Jersey Financial Services Commission

Guidance Note:

Pillar 2 in Jersey

This paper comprises an overview of expectations in respect of the application of the internal capital adequacy and liquidity assessment process (**ICAAP**) and the related supervisory review and evaluation process (**SREP**). This is applicable only to a deposit taker incorporated in Jersey (**JIB**).

Revised May 2018 to reflect revisions of international standards on capital adequacy and new standards on liquidity (collectively known as **Basel III**).

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Glossary of Terms

All defined terms used in the consultation are indicated by *italics* and defined as follows:

Advanced Approaches	*Advanced Approaches*, which are established in *Pillar 1* of *Basel II*, permit the use of models to calculate minimum regulatory capital requirements. These models must be developed in accordance with specific criteria set out in *Basel II*, including validation requirements. In Jersey, approval must be obtained from the *JFSC* prior to use of any *Advanced Approach*. *Advanced Approaches* include: › Advanced Measurement Approaches for the calculation of the operational risk capital requirement; › Internal Ratings Based approaches for the calculation of the credit risk capital requirement, which can be further divided into Foundation and Advanced variants; and › Internal Models Approaches for the calculation of the market risk capital requirement.
Banking Code	"*Code of Practice for Deposit-taking Business*", established under the Banking Business (Jersey) Law 1991 by the *JFSC* and updated from time to time. Available at: › http://www.jerseyfsc.org/the-commission/general-information/codes-of-practice/
Basel II	The *Basel Committee's* internationally recognised capital adequacy framework for internationally active banks, published in its paper "*International Convergence of Capital Measurement and Capital Standards: A Revised Framework – Comprehensive Version*", the comprehensive version of which was issued in June 2006. Available at: › https://www.bis.org/publ/bcbs128.htm
Basel 2.5	"*Enhancements to the Basel II framework*", issued by the *Basel Committe*e in July 2009. Available at: › https://www.bis.org/publ/bcbs157.htm
Basel III	Revisions of international standards on capital adequacy and new international standards on liquidity.
Basel III capital standard	"*Basel III: A global regulatory framework for more resilient banks and banking systems*", issued December 2011 and re-issued (with revisions addressing *CVA)* by the *Basel Committee* in June 2011. Available at: › https://www.bis.org/publ/bcbs189.htm
Basel III leverage standard	"*Basel III leverage ratio framework and disclosure requirements*", issued by the *Basel Committee* in January 2014. Available at: › https://www.bis.org/publ/bcbs270.htm
Basel III LCR standard	"*Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools*", issued by *the Basel Committee* in January 2013. Available at: › http://www.bis.org/publ/bcbs238.htm

Basel III NSFR standard	"*Basel III: The Net Stable Funding Ratio*", issued by the *Basel Committee* in October 2014. Available at: › http://www.bis.org/bcbs/publ/d295.htm
Basel Committee	The Basel Committee on Banking Supervision, which is a multi-national body comprising representatives of central banks and banking regulators.
Basel Liquidity Principles	*Principles for Sound Liquidity Risk Management and Supervision*", issued by the *Basel Committee* in September 2008. Available at: › https://www.bis.org/publ/bcbs144.htm
Basel Stress Testing Principles	"*Principles for Sound Stress Testing Practices and Supervision*", issued by the *Basel Committee* in May 2009. Available at: › https://www.bis.org/publ/bcbs155.htm
Capital Buffer	Amount by which a *capital ratio* must exceed the relevant minimum in order to not trigger a requirement to notify the *JFSC*. The sum of the Capital Conservation Buffer and any Pillar 2 buffer set by us.
Capital Conservation Buffer	Standard C*apital Buffer* for all *JIBs*, set at 2.5%
capital ratios	The three ratios for which minima apply, as established in the *Banking Code*, being the *CET1 capital ratio*, the *Tier 1 capital ratio* and the *total capital ratio.* The minima set in the *Banking Code* are: › *CET1 capital ratio*: 4.5%; › *Tier 1 capital ratio*: 6%; and › *Total capital ratio*: 8%.
CET1 capital	Common Equity Tier 1 capital. Key component of *total capital* for which a minimum ratio is established in the *Banking Code*.
CET1 capital ratio	The ratio of *CET1 capital* to *total RWA*, expressed as a percentage.
CCR	Counterparty Credit Risk is the risk of loss if a counterparty to a transaction defaults.
CRM	Credit Risk Mitigation refers herein to the use of collateral, including guarantees, to reduce credit risk.
CVA	Credit Valuation Adjustment.
EWI	Early Warning Indicator. For this purpose, an indicator that the *JIB* or the group it belongs to is becoming stressed.
FSB	Financial Stability Board, an international organisation tasked by the G20 group of countries with developing standards concerning bank recovery and resolution.
HQLA	High Quality Liquid Asset.
ICAAP	The term *ICAAP* is used herein to refer to the document that records the considerations made and conclusions reached as a result of the banks

	internal capital and liquidity adequacy assessment processes and its recovery plans.
JFSC	Jersey Financial Services Commission.
JIB	Deposit taker registered and incorporated in Jersey.
KA	Key Attribute.
LCP	Liquidity Contingency Plan.
LCR	Liquidity Coverage Ratio.
LCR/LMR adjustment	Adjustments applying to inflows and outflows in the *LCR* or the *LMR*, as applicable.
Leverage ratio	The leverage ratio required to be calculated in the *Prudential Return*.
Liquidity Guidance Note	"*Basel III: Liquidity Management and Reporting for Jersey Incorporated Deposit Takers*", issued by the *JFSC* in May 2018. Available at: › http://www.jerseyfsc.org/banking-business/policy-statements-and-guidance-notes/
LMP	Liquidity Management Plan.
LMR	Liquidity Mismatch Ratio.
NSFR	Net Stable Funding Ratio.
PII	Professional Indemnity Insurance, which provides cover for claims brought against the policyholder due to their professional negligence.
Pillar 1	One of the three Pillars established in *Basel II*, this deals with the formulaic calculation of minimum regulatory capital requirements in respect of credit, market and operational risk.
Pillar 1 RWAs	The *Pillar 1 RWAs* is a risk adjusted measure of total exposures, which can be multiplied by the minimum capital ratios to determine the minimum regulatory capital requirement for a particular *JIB*. C*apital ratios are* typically calculated by dividing the relevant capital base by the *Pillar 1 RWAs*. Note, though, that this can be added to via the *Pillar 2* process.
Pillar 2	One of the three Pillars established in *Basel II*, this covers a requirement for each *JIB* to assess and record the full range of risks to which it is exposed, the mitigation it applies and any resultant capital requirement in addition to that generated under *Pillar 1*.
Pillar 2 buffer	Increase in the C*apital Buffer* set by us, over and above the *Capital Conservation Buffer*, to address risks, following the completion of an *ICAAP* review.
Prudential Return	Reporting submitted to the *JFSC* on a quarterly basis, addressing *Pillar 1* risks, *capital ratios* and interest rate risk in the banking book, as amended to reflect the implementation of *Basel III*.

Recovery plan	Contingency plans established to restore capital and liquidity adequacy or otherwise mitigate the impact of stresses on the *JIB* and its customers.
Reverse stress tests	Reverse stress tests start from a known stress test outcome that challenges the viability of the bank (such as breaching regulatory capital ratios, illiquidity, insolvency, some other form of bank failure etc.) and then ask what events could lead to such an outcome for the *JIB* and how the *JIB's* contingency plans would mitigate the impact.
Recovery Trigger	Trigger for consideration of action in a recovery plan.
RAR	Risk Asset Ratio. Prior to the introduction of *Basel III*, this was the only ratio for which a minimum was established by the *JFSC*. Analogous to the *total capital ratio*.
RWA	Risk Weighted Asset.
Risk weighting	Risk weightings are percentages, set within the *Standardised Approac*h in relation to different types of assets, that are used to calculate the *Pillar 1 RWA*s for credit risk.
SREP	The Supervisory Review and Evaluation Process is the assessment by a supervisor of a *JIB's* risks, risk mitigation and capital requirements, as reflected in its *ICAAP* documentation.
SRM	Supervisory Risk Model, used by the *JFSC* to evaluate the riskiness of a *JIB*.
Standardised Approaches	These approaches are established in Pillar 1 of Basel II as acceptable methods of calculating the Pillar 1 RWAs for credit, market and operational risk. Basel II allows regulators considerable discretion in implementing these approaches, especially in respect of the calculations for credit and operational risk. The JFSC has established the following variants as available in Jersey: › the Standardised Approach for credit risk; › the Standardised Approach and the Basic Indicator Approach for operational risk; and › the Standardised Approach for market risk.
Structural foreign exchange risk	The risk that exchange rates impact capital adequacy where any part of or all capital is held in a different currency to *RWAs*.
Tier 1 capital	Key component of *total capital* for which a minimum ratio is established in the *Banking Code*.
Tier 1 capital ratio	The ratio of *Tier 1 capital* to *total RWAs*, expressed as a percentage.
Total capital	The total of all eligible capital.
Total capital ratio	The ratio of *total capital* to *total RWAs,* expressed as a percentage.
Total RWAs	The total of all *Pillar 1 RWAs* plus any amount required as a result of *Pillar 2*.

Contents

1 Summary

1.1 Overview

1.1.1 This guidance note provides an overview of the expectations of the Jersey Financial Services Commission (**JFSC***)* in respect of a *JIB's ICAAP* and the *SREP* undertaken by the *JFSC*.

1.1.2 The *JFSC* does not impose capital or liquidity requirements on branches, as the home regulator has primary responsibility for the overall financial wellbeing of a legal entity and hence this guidance note is not relevant to such registered persons. The term *JIB* refers only to deposit takers that are incorporated in Jersey.

1.1.3 The guidance note has three main aims:

1.1.3.1 the provision of guidance on the *ICAAP*, including:

- best practice observed by the *JFSC*;
- the *JFSC's* views in respect of risks that are particularly relevant to *JIBs*;
- Basel Committee on Banking Supervision (**Basel Committee**) standards and guidance in respect of *Pillar 2*, particularly stress testing and liquidity; and
- Financial Stability Board (**FSB**) guidance in respect of recovery planning, particularly reverse stress testing and early warning indicators;

1.1.3.2 clarification of the *JFSC's* use of the *ICAAP* in its assessment of capital and liquidity requirements; and

1.1.3.3 clarification of the *JFSC's* expectations regarding submission of revised *ICAAP* documentation.

1.2 This revision

1.2.1 The 2024 revision implements the proposals set out in the 2024 CP "Basel III: Immediate Implementation", issued by us in April 2024.

1.2.2 The main changes are those that address the revision of minima for *capital ratios* and the introduction of a *Capital Conservation Buffer*, with the *Capital Buffer* now being the sum of the *Capital Conservation Buffer* and any *Pillar 2 buffer* set by us.

1.3 *FSB Standards*

1.3.1 The *FSB* has produced a number of papers that, in the context of wider *JIB* resolution considerations, establish principles for recovery planning, which the JFSC commends. These include:

1.3.1.1 "*Key Attributes of Effective Resolution Regimes for Financial Institutions*" , issued in 2011 and reissued in 2014, and in particular Key Attribute (**KA**) 11 "Recovery and Resolution planning" and the related Annex on "*Essential elements of recovery and resolution plans*" ; and

1.3.1.2 "*Recovery and Resolution Planning for Systemically Important Financial Institutions: Guidance on Recovery Triggers and Stress Scenarios*", issued July 2013.

1.3.2 These principles are considered to be generally relevant for *JIBs* when developing contingency plans and, where most relevant locally, are reflected in the guidance provided herein.

2 The *JFSC'S* approach to *Pillar 2*

2.1 General

2.1.1 The *Banking Code* and the related guidance on the *Prudential Return*, establish the *JFSC's Pillar 1* requirements. *JIBs* must use the **Standardised Approaches** unless they have been permitted to use **Advanced Approaches**.

2.1.2 The Standardised Approaches are:

2.1.2.1 the *Standardised Approach* for credit risk;

2.1.2.2 the *Standardised Approach* and the **Basic Indicator Approach** for operational risk; and

2.1.2.3 the *Standardised Approach* for market risk.

2.1.3 *Advanced Approaches* involve permission for the use of models to calculate minimum regulatory capital requirements. These models must be developed in accordance with specific criteria set out in *Basel II*, including validation requirements.

2.1.4 *Advanced Approaches* include:

2.1.4.1 Advanced Measurement Approaches for the calculation of the operational risk capital requirement;

2.1.4.2 Internal Ratings Based approaches for the calculation of the credit risk capital requirement, which can be further divided into Foundation and Advanced variants; and

2.1.4.3 Internal Models Approaches for the calculation of the market risk capital requirement.

2.1.5 The guidance on the *Prudential Return* establishes how to undertake the relevant calculations:

2.1.5.1 *Pillar 1* risk weighted assets (**Pillar 1 RWAs**) and **Total RWAs**, the latter being the sum of *Pillar 1 RWAs* plus any requirement imposed by the *JFSC* as a result of the *SREP*;

2.1.5.2 The total of all eligible capital after deductions (*total capital*) and the two key components for which minimum ratios have been established, being *CET1 capital* and *Tier 1 capital* and; and in turn

2.1.5.3 The three **capital ratios** for the *JIB*, (*the total capital ratio*, the *CET1 capital ratio* and the *Tier 1 capital ratio*), being the ratios of each to *Total RWAs*, expressed as a percentage.

2.1.6 The *Banking Code* establishes minima for each of the three **capital ratios** (*total capital ratio*: 8%, *Tier 1 capital ratio* 6% and *CET1 capital ratio* 4.5%).

2.1.7 In addition, banks are required to notify us in the event that any ratio falls below the *Capital Buffer* level set by us, which will be the sum of the *Capital Conservation Buffer* of 2.5% and any *Pillar 2 buffer* set by us, following an *ICAAP* review.

2.1.8 *Pillar 2*, as described in *Basel II*, establishes the "supervisory review process". *Basel II* states (paragraphs 721 and 722):

2.1.8.1 "*The supervisory review process recognises the responsibility of bank management in developing an internal capital assessment process and setting capital targets that are commensurate with the bank's risk profile and control environment. In the Framework, bank management*

continues to bear responsibility for ensuring that the bank has adequate capital to support its risks beyond the core minimum requirements.

2.1.8.2 *Supervisors are expected to evaluate how well banks are assessing their capital needs relative to their risks and to intervene, where appropriate. This interaction is intended to foster an active dialogue between banks and supervisors such that when deficiencies are identified, prompt and decisive action can be taken to reduce risk or restore capital. Accordingly, supervisors may wish to adopt an approach to focus more intensely on those banks with risk profiles or operational experience that warrant such attention*."

2.1.9 The *JFSC* has decided to adopt a similar approach to evaluating the adequacy of liquidity risk management, aligning both the assessments and the supervisory review process with the aim of ensuring that both risks are managed appropriately and consistently, including via recovery plans.

2.1.10 This will be achieved by each *JIB* submitting a document setting out its assessments of its capital and liquidity adequacy management processes– the *ICAAP* document. The *JIB* must notify the *JFSC* when a revised *ICAAP* has been approved by its Board.

2.1.11 the *JFSC* will decide, on a bank by bank basis, whether and when it wishes to review *ICAAPs*. This review might lead to:

2.1.11.1 establishing, as a condition of registration, minima for each of the three **capital ratios** for the *JIB* which, where set higher than the minimum, will usually exceed each minimum ratio by the same amount;

2.1.11.2 establishing a "**Capital Buffer**", being the sum of the *Capital Conservation Buffer* and any additional *Pillar 2 buffer* deemed necessary by us. Where this occurs, the *JFSC* must be notified of any actual or predicted decline in any of the *JIB's capital ratios* that would lead to the excess of any ratio over the relevant minimum being smaller than the *Captial Buffer*. Such notification should contain an explanation of the circumstances and actions intended to restore the *Capital Buffer*;

2.1.11.3 agreeing adjustments to be used in the *LCR*/*LMR*, both for internal monitoring undertaken in compliance with the *Banking Code* from 31 December 2018 and within the *Prudential Return* submitted to the *JFSC* for December 2018 and thereafter; and

2.1.11.4 requiring other steps to be taken. This might include changes to risk management processes, specific additional capital deductions, increases in capital requirements or the introduction of risk mitigation steps, such as improvements to stress testing or recovery plans.

2.1.12 In the case of *LCR/LMR* reporting, where an *ICAAP* review demonstrates to the Board that agreed *LCR/LMR adjustments* are insufficiently prudent:

2.1.12.1 the notification by the *JIB* to the *JFSC* of the Board's *ICAAP* approval should also document the changes considered necessary to *LCR/LMR adjustment*s to make them sufficiently prudent; and

2.1.12.2 the *JIB* must revise the *LCR/LMR adjustments* it uses for internal monitoring and for *Prudential Reporting* within 30 days of the sign-off of the *ICAAP*.

2.1.13 For the avoidance of doubt:

2.1.13.1 No individual *LCR/LMR adjustment* may be changed to be less conservative than agreed with the *JFSC*, even where the net impact of changes were to be more prudent; and

2.1.13.2 The requirements set out in 2.1.11 only apply to *LCR/LMR adjustments*; there is no similar requirement for the *JIB* to make changes regarding capital adequacy.

2.2 Capital adequacy assessment

2.2.1 The *ICAAP* document must record the processes that the *JIB* follows to assess its capital adequacy from the viewpoint of its board, which should approve the document.

2.2.2 The board of each *JIB* bears the primary responsibility for ensuring the adequacy of its capital to support all risks incurred. The *JFSC's* review of the *ICAAP* in no way detracts from, or replaces, this responsibility.

2.2.3 The *ICAAP* should include the *JIB's* assessment of its current risk profile plus expected and stressed outcomes over a reasonable period.

2.2.4 Paragraph 727 of *Basel II* states the five main features of a rigorous ICAAP to be as follows:

2.2.4.1 board and senior management oversight;

2.2.4.2 comprehensive assessment of risks;

2.2.4.3 monitoring and reporting;

2.2.4.4 internal control and mitigation review; and

2.2.4.5 sound capital assessment.

2.2.5 The guidance contained herein is intended to maintain flexibility in the methods to be used in assessing capital adequacy, as this is considered to be beneficial. The *JFSC* will provide additional guidance, where necessary, to individual *JIBs*.

2.3 LCR/LMR adequacy assessment

2.3.1 For 2018, the *Banking Code* requires, separate to the *ICAAP,* an assessment by the *JIB* of:

2.3.1.1 the appropriateness of *LCR/LMR adjustments* (based, in general terms, on existing behavioural adjustments and the relevant minima/maxima applicable); and

2.3.1.2 *HQLA* eligibility, based on group determinations.

2.3.2 At the same time, the *JIB* should, where desired, request use of the *LMR*, as an alternative to the *LCR*, enabling the *JFSC* to review all three matters concurrently and reach agreement in each respect.

2.3.3 From 1 Jan 2019, the Banking Code requires that ICAAP documents must explain how the JIB assesses the adequacy of the LCR/LMR, within its wider assessment of the adequacy of its liquidity risk management, as established in its Liquidity Management Policy **(LMP**).

2.3.4 The wider assessment should include the *JIB's* assessment of its current risk profile, addressing both longer term and shorter term time horizons (the latter to include intraday considerations), and consider how this would evolve over expected and

stressed outcomes over a reasonable period. In particular, this should include assessing how its HQLA holdings and LCR/LMR metrics will evolve over the period of the ICAAP.

2.3.5 Except in these respects, expectations regarding liquidity assessment in the ICAAP mirror those for capital adequacy assessment, set out in **Section 2.2** and the general expectations set out in **Section 2.4.**

2.4 The JFSC's expectations in respect of the ICAAP

2.4.1 A *JIB* is expected to review its *ICAAP* annually, or more frequently in the event that there is a material change in its risk profile.

2.4.2 Unless the risk-profile has materially altered, it is expected that this document will reflect an update of the previous year's submission, to reflect financial results for the intervening period and changes to budgets. Where a *JIB's* risk profile has changed to a material extent during the year, the *JFSC* will expect a thorough review to be evidenced in the *ICAAP* document.

2.4.3 *JIBs'* business and risk profiles differ and the *ICAAP* should be proportionate to the size, nature and complexity of a *JIB's* business. Hence, the *JFSC* does not wish to be prescriptive on the format in which an *ICAAP* should be submitted. The format shown in A**ppendix A** to this paper may be convenient for *JIBs* as it covers most of the matters typically reviewed by the *JFSC*. However, other formats may be acceptable.

2.4.4 Requests have been received by the *JFSC* for guidance on the assessment of risks. This is provided in **Section 3** re quantification and in **Section 4** re key risks for capital adequacy assessment and liquidity adequacy assessment. This guidance is not prescriptive and not all elements or risks will apply to every *JIB*.

2.4.5 The *JFSC* welcomes dialogue at any time with individual *JIBs* on all aspects of the *ICAAP*, particularly in the period before a submission is made.

2.4.6 The *JIB* must notify its supervisor when the *ICAAP* has been updated, explaining whether this was a routine update or conversely contains or addresses material changes.

2.4.7 The *JFSC* will establish a timescale for submission by the *JIB* of the revised *ICAAP* where warranted, on a risk-based basis, dependent on the scale of risks and the extent of changes. Where not required, no submission should be made.

2.5 The *JFSC's SREP* process

2.5.1 The *JFSC* will adopt a proportionate approach to its review. The scope, intensity and depth of it will reflect the nature, scale and complexity of individual *JIBs*, as well as the extent to which the *JIB's* risk profile has changed since the prior review.

2.5.2 The *JFSC* will assess the *ICAAP* document to establish whether capital and liquidity available will be sufficient in light of the risks faced by the *JIB*. The *JFSC* expects to be able to conclude its *SREP* within one month of receipt and will write to the *JIB*, setting out its initial response. This period may be extended if, as part of the review, meetings or further information are required to address any issues arising.

2.5.3 The *JFSC* will seek to address risks that it considers to be inadequately mitigated. This may reflect a requirement for improvements in such mitigation, rather than necessarily involving an increase in capital or holding additional liquidity. The *JFSC* will always seek the *JIB's* agreement and input to any such proposals.

2.5.4 Capital requirements will always involve establishing:

2.5.4.1 minima for all three *capital ratios*;

2.5.4.2 a *Capital Buffer*; and *LCR/LMR adjustments*.

2.5.5 The *capital ratio* minima (only) will be established as a registration condition.

2.5.6 The other requirements vary the specific application of the *Banking Codes* to the *JIB*.

2.5.7 The *JFSC* will provide reasons for its decisions. The *JIB* will normally be provided with an initial indication of the decision and allowed one month to respond to this.

2.5.8 The *JFSC* will fully address any response to the initial indication before issuing a Notice under Article 17A(1)(c) of the Banking Business (Jersey) Law 1991 in respect of the intended registration condition. The Notice issued at that time will allow for a further period of one month for appeal before the registration condition becomes effective.

2.5.9 The *JFSC* will not always increase the *capital ratio* minima even if *Pillar 2* risks are identified. This may be the case where, for example:

2.5.9.1 in the case of credit, operational and market risk, the *Pillar 2* risk capital requirement is that required under Pillar 1, after applying the minima set out in the Banking Code;

2.5.9.2 the amounts are not material;

2.5.9.3 other requirements are considered to be more appropriate, such as requiring deductions from capital; or

2.5.9.4 a *Pillar 2 buffer* is considered to be an adequate mitigant, taking into account the scale and nature of the risk and the *JFSC's* view of the *JIB's* overall riskiness, as reflected in its score in the Supervisory Risk Model (**SRM**) maintained for each *JIB* by the *JFSC* (see below).

2.5.10 The *JFSC* will, as part of its review, take account of any relevant information obtained from off-site reviews, on-site examinations, *Prudential Returns*, meetings, media coverage and other research. These all feed into the *SRM*. The score reflects a combination of the *JFSC's* assessment of the riskiness of the *JIB* and an impact assessment but, for the purpose of the *SREP*, the former is the sole determinant.

2.5.11 Dependent upon the *ICAAP*/*SREP* processes, *SRM* scores are likely to indicate capital *ratio minima* being established as follows:

2.5.11.1 "Low" rating – the minima in the Banking Code would apply;

2.5.11.2 "Medium" rating - the *JFSC* would possibly look to increase the minima by up to 1%; and

2.5.11.3 "High" rating - the *JFSC* would possibly look to increase the minima by 1% or more.

2.5.12 The *JFSC* will review the corporate governance framework around the *ICAAP* document and will pay particular attention to Board oversight and involvement, as well as responses to any issues raised by the *JFSC* during the review. It will also wish to consider the extent to which the capital assessment is used routinely within the *JIB* for decision making purposes.

3 Capital & *LCR*/*LMR* assessment

3.1 Capital requirement assessment

3.1.1 In evaluating capital requirements, *JIBs* should endeavour to apply a consistent approach. *JIBs* should articulate and conform to a single definition of how much capital is required in relation to risk levels. As a minimum, this must include ensuring enough capital is available to meet needs over a one year time horizon at the 99.9th percentile confidence interval. This is equivalent to saying that capital should be adequate to cover all losses 999 times out of every 1,000.

3.1.2 The *JFSC* appreciates that mathematical modelling may not be appropriate for all risk categories to determine such a 1 in 1,000 loss rate and considers that a realistic worst case loss may instead be appropriate.

3.1.3 If economic capital modelling techniques are used then *JIBs* are expected to use a default rate of 1 in 1,000.

3.1.4 Assessments are expected to be forward looking, assessing the impact over an extended period that is appropriate for the *JIB* but which is expected to be typically at least three years. This assessment should document both the impact of perceived risk levels on capital requirements and the impact of other expectations, including budgeted profits, capital raising plans and dividends.

3.1.5 The assessment of capital requirements should cover three factors:

3.1.5.1 baseline: a baseline forecast should be provided, showing how key drivers and the three capital ratios are expected to evolve over the three year period;

3.1.5.2 stress scenarios: where scenarios are used, the impact should be evaluated over a similar period to the baseline forecast; and

3.1.5.3 risk events: the impact of risk events should be determined after taking into account forecast changes in the *JIB's* risk profile.

3.1.6 Every capital assessment should result in a determination of the amount of capital required to meet the residual risk. This should be compared to the amount required under *Pillar 1* (see **Section 4.5**). For the avoidance of doubt, this should be determined for each risk and for the *JIB* as a whole.

3.1.7 Whilst it is recognised that *JIBs* do not always forecast financial performance three years ahead, it is still important that the *ICAAP* addresses how the *JIB* can maintain its capital at adequate levels relative to changing risk profiles. *JIBs* should therefore endeavour to develop a three year forecast baseline for the purpose of the *ICAAP*, noting any caveats that apply and addressing the uncertainty associated with them.

3.1.8 *JIBs* may consider diversification and correlation when combining risks. Any assumptions should be stated in the *ICAAP* document, with the *JFSC* expecting that, in most cases, the worst case total risk capital will fall between the gross total of all the individual risks and an amount that would be arrived at by assuming all risks are uncorrelated. However, *Pillar 1* requirements must be calculated on a gross basis.

3.1.9 *JIB's* should consider whether the *leverage ratio* is useful as a risk measure and, if so:

3.1.9.1 any related internal limits that should be established; and/or

3.1.9.2 any amendments considered necessary to the ratio specified in the *Prudential Return* for the purpose of internal monitoring.

3.1.10 *JIB*s should assess the potential for capital shortfalls arising and record likely methods for addressing these, such as the cancellation of dividends. Such plans should set out the triggers for action and contain comprehensive detail of the envisaged actions. This should include addressing the consequences of the action and any likely impediments, such as requirement for group / shareholder / *JFSC* approval.

3.1.11 Where contingency plans rely on capital being made available by Group, sufficient detail should be provided in the *ICAAP* to demonstrate that that the amounts relied upon actually would be made available in the circumstances contemplated. Where commitments are contingent on future actions, or barriers exist, the processes involved should be explained and timelines set out. Where significant barriers are identified, the *JIB* should consider alternatives, such as maintaining a higher *Capital Buffer*, or other measures that would reduce capital requirements.

3.1.12 The *ICAAP* should contain a summary that considers the baseline, relevant scenarios and risk events and which arrives at an estimation of the capital requirements, comprehensively calculated for each period, and compares this to both the forecast regulatory capital requirement and the forecast amount of available capital. Where shortfalls are identified, the capital planning part of the *ICAAP* should explain how and when capital would be raised.

3.1.13 Assessment of capital availability should include assessment of:

3.1.13.1 potential impact of delay on verification of profits;

3.1.13.2 potential for capital to become ineligible (such as in the event that funding were provided to a holding company, as capital funded by the *JIB* would be ineligible for inclusion in regulatory capital) or be reduced by deductions required, such as in respect of intangible assets; and

3.1.13.3 the maturity of issued capital.

3.2 Liquidity, including LCR/LMR, assessment

3.2.1 The *LCR/LMR,* as applicable, is intended to be a stressed assessment of a bank's ability to meet outflows out of a combination of *HQLA* held and offsetting inflows over a 30 day horizon if the following occurred at the same time:

3.2.1.1 the run-off of a proportion of retail deposits;

3.2.1.2 a partial loss of unsecured wholesale funding capacity;

3.2.1.3 a partial loss of secured, short-term financing with certain collateral and counterparties;

3.2.1.4 additional contractual outflows that would arise from a downgrade in the bank's public credit rating by up to and including three notches, including collateral posting requirements;

3.2.1.5 increases in market volatilities that impact the quality of collateral or potential future exposure of derivative positions and thus require larger collateral haircuts or additional collateral, or lead to other liquidity needs;

3.2.1.6 unscheduled draws on committed but unused credit and liquidity facilities that the bank has provided to its clients; and

3.2.1.7 the potential need for the bank to buy back debt or honour non-contractual obligations in the interest of mitigating reputational risk.

3.2.2 *JIBs* must comply with the *LCR* or, where approval has been received from the *JFSC*, the alternative *LMR*. These are described in detail within the guidance on the *Prudential Return.* The *Banking Code* establishes that a *JIB* must inform the *JFSC* if the relevant ratio drops below 100%. The *LMR* differs to the LCR to the extent that it permits one week placements with group banks for which a *Concession Limit* has been established under the *JFSC's* Large Exposure framework to be treated similarly to *HQLA*. Permission for use must be sought in advance of use and, where granted, should be assumed to continue to apply until withdrawn.

3.2.3 *JIBs* should be familiar with the *Basel Liquidity Principles* and consider stress testing in this light.

3.2.4 Each *JIB* must determine if the *LCR/LMR adjustments* set out in the *LCR/LMR* are appropriate to it through stress testing, and include documentation in the *ICAAP* that evidences this (see **Appendix I**)

3.2.5 *JIBs* must document their processes for assessing the eligibility of HQLA and the results of the relevant assessments (see **Appendix F**).

3.2.6 The *ICAAP* should also document any other measures considered to be necessary to address liquidity risks identified, including:

3.2.6.1 the use of other ratios (such as the *NSFR* or similar ratios);

3.2.6.2 in the case that the *NSFR* is considered, any changes considered to be necessary to the calculation for this purpose; and

3.2.6.3 the establishment of appropriate internal limits for these.

3.3 Stress testing

3.3.1 *JIBs* are expected to have in place appropriate stress testing processes. These should form an integral part of the governance and risk management culture of a *JIB* and should be reflected in its *ICAAP*. *JIBs* should be aware of relevant Basel Committee papers, including the *Basel Stress Testing Principles.*

3.3.2 *JIBs* that have approval from the *JFSC* for the use of *Advanced Approaches*[i] must, in addition to the above, document and consider stress testing that must be undertaken specifically in relation to such approaches, as set out within *Basel II* (and in the case of market risk, as set out in "*Revisions to the Basel II market risk framework*", issued by the *Basel Committee* in July 2009). This should reflect relevant stress testing carried out to meet group consolidated requirements.

3.3.3 A standard list of stress tests is shown in **Appendix B**. These are not obligatory but should be considered for inclusion where the related risk is material.

3.3.4 Stress test results should not be focussed solely on capital but should evaluate the impact of the stress on a wider range of measures, such as liquidity and profitability. In particular, *JIBs* are expected to conduct appropriate stress testing to enable an assessment of the continuing appropriateness of those adjustments, in addition to any testing relating to the *LCR*/*LMR*.

3.3.5 The stress testing programme should take account of views from across the organisation and should cover a range of perspectives. In particular, the aspects considered would be expected to include:

3.3.5.1 the identification of relevant stress events;

3.3.5.2 identification of the extent of the impact of each event;

3.3.5.3 appropriate modelling approaches; and

3.3.5.4 appropriate use of stress testing results.

3.3.6 *JIBs* should regularly maintain and update their stress testing frameworks, and this should be reflected in the *ICAAP*.

3.3.7 Commensurate with the principle of proportionality, stress tests should be geared toward the most material business areas and events that might be particularly damaging for the *JIB*. This could include not only events that inflict large losses but also those that cause damage to its reputation. As part of the overall stress testing programme, it is important to include some extreme scenarios which would cause the *JIB* to be insolvent (i.e. stress events which threaten the viability of the *JIB*). If a stress test is based on a probability of other than 1 in 1,000, the recorded level of risk may be scaled to reflect this.

3.3.8 Stress test scenarios should be sufficiently detailed to enable the *JIB* to demonstrate that it has fully considered all impacts. As an example, an *ICAAP* that includes an assessment of the impact of a severe recession on the *JIB's* customers should also explain the expected impact on its own parent and group (and the consequent impact on counterparty risk).

3.3.9 A single stress event may lead to multiple possible outcomes and stress testing should explore those that give the worst outcome for the *JIB*, including the impact of management action. For example, a credit rating downgrade of a parent might impact the local subsidiary's ability to attract deposit customers. This could be modelled as (1) a decrease in the margin received on new business or (2) a reduction in levels of new business. Whilst the latter may have an impact on capital generation, it might be the case that the former leads to a greater impact on capital adequacy as it leads to lower capital generation without any offsetting decrease in capital requirements, as more deposits are retained.

3.3.10 Stress scenarios should be sufficiently detailed with respect to outcomes over time. Immediate impacts clearly need to be assessed but consideration also needs to be given to how they might lessen over time.

3.3.11 Where mitigating action is considered to be an appropriate alternative to holding extra capital, the impact of this should be shown separately i.e. the *ICAAP* should identify the impact of an event (without any mitigating action) then the impact of the mitigating action. The description of the scenario should provide details of both the mitigating action and the triggers for this.

3.3.12 The *JFSC* expects a *JIB* to act in line with documented action plans in the event that forecast events materialise. The *ICAAP* should provide a clear indication of how management monitors risks to identify such events.

3.4 Stress tTesting – liquidity considerations

3.4.1 A *JIB* should document the stress tests or scenario analyses it performs and the results of these in order to identify and quantify its exposure to possible future liquidity stresses, analysing possible impacts on its cash flows, liquidity position, profitability and solvency.

3.4.2 *JIBs* should be aware of and familiar with relevant Basel Committee papers, including the *Basel Stress Testing Principles* and the *Basel Liquidity Principles.*

3.4.3 The results of stress tests should inform management of liquidity risk, as reflected in the *LMP,* and inform contingency planning, as reflected in the *LCP*, and help determine the strategy and tactics to deal with arising events causing liquidity stress.

3.4.4 The purpose of the *ICAAP* is to demonstrate that the *JIB's* management of liquidity, as established by its *LMP* and *LCP,* will ensure that liquidity remains adequate over both planned outcomes and stressed scenarios. This assessment should consider the effectiveness of all controls, including any internal metrics established.

3.4.5 Stress testing must include an assessment of risk over the one month period set for the *LCR/LMR.*

3.4.6 *JIBs* will be required to document all stress testing performed to support liquidity management (not only that conducted to validate the *LCR/LMR*). Each stress scenario should assess whether the current level of liquidity is adequate and be used as part of the processes used to determine the appropriate framework of controls.

3.4.7 Such stress testing should include stresses that cover longer and shorter periods than specified in the *LCR*, for each currency in which they operate, and for each jurisdiction in which *JIBs* have a branch. This will require the construction of a range of scenarios that are relevant to their specific business activities. The *JFSC* will not be prescriptive regarding the scope but can provide guidance on expectations and will review the scope when reviewing each *ICAAP*.

3.4.8 *JIB*s should document all stress testing in their *ICAAPs* and will be required to determine the appropriateness of minima for outflows in the *LCR*. Where a minimum is found by the Board of the *JIB* to be insufficiently conservative, a prudent level should be determined, consistent with stress test results.

3.5 Reverse stress testing and recovery planning

3.5.1 *JIBs* should include reverse stress tests that seek to determine what scenarios could challenge the viability of the *JIB* and thereby uncover hidden risks and interactions among risks. It is important to include scenarios which could cause the *JIB* to become insolvent.

3.5.2 Given the importance of such stress testing, it is suggested that this should be documented in a separate section within the *ICAAP*. A range of reverse stress test scenarios should be described and the efficacy of the *JIB*'s contingency plans should be examined. There should typically be two to four scenarios and include both systemic and idiosyncratic (*JIB* only or where only its group is impacted) stresses. Further guidance is provided in **Appendix C**.

3.5.3 The *ICAAP* should include a section on the *JIB's* recovery plans, including sufficient detail to enable demonstration of how they would help to restore capital adequacy and maintain liquidity, or otherwise mitigate the impact of stresses on the *JIB*. With respect to liquidity, this could be by reference to its *LCP*. Whatever format is used:

3.5.3.1 production should take into account guidance issued by the *JFSC* on the *LCP*; and

3.5.3.2 the recovery plan in the *ICAAP* could be used in place of a separate *LCP,* provided it addresses restoration of liquidity adequacy.

3.5.4 The recovery planning coverage in the *ICAAP* should:

3.5.4.1 describe in sufficient detail the range of credible potential actions identified by the *JIB*, which should include an assessment of the likely positive and adverse consequences;

3.5.4.2 identify triggers that would prompt consideration of management action (**Recovery Triggers)**. Further guidance is provided in **Appendix D**;

3.5.4.3 establish for each potential management action the factors relevant to carrying it out, including (1) identification of responsibilities for considering and implementing each action, (2) identifying and addressing any barriers to actions, including the need for external stakeholder approval and the likely timescale for such action to commence or have effect, (3) communication, including with the *JFSC* and other regulatory authorities (such as host supervisors) and (4) assessment of the credibility of each potential action. Further guidance is provided in **Appendix E**; and

3.5.4.4 establish responsibilities for recovery planning, starting with the Board.

3.5.5 Reverse stress tests should be used to demonstrate the efficacy of such plans and highlight residual risks.

3.5.6 *JIBs* are not expected to identify or hold additional capital or liquidity for such risks. However, where recovery planning indicates a potential need for capital under particular scenarios, plans should identify the mechanisms for the provision of capital. These should include identifying *Recovery Triggers* that would result in such actions, barriers, timescales and contractual arrangements required to facilitate this.

3.5.7 *JIBs* are expected to be aware of group recovery plans and may be informed by them but, ultimately, the responsibility for development rests with the board of the JIB.

3.6 Use of risk models

3.6.1 Where a *JIB* uses models, the *ICAAP* document should provide an overview of these, including the assumptions underlying them, and explain the key drivers. Models used should be appropriate for the local entity and *JIBs* are expected to sense check results.

3.6.2 The *JIB* should explain the steps it has taken to validate models used, which should include regular review.

3.6.3 Group models may be used, if applicable to local circumstances, but are subject to the above requirements.

4 Risk Guidance Notes

4.1 Overview

4.1.1 The full range of material risks faced by a *JIB* will vary from one bank to another, dependent upon such factors as the customer base, operational complexity, market activities and outsourced functions. It remains a *JIB's* responsibility to comprehensively identify, measure, control and adequately mitigate all risks of significance that it faces and to maintain sufficient capital to reflect that overall risk position.

4.1.2 In general, there are four categories of risks that should be considered in a *JIB's ICAAP*:

4.1.2.1 Risks covered by *Pillar 1* capital requirements;

4.1.2.2 Risks only partially covered by *Pillar 1* capital requirements, or, for liquidity, the *LCR*/*LMR*;

4.1.2.3 Risks not covered by *Pillar 1* capital requirements or, for liquidity, the *LCR*/*LMR*; and

4.1.2.4 External factors.

4.1.3 The first three of these are mainly concerned with current risks and unexpected events or losses. The last considers the outcome of forward capital planning for the first three elements, in which stress-testing may play a key role.

4.1.4 Components of the four categories include, but are not limited to:

Category one	Risks covered by *Pillar 1*	› Credit risk › Market risk › Operational risk
Category two	Risks only partially covered by *Pillar 1*	› Residual risk › Counterparty credit risk › Securitisation risk › Model risk › Underestimation of credit, market or operational risk in Pillar 1 › Parent risk › LCR
Category three	Risks not covered by *Pillar 1*	› Intraday liquidity risk › Long term liquidity risk › Strategic risk › Concentration risk › Reputation risk › Interest rate risk in the Banking book › Settlement risk › Underwriting risk › Pension risk › Transfer risk › Weaknesses in credit risk mitigation
Category four	External Factors	› Business risk (earnings and costs) › Economic environment › Regulatory environment

4.1.5 The above list of risks is not definitive – a *JIB* must identify its key risks for itself. The table is solely an aid to assist in this process but guidance is given below on certain of these risks, which should be considered where applicable.

4.1.6 Appendix 1 "*Risk Management Controls*" to the *Banking Code* provides further relevant guidance. Additionally, specific risk guidance is issued by the *JFSC* from time to time. *JIBs* are recommended to remain cognisant of all relevant "sound practices" papers issued by the *Basel Committee* on the management of risk.

4.1.7 Further guidance is provided on the following risks within this Section:

4.1.7.1 credit risk, market risk and operational risk **(Section 4.2**);

4.1.7.2 residual risk (**Section 4.3**);

4.1.7.3 counterparty credit risk (**Section 4.4**);

4.1.7.4 underestimation of credit, market or operational risk in Pillar 1 (**Section 4.5**);

4.1.7.5 operational risk (**Section 4.6**);

4.1.7.6 Use of Advanced Approaches (**Section 4.7**);

4.1.7.7 concentration risk (**Section 4.8**);

4.1.7.8 credit risk: ratings migration risk (**Section 4.9**);

4.1.7.9 credit risk: exposure to parent/group entities (**Section 4.10**);

4.1.7.10 market risk: structural foreign exchange risk (**Section 4.11**);

4.1.7.11 market risk: asset price risk (**Section 4.12**);

4.1.7.12 Short-term liquidity, including the *LCR/LMR* (**Section 4.13**)

4.1.7.13 intraday liquidity risk and long-term liquidity risk (**Sections 4.14** and **4.15** respectively);

4.1.7.14 interest rate risk in the Banking book (**Section 4.16**);

4.1.7.15 pension risk (**Section 4.17**);

4.1.7.16 strategic risk (**Section 4.18**);

4.1.7.17 reputational risk (**Section 4.19);**

4.1.7.18 parent risk (**Section 4.20**); and

4.1.7.19 regulatory risk (**Section 4.21**).

4.2 Credit risk, market risk and operational risk

4.2.1 *JIBs* should use *Pillar 1* methodology for initial capital calculations in respect of credit risk, market risk and operational risk. This should reflect the *JFSC's* guidance for the reporting of such risks within the *Prudential Return*.

4.3 Residual risk

4.3.1 Where *JIBs* use credit risk mitigation (**CRM**) techniques to reduce their credit risk, these techniques may themselves give rise to risks that then limit actual overall risk reduction. These additional risks include legal risk, documentation risk, counterparty risk and liquidity risk. *JIBs* should have in place appropriate written *CRM* policies and procedures in order to control these residual risks. *JIBs* may be required to submit these policies and procedures to the *JFSC* and should regularly review their appropriateness, effectiveness and implementation.

4.4 Counterparty credit risk (CCR)

4.4.1 *JIBs* should have a process in place for ensuring compliance with a documented set of policies, controls and procedures covering *CCR*.

4.4.2 Such policies, controls and procedures should be conceptually sound and implemented relative to the sophistication and complexity of a *JIB*'s *CCR* exposures. A sound *CCR* management framework should include the identification, measurement, management, approval and internal reporting of CCR.

4.4.3 *JIBs'* risk management policies must take account of the market, liquidity, legal and operational risks that can be associated with *CCR* and the inter-relationships among those risks. *JIBs* should not undertake business with a counterparty without assessing its creditworthiness and should take account of both settlement and pre-settlement credit risk. These risks should be managed as comprehensively as is practical at the counterparty level (aggregating a counterparty's exposures) and at the bank-wide level.

4.4.4 A *JIB's* board of directors should be involved in oversight of the *CCR* control process and should apply appropriate focus on this.

4.4.5 Reports prepared on a *JIB's* exposures to *CCR* should be reviewed by a level of management with sufficient seniority and authority to enforce, when necessary, reductions of positions taken by individual credit managers or traders and reductions in the *JIB's* overall *CCR* exposure.

4.4.6 The measurement of *CCR* should include both daily and intra-day monitoring of the usage of credit lines. The *JIB* should measure current exposures, both gross and net of collateral held. Account should be taken of large or concentrated positions, including concentrations by groups of related counterparties, by industry, by market and by customer investment strategies.

4.5 Underestimation of credit, market or operational risk in *Pillar 1*

4.5.1 For the avoidance of doubt, this occurs where the amount of capital required, as determined under *Pillar 2*, exceeds the amount required under *Pillar 1*. Offsets between credit risk, market risk and operational risk are not allowed; each of these three must be considered alone.

4.5.2 The additional capital required is the amount by which the *Pillar 2* calculation exceeds the *Pillar 1* capital charge. For example, if the internal assessment of credit risk indicated that £11 million of *total capital* was required and the *JIB* had *Pillar 1 RWAs* of £100 million, then the underestimation would be £1 million under *Pillar 2*, based on the minimum *total capital ratio* in Jersey of 10%.

4.5.3 An example of a circumstance where the *Pillar 1* process may not adequately estimate all risk is:

4.5.3.1 Some *JIBs* have adopted the practice of giving indicative credit facilities to clients on an uncommitted basis. Such clients are often significant corporate customers.

4.5.3.2 Commercially, a *JIB* may not wish to walk away from such arrangements and relationships; the credit risk of such uncommitted facilities therefore needs to be recognised.

4.5.3.3 It is therefore important to estimate the realistic potential exposure to the counterparty (not just the contractual exposure) and ensure that sufficient capital is available to cover that risk.

4.6 Operational risk

4.6.1 Operational risk is defined by the *Basel Committee* as "*the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk, but excludes strategic and reputational risk*."

4.6.2 Gross income, used in the *Basic Indicator* and *Standardised Approaches* for calculating operational risk, is only a proxy for the scale of operational risk exposure of a *JIB*. This can underestimate the need for capital to cover operational risks. Drawing on the *Basel Committee* document "*Principles for the Sound Management of Operational Risk*", issued in June 2011[ii], a *JIB* should consider whether the capital requirement generated by the *Pillar 1* calculation gives an adequate picture of its operational risk exposure, for example by comparison with the *JIB*'s experience of operational losses. The *JFSC*, in its review of this area, will make relevant peer comparisons.

4.6.3 The development of methodologies for the quantification of operational risk is at an early stage when compared to progress made in respect to credit and market risk. Locally, progress has been seen since the introduction of *Pillar 2* in 2008, focussing initially on the identification of key elements of operational risk and progressing in the assessment of these through the use of scenario and stress testing.

4.6.4 Simple, transparent methods that relate the results of individual scenarios to the capital required under *Pillar 1* are preferred in most circumstances to complex modelling.

4.6.5 *JIBs* that have identified specific operational risks, such as mis-selling, should consider whether these warrant additional capital or other risk mitigation. This is particularly relevant for *JIBs* registered to conduct other financial service business, which should consider the degree to which professional indemnity insurance (**PII**) cover mitigates risk arising from these activities.

4.6.6 *JIBs* that are registered to conduct business for which the *JFSC* has established *PII* requirements should detail the *PII* cover held in the *ICAAP* document. *JIBs* that have obtained an exemption in this respect should set out the alternative arrangements agreed, including details of any self-insurance, group cover or capital set aside. In such cases, the *ICAAP* should consider the efficacy of such arrangements.

4.6.7 The starting point for the capital requirement should be the level of *PII* cover required, with the proviso that this may be lowered where it can be demonstrated that the alternative provisions made would be effective, such as if group (formally) underwrites this risk.

4.6.8 With respect to legal risk, a *JIB* facing a lawsuit might not have provided for it in its accounts as it expects to win the case, but it may be appropriate to make allowance in its *ICAAP*, this being its estimated realistic worst case outcome.

4.7 Use of Advanced Approaches

4.7.1 As noted in **Section 3.3**, specific stress testing is required in connection with the use of *Advanced Approaches* (as set out in *Basel II)*.

4.7.2 The *JFSC* expects *ICAAP* documents to reflect all relevant stress testing regarding *Advanced Approaches* performed by the *JIB* in connection with the models used, including any testing developed for group or consolidated reporting.

4.8 Concentration risk

4.8.1 A risk concentration is any single exposure or group of related exposures with the potential to produce losses large enough to significantly impact upon a *JIB*'s financial health or ability to maintain its core operations.

4.8.2 Risk concentrations are arguably the single greatest cause of major problems incurred by banks. Credit risk concentration arises both in direct exposures to obligors and through exposure to protection providers. Such concentrations are not addressed in the *Pillar 1 RWAs* for credit risk.

4.8.3 The typical situations in which risk concentrations can arise include:

4.8.3.1 exposures to a single counterparty, borrower or group of connected counterparties or borrowers;

4.8.3.2 industry or economic sectors, including exposures to both regulated and non-regulated financial institutions such as hedge funds and private equity firms;

4.8.3.3 geographical regions (perhaps in combination with the above, an example of which might be the UK banking sector);

4.8.3.4 exposures arising from *CRM* techniques, including exposure to similar collateral types or to a single or closely related credit protection provider;

4.8.3.5 trading exposures/market risk;

4.8.3.6 exposures to counterparties (eg hedge funds and hedge counterparties) through the execution or processing of transactions;

4.8.3.7 funding sources;

4.8.3.8 assets that are held in the banking book or trading book, such as loans, derivatives and structured products that have common risk factors; and

4.8.3.9 off-balance sheet exposures, including guarantees and liquidity lines.

4.8.4 A *JIB's* framework for managing credit risk concentrations should be clearly documented and include definitions of the credit risk concentrations relevant to the *JIB* and how these concentrations and their corresponding limits are calculated. Limits should normally be defined either in absolute terms or in relation to a *JIB's* capital.

4.8.5 In accordance with the *Banking Code*, *JIBs* are recommended to adopt appropriate risk management standards established within the *Basel Committee* document "*Principles for the Management of Credit Risk*", issued in September 2000[iii].

4.8.6 *JIBs* should have in place effective internal policies, systems and controls to identify, measure, monitor, manage, control and mitigate its risk concentrations in a timely manner. Not only should normal market conditions be considered, but also the potential build-up of concentrations under stressed market conditions, economic downturns and periods of general market illiquidity.

4.8.7 In addition, *JIBs* should assess scenarios that consider possible concentrations arising from contractual and non-contractual contingent claims. The scenarios should also combine the potential build-up of pipeline exposures together with the loss of market liquidity and a significant decline in asset values.

4.8.8 *JIBs* should explicitly consider the extent of their credit risk concentrations and explain how their credit risk policies cover the most material forms of credit risk concentration to which a *JIB* may be exposed.

4.8.9 A *JIB* should conduct periodic stress tests of its major risk concentrations and review the results of those tests to identify and respond to potential changes in market conditions that could adversely impact the *JIB's* performance.

4.8.10 The *JFSC* will assess the extent to which a *JIB* considers its risk concentrations in its *ICAAP* and how they are mitigated. Such assessments will include reviews of the results of any stress tests carried out, either locally or at group level.

4.8.11 For most *JIBs*, the largest exposures might be to parent, or group-bank exposures (sister companies). The *ICAAP* should consider the concentration risk posed by these exposures. See also **Section 4.10** "*Parent risk*" for further guidance regarding the assessment of this risk.

4.8.12 Concession Limits, based on formal credit assessment of group counterparties, must be established for large exposures to group or sovereigns. These credit assessments should be summarised within the *ICAAP*. Concession Limits are approved subject to at least an annual review being undertaken and it is suggested that the review material be provided to the *JFSC* with the *ICAAP* so that both exercises can proceed based on analysis of the same risk data.

4.9 Credit risk: ratings migration risk

4.9.1 *Pillar 1 RWAs* are calculated by applying standardised percentages (**risk weightings)** that are either fixed or dependent on credit ratings. For the *Standardised Approaches*, these are the credit ratings assigned to counterparties by eligible external credit assessment institutions (currently Moody's, Standard & Poor's and Fitch), whereas for *Advanced Approaches*, internal credit ratings are generated by internal models.

4.9.2 *JIBs* should identify the key risks arising from this and the impact of a realistic worst case, which may include:

4.9.2.1 the downgrade of relevant sovereigns, including the country of incorporation of the *JIB's* counterparties; and

4.9.2.2 the downgrade of rated counterparties.

4.9.3 Whilst the impact on the weighting is the most direct and obvious impact, *JIBs* should also consider the impact on the price of bonds held and thence on the *JIB's* capital, either as a result of a potential sale or via fair value accounting.

4.10 Credit risk: exposure to parent / group entities

4.10.1 Exposures to parent / group entities are often the largest source of credit risk in a *JIB's Pillar 1*.

4.10.2 *Pillar 2* assessments of credit risk, including in respect of concentration risk and ratings migration risk, should separately identify this exposure from other credit exposures.

4.11 Market risk: structural foreign exchange risk

4.11.1 For many *JIBs*, capital adequacy is only materially impacted by exchange rates where some or all of the elements of *total capital* are denominated in a different currency to some or all *Total RWAs,* which is referred to as **structural foreign exchange risk**.

4.11.2 Foreign exchange risk assessments should include an assessment of *structural foreign exchange risk*, as well as trading foreign exchange risk.

4.11.3 The *Pillar 1* requirement includes positions arising from both trading activities and from holding capital in foreign currencies, including profits and losses booked in foreign currencies. The *ICAAP* should provide the *JIB's* assessment of the impact of adverse foreign exchange movements, including:

4.11.3.1 the direct impact on capital due to the revaluation of any foreign currency position; and

4.11.3.2 the impact on capital requirements of the revaluation of assets held in foreign currencies.

4.11.4 Assessments are expected to look at *structural foreign exchange risk* separately from any trading foreign exchange risk.

4.11.5 This applies where the capital is held in a foreign currency (i.e. not the accounting currency of the *JIB*) and/or assets (and hence *RWAs*) are held in a foreign currency.

4.11.6 In most cases, it is the assets that are denominated in foreign currencies. This gives rise to the risk that a currency movement triggers an increase in (usually) the sterling value of risk assets beyond planned levels. In many ways, this is similar to a situation where a *JIB* grows its balance sheet unexpectedly fast.

4.11.7 Where applicable, *JIBs* should have contingency plans in place to address such a situation, with perhaps an increased *Capital Buffer* in place to address the immediate impact. *ICAAPs* should explain how such situations would be managed. Often, an explanation is given as to what the *JIB* would do if lending growth caused risk assets to exceed targets but the situation where exchange rate moves caused this is overlooked.

4.11.8 The *JFSC* recognises that capital held in a foreign currency may act as a hedge against the revaluation of assets held in that currency and may allow the *Pillar 1* charge to be reduced in such circumstances. In considering this, the *JFSC* is cognisant of *Basel II*, where para 718(xxxviii) states:

4.11.8.1 "…any positions which a bank has deliberately taken in order to hedge partially or totally against the adverse effect of the exchange rate on its capital ratio may be excluded from the calculation of net open currency positions, subject to each of the following conditions being met:

- *such positions need to be of a "structural", i.e. of a non-dealing, nature (the precise definition to be set by national authorities according to national accounting standards and practices);*
- *the national authority needs to be satisfied that the "structural" position excluded does no more than protect the bank's capital adequacy ratio; and*
- *any exclusion of the position needs to be applied consistently, with the treatment of the hedge remaining the same for the life of the assets or other items*."

4.11.9 In light of the above, the *JFSC* is prepared to allow the exclusion of that part of any capital that acts as a hedge in the calculation of *Pillar 1 RWAs* in respect of market risk and in the *Prudential Return* (reporting of foreign exchange positions), providing that the *ICAAP* adequately documents the hedges and a copy of the relevant policy is provided.

4.12 Market risk: asset price risk

4.12.1 The *JFSC* expects *JIBs* to address the impact of market price volatility, including in circumstances where assets are held at amortised cost for the purpose of determining regulatory capital. This would be expected to include the current scale of unrealised losses and the impact on stress tests of any sales of these assets or required future impairment under those stress tests.

4.13 Short-term liquidity, including the LCR/LMR

4.13.1 The following are key to addressing liquidity risk management over the short-term, here referring to the one-month period for which the LCR/LMR requirements apply:

4.13.1.1 measurement and monitoring of net funding requirements;

4.13.1.2 measurement of actual behaviour of depositors and the assessment of the impact of such behaviour on net funding requirements;

4.13.1.3 assessment of how other risks (e.g. credit, market and operational risk) may impact liquidity;

4.13.1.4 regular review of underlying assumptions;

4.13.1.5 adequate contingency planning, to cover both temporary and longer-term disruptions;

4.13.1.6 specific application of the above to all material currency exposures; and

4.13.1.7 appropriate internal control processes.

4.13.2 The *Basel Liquidity Principles* paper provides relevant guidance regarding liquidity risk, including in particular, relevant guidance on the establishment and maintenance of adequate stress testing.

4.13.3 *JIBs* should also consider and comply with the *Liquidity Guidance Note*.

4.13.4 Many of the scenarios developed for *ICAAPs* in respect of capital requirements are likely to lead to an impact on liquidity risk. *JIBs* should therefore, when developing scenarios generally, seek to identify these in addition to capital, as well as considering liquidity risk specific scenarios.

4.13.5 The reverse is also true; liquidity stress testing and scenario analysis (primarily performed in order to identify and quantify the impact of future liquidity stresses) should assess the impact on the *JIB's* profitability and solvency.

4.13.6 This is particularly important when identifying necessary mitigating actions; these should aim to ensure that the *JIB* continues to meet *LCR/LMR* requirements as well as maintaining required minimum capital levels.

4.13.7 Reverse stress tests in respect of liquidity should be developed. These should include events that very significantly reduce available sources of liquidity (e.g. the failure of markets and of the parent to repay funds when due) as well as increased cash outflows. In considering such stresses, a *JIB* should seek to identify how timely mitigating actions could reduce the impact and what should trigger such action (diversification of liquidity inflows/assets being the most commonly identified mitigant).

4.13.8 In addressing the management of liquidity risk, the *ICAAP* is expected to be consistent with the *JIB's LMP* and *LCP*.

4.13.9 General guidance on stress-testing is provided in **Appendix I**.

4.13.10 Additional guidance on the two key areas is provided as follows:

4.13.10.1 **Appendix F** addresses *HQLA* eligibility; how the *JIB* should determine that *HQLAs* held meet the eligibility criteria set out in **Appendix G**; and

4.13.10.2 **Appendix H** addresses *LCR/LMR adjustments* assessment, including the documentation of its assessment of historical data (**Appendix J**).

4.13.11 A summary of the assessment processes and outcomes should be provided within the *ICAAP*. This may be by reference to the outcome of the latest assessment conducted by the *JIB* (or assessments, in the case that these matters are assessed separately) provided that:

4.13.11.1 the review (or reviews) is/are still current;

4.13.11.2 key outcomes are summarised in the *ICAAP*; and

4.13.11.3 a copy of the review (or reviews) is/are made available to the *JFSC* on request.

4.14 Intraday liquidity risk

4.14.1 Intraday liquidity management is both an important component of a *JIB's* broader liquidity management strategy and critical to implementing other longer-term aspects of that strategy. A *JIB's* failure to manage intraday liquidity effectively could leave it unable to meet its payment obligations at the time expected, thereby affecting its own liquidity position and that of other parties. In the face of credit concerns or general market stress, counterparties may view the failure to settle payments when expected as a sign of financial weakness and in turn withhold or delay payments to the bank, causing additional liquidity pressures.

4.14.2 The delay of less critical payments might cause other institutions to postpone their own payments, cause counterparty banks to face increased uncertainty about their overnight funding needs and potentially increase the impact of any operational outages.

4.14.3 Each *JIB* should adopt intraday liquidity management objectives that allow it to:

4.14.3.1 identify and prioritise time-specific and other critical obligations in order to meet them when expected; and

4.14.3.2 settle other less critical obligations as soon as possible.

4.14.4 In pursuing these objectives, however, a *JIB* should consider also how its liquidity risk profile changes as payments are sent and received and new contractual obligations are agreed throughout the day, including risks related to positions that are typically eliminated by the end of the day.

4.14.5 A *JIB* should assess at least six operational elements:

4.14.5.1 capacity to measure expected daily gross liquidity inflows and outflows, anticipate the intraday timing of these flows where possible, and forecast the range of potential net funding shortfalls that might arise at different points during the day;

4.14.5.2 capacity to monitor intraday liquidity positions against expected activities and available resources (balances, remaining intraday credit capacity, available collateral);

4.14.5.3 arrangements put in place to acquire sufficient intraday funding to meet its intraday objectives, such as via central banks, group treasury, correspondent or custodian banks. The last two of these might also be available from other market sources (e.g. by arranging for overnight

money market transactions to be delivered and returned at specific times);

4.14.5.4 the ability to manage and mobilise collateral as necessary to obtain intraday funds;

4.14.5.5 capability to manage the timing of its outflows in line with its intraday objectives; and

4.14.5.6 preparations to deal with unexpected disruptions to its intraday liquidity flows.

4.14.6 The *JIB* should outline how it has assessed these for all of the financial markets and currencies in which it has significant payment and settlement flows. The tools and resources applied should be tailored to its business model, as well as to how it conducts its activities for a particular market.

4.14.7 The *Basel Liquidity Principles* (in particular, Principle 8) provide relevant guidance on the above that *JIBs* should be aware of and take into account in their *ICAAPs*.

4.15 Long-term liquidity risk

4.15.1 The *ICAAP* should also address the following regarding management of liquidity risk over longer term periods:

4.15.1.1 measurement and monitoring, which should include either use of *NSFR* reporting required as part of the *Prudential Return* or alternative metrics considered by the *JIB* to be more appropriate;

4.15.1.2 measurement of actual behaviour of depositors and the assessment of the impact of such behaviour on net funding requirements;

4.15.1.3 assessment of how other risks (e.g. credit, market and operational risk) may impact liquidity;

4.15.1.4 regular review of underlying assumptions;

4.15.1.5 adequate contingency planning;

4.15.1.6 specific application of the above to all material currency exposures; and

4.15.1.7 appropriate internal control processes.

4.15.2 The *Basel Liquidity Principles* paper provides relevant guidance regarding liquidity risk including, in particular, relevant guidance on the establishment and maintenance of adequate stress testing.

4.15.3 *JIBs* should also consider and evidence compliance with the *Liquidity Guidance Note*.

4.15.4 Assessment should reflect the baseline forecast and relevant stress scenarios, how *HQLA* levels might evolve and how *LCR/LMR* requirements would be likely to change under these scenarios.

4.15.5 Reverse stress tests in respect of longer-term liquidity should be developed. These should include events that very significantly reduce available sources of liquidity (e.g. the failure of markets and of the parent to repay funds when due) as well as increased cash outflows. In considering such stresses, a *JIB* should seek to identify how timely mitigating actions could reduce the impact and what should trigger such action (diversification of liquidity inflows/assets being the most commonly identified mitigant).

4.15.6 In addressing the management of liquidity risk, the *ICAAP* is expected to be consistent with its *LMP* and *LCP*.

4.16 Interest rate risk in the Banking book

4.16.1 Where the risk reported, as part of the *Prudential Return*, exceeds 5% of capital, this category should be specifically addressed within the *ICAAP* document. Where that risk approaches 20% of capital, enhanced mitigation is likely to be required.

4.16.2 It is recognised that the standardised 2% interest rate shock measure that forms part of the Market Risk reporting in the *Prudential Return* may overstate risk and that losses will typically impact earnings rather than capital.

4.16.3 It is expected that assessment of interest rate risk in the *ICAAP* will be based on long term scenarios, looking at both worst case increases and decreases in interest rates and take into account the impact of margin compression in low interest rate scenarios. Specific guidance on scenarios is contained within **Appendix B**.

4.17 Pension risk

4.17.1 Pension risk is the risk of pension funding arrangements not being adequate to meet pension payment obligations. *JIBs* with locally funded defined benefit pension schemes will need to take account of their risks in this area, including both current and potential shortfalls, and the impact that these might have on their capital. Some *JIBs* still operate such schemes, although these are now mainly closed to new members.

4.17.2 Post the implementation of *Basel III* for *Prudential Returns*, applicable from 31 December 2018, the *Pillar 1* requirements are amended as follows:

4.17.2.1 The treatment of surpluses is essentially unchanged: any pension scheme surplus is deducted when computing capital; but

4.17.2.2 the previous provisions that allowed deficits to be only partly recognised have been removed, with the result that these now fully impact capital.

4.17.3 Assessment should address the key components of risk, including both the potential for the value of assets to decline or not grow in line with expectations and the risk of adverse changes in assumptions driving an increase in scheme liabilities, such as changes to rate of returns expectation, inflation expectations or how long retirees will draw benefits.

4.18 Strategic risk

4.18.1 Strategic risk is the current or prospective risk to earnings and capital arising from changes in the business environment and from adverse business decisions, incorrect implementation of decisions or lack of responsiveness to changes in the business environment. As such, it is a forward looking measure and, as a minimum, the *JIB* should consider whether its current strategy could lead to increased capital requirements within the period considered and how these will be addressed.

4.19 Reputational risk

4.19.1 Reputational risk (to financial institutions and to the jurisdictions from where they operate) is clearly a significant risk to be captured under *Pillar 2* and is considered to be one of the most significant risks in Jersey.

4.19.2 The *JFSC* expects *JIBs* to have assessed the reputational risk reflected by its higher risk customer accounts and relationships and, where appropriate, to have used a proxy (which might be the number or proportion of high risk accounts or relationships a *JIB* has on its books) to generate a capital charge for reputational risk and/or provide evidence of measures in place to mitigate that reputational risk.

4.19.3 An example of such measures could be robust and clear customer acceptance procedures and implemented processes, with no "blind spots" (such as inappropriately pooled accounts).

4.19.4 In considering reputational risk, a *JIB* should have regard for the impact of reputational damage on other group entities and Jersey, in addition to itself.

4.19.5 Individual products and services should also be considered and assessed. The *JFSC* is of the view that tax based lending structures which lack any underlying commercial validity are of particular concern and warrant very full consideration.

4.20 Parent risk

4.20.1 Many of the foregoing risks are connected with exposures to and supported by parent. For most *JIBs*, the importance of the parent's financial strength is such that it should be addressed separately in the *ICAAP*, including the ability of the parent to provide support, both in terms of capital and liquidity. For many *JIBs*, the risk arising from the direct counterparty exposure to the parent or group companies comes through up-streaming.

4.20.2 The *ICAAP* should assess each significant risk and the potential actions that could mitigate these. It should identify risk levels that the *JIB* is comfortable with and, as a natural corollary of this, also identify the mitigating actions that it would take if risk levels increased beyond those.

4.20.3 As an example, one scenario might involve risk weighted assets relating to up-streaming increasing when the credit rating of the counterparty fell. Mitigating actions could include shortening the tenor of deposits placed with parent (where this would lead to a lower *risk weighting*), increasing capital or seeking to reduce up-streaming levels. Stress testing should identify both the immediate and longer term impacts, without any mitigating action, and the impact of mitigating action. The description should cover the events that could trigger the need for mitigating actions, including objective criteria, such as deterioration in relevant credit ratings.

4.20.4 Given the criticality of this risk, an appropriately wide range of events and severity should be considered when designing related stress tests, including parental downgrades and reverse stress testing. *JIBs* may not survive a sudden parent failure but contingency plans should identify relevant warning signs, providing time for the *JIB* and authorities to undertake appropriate mitigating action to ameliorate the impact of foreseeable events.

4.20.5 In assessing risks, *JIBs* should consider relevant legislation regarding *JIB* resolution (including any that it is anticipated might come into force within the period covered by the *ICAAP*). In particular, *JIBs* must consider whether the following might apply to parental exposures:

4.20.5.1 subordination to, where relevant, retail depositors (directly or via depositor protection scheme preference), non-group short-term wholesale creditors and domestic creditors; and

4.20.5.2 "bail-in" powers that might allow the exposures to be written down or converted to equity.

4.20.6 The *ICAAP* should take into account recovery plans of the *JIB* and its group to the extent that these might impact the *JIB*.

4.20.7 It should also consider factors relevant to resolution plans for the group as a whole and individual group counterparties, to the extent that they are known, which should include considering the potential for write-down or conversion of any relevant exposures and the circumstances where this might occur.[iv]

4.21 Regulatory risk

4.21.1 Regulatory risk encompasses both compliance with existing regulations and the risk posed by changes in the regulatory environment.

4.21.2 Consideration of the latter should focus on those changes that would have a material impact on the business, whether directly or indirectly. The *ICAAP* should identify possible impacts and how these could be mitigated. Areas of change could include proposals by the *JFSC*, group regulators, the States of Jersey, overseas governments, the *Basel Committee*, the *FSB* and other international standard setters.

4.21.3 The *ICAAP* should contain a brief overview of the *JIB*'s Business Risk Assessment (a regulatory AML/CFT requirement), highlighting any changes in this since the last *ICAAP*. This provides a context for consideration of reputational and operational risks.

APPENDIX A *ICAAP* – A format that may be used

A.1 Introduction

A.1.1 A.1 to A.10 set out an outline of a suggested format showing the general areas and headings an *ICAAP* could take

A.2 Executive summary

A.2.1 The purpose of the Executive Summary is to present an overview of the *ICAAP* methodology and results. This overview would typically include:

A.2.1.1 the purpose of the ICAAP;

A.2.1.2 the main findings of the *ICAAP* such as :-

A.2.1.3 how much and what composition of capital the *JIB* considers it should hold in addition to the Pillar 1 minimum capital requirement;

- a summary of the *LCR/LMR adjustment* factors considered appropriate for the most significant categories; and
- a description of the *JIB's* overall capital and liquidity risk management processes, including comments on their adequacy;

A.2.1.4 key financial commentary, including a summary of the *JIB*'s balance sheet strength, strategy and likely future profitability;

A.2.1.5 brief descriptions of the capital and dividend plan;

A.2.1.6 commentary on the *JIB*'s most material risks, why the level of risk is considered acceptable or, if it is not, what mitigating actions are planned; and

A.2.1.7 who has carried out the assessment, how it has been challenged, and who has approved it.

A.3 Background

A.3.1 This section would cover relevant organisational and historic financial data on the *JIB* such as group structure, key data and trends. It would include any conclusions that can be drawn from trends which may have a material impact. It would also give a description of any expected changes to the *JIB's* business strategy.

A.4 Capital adequacy

A.4.1 This section would include a detailed review of the capital adequacy of the *JIB*. It might start with a description of its risk appetite, which would set the context for the *ICAAP*. Where economic capital models are used, details of the assumptions behind those models should be included. Where scenario analyses are applied, some description of how the severity of scenario has been chosen should be included.

A.4.2 The *ICAAP* should include:

A.4.2.1 the date of the ICAAP calculations, together with consideration of any events between this date and the date of submission which would materially impact them, together with their effects;

A.4.2.2 details of, and rationale for, the time period over which assessments have been made;

A.4.2.3 identification of the key risks faced;

A.4.2.4 for each risk, an explanation of how the risk has been assessed and any quantitative results of that assessment;

A.4.2.5 an explanation of how the risks have been mitigated;

A.4.2.6 a clear articulation of the *JIB's* risk appetite by risk type;

A.4.2.7 details of any restrictions on the ability to transfer capital into or out of the *JIB*;

A.4.2.8 an analysis of significant movements in available capital and capital required since the latest *ICAAP;* and

A.4.2.9 a comparison of the capital required under *Pillar 1* calculations, as compared with the overall capital requirement identified by the *ICAAP*.

A.5 Liquidity adequacy

A.5.1 This section would include a detailed review of the liquidity adequacy of the *JIB*. It might start with a description of its risk appetite, which would set the context for the *ICAAP*. For the *LCR/LMR* related stress testing and other scenario analysis or other assessment (regarding *HQLA* eligibility and *LCR/LMR adjustments*), a description should be provided of the processes and results (including how the severity of scenarios has been chosen).

A.5.2 The ICAAP should include:

A.5.2.1 the date of the *ICAAP* calculations, together with consideration of any events between this date and the date of submission which would materially impact them, together with their effects;

A.5.2.2 details of, and rationale for, the time period over which assessments have been made;

A.5.2.3 identification of the key liquidity risks faced, including with respect to short-term and long-terms, with the former including an assessment of intra-day liquidity risk;

A.5.2.4 for each risk, an explanation of how the risk has been assessed and any quantitative results of that assessment, including through the use of *LCR/LMR* and *NSFR* based metrics;

A.5.2.5 an explanation of how such risks have been mitigated;

A.5.2.6 details of any restrictions on the ability of the group to provide liquidity support to the *JIB* in a crisis;

A.5.2.7 an analysis of significant movements in available *HQLA* and *LCR/LMR* requirements since the latest *ICAAP* submission; and

A.5.2.8 a comparison of the *HQLA* required under the *LCR* (i.e. using the assumptions agreed), as compared with those resulting from application of the conclusions of the *ICAAP*.

A.6 Key sensitivities and risk scenarios

A.6.1 This section would detail the sensitivity tests applied to key assumptions and factors that have a significant impact on the broader financial condition of the company. Material changes (past, present and future) in the financial risks to which the

business is exposed would be explored and quantified as far as possible in this section.

A.6.2 This should include both capital and liquidity stress scenarios.

A.6.3 *JIBs* that have had Advanced Approaches approved should note that the above is in addition to any stress testing that might be undertaken for testing or supplementing risk modelling assumptions.

A.7 Reverse stress testing and recovery planning

A.7.1 A range of reverse stress test scenarios should then be described; for each, the efficacy of the contingency plans should be examined. These should typically be two to four scenarios and include both systemic and idiosyncratic (*JIB* or *JIB* group only) stresses.

A.7.2 This section would also detail the contingency plans established to restore capital adequacy and maintain liquidity or otherwise mitigate the impact of severe stresses on the *JIB*. These should:

A.7.2.1 describe in sufficient detail the range of potential actions identified by the *JIB*, which should include an assessment of the likely positive and adverse consequences;

A.7.2.2 identify *Recovery Triggers* that would prompt consideration of management action, including the activation of recovery plans and/or *LCPs*; and

A.7.2.3 establish for each potential management action the factors relevant to carrying it out, including (1) identification of responsibilities for considering and implementing each action, (2) identifying and addressing any barriers to actions, including the need for external stakeholder approval and the likely timescale for such action to commence or have effect, (3) communication, including with the *JFSC* and other regulatory authorities, and (4) assessment of the credibility of each potential action.

A.7.3 The efficacy of the plans should be explored for each reverse stress test, including the identification of residual risks.

A.8 Aggregation

A.8.1 This section would describe how the results of the *JIB's* various separate risk assessments are brought together and an overall view taken on capital and liquidity adequacy. This requires a methodology to be used to quantify the amount of capital required to support individual risks in order to arrive at a total figure for capital required.

A.8.2 In the case of liquidity, it must address *LCR*/*LMR* requirements but also requirements for liquidity in respect of both intra-day and longer term periods.

A.9 The challenge process and sign-off of the *ICAAP*

A.9.1 This section would describe the extent of challenge and testing of the *ICAAP* that has taken place. It would include the testing and control processes applied to the ICAAP calculations, the board review and sign-off procedures.

A.9.2 Details of the reliance placed on group *ICAAPs*, analogous liquidity documentation or any external suppliers/consultants would also be detailed here e.g. for generating economic scenarios.

A.10 Use of the *ICAAP* within the *JIB*

A.10.1 This would demonstrate the extent to which capital management is embedded and applied within the *JIB*, including the extent and use of capital modelling or scenario analysis and stress testing within the *JIB's* capital management policy and *LMP*, e.g. in setting pricing. This would also include a statement of how the submitted *ICAAP* would be reflected in the *JIB's* capital management policy and through revision of its *LMP*.

APPENDIX B Suggested Stress Test

B.1 Summary

B.1.1 This appendix outlines suggested stress tests, which *JIBs* should consider where there are material risks.

B.1.2 These include single factor stress tests and outline guidance on the construction of stress scenarios in relation to a fixed exchange rate regime crisis (such as the Eurozone).

B.2 Single factor stress tests

Credit risk

B.2.1 For credit risk, the *JIB* should consider the impact of the default of:

B.2.1.1 the three largest counterparties that are covered by cash collateral or a parental guarantee;

B.2.1.2 the three largest counterparties where no such collateral exists;

B.2.1.3 10% of all mortgage debtors by value;

B.2.1.4 10% of all loan debtors by value; and

B.2.1.5 the parent, leading to a 20% loss on any direct loans and an increase in the related *risk weighting* of parent exposures to 150%, including the impact on indirect exposures, such as loans guaranteed by the parent,

or the downgrade of:

B.2.1.6 its parent or its parent's jurisdiction;

B.2.1.7 all ratings for all exposures where the *risk weighting* is determined by a credit rating,

that led to the following impact on *risk weightings*:

Prior risk weighting	Stressed risk weighting
0%	20%
20%	50%
50%	100%
100%	150%

Operational risk

B.2.2 For operational risk, the *JIB* should consider the impact of a:

B.2.3 worst case loss as a result of fraud;

B.2.4 worst case loss as a result of mis-selling; and

B.2.5 worst case loss as a result of pending litigation.

Market risk

B.2.6 For market risk, the *JIB* should consider the impact of:

B.2.6.1 a widening of spreads on all bonds held by 2%;

B.2.6.2 an increase in all foreign exchange rates of 10% across all currencies where this would cause a loss and a decrease of 10% where this would cause a loss;

B.2.6.3 an increase in all interest rates of 2% across all currencies where this would cause a loss and a decrease of 2% where this would cause a loss; and

B.2.6.4 the reduction in value of all listed equities held by 35%,

and, in any cases where interest rates are low, such that a 2% cut would imply zero or negative rates, *JIBs* should consider the consequences of both of the following outcomes:

B.2.6.5 interest rates becoming negative, as indicated by a 2% fall; and

B.2.6.6 the impact of a long period of low rates. In this scenario, interest rates should be assumed to reduce to zero and remain at zero for all time periods where the *JIB's* baseline prediction is for the interest rate to be 2% or less and thereafter remain 2% lower than the baseline.

B.3 Fixed exchange rate regime crisis (such as the Eurozone)

Introduction

B.3.1 The guidelines outlined here were developed originally to be applied to scenarios addressing the disorderly exit of a country, or countries, from the Eurozone. Not all elements will be appropriate for all *JIBs* or indeed at all times, but many of the concepts are likely to remain relevant, for example in respect of an exit of a country from a fixed exchange rate regime or the breakdown of such a regime. *JIBs* should consider both whether they are materially exposed to such events and the elements that apply in their specific circumstances when developing stress tests, including reverse stress tests.

Timing

B.3.2 Where relevant, *JIBs* should consider an announcement of an immediate exit, whereby the exit is effected within one or two weeks, rather than assuming that an exit will only occur following an extended implementation period.

B.3.3 *JIBs* should consider the impact of, and explain contingency plans for, a range of scenarios, including a full break-up and single country exits.

B.3.4 Alternative events (to an exit), such as the reset of fixed exchange rates, may be more relevant to fixed exchange rate systems, where (unlike the Eurozone) a single currency has not been established.

Capital controls

B.3.5 *JIBs* should take into consideration counterparties in the affected countries potentially being prohibited from making payments to some extent, due to the imposition of capital controls and deposit controls.

Redenomination

B.3.6 *JIBs* should consider the potential impact of relevant countries passing legislation:

B.3.6.1 to redenominate all sovereign debt they have issued; or

B.3.6.2 that requires all contracts that are subject to local law to be amended to convert amounts payable into the new local currency (at fixed exchange rates).

B.3.7 *JIBs* should describe their contingency plans for carrying out redenomination into new local currencies, which should cover:

B.3.7.1 how this would be effected on systems;

B.3.7.2 how processes would need to be changed to handle the additional currencies, including the impact on transaction processes; and

B.3.7.3 how customers and counterparties would be informed and any consents sought to changes in contracts.

B.3.8 Contingency plans should describe how resultant currency positions would be managed, including the circumstance of relevant foreign exchange markets freezing or being subject to extreme movements.

B.3.9 *JIBs* should consider the impact of potential litigation, for example in circumstances where it is unclear how relevant contracts should be amended or whether payments should be stopped.

B.3.10 Where relevant, *JIBs* should assess their current systems and identify any issues that need to be addressed immediately to enable necessary plans to be implemented, including ensuring that systems are capable of handling requisite new currencies.

Insolvency and illiquidity

B.3.11 *JIBs* should consider the likely reaction of different sets of depositors. It should be anticipated that, both before and after legislation is passed, some depositors will seek to:

B.3.11.1 move deposits to take advantage of the creation of strong new local currencies and /or avoid conversion to weak new local currencies; or

B.3.11.2 convert them to other currencies to avoid forced conversions.

B.3.12 *JIBs* also need to consider the likely immediate effect on different sets of counterparties, including their ability to make timely payments. Specifically, in the case of weaker countries exiting, *JIBs* should consider whether this would be likely to be accompanied by a default of both the sovereign and banks in that country that have significant overseas liabilities.

Political and Economic Consequences

B.3.13 *JIBs* should consider the likely longer term impact of the economic consequences of such scenarios, which requires inclusion of political consequences.

Timing of actions: early warning indicators and Recovery Triggers

B.3.14 Recovery plans should identify the relevant early warning indicators (for identification of an impending crisis) and *Recovery Triggers* (for actions).

APPENDIX C Suggested Reverse Stress Test

C.1 General guidance

C.1.1 *JIBs* should use an appropriate number of market-wide (systemic) stress scenarios and group/*JIB*-specific (idiosyncratic) stress scenarios to assess the robustness of their recovery plans and to assess which recovery options would be effective in a range of stress situations.

C.1.2 These scenarios should address capital shortfalls and liquidity pressures and be severe enough to be useful in establishing and calibrating *Recovery Triggers*, estimating impacts of adverse situations and contemplating responses to remediate both slow-moving and fast-moving adverse situations.

C.1.3 *JIBs* should identify, assess and regularly update the scenarios most likely to cause their business model to become non-viable or to fail. *JIBs* should include a range of credible options to be flexible enough to be effective in a variety of idiosyncratic, market-wide and combined stress circumstances.

C.1.4 Market-wide (systemic) stress scenarios should specify economic factors relevant to the *JIB*, and hence enable estimation of likely impacts on, for example, the income statement, balance sheet, capital requirements, capital components, economic capital and material lines of business.

C.2 Critical components of reverse stress tests

C.2.1 Reverse stress-testing should include a range of severities for each scenario so that it is possible to demonstrate both where recovery actions would be necessary to ensure survival and identify very extreme conditions under which, even taking into account recovery plans, resolution would become necessary.

C.2.2 The number of scenarios (typically two to four) will vary depending on the number of potential risks that could bring down the *JIB*. As a minimum, *JIBs* are expected to identify at least one systemic or market-wide scenario and at least one idiosyncratic or group/*JIB*-specific scenario. Scenarios would be expected to result from a number of factors, such as:

C.2.2.1 significant capital and/or liquidity shortfalls at group level;

C.2.2.2 severe group losses through a rogue trader or other significant event;

C.2.2.3 group rating downgrades;

C.2.2.4 a currency crisis (potentially one involving a fixed rate regime, see **Appendix B** for further guidance on this);

C.2.2.5 a recession;

C.2.2.6 loss of goodwill;

C.2.2.7 exodus of talent;

C.2.2.8 a run on banks in a particular country or perhaps affecting only a small number of banks that are perceived to be at risk;

C.2.2.9 collapse of global financial markets;

C.2.2.10 concerns regarding a sovereign and the knock on impact on banks holding its debt (whether realistic or not);

C.2.2.11 significant changes in commodity prices;

C.2.2.12 other banks failing;

C.2.2.13 significant losses as a result of fraud; and

C.2.2.14 reputational crises.

APPENDIX D Recovery Triggers

D.1 General guidance

D.1.1 *Recovery triggers* should be calibrated so that they provide sufficient notice to allow the *JIB* to take corrective action and for the supervisory authority to begin appropriate planning for taking early intervention measures, if this should become necessary.

D.1.2 *JIBs* should explain how the calibrations were determined and provide relevant analysis that demonstrates that *Recovery Triggers* would be breached early enough to be effective.

D.1.3 *Recovery Triggers* should not be linked to significantly lagging metrics, no matter how they are calibrated.

D.1.4 *JIBs* should not rely solely on quantitative triggers, but should also incorporate qualitative triggers in their consideration of whether a recovery response is necessary.

D.1.5 The number and type of *Recovery Triggers* should be appropriate for the *JIB*'s breadth of business and risk profile. A sufficient number of triggers should be used so that the firm is alerted to deteriorating conditions in a variety of areas, but not so many that the triggers become poorly targeted and unmanageable.

D.1.6 *JIBs* should consider group *Recovery Triggers,* both in designing local recovery triggers and from a consequential operational perspective.

D.2 Typical Recovery Triggers

D.2.1 Quantitative triggers should typically focus on the extent or speed of change in different elements affecting the group or the *JIB*, such as:

D.2.1.1 ratings downgrades (by credit reference agencies);

D.2.1.2 revenue reports or P&L (or components of these);

D.2.1.3 credit risk limits (established in respect of the group by key suppliers of funding, where known);

D.2.1.4 equity ratios;

D.2.1.5 liquidity indicators such as (1) percentage renewal of wholesale financing; (2) withdrawal of deposits and other funding; (3) increased collateral requirements; or (4) metrics derived from standardised group stress tests;

D.2.1.6 market-based leverage ratios (market capitalisation of group as % of balance sheet or total debt);

D.2.1.7 interbank rates; and

D.2.1.8 senior debt and subordinated debt spreads.

D.2.2 Qualitative triggers could include elements, at both group and subsidiary level, such as:

D.2.2.1 requests from counterparties for early redemption of liabilities;

D.2.2.2 difficulties in issuing debt at current market rates;

D.2.2.3 the unexpected loss of senior management;

D.2.2.4 adverse court rulings;

D.2.2.5 negative market press; and

D.2.2.6 significant actual or potential reputational damage, including, as an example only, as a result of operational issues such as its website repeatedly crashing, loss of personal data, failure to process transactions or the uncovering of a rogue trader.

D.2.3 In addition to *Recovery Triggers*, *JIBs* should monitor early warning indicators (**EWIs**) that are calibrated to identify negative trends and are monitored on a business-as-usual basis. These indicators are conceptually similar to recovery triggers, but are distinguished primarily by their position on the recovery timeline; an early warning indicator would be calibrated so that it alerts the firm to adverse circumstances earlier than a *Recovery Trigger*, which better prepares the firm for a potential triggering event.

APPENDIX E Recovery Plan: Management Actions

E.1 Overview

E.1.1 This appendix provides additional guidance relevant to the documentation of management actions within a *JIB's* recovery plan.

E.1.2 A recovery trigger being breached should cause a predetermined escalation and information process up to senior management/Board within the *JIB* and within group.

E.1.3 The recovery plan should articulate the escalation process to a firm's senior management or board of directors when recovery triggers are breached, and the decision-making process once those parties have been informed.

E.1.4 Although a triggering event usually results in the bank taking a recovery action, this might not be required in every case. Banks should retain flexibility to implement a discretionary response in accordance with the specificities of the situation and consider market reactions that could be counterproductive in a stress scenario.

E.1.5 *JIBs* should document the range of actions that could be taken and the circumstances in which they might be effective in restoring capital adequacy or liquidity, or otherwise mitigate potential consequences of the stressed situation.

E.1.6 This should include responsibility for both the decision and implementing it.

E.1.7 Responsibility for decision making is with the *JIB*'s Board, where not delegated.

E.1.8 Any need for Group or shareholder approval for actions should be promptly addressed, particularly where support is needed.

E.1.9 Where the need for Group or shareholder approval presents a potential barrier to local action, this should be considered and addressed, for example, by seeking approvals identified as being necessary ahead of any crisis.

E.1.10 For each action, an assessment of the impact should consider the timescale for it to be implemented and take effect. Comprehensive detail will be required, including with respect to internal and external communication.

E.1.11 The latter should include consideration of how the action would be communicated to customers, the press, the *JFSC* and other relevant authorities (and see below).

E.1.12 The overall credibility of individual actions should be considered, taking into account all of the above considerations, and the recovery plan's overall credibility should also be assessed by the bank.

E.1.13 For the avoidance of doubt, no part of the action plan is expected to constitute a plan for resolving the bank in the event of failure. Instead, the bank should document actions that it can take itself or with the co-operation of its group to recover from stresses.

E.2 Communication with supervisory and resolution authorities

E.2.1 *JIBs* should advise the JFSC of any significant changes to recovery plans.

E.2.2 *JIBs* should promptly communicate with the JFSC and other supervisory authorities (and resolution authorities where appropriate) that oversee overseas branches in cases where a recovery trigger is triggered or the bank determines that it is experiencing high levels of stress.

E.2.3 Communication should include:

E.2.3.1 the fact of a recovery trigger being breached;

E.2.3.2 the circumstances leading to the breach;

E.2.3.3 the expected impact on the bank, including any concern regarding whether the bank is insolvent or illiquid or could become so if planned actions are not effective;

E.2.3.4 any actions already taken, and whether these are considered to be a sufficient response;

E.2.3.5 actions being considered, whether prompted by the recovery plan or not, which should be sufficiently detailed as to identify:

- who is making decisions;
- barriers that need to be addressed;
- the expected benefits of the actions; and
- any expected adverse consequences or risks relating to the actions.

E.2.4 Where some of these matters have not been determined, communication will need to be limited to those that are known, with prompt follow up as and when other matters are determined.

APPENDIX F Assessment of *HQLA* Eligibility

F.1 General requirements for assessments

F.1.1 *JIBs* must document:

F.1.1.1 The *JIB's* processes for ensuring that all *HQLA* is compliant with the general and operational requirements set out in the **Appendix G**;

F.1.1.2 Where testing of historical data is required, the activity undertaken and the results (see **Appendix J** for further guidance on historical data); and

F.1.1.3 Evidence relating to testing of the operational processes (sale and repo) relied upon for the realisation of *HQLA*.

F.1.2 This should include the *JIB's* policy on diversification, which should incorporate limits for individual and type of holdings, taking into account both the dangers of over-reliance on single names but also the depth of markets for types of holdings and industrial and geographical concentrations.

F.1.3 Where the *JIB* has not considered the eligibility of any particular assets held, its processes must ensure that such assets do not form part of its *HQLA*. This might apply where assets are purchased for investment purposes that would otherwise be eligible for inclusion, including all assets that the *JIB* intends to hold to maturity in all cases.

APPENDIX G *HQLA* Eligibility Requirements

G.1 Introduction

G.1.1 *JIB*s should assess assets, and exclude any that are not sufficiently liquid (setting aside liquidity provided by central banks or governments), to be included in the stock of *HQLA*. The processes for assessment must be described in the *JIB*'s *LMP* and the results of testing used in its *ICAAP* when assessing *LCR*/*LMR* adequacy and should cover the following:

G.1.1.1 the process for determining whether an asset meets the specific requirements for Level 1, Level 2A or Level 2B *HQLA*, as set out in Guidance issued regarding the *Prudential Return*;

G.1.1.2 fundamental characteristics;

G.1.1.3 market-related characteristics; and

G.1.1.4 operational requirements.

A.1.2 The test of whether liquid assets are of "high quality" is that, by way of sale or repo, their liquidity-generating capacity is assumed to remain intact even in periods of severe idiosyncratic and market stress.

G.1.2 *HQLA* should ideally be eligible at central banks for intraday liquidity needs and overnight liquidity facilities. Central banks can provide a further backstop to the supply of banking system liquidity under conditions of severe stress. Central bank eligibility should thus provide additional confidence that banks are holding assets that could be used in events of severe stress without damaging the broader financial system.

G.1.3 *JIBs* that have direct access to central banks, including via overseas branches, should determine whether assets held are eligible. *JIBs* that do not have direct access should still carry out the work but only consider assets to be eligible if (1) the assets are eligible at a central bank via a group counterparty and (2) there is a tried and tested operational route to access funding from that central bank via that counterparty.

G.2 Fundamental characteristics

G.2.1 **Low credit risk**: assets that are less risky tend to have higher liquidity. High credit standing of the issuer and a low degree of subordination increase an asset's liquidity. Low duration, low legal risk, low inflation risk and denomination in a convertible currency with low foreign exchange risk all enhance an asset's liquidity.

G.2.2 **Ease and certainty of valuation**: an asset's liquidity is aided if market participants are likely to agree on its valuation. Assets with more standardised, homogenous and simple structures tend to be more fungible, promoting liquidity. The pricing formula of a high-quality liquid asset must be easy to calculate and not depend on assumptions. The inputs into the pricing formula must also be publicly available. In practice, this should rule out the inclusion of most structured or exotic products.

G.2.3 **Low correlation with risky assets**: the stock of *HQLA* should not be subject to wrong-way (highly correlated) risk. For example, assets issued by financial institutions are more likely to be illiquid in times of liquidity stress in the banking sector.

G.2.4 **Listed on a developed and recognised exchange**: being listed significantly aids an asset's transparency.

G.3 Market-related characteristics

G.3.1 **Active and sizable market**: the asset should have active outright sale or repo markets at all times. This means that:

G.3.1.1 There should be historical evidence of market breadth and market depth. This could be demonstrated by low bid-ask spreads, high trading volumes, and a large and diverse number of market participants. Diversity of market participants reduces market concentration and increases the reliability of the liquidity in the market.

G.3.1.2 There should be robust market infrastructure in place. The presence of multiple committed market makers increases liquidity as quotes will most likely be available for buying or selling *HQLA*.

G.3.2 **Low volatility**: assets whose prices remain relatively stable and are less prone to sharp price declines over time will have a lower probability of triggering forced sales to meet liquidity requirements. Volatility of traded prices and spreads are simple proxy measures of market volatility. There should be historical evidence of relative stability of market terms (eg prices and haircuts) and volumes during stressed periods.

G.3.3 **Flight to quality:** historically, the market has shown tendencies to move into these types of assets in a systemic crisis. The correlation between proxies of market liquidity and banking system stress is one simple measure that could be used.

G.4 General Operational Requirements

G.4.1 **Periodical monetisation:** A *JIB* should periodically monetise a representative proportion of its stock of HQLA through repo or outright sale, in order to test its access to the market, the effectiveness of its processes for monetisation, the availability of the assets, and to minimise the risk of negative signalling during a period of actual stress.

G.4.2 **Lack of encumbrance**: All assets in the stock should be unencumbered. "Unencumbered" means free of legal, regulatory, contractual or other restrictions on the ability of the bank to liquidate, sell, transfer, or assign the asset. *HQLA* should not be pledged (either explicitly or implicitly) to secure, collateralise or credit-enhance any transaction, nor be designated to cover operational costs (such as rents and salaries).

G.4.3 Assets received in reverse repo and securities financing transactions that are held at the bank, have not been rehypothecated and are legally and contractually available for the bank's use can be considered as part of the stock of *HQLA*. In addition, assets which qualify as *HQLA* that have been pre-positioned or deposited with, or pledged to, the central bank or a *PSE* but have not been used to generate liquidity may be included in the stock.

G.4.4 A *JIB* should exclude from the stock those assets that, although meeting the definition of "unencumbered" specified in the above, the *JIB* would not have the operational capability to monetise to meet outflows during the stress period.

G.4.5 This requires having procedures and appropriate systems in place, with access to all necessary information to execute monetisation of any asset at any time. Monetisation of the asset must be executable, from an operational perspective, in the standard settlement period for the asset class in the relevant jurisdiction.

G.4.6 **Control of assets:** The stock should be under the control of the function charged with managing the liquidity of the *JIB* (e.g. the treasurer), meaning the function has the continuous authority, and legal and operational capability, to monetise any asset in the stock.

G.4.7 Control must be evidenced, either by maintaining assets in a separate pool managed by the function with the sole purpose being use as a source of contingent funds, or by documenting in its *LMP* how it has and will verify from time to time that (1) the function can monetise the asset at any point in the 30-day stress period and (2) the proceeds of doing so are available to the function throughout the 30-day stress period, without directly conflicting with a stated business or risk management strategy.

G.4.8 For example, an asset should not be included in the stock if the sale of that asset, without replacement throughout the 30-day period, would remove a hedge that would create an open risk position in excess of internal limits.

G.4.9 **Monitoring of location:** In accordance with Principle 9 of the *Basel Liquidity Principles*, a bank "should monitor the legal entity and physical location where collateral is held and how it may be mobilised in a timely manner". Specifically, it should have a policy in place that identifies legal entities, geographical locations, currencies and specific custodial or bank accounts where HQLA are held. In addition, the bank should determine whether any such assets should be excluded for operational reasons, and must therefore have the ability to determine the composition of its stock on a daily basis.

G.4.10 **Market access:** *JIB*s should assess whether they have access to large, deep and active repo markets for each eligible asset class. Where this is not the case, assets can only be included if it is likely that they could be monetised through outright sale.

G.4.11 A *JIB* should exclude from *HQLA* those assets where there are impediments to sale, such as large fire-sale discounts which would cause it to breach minimum solvency requirements, or any requirements to hold such assets, including statutory minimum inventory requirements for market making.

G.4.12 **Loss of eligibility:** In order to mitigate cliff effects that could arise if *HQLA* became ineligible (e.g. due to a rating downgrade), an asset remains eligible as *HQLA* for 30 calendar days from the date it fails to meet one or more criteria. This should allow the *JIB* sufficient additional time to adjust its stock as needed or replace the asset.

G.5 Consolidated monitoring

G.5.1 The following is only relevant to *JIB*s where consolidated monitoring is required (internally and in the *Prudential Return*).

G.5.2 Qualifying *HQLA* that are held to meet statutory liquidity requirements at the legal entity or sub-consolidated level (where applicable) may be included in the stock at the consolidated level to the extent that the related risks (as measured by the legal entity's or sub-consolidated group's net cash outflows in the *LCR/LMR*) are also reflected in the consolidated *LCR/LMR*. Any surplus of *HQLA* held at the legal entity can only be included in the consolidated stock if those assets would also be freely available to the consolidated (parent) entity in times of stress.

G.5.3 In assessing whether assets are freely transferable for regulatory purposes, *JIBs* should be aware that assets might not be freely available to the consolidated entity due to regulatory, legal, tax, accounting or other impediments. Assets held in legal entities without market access should only be included in the *HQLA* calculation to the

extent that they can be freely transferred to other entities that could monetise the assets.

G.6 Rehypothecated assets

G.6.1 *JIBs* should not include in the stock of *HQLA* any assets, or related calculated liquidity generated by them, that they have received under right of rehypothecation, if the beneficial owner has the contractual right to withdraw those assets during the 30-day stress period.

G.6.2 Assets received as collateral for derivative transactions that are not segregated and are legally able to be rehypothecated may be included in the stock of HQLA provided that the *JIB* records an appropriate outflow for the associated risks.

G.7 Pricing, including for financial statements

G.7.1 In order to minimise the risk that a sale creates a loss, assets must normally be held at fair value in order to be eligible. However, if a *JIB* can demonstrate that a deep and active repo market exists, it may use an accruals basis for valuing assets in its financial statements but must compute the Realisable Value using the repo value – i.e. disregarding the sale value.

G.7.2 For assets held in the banking book, the *JIB* must put in place processes to ensure that it holds up to date information on bid prices and on repo haircuts applicable to assets that it wishes to designate as *HQLA*. Such information must be refreshed daily.

G.7.3 A *JIB* is permitted to hedge the market risk associated with ownership of the stock of *HQLA* and still include the assets in the stock. If it chooses to hedge the market risk, the bank should take into account (in the market value applied to each asset) the cash outflow that would arise if the hedge were to be closed out early (in the event of the asset being sold).

APPENDIX H *LCR/LMR Adjustments*

H.1 Rationale for *LCR/LMR adjustments*

H.1.1 The behaviour of banks' deposits is central to their liquidity. The actual cash flows from a bank's deposit and other liabilities (or off-balance sheet commitments) may have little relationship with contractual maturity (and conversely for inflows from loans). In particular, only a small percentage of demand deposits are likely to be withdrawn on any one day, and fixed term deposits are often renewed automatically on each maturity date. This behaviour reflects customers' desire to maintain a certain level of availability in respect of their savings, rather than a specific intention to withdraw funds.

H.1.2 The *LCR/LMR* requirements permit *LCR/LMR adjustments* to be applied to projected cashflows in order to reflect expected behaviour in stressed circumstances, but include standard limits (maxima or minima, as relevant) for such adjustments.

H.1.3 Where a *JIB* can demonstrate that the limits for *LCR/LMR adjustment* (as set out in guidance on reporting liquidity within the *Prudential Return)* are sufficiently prudent and consistent with anticipated stressed behaviour, these may be used. Otherwise the *JIB* must use more prudent *LCR/LMR adjustments* that it can demonstrate are appropriate. In the unlikely event that it cannot demonstrate the appropriateness of *LCR/LMR adjustment*s, it must use the most conservative *LCR/LMR adjustments* (100% of all maturing outflows leave, 0% of maturing inflows are received).

H.2 Overview of the *JFSC's* approach to *LCR/LMR adjustments*

H.2.1 The *JFSC* requires *JIBs* to have prudent *LMPs* in place, together with appropriate systems to measure and monitor liquidity, and to ensure that policies are adhered to. Policies should reflect *JFSC* requirements and should take into account any *LCR/LMR adjustments* agreed between it and the *JFSC*.

H.2.2 Liquidity limits exist to ensure that a *JIB* has a sufficient pool of maturing funds or *HQLA* to enable it to meet its obligations in times of liquidity stress or disruption. As *JIBs'* business and risk profiles differ significantly, relevant factors and their impact for individual *JIBs* during a period of liquidity stress will vary significantly and will need to be fully taken into account in agreeing the prudent level for *LCR/LMR adjustments*.

H.2.3 For the avoidance of doubt, historical data should be considered but other inputs should also be taken into account. This could include group or other relevant regulators' assumptions regarding *LCR/LMR adjustment*s and/or stressed behaviour. These must not be the sole input: it is anticipated that a combination of the following would be utilised by the *JIB* to determine each *LCR/LMR adjustment*:

H.2.3.1 the minima/maxima, as applicable;

H.2.3.2 group input, such as, for example, the output of stress testing;

H.2.3.3 home supervisor requirements regarding *LCR/LMR adjustment*s, where considered to be relevant;

H.2.3.4 any specific local considerations, for example regarding:

- concentrations;
- the *JIB's* appetite for liquidity risk;

- nature of its business;
- future business strategy; and,
- pricing policy.

H.3 Deposit outflows and other flows

H.3.1 In two areas, *JIB*s are permitted to use the standard *LCR/LMR adjustments* outlined in guidance on reporting liquidity within the *Prudential Return* unless available historical data or other evidence clearly shows the need for a more conservative approach.

H.3.2 These are:

H.3.2.1 stable retail deposits and

H.3.2.2 outflows connected with committed facilities.

H.3.3 For all other areas, *JIBs* should determine the likely behaviour in a stressed scenario of the nature described in **Appendix I**, taking into account historical data and all relevant information on likely behaviour in a stressed period, including any relevant information from group or third party sources.

H.3.4 For these categories, the *LCR/LMR adjustments* set out in guidance on reporting liquidity within the *Prudential Return* serve as a maximum/minimum only, as applicable, and should not be relied upon to form the basis of a conclusion. Where no conclusion is reached, the most conservative outcome (100% outflow/0% inflow) should be used.

H.3.5 Liabilities that are fixed term, liabilities with short terms (one month or less) and longer term liabilities with break clauses can be grouped together with on-demand liabilities when analysing historical data.

H.3.6 For longer term liabilities (originally) other than liabilities with break clauses, the assessment of historical data should seek to compare the contractual amount due with the actual outflow. This is necessary as only outflows that are contractually due within one month will be included in the *LCR*.

H.3.7 As an example of this, if data on one year term accounts showed a maximum outflow rate of 10% in any one month period then this needs to be compared to the amount contractually due for the relevant period in order to determine if an adjustment is warranted.

H.3.8 In the absence of sufficient evidence being available to support an *LCR/LMR adjustment* of less than 100%, deposits should either:

H.3.8.1 be given a 100% outflow rate, with the predicted amount being determined as the amount contractually due in the next 30 days; or

H.3.8.2 treated in line with other shorter term deposits, in which case all such deposits must be included in the *LCR* outflows (i.e. including those with a maturity date outside of the 30 day period).

H.3.9 All relevant related considerations should be documented.

H.3.10 The *JIB* should document its policy on addressing funding concentrations. This should include the establishment of limits for individual and connected parties, as well as other forms of concentration, such as reliance on particular sectors.

H.3.11 In all cases, the *JIB* must establish polices that ensure that no adjustment in respect of one customer or connected customers (when aggregated) exceeds £20 million.

H.4 Adjustments in respect of outflows relating to deposit liabilities

H.4.1 The guidance on reporting liquidity within the *Prudential Return* establishes minima that vary significantly, dependent on the customer. The lowest minima (5%) applies only in the case of certain retail deposits. No reduction is permitted in several cases, including deposits placed by banks. No assessment is required in respect to categories where a 100% minimum is established.

H.4.2 The assessment of *LCR/LMR adjustments* for any category should address:

H.4.2.1 deposit concentrations, which should include: depositor and connected parties (including the £20 million maximum adjustment), sector, industry, or geographic classification;

H.4.2.2 the main products falling within the category and their contractual liquidity profiles; and

H.4.2.3 stress testing undertaken with respect to deposit behaviour.

H.5 Adjustments to inflows

H.5.1 The guidance on reporting liquidity within the *Prudential Return* establishes minima that vary significantly, dependent on the customer. The highest maximum (100%) applies to certain wholesale inflows, whereas for most retail loans an adjustment of 50% applies. No inflow may be counted in a small number of cases (including cases where the asset has been included within the stock of HQLA, to avoid double counting).

H.5.2 All maxima are set out in the guidance on reporting liquidity within the *Prudential Return*. No assessment is required in respect to categories where a 0% maximum *LCR/LMR adjustment* is established.

H.5.3 The assessment of *LCR/LMR adjustments* for any category should address:

H.5.3.1 concentrations, which should include depositor and connected parties, sector, industry, or geographic classification;

H.5.3.2 the main products falling within the category and their contractual liquidity profiles; and

H.5.3.3 stress testing undertaken with respect to deposit behaviour.

H.6 Ongoing monitoring

H.6.1 Only the *LCR/LMR adjustments* agreed with the JFSC should be reflected by the bank in respect of internal monitoring and the *Prudential Return* unless:

H.6.1.1 the *JIB*'s ongoing analysis undertaken in support of its *LCR/LMR adjustments* evidences a material adverse change,

in which case it should notify the *JFSC* immediately with details and make whatever more prudent *LCR assumptions* it deems necessary in light of the new evidence.

H.6.2 For the avoidance of doubt, no changes may be made that result in any *LCR/LMR adjustment* being used that is less prudent than agreed with the *JFSC*.

APPENDIX I Short-term Liquidity Stress Test

I.1 General guidance

I.1.1 Stress testing must include a stressed assessment of the *JIB*'s ability to meet stressed outflows out of a combination of *HQLA* held and offsetting inflows over a 30 day horizon in the scenario where the *JIB* itself and/or its parent are downgraded by 3 notches during a financial crisis, resulting in:

I.1.1.1 the run-off of a proportion of retail deposits;

I.1.1.2 a partial loss of unsecured wholesale funding capacity;

I.1.1.3 a partial loss of secured, short-term financing;

I.1.1.4 additional contractual outflows that would arise from the downgrade;

I.1.1.5 increases in market volatilities that impact the quality of collateral or potential future exposure of derivative positions and thus require larger collateral haircuts or additional collateral, or lead to other liquidity needs;

I.1.1.6 unscheduled draws on committed but unused credit and liquidity facilities that the bank has made available to its clients; and

I.1.1.7 the potential need for the bank to buy back debt or honour non-contractual obligations in the interest of mitigating reputational risk.

I.1.2 The *LCR/LMR adjustments* provide a starting point for the above – the *JIB* must assume the impact would be at least that resulting from the application of the minima/maxima adjustments set out in guidance on reporting liquidity within the *Prudential Return*.

I.1.3 *JIBs* should also be familiar with the *Basel Liquidity Principles* and *Basel Stress Testing Principles* and consider stress testing in this light.

I.1.4 Stress testing carried out to evidence whether the minima set out for *LCR/LMR adjustments* are appropriate must be documented in the *ICAAP*. This will include the assessment set out above but *JIBs* should also consider whether other scenarios are relevant.

I.1.5 Stress testing considerations should include assessment of how *HQLA* would be realised during the stressed period and how regulatory requirements would be maintained or, indeed, how compliance could be restored in the event of a systemic crisis.

I.1.6 For the avoidance of doubt, it is anticipated that, in a crisis, a *JIB* might breach the 100% limit and that the *LCP*/recovery plan might be triggered (i.e. normal operations might be impacted) and assist in restoring *HQLA* in due course. However, the *JIB* must be able to evidence that all stressed outflows can be met within the period.

I.1.7 These stress scenarios should take into account the extent to which historical data (See **Appendix J**) is relevant to a stressed period. In most cases, it is anticipated that stressed assumptions would significantly exceed any historical movements seen in the last five years, as many financial crisis impacts pre-date this. Also, in many cases, data available to *JIBs* on periods where there was a financial crisis of the nature envisaged did not involve the *JIB* or its group being subject to a three notch downgrade.

I.1.8 *A JIB* may use any approach that is consistent with the above. In particular, it can continue to use behavioural adjustments that were agreed prior to the implementation of *Basel III* on 1 January 2019, provided that:

I.1.8.1 it can explain how these map to the relevant categories for *LCR/LMR adjustments*;

I.1.8.2 it can show that they are sufficiently prudent through stress testing;

I.1.8.3 historical data does not contradict this; and

I.1.8.4 In cases where these are lower than standard minima/higher than standard maxima, it uses the minima/maxima established in the guidance on reporting liquidity within the *Prudential Return,* both when submitting the *Prudential Return* and when monitoring compliance with the *Banking Code* requirements regarding *LCR/LMR*.

I.1.9 The amount of analysis required should also reflect the circumstances, focussing on instances where the impact on the *JIB* would be greatest and where the evidence available either indicates that a *LCR/LMR adjustment* is imprudent or suggests that this might be the case and hence greater depth of analysis is required.

I.1.10 In particular, historical data based on normal times should not evidence movements that approach or exceed those expected in the stressed conditions described for the *LCR*/*LMR*.

APPENDIX J Historical Data Analysis

J.1 General guidance

J.1.1 Historical data should be collected to assist in:

J.1.1.1 determining how to classify assets for *HQLA* purposes (prices and depth of market data);

J.1.1.2 determining whether *LCR/LMR adjustment*s regarding flow assumptions are prudent (outflows and inflows, including in relation to commitments); and

J.1.1.3 carrying out general stress testing of liquidity.

J.1.2 *JIBs* should seek to obtain data relating to (1) a stressed period and (2) the past five years.

J.1.3 Where data is obtained via group or third parties (as is envisaged would apply in the case of data on *HQLA*), the *JIB* should assess the reliability of the source used.

J.1.4 Where data is limited, this should be taken into account when developing stress tests, warranting additional conservatism.

J.2 *LCR/LMR adjustment*

J.2.1 For individual classes of deposits, the methodology used for computing outflows over a 30 day period should be consistent with the following approach:

J.2.1.1 establish on day one a set of deposits that fall within the class and determine the initial balance for each;

J.2.1.2 for that set of deposits, determine the final balances as at day 30;

J.2.1.3 quantify the outflow for each deposit in the set by subtracting the final balance from the initial balance, with a zero outflow resulting where, for any deposit in the set, the final balance exceeds the initial balance. Sum these to give the total outflows for the set; and hence

J.2.1.4 the historical outflow percentage for that period would then be the total of all outflows divided by the total of all initial balances.

J.2.2 Where the class includes multiple deposits from individual customers, these calculations may be applied on an aggregated basis for each customer, rather than at account level (hence eliminating any impact of transfers between the customers' accounts).

J.2.3 *JIB*s may use other approaches, but:

J.2.3.1 if less conservative approaches or incomplete historical datasets (for example, ones that do not include a relevant period of stress or methods that based on net outflow data) are used, the *JIB* must consider the impact when developing stressed assumptions regarding *LCR/LMR adjustments* (see **Appendix G)**; and

J.2.3.2 if more conservative and/or more complex approaches are used, the *JIB* should also compute results consistent with the above in order to assist the *JFSC* in comparing results across industry.

[i] established in *Pillar 1* as an alternative to the *Standardised Approach*, these permit banks to use their own data and models to calculate minimum regulatory capital requirements but only where approved by the local regulator (i.e. the *JFSC* in the case of Jersey)
[ii] https://www.bis.org/publ/bcbs195.htm
[iii] https://www.bis.org/publ/bcbs75.htm
[iv] The *ICAAP* assessment is relevant to Concession Limit applications in connection with group banks and requests for approval should draw on, and be consistent, with the *JIB's* assessment of the risk entailed.