarised in Figure 1.

Figure 1: Valuations to inform certain key decisions across the resolution process



		Valuation basis	Key output	Key purpose		
				Contingency planning	Stabilisation	Restructuring and exit
Pre-resolution	**Valuation 1** Failing or likely to fail valuation	Accounting and regulatory bases	- Updated balance sheets and capital and liquidity ratios	- Inform assessment of conditions and viability (section 35(1)(a))		
	Valuation 2 Resolution transaction valuation	Economic basis	- Economic value of assets and liabilities; market value of equity (if applicable) - Estimated NCWOL compensation risk	- Inform the choice and use of stabilization option(s) (section 35(1)(b) to (1)(e))	The outcome of Valuation 2 may serve as a starting point for additional valuations needed to inform stabilisation and restructuring measures after entry into resolution.	
Post-resolution	**Valuation 3** NCWOL valuation	Actual resolution and counterfactual winding up bases	- Resolution treatment for pre-resolution creditors and pre-resolution shareholders - Winding-up treatment for pre-resolution creditors and pre-resolution shareholders			- Determine if any NCWOL compensation is due (section 101)

🟩 By the MA (potentially with assistance from a section 10 entity); use of AI's models generally expected

🟪 By independent valuer appointed under section 96

3.2 Valuations 1 to 3 are relevant to entities subject to valuations under the FIRO, i.e. an AI, its holding company or affiliated operating entity. This Section, along with Sections 4 and 5 of this chapter, primarily focuses on their application to an AI. An AI and a valuer should make appropriate adjustments in conducting VIR to ensure coverage of the AI's holding company(ies) and affiliated operating entity(ies), where applicable.

3.3 As noted in paragraph 2.8 above, the SFST may make regulations to specify the assumptions, principles, and process for the NCWOL valuation to be made by an independent valuer. While Sections 3, 4 and 5 of this chapter include discussions on the general industry practices of how a valuer may assess the treatment of pre-resolution creditors and pre-resolution shareholders in resolution and in a counterfactual winding up scenario in the Hong Kong context, such discussions are intended for general guidance only for the purpose of facilitating AIs' understanding of the NCWOL valuation process and development of the necessary VIR capabilities in preparation for such valuation. These discussions should not be construed as the MA's expectations on how the NCWOL valuation under the FIRO should be carried out, which would be subject to the relevant regulations to be made by the SFST.

Valuation 1

3.4 Valuation 1 is relevant to the matter set out in section 35(1)(a), namely, to inform a decision to be made by the MA as to whether the conditions for applying a stabilization option or making a capital reduction instrument[11] in respect of an AI are satisfied. Specifically, Valuation 1 helps inform whether an AI has ceased, or is likely to cease, to be viable (i.e. condition

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[11] Under section 31(2), the making of a capital reduction instrument is to be regarded as a trigger event for the purposes of the point of non-viability provision applicable to any Additional Tier 1 capital instrument or Tier 2 capital instrument that is the subject of the capital reduction instrument. On the occurrence of the trigger event, such Additional Tier 1 capital instrument or Tier 2 capital instrument would be written off or converted into ordinary shares to absorb losses or recapitalise the failing AI in accordance with the terms and conditions of the instrument.

1[12] for initiating resolution under section 25)[13], and is therefore also known as the "failing or likely to fail valuation".

3.5 Valuation 1 must follow the assumptions and principles set out in section 36 (see paragraph 2.3).

Methodology

3.6 Valuation 1 aims to provide an assessment of an AI's latest financial position based on accounting values. The focuses are whether the AI remains solvent (i.e. the aggregate value of assets exceeds that of liabilities), and meets its applicable regulatory capital and liquidity requirements.

3.7 Valuation 1 should be conducted in accordance with the accounting standards and regulatory requirements in Hong Kong potentially with assistance from a section 10 entity (if available), although depending on the situation, the MA may decide to make a valuation based on the information available to him at the time, without involving a section 10 entity (valuer). Given the potentially fast-moving nature of crises, Valuation 1 should be made within a short timeframe. The process generally involves leveraging the AI's latest month-end or quarter-end reporting information to produce an updated, intra-month accounting balance sheet by updating the relevant financial information.

3.8 Updated information is generally expected for balance sheet items which tend to have more volatile value, such as financial instruments measured at fair value (e.g. equity and derivatives). For items with less volatile positions, such as high-quality debt instruments, recently available

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[12] To initiate the resolution of an AI, the MA must be satisfied that the three conditions under section 25 are met in the case of the AI. Condition 1 is that the AI has ceased, or is likely to cease, to be viable. Condition 2 is that there is no reasonable prospect that private sector action (outside of resolution) would result in the AI again becoming viable within a reasonable period. Condition 3 is that: (a) the non-viability of the AI poses risks to the stability and effective working of the financial system of Hong Kong, including to the continued performance of critical financial functions; and (b) resolution will avoid or mitigate those risks.

[13] In determining whether condition 1 is met, the MA may take into account all relevant factors, including but not limited to Valuation 1 outcome.

financial accounting information might be considered sufficiently reliable.

3.9 In addition, attention should be given to:

(a) material transactions entered into after the relevant period-end reporting;
(b) material recovery actions that have been implemented but which have not been accounted for; and
(c) items that are subject to material valuation uncertainty, including (i) loans where expected cash flows would be affected by factors such as the credit quality of a counterparty and its guarantor or related parties, market conditions and collateral valuation; (ii) repossessed assets where expected cash flows would depend on the asset's fair value at the time of foreclosure and in subsequent periods; as well as (iii) goodwill and intangibles, where impairment tests may rely on a subjective judgment as to potential cash flows and discount rates.

3.10 Based on the updated balance sheet, Valuation 1 should include the updated regulatory capital and liquidity ratios of the AI. Considering the potentially tight timeline in the lead-up to resolution, the updated regulatory metrics may be in the form of best point estimates, supported by clear explanation of the relevant assumptions.

Output

3.11 Valuation 1 is expected to produce, to the greatest extent permitted by the circumstances, a complete, accurate and up-to-date accounting balance sheet, as well as updated regulatory capital and liquidity ratios of the AI.

Valuation 2

3.12 Valuation 2 serves to inform the choice and use of appropriate stabilization option(s). It is relevant to the matters set out in section 35(1)(b) to (1)(e), and must follow the assumptions and principles set out in section 36 (see paragraph 2.3).

3.13 Valuation 2 can be referred to as a resolution transaction valuation, as it is primarily an economic valuation of an AI's assets, liabilities and/or equity that takes into account how they would be treated under potential resolution actions. The process may involve valuations under multiple resolution scenarios. The outcome of these valuations and scenario analysis would in turn help inform the choice and use of stabilization option(s).

3.14 In addition, Valuation 2 is expected to include an estimation of the NCWOL compensation risk for the MA in applying a stabilization option. In considering performing any function under the FIRO, the MA must have regard to the resolution objectives set out in section 8(1), including the secondary objective in section 8(1)(d) of seeking to contain the costs of resolution and, in so doing, protect public money. Therefore, NCWOL compensation, as a cost of resolution, is a relevant consideration in deciding the choice and use of stabilization option.

Methodology

3.15 Valuation 2 primarily seeks to establish the following:

(a) the economic value of the assets and liabilities of an AI based on their treatment under different resolution actions. This informs the extent of incurred and expected losses that need to be addressed, and therefore the extent of the cancellation of shares and the write-down of LAC debt instruments[14] required in a bail-in, or the perimeter and value of the assets and liabilities to be transferred to a private sector purchaser or a bridge institution through a property transfer instrument; and

(b) the value of the equity of an AI post resolution actions, if the proposed resolution actions involve conversion of LAC debt instruments into equity via bail-in, or a transfer of the shares of the AI (or all or majority

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[14] Defined in rule 2(1) of the Financial Institutions (Resolution) (Loss-absorbing Capacity Requirements—Banking Sector) Rules (Cap. 628B).

of the AI's assets as a going concern) via a securities transfer instrument or property transfer instrument. Such equity valuation would inform the value of new shares to be issued and therefore the conversion ratios (for each class of equity and liability) in the bail-in, or the consideration for the transfer.

3.16 In addition, Valuation 2 should include an estimation of the NCWOL compensation risk by comparing the estimated treatment of pre-resolution creditors and pre-resolution shareholders in resolution and in a counterfactual winding up scenario.

3.17 The updated financial statements of the AI from Valuation 1 would likely be a starting point for Valuation 2. Assets and liabilities should then be valued based on expected cash flows from their holding or disposal, depending on their treatment under the potential resolution strategy and actions.

Hold value of assets and liabilities

3.18 The hold value of a particular asset or liability can be defined as its present value, discounted at an appropriate rate, of cash flows that an AI can reasonably expect under fair, prudent and realistic assumptions from retaining the asset or liability, considering factors affecting customer or counterparty behaviour or other valuation parameters in the context of resolution.

3.19 The hold value is applicable when an AI is expected to retain its assets and liabilities as a going concern, in cases where the AI continues operating a business or maintains its positions in financial instruments following its entry into resolution. The determination of hold value would require forward-looking considerations, including business forecasts and post-stabilisation restructuring plans where available. It should reflect the AI's cost of capital and its expected operational costs for holding the asset or liability.

Disposal value of assets and liabilities

3.20 The disposal value of a particular asset or liability can be defined as the cash flow, net of disposal costs and net of the expected value of any guarantees given, that an AI can reasonably expect an orderly sale or transfer of the asset or liability would generate in the currently prevailing market conditions.

3.21 The disposal value is applicable when an AI is expected to sell or transfer its assets and/or liabilities in resolution. The valuer may determine the disposal value by applying a discount to observable market prices to account for the AI's potentially unfavourable bargaining position and the accelerated nature of the sale under stress scenario, taking into account any disposal costs to make the assets or liabilities saleable, the liquidity of the relevant asset or liability class, the impact of piecemeal versus combined sales, the prevailing market conditions, observable market prices, timelines, and the difference between a transaction with a typical marketing period and a forced transaction with a limited marketing period.

Market value of equity

3.22 The market value of equity can be defined as the estimated market price for shares to be issued or transferred, determined using generally accepted valuation methodologies, such as the discounted cash flow ("DCF") approach through the dividend discount model[15] or the free cash flow to equity model[16] and the market value approach using trading or transaction-based multiples models[17].

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[15] Under this model, an AI's expected dividends are discounted to calculate the present value of the equity. These dividends represent the cash expected to be distributed to shareholders and are typically determined through detailed forecasts of the expected profits and losses.

[16] Under this model, free cash flow to equity represents the cash flow available to be distributed to an AI's shareholders after accounting for all operating expenses, investments in working and fixed capital and net borrowing. The free cash flow to equity is discounted to determine the present value of the equity.

[17] The trading-based multiples model estimates the value of an AI by referencing multiples derived from comparable entities that are publicly traded, such as the price-to-earnings ratio and the price-to-book ratio. In contrast, the transaction-based multiples model estimates the value by referencing multiples observed in prior similar transactions.

3.23 The valuation should account for any write-down of LAC debt instruments and the potential post-stabilisation restructuring actions. A projected cash flow supported by a business forecast in line with the estimated restructuring measures is generally expected. Unlike the economic value of an AI's net assets (value of assets minus liabilities), equity valuation assesses the overall value of the AI as a whole, considering factors such as capital structure, synergies across asset items and business lines, and franchise value from future growth opportunities.

Estimated treatment in resolution and in a counterfactual winding up scenario

3.24 The treatment to be received by each class of pre-resolution creditors and pre-resolution shareholders in resolution should be estimated based on the economic valuation of assets, liabilities and equity (if applicable) under the potential resolution actions (including estimated restructuring measures). For instance, the estimation could be based on the estimated market price for shares issued to pre-resolution creditors under the bail-in stabilization option, or the estimated proceeds (e.g. recoveries) received by those creditors from a sale or transfer transaction.

3.25 On the other hand, the estimation of treatment to be received by each class of pre-resolution creditors and pre-resolution shareholders in a counterfactual winding up scenario involves estimating cash flows in a winding up and the allocation of proceeds (e.g. recoveries) in accordance with the hierarchy of claims under Hong Kong's insolvency law. Paragraphs 3.36 to 3.44 set out the methodology that may be followed. However, given the dynamic nature of a crisis and potential speed of events, a detailed quantification of the counterfactual treatment may not be needed for the purpose of estimating the NCWOL compensation risk.

Valuation 2 under stylised resolution strategies

Bail-in

3.26 In a whole bank bail-in[18] scenario, LAC debt instruments of an AI would be written down and/or converted into equity to absorb losses and recapitalise the AI. Valuation 2 would need to determine, among other things:

(a) the economic value of the assets to be retained on a hold basis, taking into account the estimated restructuring measures[19] and expected future losses;

(b) the AI's net asset value based on economic valuation;

(c) the amount of write-down required to absorb losses and restore the net asset value ("NAV") of the AI to zero, taking into account any expected downstreaming of non-pre-positioned LAC resources available to the AI as part of the resolution process;

(d) the amount by which LAC debt instruments need to be converted into equity to restore the capital position of the AI to meet regulatory requirements, support estimated post-stabilisation restructuring and sustain market confidence;

(e) the value of new shares to be issued based on an equity valuation of the AI post conversion; and

(f) the estimated treatment in resolution, and the estimated treatment in a counterfactual winding up scenario, of each class of pre-resolution creditors and pre-resolution shareholders affected by the bail-in, for the purpose of informing the NCWOL compensation risk.

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[18] In a whole bank bail-in, the bail-in stabilization option is applied to support the entire balance sheet of the AI.

[19] An initial consideration of restructuring options may be needed during the contingency planning phase to help inform the MA's decisions around the choice of stabilization options.

Combination of bail-in and transfer (or "bail-in plus")

3.27 A bail-in plus strategy would involve the write-down of LAC debt instruments via bail-in and then a transfer of the shares of the failing AI to a private sector purchaser or a bridge institution. The requirements for Valuation 2 under this scenario would largely be the same as those for a bail-in strategy explained in the preceding paragraph, with the exception that the equity valuation of the AI post conversion will inform the value of the transfer, instead of the new shares to be issued.

Business or assets transfer

3.28 In the context of business or asset transfer strategies, Valuation 2 would ultimately be looking to determine the amount at which a purchaser would value the line of businesses, the portfolio of assets or the entire entity to be transferred.

3.29 Discounted cash flow valuation is likely required, which should be built on the basis of detailed forecasts of the AI's expected profits and losses, over an appropriate time horizon, and may involve an asset-by-asset level of granularity.

3.30 Depending on the situation, a market value approach may be appropriate, with adjustment to trading or transaction-based multiples to reflect the market conditions and the potentially unfavourable bargaining position of the AI.

<u>Output</u>

3.31 It is expected that the outcome of Valuation 2 would be written into a report which might include but is not limited to the following parts:

(a) an introduction, setting out the purpose of the valuation, the AI in question, background of the valuation, valuation date, etc.;

(b) details on the updates made to the valuations initially made during the contingency planning phase and an explanation thereof;

(c) a description of the potential stabilization option(s) to be used as indicated by the MA, and the assets, rights and liabilities that have been included in the valuation;

(d) an indication of the assets, rights and liabilities valued in accordance with either the hold or disposal value in line with their estimated treatment under different stabilization options and estimated restructuring measures;

(e) (for bail-in) the aggregate amount of write-down required to absorb losses and restore NAV to zero;

(f) (for transfer) the valuation of the assets, rights, liabilities or franchise to be transferred;

(g) (for bail-in or transfer) the equity valuation of the AI as a whole reflecting resolution and restructuring;

(h) an indication of the valuation methodology(ies) applied, with explanations and justifications;

(i) the underlying assumptions with supporting information;

(j) an explanation of the assumptions used in the valuation and the underlying accounting or regulatory information;

(k) information about valuations of subsidiaries that are subject to internal LAC requirements (as defined under the Financial Institutions (Resolution) (Loss-absorbing Capacity Requirements—Banking Sector) Rules (Cap. 628B) ("LAC Rules")); and

(l) the assessment of NCWOL compensation risk by comparing the estimated treatment in resolution, and the estimated treatment in a counterfactual winding up scenario, of each class of pre-resolution creditors and pre-resolution shareholders.

3.32 Indicative ranges of values are most suitable where the application of different valuation methodologies or assumptions significantly affects the valuation results. Where a range is calculated, the report should explain how the range is derived and identify a best point estimate within the range, supported by a clear and detailed rationale.

Additional valuations for resolution transaction

3.33 The outcome of Valuation 2 may also serve as a starting point for additional valuations that may be required to support the resolution transaction following its initiation. For instance, when applying a bail-in stabilization option with an approach involving interim instruments[20], a further valuation is expected to inform the conversion rates for these interim instruments. Additionally, further valuations may be needed to inform the development and implementation of post-stabilisation restructuring measures. If the actual restructuring approach significantly deviates from the plan anticipated at the resolution date, or becomes protracted, the additional valuations should reflect the updated conditions for informing specific decisions as needed, such as determining the value of businesses or assets to be sold, as well as the capital required to support restructuring.

Valuation 3

3.34 Valuation 3 is the NCWOL valuation. It assesses whether a pre-resolution creditor or pre-resolution shareholder of the AI, or a class thereof, receives, as a result of the resolution of the AI, less favourable treatment than would have been the case had winding up of the AI commenced immediately before its resolution was initiated. The result determines the eligibility for

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[20] In the event of an open bank bail-in, interim instruments may be issued instead of the immediate issuance of new equity or immediate redistribution of shares to pre-resolution creditors. These interim instruments represent contingent entitlements to an unknown quantum of equity securities (or other possible compensation, such as cash or other securities).

and, if so eligible, the quantum of NCWOL compensation after resolution.

3.35 Valuation 3 must follow the assumptions and principles set out in Schedule 7 to the FIRO (see paragraph 2.7) and be based on the rebuttable presumption in section 103(3) (see paragraph 2.9).

Methodology

3.36 The assessment of the resolution treatment received by pre-resolution creditors and pre-resolution shareholders should be based on their actual treatment in resolution, disregarding any NCWOL compensation that may be payable. The actual treatment will depend on the stabilization option(s) applied. For instance, in the case of bail-in, the actual treatment could be an assessment of the value of the shares that may be issued under the bail-in stabilization option to the pre-resolution creditors concerned. In the case of a partial transfer of the assets, rights or liabilities of an AI and where the liabilities owed to the pre-resolution creditors concerned are not transferred or otherwise written off or converted into equity prior to the transfer, the actual treatment could depend on whether any meaningful payment may likely be received by the failed AI (i.e. the residual entity) by reason of the transfer and whether any recoveries may likely be received by such pre-resolution creditors according to the creditor hierarchy in the event where the residual entity is subsequently wound up.

3.37 The assessment of the counterfactual winding up treatment is expected to be a liquidation type of valuation aimed at determining expected cash flows in the event of insolvency. The counterfactual winding up proceedings of the AI should be assumed to commence immediately before the initiation of resolution. The valuation process generally involves:

(a) preparing adjusted legal-entity balance sheets;
(b) accounting for intra-group balances;
(c) estimating net recoveries in legal entities; and
(d) estimating distributions to creditors in each legal entity.

3.38 In estimating recoveries, it is expected that a DCF methodology would be employed to estimate cash flows from asset realisations. Estimated cash flows should be based on market values, reflecting that assets may have to be sold at a discount due to their lack of marketability, the seller's potentially unfavourable bargaining position and the fact that buyers are aware of the position of the seller.

3.39 The costs associated with the winding up, such as the fees for insolvency administrators, should be incorporated in the estimated cash flows. When estimating the costs of a winding up scenario, a valuer should consider the opportunity cost of an absence of future business prospects as well as administrative costs, including costs of running down the business itself, costs related to the winding up proceedings, and a different cost base.

3.40 The valuation should take into account the insolvency law and practice in Hong Kong and other applicable jurisdictions to reflect the priority ranking of creditors' claims within the creditor hierarchy. Specifically, preferential debts would be paid in priority to unsecured debts, which in turn would be paid in priority to subordinated unsecured debts, and any surplus remaining after paying and discharging all the debts and liabilities of the AI would be paid to its shareholders.

3.41 Any financial support or assistance provided other than in the ordinary course of business by the MA to the AI, and the possibility of any such support or assistance, should be disregarded. This could include any liquidity support from the HKMA under the Contingent Term Facility. The key principle in disregarding such support or assistance is that the shareholders and creditors of the failing AI should not benefit from any extraordinary support or assistance provided by the MA to the AI, or the possibility of such support or assistance, in order to protect financial stability in Hong Kong.

3.42 The independent valuer concerned would need to consider how the winding up of an AI impacts other entities within its group of companies, and as a result, the value of any investment by the AI in such entities. For example, an AI may not be able to pay its intra-group balances due to its subsidiaries in a winding up scenario. This may impact the viability of the subsidiaries, and in turn the value of the AI's investment in the subsidiaries. Additionally, an AI may provide parental support, for example through deployment of non-pre-positioned LAC resources, to its subsidiaries to recapitalise them as part of resolution, but such support is not expected in a winding up scenario.

3.43 For the purpose of determining any NCWOL compensation due after resolution, the assessment of the counterfactual winding up treatment should be based on information about the facts and circumstances which exist and could reasonably have been known at the point immediately before resolution was initiated.

3.44 When comparing the counterfactual winding up treatment and the resolution treatment of pre-resolution creditors and pre-resolution shareholders, the time value of money should be considered to account for the potential difference in the timing of a pre-resolution creditor or pre-resolution shareholder receiving the treatments in the winding up and resolution scenarios respectively. Appropriate discounting should be applied as needed to ensure the comparability of such treatments.

<u>Output</u>

3.45 It is expected that the output of Valuation 3 would be documented in a report that includes:

(a) the actual treatment that each class of pre-resolution creditors and pre-resolution shareholders receive in resolution;

(b) the counterfactual treatment that each class of pre-resolution creditors and pre-resolution shareholders would have received if winding up of the AI had commenced immediately before its resolution was initiated;

(c) any difference in the counterfactual treatment in a winding up scenario and the actual treatment in resolution for pre-resolution creditors or pre-resolution shareholders;

(d) a description of the counterfactual winding up proceedings and relevant justifications;

(e) a description of how the insolvency laws of Hong Kong and other relevant jurisdictions, where applicable, would have been applied and the justifications for key assumptions;

(f) an analysis and explanation of the estimated realisation strategy and valuation approach for each asset class; and

(g) an analysis and explanation of the estimated costs associated with the counterfactual winding up proceedings.

4. Valuation process

Timeline

4.1 The VIR process is expected to commence during contingency planning for resolution when an AI's risk of failure is elevated. The actual timing would depend on, among other things, the nature and speed of the crisis and the complexity of the AI involved.

4.2 The MA may appoint a section 10 entity under the FIRO to act as a valuer to assist in the making of Valuation 1 and Valuation 2 (see paragraph 2.4 above). The valuer typically prepares a report of these valuations initially as of a measurement date agreed with the MA, likely a recent month-end or quarter-end prior to their appointment. These initial valuations help establish the AI's financial position and conditions promptly to support effective contingency planning.

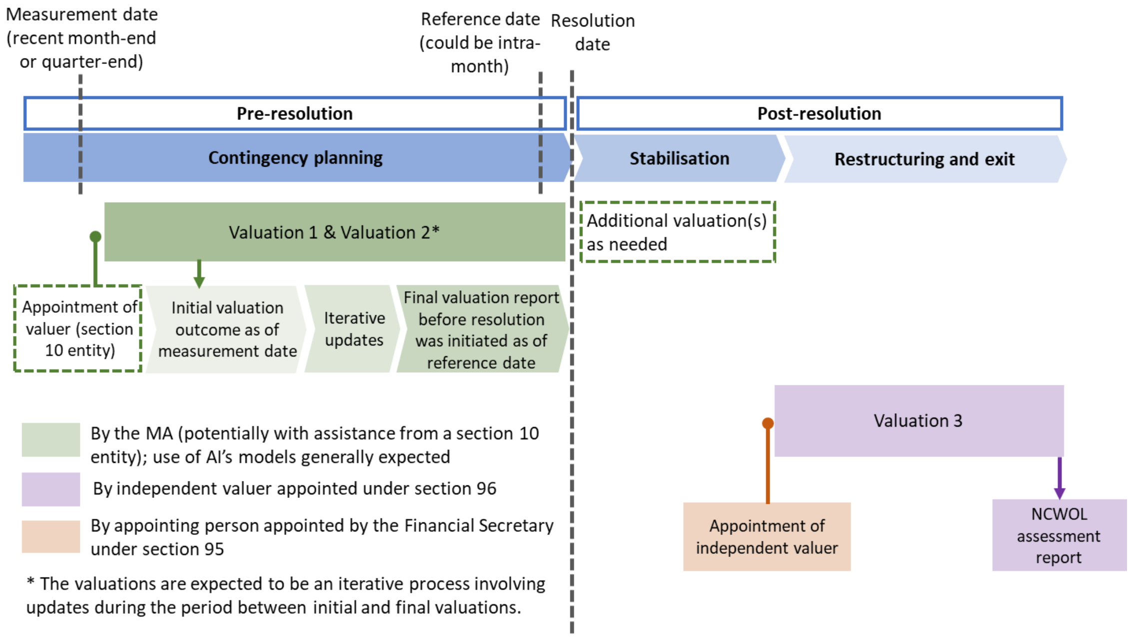
4.3 Iterative updates of the initial valuations are expected to reflect evolving conditions, incorporating the latest available information. These updates should account for material valuation movements due to liquidity outflows, loan balance changes, market price fluctuations, contractual maturities and new transactions of the AI since the last update. Additionally, updates may incorporate the impact of potential stabilization options and estimated restructuring measures identified by the MA. The updates ensure that the valuations capture the most current information to inform decision-making. Before making any decision to initiate resolution, the MA would take into account the valuations as of a reference date (i.e. the date as of which the valuations are most recently updated by the valuer), which are expected to be reflected by the valuer in its full report.

4.4 Post entry into resolution, additional valuations based on the outcome of Valuation 2 may be needed to support the resolution transaction as explained in paragraph 3.33.

4.5 To apply the NCWOL safeguard, a separate independent valuer will conduct Valuation 3. As noted in paragraph 2.12, the independent valuer will be appointed as soon as practicable after entry into resolution. In practice, it is likely to be after the resolved AI is stabilised.

4.6 The expected timeline is illustrated in Figure 2 below.

Figure 2: Expected timeline for VIR



Key steps

4.7 A highly iterative valuation process with substantial interaction between the valuer and the AI in question can enhance the robustness of the valuation outcome. The key steps are set out below. Given the urgent nature of a crisis and the sensitivities of contingency planning, some steps may be streamlined based on the circumstances.

<u>Pre-resolution</u>

(a) The MA may appoint a section 10 entity as a valuer for Valuation 1 and Valuation 2, and define the scope of the valuation work.

(b) The AI prepares relevant data, information and documentation, including establishing and populating a data room.

(c) The valuer submits an initial data and information request to the AI, typically covering the AI's assets, liabilities, and valuation capabilities (e.g. model design, user guides).

(d) The valuer reviews the documentation of the AI's governance and assurance procedures to assess the credibility of the AI's valuation capabilities.

(e) To inform the assessment of input assumptions and manual overlays, the valuer validates the AI's data and information, which may include identifying key sensitivities, cross-checking with market data and historical trends, and analysing behavioural patterns.

(f) The valuer holds discussions with the AI's management to help inform valuation assumptions and methodologies.

(g) The AI performs valuations of its assets, liabilities, and equity (if applicable) as directed by the valuer, using the AI's own models.

(h) The valuer conducts re-performance testing by independently replicating the valuations using the AI's own models to verify accuracy.

(i) If the AI's models are considered unsuitable or further validation is required, the valuer performs valuations using its own models.

(j) The process may require iterations, including gathering additional data and information, revising assumptions, re-running models, carrying out sensitivity analyses, and reflecting the impact of potential stabilization options and estimated restructuring measures that may be specified by the MA.

(k) The valuer aggregates and processes asset or portfolio level valuations to produce Valuation 1 and Valuation 2.

(l) To estimate NCWOL compensation risk, the valuer compares the treatment that pre-resolution creditors and pre-resolution shareholders are likely to receive as a result of resolution and the estimated treatment in a counterfactual winding up scenario.

(m) The valuer reports to the MA its initial valuations as of an agreed measurement date.

(n) The valuer iteratively updates the valuations based the latest available information as the situation evolves.

(o) As the AI approaches the point of non-viability, the valuer finalises the valuations as of a reference date in a report to the MA.

<u>Post-resolution</u>

(p) The MA, as soon as practicable after making for the first time a Part 5 instrument in respect of the AI, notifies the appointing person (appointed by the Financial Secretary under section 95) in writing of that fact.

(q) The appointing person appoints an independent valuer as soon as practicable after being notified by the MA.

(r) The independent valuer requests relevant information for Valuation 3 from the AI and the MA (e.g. Valuation 2 report).

(s) The independent valuer assesses the actual recoveries for each class of pre-resolution creditors and pre-resolution shareholders in resolution.

(t) The independent valuer models a counterfactual winding up scenario, assuming the AI had entered into insolvency instead of resolution immediately before resolution was initiated, and estimates the recovery amounts for each class of pre-resolution creditors and pre-resolution shareholders based on their priority of claims, taking into account the insolvency law and practice in Hong Kong and applicable jurisdictions.

(u) The independent valuer compares the treatments for each class of pre-resolution creditors and pre-resolution shareholders in resolution and in a counterfactual winding up to determine if any NCWOL compensation is due and prepare the NCWOL assessment report.

Key data and information

4.8 Robust valuations require timely provision of high-quality data to the valuer, which may include:

(a) up-to-date financial statements and regulatory reporting information prepared by the AI as close as possible to the valuation date;

(b) most recent audited financial statements;

(c) portfolio-level and position-level data;

(d) historical payment data and performance metrics relating to loan portfolios;

(e) information on cost base;

(f) relevant market data, including industry-wide assessments of asset quality and comparable valuations of peers; and

(g) supervisory assessments of the AI's financial condition.

Consolidation scope

4.9 VIR should be prepared on both a consolidated basis and a solo (or solo-consolidated) basis for an AI, as applicable. The consolidated VIR is expected to be made based on the accounting consolidation group as well as the capital consolidation group and, if different, the LAC consolidation group[21]. If an AI has a holding company in Hong Kong subject to capital and/or LAC requirements, consolidated VIR at this holding company level should also be made.

4.10 In addition, the MA may request a specific valuation analysis for an AI's subsidiary to assess the potential for and extent of losses that may be passed from the subsidiary to the AI.

Roles and responsibilities

4.11 The MA is responsible for taking resolution actions, as informed by the VIR and other considerations. In relation to Valuation 1 and Valuation 2, the MA may:

(a) appoint a valuer to assist in the valuations, define the scope of work and agree a measurement date for valuations to be made initially;

(b) specify to the valuer the potential stabilization options and estimated restructuring measures under consideration; and

(c) coordinate with the relevant home and host resolution authorities on engagement of valuers, where applicable.

4.12 The AI should support the preparation of the valuations by the valuer, leveraging its own VIR capabilities. The AI is expected to:

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[21] As defined in rule 2(1) of the LAC Rules, the LAC consolidation group of an AI is the same as its capital consolidation group, unless otherwise varied by the resolution authority under rule 7 of the LAC Rules.

(a) provide the required data, information and supporting documentation in the format and timeframe specified by the valuer;

(b) prepare business forecasts based on management judgements and assumptions agreed with the valuer;

(c) run valuation models based on the assumptions and level of granularity specified by the valuer; and

(d) provide explanations to the valuer and arrange interviews between its key management personnel and the valuer.

4.13 Any valuer appointed by the MA for Valuation 1 and Valuation 2 is expected to:

(a) assess the credibility of the AI's valuation capabilities and validate the AI's data and information;

(b) determine and specify to the AI valuation assumptions and methodologies to be used for running the valuations, incorporating the AI's management forecast as well as the impact of the potential stabilization options and estimated restructuring measures specified by the MA;

(c) oversee the valuation process by the AI and propose approaches or adjustments to address any issues identified;

(d) prepare sensitivity analyses based on varying valuation assumptions and overlays;

(e) produce and iteratively update Valuation 1 and Valuation 2 and other valuation analyses as required by the MA during contingency planning; and

(f) produce finalised report on Valuation 1 and Valuation 2, including estimated NCWOL compensation risk.

4.14 The independent valuer is responsible for making Valuation 3 and decide whether any pre-resolution creditor or pre-resolution shareholder is eligible for a payment of compensation.

5. Group-wide resolution considerations

5.1 For an AI within a cross-border group whose ultimate parent is incorporated outside Hong Kong, the preferred resolution strategy for the AI may aim to stabilise and recapitalise the AI as part a group-wide resolution. Under such strategy, losses at the AI are expected to be transferred to the parent company via a contractual write-down and/or conversion into equity of intra-group LAC debt instruments in accordance with their terms and conditions (i.e. contractual loss transfer).

5.2 In a group-wide resolution, the valuation needs of the MA as a host resolution authority would include, but not be limited to:

(a) an assessment of the AI's latest financial position (Valuation 1) to inform whether the AI has failed or is likely to fail, and the triggering of contractual loss transfer; and

(b) an evaluation of the economic values of the AI's assets and liabilities (Valuation 2) to assess the extent of losses and recapitalisation needs, and thereby the extent of write-down or conversion of intra-group LAC debt instruments and any required deployment of non-pre-positioned LAC resources.

5.3 It is expected that the home resolution authority would appoint a group valuer to conduct valuation on a group-wide basis. The MA expects to coordinate with the home resolution authority and leverage these valuations made by the group valuer where appropriate to achieve a shared understanding with the home resolution authority of the financial position and recapitalisation needs of the group and the AI. The MA may review and provide input on assumptions relevant to the AI and considerations specific to Hong Kong. If needed, the MA may appoint a valuer (i.e. a section 10 entity) separately, for example to conduct analysis not covered by the group valuer. This valuer may be a local agent of the group valuer. In any case, the MA expects ongoing coordination with the home resolution authority to ensure an orderly cross-border resolution.

5.4 If the recapitalisation of the AI cannot be achieved contractually, the MA may, if the conditions for doing so are met, initiate resolution under the FIRO to achieve the loss transfer via bail-in and/or transfer stabilization option(s), in a coordinated manner with the home resolution authority. Valuation 1 and Valuation 2 would be made by the MA (potentially with assistance from a section 10 entity) before any such decision to initiate resolution is made. The relevant valuation needs would encompass, in addition to those set out in paragraph 5.2:

(a) an estimation of the AI's equity value to inform the value of any new shares to be issued or existing shares to be transferred (as applicable); and

(b) an estimation of the NCWOL compensation risk, by comparing the estimated treatment of pre-resolution creditors and pre-resolution shareholders in resolution and in a counterfactual winding up scenario.