



Supervisory Statement | SS31/15

# The Internal Capital Adequacy Assessment Process (ICAAP) and the Supervisory Review and Evaluation Process (SREP)

January 2026

(Updating December 2025)

Effective from 1 January 2027

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BANK OF ENGLAND  
PRUDENTIAL REGULATION  
AUTHORITY

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## Contents

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<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>Expectations of firms undertaking an ICAAP</b>	<b>1</b>
<b>3</b>	<b>Stress testing, scenario analysis and capital planning</b>	<b>23</b>
<b>4</b>	<b>Reverse stress testing</b>	<b>29</b>
<b>5</b>	<b>The SREP</b>	<b>30</b>

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Effective from 1 January 2027

## 1 Introduction

1.1 This supervisory statement is relevant to all PRA-regulated banks, building societies, designated investment firms and all PRA-approved or PRA-designated holding companies, except Small Domestic Deposit Takers (SDDTs) and SDDT consolidation entities.<sup>1</sup> SDDTs should refer instead to the supervisory statement (SS) 4/25 – The Internal Capital Adequacy Assessment Process (ICAAP) and the Supervisory Review and Evaluation Process (SREP) for Small Domestic Deposit Takers (SDDTs).<sup>2</sup> This SS replaces PRA Supervisory Statement (SS) 5/13<sup>3</sup> and SS6/13.<sup>4</sup>

1.2 It provides further detail in relation to the high-level expectations outlined in 'The Prudential Regulation Authority's approach to banking supervision'.<sup>5</sup>

1.3 Chapter 2: 'Expectations of firms undertaking an ICAAP' sets out the expectations the PRA has in relation to the ICAAP and the requirements set out in the Internal Capital Adequacy Assessment (ICAA) Part of the PRA Rulebook. It sets out the PRA's expectations regarding firms' coverage and treatment of interest rate risk in the non-trading book (more commonly referred to as interest rate risk in the banking book or IRRBB), market risk, group risk, operational risk, pension obligation risk and foreign currency lending to unhedged retail and SME borrowers. It also provides additional detail on data that firms are required or expected to submit with their ICAAP document or otherwise as applicable.

1.4 Chapter 3: 'Stress testing, scenario analysis and capital planning' sets out the PRA's expectations of firms in relation to stress testing, scenario analysis and capital planning, and the requirements set out in Chapter 12 of the Internal Capital Adequacy Assessment Part of the PRA Rulebook.

1.5 Chapter 4: 'Reverse stress testing' sets out the PRA's expectations of firms in relation to reverse stress testing, and the requirements set out in Chapter 15 of the Internal Capital Adequacy Assessment Part of the PRA Rulebook.

1.6 Chapter 5: 'The SREP' sets out the factors that the PRA takes into consideration to assess a firm's ICAAP. It explains the setting of firm specific capital requirements and the PRA buffer, the consequences in the event a firm fails to meet its Total Capital Requirement (TCR)<sup>6</sup> or uses the PRA buffer, and disclosure. It also sets out the factors that the PRA takes into consideration to assess a firm's reverse stress-testing approach including the PRA response to weaknesses in the process.

1.7 This supervisory statement should be read in conjunction with the Statement of Policy, 'The PRA's methodologies for setting Pillar 2 capital'.<sup>7</sup> For ring-fenced bodies (RFBs), as defined in the Financial Services and Markets Act 2000 (FSMA), section 142A, and banking groups containing RFBs, this statement should be read alongside SS8/16, 'Ring-fenced Bodies (RFBs)'.<sup>8</sup>

## 2 Expectations of firms undertaking an ICAAP

1 The full definition of an SDDT and an SDDT consolidation entity, including the SDDT and SDDT consolidation entity criteria, are set out in the SDDT Regime – General Application Part of the PRA Rulebook.

2 <https://www.bankofengland.co.uk/prudential-regulation/publication/2026/january/the-icaap-and-the-srep-for-sddts>.

3 PRA Supervisory Statement 5/13, 'The Internal Capital Adequacy Assessment Process (ICAAP) and the Supervisory Review and Evaluation Process (SREP)', December 2013: [The Internal Capital Adequacy Assessment Process \(ICAAP\) and the Supervisory Review and Evaluation Process \(SREP\)](https://www.bankofengland.co.uk/prudential-regulation/publication/2026/january/the-icaap-and-the-supervisory-review-and-evaluation-process-srep).

4 PRA Supervisory Statement 6/13, 'Stress testing, scenario analysis and capital planning', December 2013: [Supervisory Statement | SS6/13](https://www.bankofengland.co.uk/prudential-regulation/publication/2026/january/stress-testing-scenario-analysis-and-capital-planning).

5 June 2014: <https://www.bankofengland.co.uk/publications/Documents/praproapproach/bankingappr1406.pdf>.

6 Pillar 1 plus Pillar 2A capital requirements

7 <https://www.bankofengland.co.uk/prapages/publications/sop/2017/p2methodologiesupdate.aspx>.

8 February 2017: <https://www.bankofengland.co.uk/prudential-regulation/publication/2016/ring-fenced-bodies-ss>.

2.1 A firm must carry out an ICAAP in accordance with the PRA's ICAA rules. These include requirements on the firm to assess on an ongoing basis the amounts, types and distribution of capital that it considers adequate to cover the level and nature of the risks to which it is or might be exposed. This assessment should cover the major sources of risks to the firm's ability to meet its liabilities as they fall due, and should incorporate stress testing and scenario analysis. If a firm is merely attempting to replicate the PRA's own methodologies, it will not be carrying out its own assessment in accordance with the ICAA rules. The ICAAP should be documented and updated annually by the firm, or more frequently if changes in the business, strategy, nature or scale of its activities or operational environment suggest that the current level of financial resources is no longer adequate.

2.2 The PRA expects firms, in the first instance, to take responsibility for ensuring that the capital they have is adequate, with the ICAAP being an integral part of meeting this expectation. The PRA expects an ICAAP to be the responsibility of a firm's management body, that it is approved by the management body, and that it is used as an integral part of the firm's management process and decision making. The processes and systems used to produce the ICAAP should ensure that the assessment of the adequacy of a firm's financial resources is reported to its management body as often as is necessary.

2.3 The ICAAP, and internal processes and systems supporting it, should be proportionate to the nature, scale and complexity of the activities of a firm, as set out in Internal Capital Adequacy Assessment 3.3 in the PRA's Rulebook. Where a firm has identified risks as not being material, it should be able to provide evidence of the assessment process that determined this and discuss why that conclusion has been reached.

2.4 Liquidity risk should also be assessed, including in relation to potential losses arising from the liquidation of assets and increases in the cost of funding during periods of stress. The requirements in relation to liquidity risk may be found in PS11/15.<sup>9</sup>

2.5 As set out in further detail below, the PRA also expects firms to develop a framework for stress testing, scenario analysis and capital management that captures the full range of risks to which they are exposed and enables these risks to be assessed against a range of plausible yet severe scenarios. The ICAAP document should outline how stress testing supports capital planning for the firm.

2.6 Where a firm uses a model to aid its assessment of the level of capital adequacy, it should be appropriately conservative and should contribute to prudent risk management and measurement. The firm should expect the PRA to investigate the structure, parameterisation and governance of the model, and the PRA will seek reassurance that the firm understands the attributes, outputs and limitations of the model, and that it has the appropriate skills and expertise to operate, maintain and develop the model.

### **Credit risk mitigation: guarantees qualifying as unfunded credit protection**

2.6A For firms using the Standardised Approach for credit risk, CRR Article 235(1) allows firms to recognise guarantees qualifying as unfunded credit protection under Part Three, Title II, Chapter 4 (Credit risk mitigation) of the CRR by substituting the risk weight of an obligor with the risk weight of a guarantor, for the protected amount of the exposure. Firms are expected to assess whether a full substitution of the risk weight of the guarantor is warranted or not. As part of this assessment, firms should consider the risk that, notwithstanding fulfilment of eligibility criteria under Pillar 1 for

<sup>9</sup> PRA Policy Statement PS11/15, 'CRD IV: Liquidity', June 2015: <https://www.bankofengland.co.uk/prudential-regulation/publication/2014/crd-iv-liquidity>.

qualifying guarantees, the credit protection could in practice become ineffective due to any reason other than the default of the guarantor and evidence this assessment within its ICAAP document. As part of this consideration, the PRA expects firms to consider in particular the:

- risk, if any, that in practice the guarantor would seek to reduce or be released from liability under the guarantee, for example through lengthy settlement or disputes processes; and
- operational risk that the firm may breach its obligations under the terms of the guarantee in a manner that might entitle the guarantor not to pay out.

2.6B Where firms assess that a full substitution is not prudent, the PRA expects firms to consider whether a Pillar 2A add-on is appropriate.

## IRRBB

2.7 All firms must have appropriate systems and processes, proportionate to the nature, scale and complexity of their business, to identify, evaluate and manage IRRBB.

2.7A The PRA expects a firm to include small trading book business (as identified under Article 94 Derogation for Small Trading Book of the Trading Book (CRR) Part of the PRA Rulebook) as part of its identification, evaluation and management of IRRBB unless its interest rate risk is captured in another risk measure.

### Supervisory Actions

2.7B A firm must, under Internal Capital Adequacy Assessment 9.4A, immediately notify the PRA if its economic value of equity (EVE) would decline by more than 15% of its Tier 1 capital as a result of the application of the interest rate scenarios in Internal Capital Adequacy Assessment Rule 9.7. In that case, it shall be considered an outlier firm. The PRA will review each outlier firm to determine whether the PRA considers that the firm has excessive IRRBB or inadequate management of IRRBB. The PRA may also conduct such a review for firms that are not outlier firms.

2.7C Where the review in 2.7B leads the PRA to consider that a firm's risk management of IRRBB is inadequate for the purposes of its obligations in the PRA Rulebook, or that the risk is excessive relative to the firm's capital or earnings, the PRA is likely to expect the firm to take one or more of the following actions:

- take steps to reduce its IRRBB exposures;
- hold additional capital for its IRRBB;
- implement constraints to internal risk parameters; or
- make other corrective actions to address deficiencies in its models or risk management framework.

### General Requirements on IRRBB

2.8 [deleted]

2.8A A firm's management body should oversee and approve the firm's risk appetite and framework for managing IRRBB. This framework should be consistent across consolidated and sub-consolidated entities. The risk appetite should be expressed in terms of the risk to economic value and the risk to earnings.

2.8B The systems and processes should allow the firm to:

- (i) identify and quantify the major sources of IRRBB exposures;
- (ii) retrieve accurate information in a timely manner;
- (iii) compute economic value and earnings measures of IRRBB for different scenarios;
- (iv) incorporate constraints specified by the PRA on the firm's internal risk parameter estimates;
- (v) compare risk figures over different periods (eg by monitoring the impact of changes to the way the repricing dates are determined for the purpose of calculating IRRBB);
- (vi) assess all material cash flows from relevant interest rate sensitive instruments, including non-performing exposures (net of provisions), interest rate derivatives and off-balance sheet items such as interest rate sensitive loan commitments;
- (vii) measure the exposure and sensitivity of its activities, if material, to gap risk, yield curve risk, basis risk and risks arising from embedded optionality (eg pipeline risk and prepayment risk) as well as changes in assumptions (eg those relating to customer behaviour);
- (viii) consider whether a purely static analysis of the impact on its current portfolio of a given shock or shocks should be supplemented by a more dynamic simulation approach;
- (ix) model scenarios in which different interest rate paths are computed and in which some of the assumptions (eg about behaviour, contribution to risk and balance sheet size and composition) are themselves functions of interest rate levels; and
- (x) measure the exposure and sensitivity of its fair value exposures to changes in value resulting from yield curve and basis risk.

2.8C The PRA expects a firm to set and apply policy limits for IRRBB that are consistent with the firm's risk appetite. When setting policy limits, a firm should ensure that:

- (i) policy limits are appropriate to the nature, size, complexity and capital adequacy of the firm;
- (ii) policy limits are reviewed at least annually; and
- (iii) gap risk, basis risk and positions with explicit and embedded options are considered in the setting of policy limits where the firm has significant exposures to these risks and positions.

2.8D The PRA expects a firm's management body to have the appropriate expertise to understand:

- (i) the nature and the level of IRRBB;
- (ii) the implications of a firm's strategies for managing IRRBB, including the potential linkages with and impact on market, liquidity, credit and operational risk; and
- (iii) the most significant behavioural and modelling assumptions and their implications, including for hedging strategies.

2.8E A firm's management body may delegate the management and monitoring of IRRBB to senior management, the firm's Asset and Liability Committee or to one or more individuals with sufficient expertise. The relevant delegate(s) should include members with clear lines of authority over the units responsible for establishing and managing positions.

2.8F A firm's management body should regularly review timely and sufficient information for assessing the performance of its delegates in monitoring and controlling IRRBB and credit spread risk in the non-trading book in accordance with its framework and its risk appetite.

2.8G A firm's management body or its delegates should establish and maintain an adequate risk management framework for IRRBB. The PRA expects that the framework should include measures to establish, apply and maintain at least the following:

- (i) appropriate limits on IRRBB;
- (ii) procedures for ensuring compliance with the limits in (i);
- (iii) an approvals process for exceptions from the limits in (i);
- (iv) adequate systems, standards and controls for measuring IRRBB;
- (v) standards for measuring IRRBB, valuing positions and measuring performance;
- (vi) an appropriate reporting and review process for IRRBB;
- (vii) adequate internal controls and management information systems for IRRBB;
- (viii) an adequate approval process for approving major hedging or risk-taking initiatives prior to implementation;
- (ix) appropriate governance processes for ensuring the adequacy of the models;
- (x) a formal policy process for the validation of IRRBB measurement methods and assessment of corresponding model risk; and
- (xi) a process to regularly measure IRRBB based on outcomes of economic value and earnings-based measures.

2.8H A firm's management body or its delegates should approve major hedging or risk-taking initiatives relating to IRRBB in advance of their implementation.

2.8I A firm should ensure that the functions responsible for identification, measurement, monitoring and control of IRRBB are, where appropriate to its nature, size and complexity as well as business activities and overall risk profile, sufficiently independent from risk-taking functions and report directly to the management body or its delegates.

2.8J A firm should review and evaluate the effectiveness of its framework on a regular basis, and at least annually. Where appropriate to its nature, size and complexity as well as business activities and overall risk profile, the reviews and evaluations should be carried out by individuals that are sufficiently independent of the individuals responsible for designing and implementing the framework.

2.8K A firm should have its framework reviewed by an independent internal auditing function on a regular basis.

### Measurement of IRRBB

2.9 [Moved to 2.11A]

2.9A A firm should ensure that the internal risk measurement system used to comply with the obligation in the PRA Rulebook capture all material sources of IRRBB exposures. If the PRA determines the internal risk measurement systems of a firm inadequate in risk capture or for other reasons, the firm should take such steps as the PRA may direct or require, including use of the Basel Committee on Banking Supervision's standardised framework under Internal Capital Adequacy Assessment 9.13 when performing the evaluation under Internal Capital Adequacy Assessment 9.2 and 9.4A.

2.9B Under Internal Capital Adequacy Assessment 9.4A, a firm is required to calculate the impact of the change in interest rates described in Internal Capital Adequacy Assessment 9.7 on the economic value of equity of a firm's non-trading book activities. A firm should perform this calculation regularly, and at least quarterly. When performing the calculation, a firm should, where appropriate to its nature, size and complexity as well as business activities and overall risk profile, apply the following principles:

- (i) the calculation should exclude the firm's own equity;
- (ii) the change in EVE ( $\Delta$ EVE) should be computed with the assumptions of a run-off balance sheet;
- (iii) a maturity-dependent post-shock interest rate floor should be applied for each currency starting with -100 basis points for immediate maturities and increase by 5 basis points per year, eventually reaching 0% for maturities of 20 years and more (where the observed rates are lower than the current lower reference rate of -100 basis points, a firm should apply the lower observed rates);
- (iv) when calculating the aggregate  $\Delta$ EVE for each interest rate shock scenario, a firm should add together any negative and positive  $\Delta$ EVE occurring in each currency and any positive changes should be weighted by a factor of 50%;
- (v) the automatic and behavioural options, including the assumptions identified in 2.9K should be reflected in the calculation;
- (vi) the assumed behavioural repricing date for retail and non-financial wholesale deposits without any specific repricing dates (non-maturing deposits) should be constrained to a maximum average of 5 years for each individual currency;
- (vii) the calculation should include all cash flows from all interest rate-sensitive assets (assets which are not deducted from Common Equity Tier 1 capital and which exclude (i) fixed assets such as real estate or intangible assets as well as (ii) equity exposures in the non-trading book), liabilities and off-balance sheet items in the non-trading book in the computation of their exposure; and
- (viii) if commercial margins and other spread components are included in the cash flows calculated for measurement of IRRBB, the firm should also include commercial margins and other spread components in the rates used for discounting those cash flows.

2.9C Alongside the requirement to monitor and evaluate the potential impact of changes in interest rates on economic value, the PRA expects firms to monitor and evaluate the potential impact on earnings volatility. As appropriate to its nature, size and complexity as well as business activities and overall risk profile, a firm should include in its evaluation:

- (i) assessment based on an appropriate timeframe of three to five years;
- (ii) the firm's forward-looking view of product volumes and pricing, based on its proposed business model during the scenario, and the projected path of interest rates;
- (iii) careful consideration should be given to how any resulting volatility is managed;
- (iv) consideration on the effects on its cash flow (ie interest income and expenses), and for large or more complex firms, the projected cash flow under different interest rate scenarios;
- (v) consideration on the effects of the market value changes of interest rate sensitive instruments; and
- (vi) the firm's careful consideration to managing any resulting volatility on its' earnings.

2.9D The models used to comply with the obligation in the PRA Rulebook should incorporate a wide and appropriately prudent range of interest rate shock and stress scenarios by currency. Those scenarios should include:

- (i) interest rate shock scenarios selected by the firm reflecting its risk profile in accordance with Internal Capital Adequacy Assessment 9.2;
- (ii) historical and hypothetical interest rate stress scenarios;
- (iii) the interest rate shock scenarios in Internal Capital Adequacy Assessment 9.7; and
- (iv) any additional interest rate shock scenarios required by the PRA.

2.9E For the range of interest rate shock scenarios, a firm should ensure:

- (i) they encompass a wide range of severe and plausible interest rate shock scenarios relevant to the firm's material sources of IRRBB;
- (ii) where relevant to the firm's own material sources of IRRBB, the scenarios consider gap risk, basis risk, and option risk (including sensitivity to interest rate movements); concentrated risks; and interaction with other risks;
- (iii) the scenarios consider vulnerability to reduced economic value or earnings under stressful market conditions – including the breakdown of key assumptions;
- (iv) they assess the effect of adverse changes in the spreads of new assets/liabilities replacing those assets/liabilities maturing over the horizon of the forecast on its earnings-based measures; and
- (v) the scenarios consider potential changes in the firm's non-trading book activities.

2.9F In addition to considering the range of interest rate shock scenarios in 2.9E for the purpose of ongoing management, a firm should also use other larger and more extreme shifts and changes in interest rates for testing vulnerabilities under stressed condition.

2.9G Under Internal Capital Adequacy Assessment 9.12, a firm should either determine the interest rate shock scenarios for material positions in currencies not listed in Internal Capital Adequacy Assessment 9.11 by considering the following, or use interest rate shock scenarios produced by a third party that are consistent with the following:

- (i) a sufficiently long time-series of daily 'risk-free' interest rates for each currency for relevant maturities;
- (ii) the baseline global shock parameters on the average interest rate, which comprises: (i) 60% for parallel shocks; (ii) 85% for short rate shocks; and (iii) 40% for long rate shocks; and
- (iii) a floor of 100 basis points and caps of: (i) 500 basis points for the short-term; (ii) 400 basis points for the parallel; and (iii) 300 basis points for the long-term interest rate shock scenario.

2.9H A firm should develop and implement an effective stress testing framework that:

- (i) is commensurate with its nature, size and complexity as well as business activities and overall risk profile;
- (ii) is performed regularly, at least annually and more frequently in times of increased interest rate volatility and increased IRRBB levels;
- (iii) where relevant, stress testing should incorporate the risks identified in 2.9E;
- (iv) includes relevant qualitative and quantitative reverse stress tests in order to:
  - (a) identify interest rate scenarios that could significantly threaten the firm's capital and earnings; and
  - (b) reveal vulnerabilities arising from the firm's hedging strategies and the behavioural reactions of its customers.

2.9I A firm should reflect in its risk management framework how an instrument's actual maturity or repricing behaviour may vary from the instrument's contractual terms because of behavioural optionabilities.

2.9J A firm should establish and maintain documentation setting out the key behavioural assumptions and modelling assumptions it uses in measuring IRRBB.

2.9K For the documentation of behavioural and modelling assumptions, a firm should set out:

- (i) expectations for the exercise of explicit and embedded interest rate options by both the firm and its clients under specific interest rate shock and stress scenarios;
- (ii) treatment of balances and interest flows arising from non-maturity deposits;
- (iii) the treatment of fixed rate loan commitments;

- (iv) the treatment of fixed term deposits with risk of early redemption;
- (v) treatment of own equity in economic value measures;
- (vi) the implications of accounting practices for IRRBB; and
- (vii) how the assumptions in 2.9J may affect the firm's hedging strategies.

2.9L A firm should review significant assumptions at least annually, and when market conditions change significantly. These assumptions should be aligned with the firm's business strategies.

2.9M For the assumptions identified in 2.9J, a firm with significant exposure to products with embedded customer optionality should consider and identify the following:

- (i) the potential impact on current and future loan prepayment speeds arising from the interest rate scenario, underlying economic environment, and contractual features;
- (ii) the responsiveness of product rates to changes in market interest rates; and
- (iii) the migration of balances between product types as a result of changes in their features, terms and conditions.

2.9N For the assumptions identified in 2.9J, a firm with significant exposure to products without specific repricing dates should consider and identify the following:

- (i) the proportion of 'core' balances that are stable and unlikely to reprice even under significant changes in interest rate environment;
- (ii) the depositor characteristics (eg retail/wholesale) and account characteristics (eg transactional/non-transactional);
- (iii) the potential migration between deposits without specific repricing dates and other deposits that could modify, under different interest rate scenarios, key behavioural modelling assumptions;
- (iv) the potential constraints on the repricing of retail deposits in low or negative interest rate environment;
- (v) ensure that assumptions about the decay of core and other modelled balances are prudent and appropriate in balancing the benefits to earnings against the additional economic value risk entailed in locking in a future interest rate return on the assets financed by these balances, and the potential forgone revenue under a rising interest rate environment; and
- (vi) the impact of the assumptions on the firm's own chosen risk measurement outputs and internal capital allocation decisions, including by periodically calculating sensitivity analyses on key parameters (eg percentage and maturity of core balances on accounts and pass-through rate) and the measures using contractual terms rather than behavioural assumptions to isolate the impact of assumptions on both economic value and earnings.

2.9O A firm should have assumptions which are conceptually sound and reasonable, and consistent with historical experience, and establish and apply a robust process for testing the validity of the

assumptions. The testing process should include sensitivity analyses to monitor the impact of the assumptions on economic value and earnings-based measures.

2.9P Where a firm decides to adopt a policy intended to stabilise earnings arising from its own equity, it should:

- (i) have an appropriate methodology for determining what elements of equity capital should be considered eligible for such treatment;
- (ii) determine what would be a prudent investment maturity profile for the eligible equity capital that balances the benefits of income stabilisation arising from taking longer-dated fixed-return positions against the additional economic value sensitivity of those positions under an interest rate stress, and the risk of earnings underperformance should rates rise;
- (iii) include appropriate documentation of these assumptions in its policies and procedures, and include a process for keeping them under review;
- (iv) understand the impact of the chosen maturity profile on the firm's own chosen risk measurement outputs, including by regular calculation of the measures without inclusion of the equity capital to isolate the effects on both EVE and earnings perspectives; and
- (v) undertake stress testing to understand the sensitivity of risk measures to changes in key assumptions for equity capital, taking the results of such tests into account in its IRRBB internal capital allocation decisions.

2.9Q The data on which a firm's measurement systems and models for IRRBB are based should be sufficiently accurate and appropriately documented.

2.9R A firm should set up appropriate processes to ensure that the data referred to in 2.9Q is consistent with the data used for financial planning.

2.9S A firm should establish, maintain and apply appropriate governance processes for ensuring the ongoing adequacy of the models. This includes ensuring models are subject to adequate controls and testing, including any data mapping, to provide assurance on the accuracy of their calculations. A firm should ensure that its internal audit function annually reviews the integrity and effectiveness of the risk management system and the model risk management process.

2.9T Prior to deployment, and on a regular basis, the model should be reviewed and validated independently of model development.

2.9U A firm should establish exception trigger events that require notification to the management body or its delegates under 2.8E in a timely manner if those events occur.

2.9V When using third-party models, a firm should:

- (i) document and explain model specification choices as part of the validation process;
- (ii) ensure the models can be adequately customised to properly reflect the specific characteristics of the firm; and
- (iii) determine if inputs to models that are provided by third parties are reasonable for its business and the risk characteristics of its activities.

2.10 [Moved to 2.12A]

2.10A The management body or its delegates should receive:

- (i) the outcomes of the firm's measurement of IRRBB; and
- (ii) reports on the level and trend of the firm's IRRBB. This should be at least quarterly, and more frequently for firms with greater or more complex risk profiles.

2.10B The reporting referred to in 2.10A(ii) should be broken down by the appropriate levels of consolidation and currency and include at least:

- (i) summaries of the firm's aggregate exposures to IRRBB, including information on exposures to gap risk, basis risk and option risk;
- (ii) explanation of assets, liabilities, cash flows and strategies that are driving the level and direction of the firm's IRRBB;
- (iii) reports showing the extent of compliance of current exposures with policies and limits in 2.8B, 2.8C;
- (iv) the key modelling assumptions, such as characteristics of non-maturity deposits, prepayments on fixed rate loans, early withdrawals of fixed term deposits, drawing of commitments, currency aggregation and treatment of commercial margins;
- (v) the results of stress tests and measurements from the scenarios referred to in 2.9D, including sensitivity analysis for key model assumptions and parameters;
- (vi) the results of the calculation under Internal Capital Adequacy Assessment 9.4A;
- (vii) comparisons of past forecasts or risk estimates with actual results to inform potential modelling shortcomings on a regular basis; and
- (viii) identification of portfolios that may be subject to significant mark-to-market movements.

2.11 [Deleted]

2.11A Under Internal Capital Adequacy Assessment 13.1, a firm is required to make a written record of its assessments made under those rules. A firm's record of its approach to evaluating and managing interest rate risk as it affects the firm's non-trading book activities should cover the following issues as appropriate:

- (i) the internal definition of the boundary between 'banking book' and 'trading activities';
- (ii) the definition of economic value and its consistency with the method used to value assets and liabilities (eg discounted cash flows);
- (iii) the size and the form of the different shocks to be used for internal calculations;
- (iv) the use of a dynamic and/or static approach in the application of interest rate shocks;
- (v) the treatment of commonly called 'pipeline transactions' (including any related hedging);

- (vi) the aggregation of multi-currency interest rate exposures;
- (vii) the inclusion (or not) of non-interest bearing assets and liabilities (including capital and reserves);
- (viii) the treatment of current and savings accounts (ie the maturity attached to exposures without a contractual maturity);
- (ix) the treatment of fixed-rate assets or liabilities where customers still have a right to repay or withdraw early;
- (x) the extent to which sensitivities to small shocks can be scaled up on a linear basis without material loss of accuracy (ie covering both convexity generally and the non-linearity of pay-offs associated with explicit option products);
- (xi) the degree of granularity employed (eg offsets within a time bucket);
- (xii) whether all future cash flows or only principal balances are included;
- (xiii) the results of the calculation under Internal Capital Adequacy Assessment 9.4A;
- (xiv) the use of conditional or unconditional cash flow modelling approaches;
- (xv) the internal definition of commercial margins and adequate methodology for internal treatment of commercial margins;
- (xvi) the definition of earnings risk and its consistency with the method used for developing financial plans and financial forecasts;
- (xvii) the size and tenor of internal limits on IRRBB, and whether these limits are reached at the point of capital calculation;
- (xviii) the effectiveness and expected cost of hedging open positions that are intended to take advantage of internal expectations of the future level of interest rates;
- (xix) the sensitivity of the internal measures of IRRBB to key modelling assumptions;
- (xx) the impact of shock and stress scenarios on positions priced off different interest rate indices (basis risk);
- (xxi) the impact on economic value and earnings of mismatched positions in different currencies;
- (xxii) the impact of embedded losses;
- (xxiii) the distribution of capital relative to risks across legal entities that form part of a capital consolidation group, in addition to the adequacy of overall capital on a consolidated basis;
- (xxiv) the drivers of the underlying risk; and
- (xxv) the circumstances under which the risk might crystallise.

2.12 [Moved to 2.9C]

2.12A [Deleted]

2.12B Firms implementing the standardised framework under Internal Capital Adequacy Assessment 9.13 should generally consider the most recent 10 years of data when determining the core portion of non-maturing deposits under Internal Capital Adequacy Assessment 9.34(1).

### Market risk

2.13 Firms should provide in their ICAAP document sufficient supplementary evidence, to an auditable standard, which shows how the firm's capital add-on for market risk is calculated. Specifically, firms need to provide evidence of sound approaches for assigning liquidity horizons in stressed situations, and demonstrate a conservative translation of liquidity horizons into appropriately severe stress scenarios.

2.14 The PRA expects firms to submit this supplementary internal methodology documentation, when pertinent, on a quarterly basis.

2.15 To this end, the PRA expects firms to:

- identify illiquid, one-way or concentrated positions;
- stress these positions (or risk factors) over an appropriate holding period (ie greater than ten days) and confidence level;
- identify any capital mitigants already in place that directly relate to the illiquid, one-way or concentrated positions (eg capital for Risks not in VaR (RNIVs), capital for the Incremental Risk Charge (IRC) and reserves (such as bid/ask and prudential valuation reserves)); and
- suggest a Pillar 2A capital amount based on the stressed losses and capital mitigants or reserves.

### Group risk

2.16 Under the PRA Rulebook a firm is required to have adequate, sound and appropriate risk management processes and internal control mechanisms for the purpose of assessing and managing its own exposure to group risk, including sound administrative and accounting procedures.<sup>10</sup>

2.16A Group risk, as defined in the PRA Rulebook,<sup>11</sup> means the risk that the financial position of a firm may be adversely affected by its relationships (financial or non-financial) with other entities in the same group or by risk which may affect the financial position of the whole group, including reputational contagion.

2.16AA Where a firm is a member of a consolidation group, it should provide in its ICAAP document sufficient information to demonstrate how it is meeting the requirements under ICAA 14.8 and 14.9 to allocate the total amount of financial resources, own funds and internal capital between different parts of the consolidation group in a way that adequately reflects the nature, level, and distribution of the risks to which the consolidation group is subject. This assessment should cover all sources of risk within the group, including risks of financial sector entities that do not have an individual capital requirement but that nevertheless contribute to the consolidated risks of the group. Firms for which

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<sup>10</sup> Group Risk Systems 2.1.

<sup>11</sup> Internal Capital Adequacy Assessment 1.2

the PRA is not the global consolidating supervisor are not expected to conduct this assessment or provide the relevant analysis in their ICAAP document, unless the PRA requests otherwise.

2.16AB Specifically, where a financial sector entity's<sup>12</sup> contribution to the consolidation group's risk weighted assets (RWAs) exceeds 5%, and its capital ratio (defined as own funds divided by total RWAs) is lower than the consolidation group's total capital requirement, the firm is expected to:

- identify in its ICAAP document any mitigating actions it is taking to manage this under-allocation;<sup>13</sup> or
- demonstrate that there is no group risk from the under-allocation of capital to this entity (eg because there is no current or foreseen material, practical, or legal impediment to the prompt transfer of resources to that entity; the shortfall is temporary; or the safety and soundness of the entity is not material to the financial position of the firm or the consolidation group of which it is a member).

2.16AC Where a firm is a member of a consolidation group, and the group includes an entity established outside the United Kingdom, the PRA expects the firm, when it is assessing group risk, to consider any capital requirements or buffers applied to the entity<sup>14</sup> established outside the United Kingdom. Specifically, the PRA expects a firm to consider the extent to which:

- for any given risk type, the minimum requirements applied to the entity exceed the entity's share of the consolidated group requirements for the same underlying risk; and
- any buffers applied to the entity exceed the entity's share of the consolidated group buffer applied for the same underlying risk.<sup>15</sup>

2.16AD An entity's share of a particular consolidated group capital requirement or buffer can be determined by multiplying that consolidated group capital requirement or buffer by the proportion of the consolidated group's Pillar 1 RWAs that are attributable to that entity. The consolidated group's RWAs that are attributable to an entity is calculated as the entity's Pillar 1 RWAs minus the risk-weighted exposures of the entity to other group entities.

2.16AE Firms for which the PRA is not the global consolidating supervisor are not expected to conduct this assessment or provide the relevant analysis in their ICAAP documents, unless the PRA requests otherwise.

2.16AF The PRA does not expect firms to include in this assessment requirements imposed on entities established outside the United Kingdom that are attributable to risks that:

- are already mitigated through the risk-based capital framework (including requirements that are higher than the equivalent requirement applied on a consolidated basis because of a

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12 As defined in Article 4.1 of CRR.

13 Mitigating actions might include, for example, the reallocation of resources from other entities within the group or the raising of additional capital resources.

14 Whether on an individual, sub-consolidated, or country-level consolidated basis.

15 For example, the extent to which any domestic systemically important bank (D-SIB) buffer exceeds the D-SIB's share of any group-wide global systemically important bank (G-SIB) buffer, after accounting for the effect of risks that net off on consolidation.

difference of approach between the PRA and the regulatory authority in the jurisdiction concerned)<sup>16</sup> or by other means;<sup>17</sup> or

- net off in consolidation (eg intragroup risks and offsetting positions).

2.16AG Under ICAA 13.1, a firm must make a written record of the assessments required under the ICAA part of the PRA Rulebook. A firm's record of its approach to making the assessment in paragraph 2.16AC should cover the following, as appropriate:

- for any given risk type, the minimum requirements or buffers applied to an entity established outside the United Kingdom that exceed the entity's share of the consolidated group requirements for the same risk or buffer;
- any such differences that the firm considers are already mitigated through the risk-based capital framework or by another means; and
- how any additional capital to cover group risk has been calculated.

2.16AH Under the Senior Managers Regime (SMR),<sup>18</sup> firms are required to allocate a Prescribed Responsibility (PR) for managing the allocation and maintenance of the firm's capital, funding and liquidity to an individual performing a Senior Management Function (SMF).<sup>19</sup> The PRA expects:

- the SMF allocated this PR to ensure that the firm conducts the assessments specified in paragraphs 2.16AA to 2.16AG, and to document them in the firm's ICAAP submissions, and
- firms to ensure this expectation is explicitly reflected in the relevant SMF's Statement of Responsibilities.

#### Ring-fenced body (RFB) group risk

2.16B RFB group risk means, in relation to a consolidation group containing an RFB sub-group,<sup>20</sup> the risk that the financial position of a firm on a consolidated basis may be adversely affected by the minimum capital and buffers applicable at the level of the RFB sub-group, such that there is insufficient capital within (or an inappropriate distribution of capital across) the consolidated group to cover the risks of the consolidated group.

2.16C The PRA therefore expects a firm that is a member of a consolidation group containing an RFB sub-group to ensure that the minimum capital and buffers applicable at the level of the RFB sub-group do not result in the consolidated group having insufficient capital within it, or an inappropriate distribution of capital across it, to cover the risks faced by the consolidation group; and in order to

16 For example, a PRA-authorised firm may have permission to use an IRB model to calculate consolidated capital requirements in respect of a portfolio of credit risk exposures. If its overseas subsidiary is required to use a standardised approach for the same portfolio of credit risk exposures (on an individual or sub-consolidated basis), and as a result it is subject to higher requirements in respect of that portfolio, the PRA would not expect the firm to take the difference into account in its assessment of group risk.

17 For example, the risk of a local entity might be mitigated at the group level through risk management processes or internal control mechanisms established at the group level.

18 See Rule 4.1(7) in the Allocation of Responsibilities part of the PRA Rulebook and Supervisory Statement 28/15 'Strengthening individual accountability in banking', May 2017: <https://www.bankofengland.co.uk/prudential-regulation/publication/2015/strengthening-individual-accountability-in-banking-ss>.

19 Typically the Chief Finance function (SMF2) or, depending on the organisational structure of a group, a Group Entity Senior Manager (SMF7).

20 An RFB sub-group is a sub-set of related group entities within a consolidation group, consisting of one or more RFBs and other legal entities, which is established when the PRA gives effect to Article 11(5) of the CRR. See SS8/16 'Ring fenced bodies (RFBs)', February 2017: <https://www.bankofengland.co.uk/prudential-regulation/publication/2016/ring-fenced-bodies-ss> for more detail.

21 In the event that an RFB is not part of an RFB sub-group, the PRA expects to apply an equivalent approach in the event that prudential requirements are applicable to the RFB on an individual basis.

ensure that RFB group risk is adequately covered in consolidated group capital, firms are expected to take account of this risk when carrying out an ICAAP on a consolidated basis.

2.16D When a firm is assessing RFB group risk as part of its ICAAP on a consolidated basis, the PRA expects it to consider, to the extent not already covered by other elements of the capital framework, the following:

- the extent to which any other systemically important institutions buffer (O-SII buffer) exceeds the RFB sub-group's share<sup>22</sup> of any group-wide global systemically important bank (G-SIB) buffer;
- the extent to which the amount of capital applicable at the level of the RFB sub-group to cover the credit concentration risk on a sub-consolidated basis exceeds the RFB sub-group's share<sup>23</sup> of the capital applicable at the level of the consolidated group to cover the credit concentration risk on a consolidated basis;
- any minimum capital and buffers applicable at the level of the RFB sub-group attributable to risk-weighted exposures of the RFB sub-group to group entities that are not members of the RFB sub-group (to the extent RFB group risk in relation to those exposures is not already captured by the assessment of other aspects of RFB group risk covered in this paragraph); and
- as appropriate, the amount by which the minimum capital or buffers applicable at the RFB sub-group level to cover any other risk exceed the RFB sub-group's minimum capital or buffers applicable at the consolidated group level to cover the same risk. (This could include, for example, interest rate risk in the banking book, operational risk or the risk of the consolidated group being undercapitalised following the application of PRA rules on deduction of significant investments in financial sector entities at the level of the RFB sub-group.)<sup>24</sup>

2.16E Pension obligation risk: As set out in SS8/16, the PRA expects an RFB to ensure it has fully and appropriately considered group risk arising in respect of its pension arrangements when conducting its assessment of pension obligation risks at the level of the RFB sub-group. The PRA expects an RFB to consider all relevant factors when performing its assessment, including, but not limited to, its current share of consolidated group pension obligations, and its expected future share where it is making changes to its pension arrangements. An RFB's assessment should not be limited to a simple allocation of a share of the consolidated group's pension obligation risk. A full assessment may therefore result in a higher capital requirement than if the RFB were to apply a 'share-of-group' approach, particularly in the period prior to 1 January 2026. The PRA also expects to apply its existing policy, as set out in this supervisory statement, when assessing the pension obligation risk of a consolidated group containing an RFB. The PRA expects the assessment of RFB group risk at group level to be unaffected by the assessment of the pension obligation risk for the RFB sub-group given:

- the transitional nature of the risk; and
- assuming the sum of the amount of pension risks at the level of the RFB sub-group and group entities that are not members of the RFB sub-group is not expected to increase to a level above

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<sup>22</sup> This share can be determined by multiplying the global systemically important bank (G-SIB) buffer by the proportion of the consolidated group's Pillar 1 RWAs (ie the total risk exposure amount calculated in accordance with Article 92(3) of the CRR) that are attributable to the RFB sub-group.

<sup>23</sup> This share can be determined by multiplying the capital applicable at the level of the consolidated group to cover the credit concentration risk on a consolidated basis by the proportion of the consolidated group's credit risk RWAs that are attributable to the RFB sub-group.

<sup>24</sup> See paragraphs 2.1 and 2.2 in the Definition of Capital Part of the PRA's Rulebook.

that of the consolidated group in the event that the RFB will have to assume the pension liabilities of group entities that are not members of the RFB sub-group.

2.16F This exception only applies to the assessment of pension risk and should not be taken to mean that other risks with proportionately higher requirements should not be included in the assessment of RFB group risk.

2.16G In respect of the obligation under Internal Capital Adequacy Assessment 13.1, the PRA expects that firms should provide in their ICAAP document sufficient supplementary evidence, to an auditable standard, to demonstrate clearly how the additional capital to cover RFB group risk is calculated. Specifically, firms should provide a breakdown of the total amount of the additional capital, identifying the amount of capital attributable to each part of the assessment referred to in paragraph 2.16D.

## Operational risk

2.17 In meeting the general standard referred to in Internal Capital Adequacy Assessment 10.1, a firm that undertakes market-related activities should be able to demonstrate to the PRA:

- in the case of a firm calculating its capital requirements for operational risk using the Basic Indicator Approach or Standardised Approach, that it has considered; or
- in the case of a firm with an Advanced Measurement Approach (AMA) permission, that it has complied with, the Committee of European Banking Supervisor's Guidelines on the management of operational risk in market-related activities published in October 2010.<sup>25</sup>

2.18 In meeting the general standard referred to in Internal Capital Adequacy Assessment 10.1, a firm with an AMA approval should be able to demonstrate to the appropriate regulator that it has considered and complies with Section III of the EBA's Guidelines on the AMA — Extensions and Changes, published in January 2012.<sup>26</sup>

2.19 Business continuity plans are also a key component of operational risk management. Plans should include consideration of:

- resource requirements such as people, systems and other assets, and arrangements for obtaining these resources;
- the recovery priorities of the firm's operations;
- communication arrangements for internal and external concerned parties (including the PRA, clients and the media);
- escalation and invocation plans that outline the processes for implementing the business continuity plans, together with relevant contact information;
- processes to validate the integrity of information affected by the disruption; and

<sup>25</sup> <https://www.eba.europa.eu/regulation-and-policy/operational-risk/guidelines-on-the-management-of-operational-risk-in-market-related-activities>.

<sup>26</sup> <https://www.eba.europa.eu/-/guidelines-on-ama-extensions-and-chang-1>.

- regular stress testing of the business continuity plan in an appropriate and proportionate manner.

2.20 In addition, the PRA does not expect that smaller firms will complete the operational risk data items but expects such firms to provide in their ICAAP document at least the following information (historical losses at an aggregate level are regularly available to the PRA via COREP 17):

- (i) forecast operational risk losses, broken down between conduct and non-conduct losses and by future year; and
- (ii) information on the operational risk scenarios they have considered in their ICAAP, covering a description of such scenarios and an assessment of their impact and likelihood.

### **Pension obligation risk**

2.21 The PRA's framework for Pillar 2A pension obligation risk capital consists of two elements:

- the firm's own assessment of the appropriate level of Pillar 2A pension obligation risk capital; and
- a set of stresses on the accounting basis which will be used by the PRA in assessing the adequacy of the firm's own assessment of the level of capital required.

2.22 The firm's own assessment and the stress tests on the accounting basis can be reduced by:

- offsets and management actions; and
- any pension scheme deficit deducted from Common Equity Tier 1 (CET1).

2.23 The PRA expects firms to carry out their own assessment of the appropriate level of Pillar 2A pension obligation risk capital in their ICAAP. Firms should use methodologies and assumptions that are consistent with their approach to risk management and are therefore not restricted to using the IAS 19 basis in carrying out this assessment.

2.24 In carrying out their assessment, firms should consider risks to the financial position of their pension schemes consistent with a stress event that has no more than a 1 in 200 probability of occurring in a one-year period.

2.25 For the purpose of firms' own assessment of Pillar 2A pension obligation risk capital, the PRA expects firms to use stress testing and scenario analysis where appropriate to quantify the gross impact on the existing scheme surplus or deficit. The PRA does not necessarily favour a stochastic approach over a deterministic one. Firms should decide which approach is most appropriate.

2.26 As part of their ICAAP submission, firms are required to calculate and (if they have a defined benefit pension scheme) report the stressed accounting value of their pension scheme's assets and liabilities using stress scenarios specified by the PRA in accordance with PRA Statement of Policy, 'The PRA's methodologies for setting Pillar 2 capital' and Reporting Pillar 2, 2.6 as set out in the PRA Rulebook. This requirement is in addition to the firm's own assessment referred to above, unless the data required in that data item have already been reported to the PRA by other means. In doing so firms are expected to:

- calculate the stressed value of assets and liabilities assuming all the elements of the stress apply instantaneously and simultaneously;
- decompose the IAS 19 discount rate into a risk-free element and a credit spread element. Firms should make use of their own methodology to do so but should provide a description of the approach taken in their ICAAP. The long-term interest rate stress should be applied to the risk-free element and the credit stress to the credit spread element in order to derive the stressed discount rate; and
- use their own methodology to decompose the yield on bonds into a risk-free element and a credit spread element and describe the approach taken in their ICAAP.

2.27 The PRA expects the valuation measure of liabilities to be the same as that used for International Financial Reporting Standards (IFRS) reporting. The PRA expects firms' approaches to setting the valuation assumptions to be stable over time and any changes to the approach should be justified in the ICAAP document.

2.28 More information on the scenarios is available in PRA Statement of Policy, 'The PRA's methodologies for setting Pillar 2 capital'. The PRA scenarios are highly simplified by design and firms should decide which stresses to apply to individual asset and liability classes. The broadest possible interpretation should be used (eg a single stress is specified for equity prices); and this should be applied to all categories of investments that exhibit properties similar to listed equities, such as UK equities, overseas equities, unlisted equities, private equity and limited partnerships.

2.29 Where firms believe that the scenarios produce inappropriate levels of capital for their pension schemes, they should provide evidence of this together with a detailed explanation in their ICAAP document.

2.30 When considering management actions and offsets, firms must clearly demonstrate that offsets are valid and that management actions are realistic. They must also demonstrate that both offsets and management actions do not result in double counting and would be effective under stressed conditions.

### **Pension obligation risk in firms and groups**

2.31 Firms should ordinarily hold pension obligation risk capital against the total liability resulting from past or present employment:

- (i) with the firm (including any legacy or overseas entities); and
- (ii) outside the firm, pro-rated according to whether the pension fund principal beneficiaries' service was performed for the benefit of the firm.

2.32 Firms should also consider whether they may be exposed to pension obligation risk greater than that captured by these general criteria, given the potential for The Pensions Regulator to impose a contribution notice or a financial support direction on any company associated with an employer.

2.33 When Pillar 2A pension obligation risk capital is calculated at group level, these expectations apply to the group as a whole. Accordingly, firms must allocate Pillar 2A pension obligation risk capital to entities within the group in a way that adequately reflects the nature, level and distribution of the risks to which the group is subject.

## **Pension obligation risk: addressing the risk of increased pension losses near the point of resolution**

2.34 There are situations where liabilities related to a defined benefit pension fund may, as the sponsor firm's financial condition deteriorates, increase substantially and unexpectedly above the stressed deficit which is covered under Pillar 2A.<sup>27</sup>

2.35 Should such events materialise as a firm's financial condition deteriorates, unexpected losses well in excess of Pillar 2A capital already set aside might crystallise prior to the point of resolution.

2.36 In order to address the risk of increased pension losses near the point of resolution, the PRA expects firms to articulate in their ICAAP document how they intend to deal with the defined benefit pension scheme under relevant firm-specific extreme scenarios, bearing in mind the potential for additional loss and describing available management actions. The analysis should be sufficient to demonstrate the institution's awareness around this tail risk and the adequacy of its mitigating actions. The actions should be consistent with the firms' recovery and resolution plans. Additionally, under Reporting Pillar 2 2.6 firms with defined benefit pension schemes must calculate and report to the PRA their defined benefit pension scheme deficit if a debt became due under section 75 of the Pensions Act 1995, unless the data required in that data item have already been reported to the PRA by other means.

## **Foreign currency lending to unhedged retail and SME borrowers**

2.37 Foreign currency lending is defined in the EBA Guidelines on common procedures and methodologies for the supervisory review and evaluation process (SREP).<sup>28</sup>

2.38 As part of its obligation under Internal Capital Adequacy Assessment 3.1 a firm that lends in foreign currency to unhedged retail and SME borrowers should determine whether it meets the thresholds of materiality in Title 6, Section 1 paragraph 117 of the EBA's Guidelines on common procedures and methodologies for the SREP. Where a firm meets the threshold it should notify the PRA and reflect the risk in its ICAAP.

## **Exposures to securitisation**

2.39 When a firm assesses risks associated with exposures to securitisation as part of its ICAAP, it should consider the following:

- (i) the risk characteristics and structural features of a securitisation, including those of the underlying exposures, which could materially impact the performance of any positions in that securitisation held by the firm;
- (ii) whether the application of another method, namely SEC-IRBA, SEC-ERBA or SEC-SA, insofar as that method may be used, would result in material differences in risk weights for a position relative to the method applied; and

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27 The following events could trigger such losses: a request to the firm, by the pension trustee, to make additional payments to the pension fund when there is a concern that the firm may not be able to continue to make payments in the future (eg due to its deteriorating financial conditions); a different valuation of the firm's assets and liabilities under duress (eg under Article 36 of the Bank Recovery and Resolution Directive when recovery actions are initiated and/or prior to conversion/write-off of capital instruments); a loss on transfer of the scheme to another party (eg if required as part of a recovery action); and a trigger of an insolvency event.

28 [https://www.eba.europa.eu/documents/10180/935249/EBA-GL-2014-13+\(Guidelines+on+SREP+methodologies+and+processes\).pdf](https://www.eba.europa.eu/documents/10180/935249/EBA-GL-2014-13+(Guidelines+on+SREP+methodologies+and+processes).pdf).  
Title 1 'Subject matter, definitions and level of application' of the EBA Guidelines, Section 2, pages 16 and 18, provide definitions of 'FX lending' and 'unhedged borrowers'.

(iii) the extent to which differences in risk-weights identified in (ii) may be caused by the risk characteristics and structural features identified in (i) as well as the approach taken by an External Credit Assessment Institution (ECAI) in rating a particular asset class.

2.40 A firm's record under Internal Capital Adequacy Assessment 13.1 of its approach to evaluating and managing securitisation risk (or credit risk arising from securitisation exposures) should cover the following, as appropriate, taking into account SS9/13 'Securitisations: Significant Risk Transfer':

- (i) the appropriateness of the credit risk weight calculated for the asset classes to which the firm is exposed via securitisation;
- (ii) risk characteristics and structural features exhibited by securitisations to which the firm is exposed, that may materially impact the performance of the securitisation position, and are not explicitly taken into account by the method applied;
- (iii) a breakdown of the firm's aggregate securitisation exposure, split by asset class, risk characteristic or other feature as appropriate, with the following information:
  - (a) for the aggregate exposure risk-weighted under the SEC-IRBA, risk-weighted exposure amounts split by asset class, risk characteristic or other feature as appropriate, which would be arrived at under the SEC-IRBA, SEC-ERBA (for rated positions only) and the SEC-SA insofar as each method may be used; and
  - (b) for the aggregate exposure which is both risk-weighted under the SEC-SA and rated, risk-weighted exposure amounts which would be arrived at under the SEC-ERBA insofar as that method may be used.
- (iv) The firms' aggregate exposure and aggregate risk-weighted exposure amounts to unrated securitisation positions.

### **Financial risks from climate change**

2.41 The PRA expects firms to understand the financial risks from climate change and how they will affect their business model. Firms should use scenario analysis and stress testing to inform the risk identification process and to understand the short- and long-term financial risks to their business model from climate change.

2.42 Refer to SS3/19, 'Enhancing banks' and insurers' approaches to managing the financial risks from climate change'<sup>29</sup> for the PRA's expectations for ICAAPs in relation to financial risks from climate change.

### **Risk of excessive leverage**

2.43 The PRA expects firms to carry out an assessment of the risk of excessive leverage. This is defined as the risk resulting from a firm's vulnerability to leverage or contingent leverage that may require unintended corrective measures to its business plan, including distressed selling of assets which might result in losses or in valuation adjustments to its remaining assets.

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29 <https://www.bankofengland.co.uk/prudential-regulation/publication/2019/enhancing-banks-and-insurers-approaches-to-managing-the-financial-risks-from-climate-change-ss>.

2.44 In carrying out their assessment, firms should consider any contingent leverage risk in transactions and trade structures that receive lower leverage ratio exposure measure values than other economically similar transactions. Contingent leverage risk arises when a firm can no longer rely on these capital-efficient trades, for example in a stress. The PRA considers that trade structures that may be a source of contingent leverage risk include:

- agency repurchase agreements (repos)<sup>30</sup> and other agency models to transact in security financing transactions (SFTs) or derivatives, SFT and repo netting packages, collateral swaps, and unsecured borrowing or lending of securities; and
- internalised positions<sup>31</sup> (including written credit derivatives and prime brokerage business).

2.45 Further, firms should also consider any additional trade structures that have a lower leverage ratio exposure value than economically similar trades that firms judge may give rise to material contingent leverage risk.

2.46 The extent to which firms can use these more capital efficient forms of trades may be limited in certain conditions, such as in the event of the default of counterparties, the movement of certain market parameters, or changes to broader market conditions. For example:

- Netting: client withdrawal from one leg of a transaction that is netted, or one-directional markets in stress, could lead to a lack of availability of netting opportunities for firms' financing activities. This may result in loss of netting and an increase in firms' total exposure measure for the purposes of the leverage ratio.
- Internalisation: a client may withdraw or default from one leg of a synthetic prime brokerage transaction that is internally offset for hedging purposes. If the firm cannot replace the offsetting synthetic leg, the firm may use a cash hedge for the remaining leg of the transaction, increasing its total leverage exposure. In the case of written credit derivatives (in line with 'Article 429d' of the Leverage Ratio (CRR) Part of the PRA Rulebook), the loss of an offsetting leg may result in the loss of conditions that allow the firm to internalise the effective notional amount of the credit derivative, and increase a firm's total exposure.
- Collateral swaps: some lower-quality forms of collateral may become less available in certain market conditions, and firms may have to replace the affected collateral swaps with other forms of financing.

2.47 Firms should consider the extent to which they would need, and be able, to continue to participate in these trades and the extent to which they would instead need to use economically similar transactions or structures that receive higher leverage ratio exposure measure values. Firms should consider the impact this might have on their leverage ratio and other regulatory measures (such as liquidity or risk-weighted metrics) as relevant.

2.48 Firms may have to continue exposure<sup>32</sup> to transactions or trade structures that receive higher leverage ratio exposure measure values for a variety of reasons, including contractual obligations,

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30 Agency repos are transactions where a firm acts as an agent between two parties in a repurchase agreement or a reverse repurchase agreement involving the exchange of cash, in line with Article 429e(7) of Chapter 3 of the Leverage Ratio (CRR) Part of the PRA Rulebook

31 Internalisation is whereby, if a firm has two clients that are taking opposite positions on the same asset (one long, the other short), the firm may internally offset these amounts to avoid having to fund the positions elsewhere: a client short position is therefore funding a client long position. This definition is consistent with the one provided in the PRA's Statement of Policy 'Pillar 2 Liquidity'

franchise considerations, liquidity management, or other commercial reasons. To the extent that firms would not continue to participate in such trades in certain circumstances, firms should consider what implications this might have for their revenues. Examples of risks and assumptions that firms should pay particular consideration to include, but are not limited to:

- Contractual obligations: firms may be contractually obliged to maintain transactions with certain counterparties, even in circumstances where doing so might be detrimental to the firm's leverage ratio position.
- Franchise risk: firms, especially prime brokers, often offer their services to maintain a franchise value with their clients in addition to the revenues generated directly by the business activity. As such, a firm may roll over funding transactions at a client's request even in circumstances where doing so might be detrimental to the firm's leverage ratio position.<sup>33</sup>
- Liquidity management: firms should consider the extent to which they may be able to maintain their funding without having to replace their transactions or trade structures with others that receive higher leverage ratio exposure measure values, such as secured borrowing.

2.49 As part of their ICAAP responses, firms should set out their assessment of contingent leverage risks by each individual trade structure identified in paragraph 2.44 and 2.45 that firms judge may be a material source of contingent leverage risk.

2.50 Factors which firms should consider in assessing the materiality of contingent leverage risk for each trade structure identified in paragraph 2.44 and 2.45 include, for example:

- the extent to which the firm engages in the relevant trade, especially where the trades are subject to contractual obligations, franchise risk, or liquidity management considerations as set out in paragraph 2.48; and
- the size of the impact on the firm's leverage ratio should the firm lose the capital optimisation benefits from the trade and have to replace it with trades that receive higher leverage ratio exposure measure values.

### 3 Stress testing, scenario analysis and capital planning

3.1 Both stress testing and scenario analysis are forward-looking analytical techniques, which seek to anticipate possible losses that might occur if an identified economic downturn or a risk event crystallises.

3.2 Stress testing typically refers to shifting the values of individual parameters that affect the financial position of a firm and determining the effect on the firm's financial position.

3.3 Scenario analysis typically refers to a wider range of parameters being varied at the same time. Scenario analyses often examine the impact of adverse events on the firm's financial position, for

<sup>32</sup> Intra-group exposures to other entities within the wider group are in scope of this part of the ICAAP, to the extent that these entities do not fall within the basis (whether solo, sub-consolidated, or consolidated) on which the firm is calculating its leverage ratio.

<sup>33</sup> This definition of franchise risk is consistent with the one provided in the PRA's Statement of Policy 'Pillar 2 Liquidity'. Firms should apply the two definitions consistently across their assessments of contingent leverage risks under the ICAAP and of liquidity risks under the ILAAP.

example, simultaneous movements in a number of risk drivers affecting all of a firm's business operations, such as business volumes and investment values.

3.4 There are three broad purposes of stress testing and scenario analysis:

- (i) as a means of quantifying how much capital might be absorbed if an adverse event(s) occurs;
- (ii) to provide a check on the outputs and accuracy of risk models, particularly in identifying non-linear effects when aggregating risks; and
- (iii) to explore the sensitivities in longer-term business plans and how capital needs might change over time.

3.5 The general stress test and scenario analysis rule in Internal Capital Adequacy Assessment 12.1 requires a firm to carry out stress tests and scenario analyses as part of its obligations under the overall Pillar 2 rule in Internal Capital Adequacy Assessment 3.1. Both stress tests and scenario analyses are undertaken by a firm to improve its understanding of the vulnerabilities that it faces under adverse conditions. They are based on the analysis of the impact of a range of events of varying nature, severity and duration. These events can be economic, financial, operational or legal, or relate to any other risk that might have an impact on the firm. Under Recovery and Resolution 2.4 in the PRA Rulebook, a recovery plan must contain a comprehensive range of options setting out actions that could be taken in a number of different scenarios and stresses.

### **Overall approach**

3.6 As part of its obligation under the general stress and scenario testing rule in Internal Capital Adequacy Assessment 12.1, a firm should undertake a broad range of stress tests which reflect a variety of perspectives, including sensitivity analysis, scenario analysis and stress testing on individual portfolios as well as at a firm-wide level.

3.7 A firm should use the results of its stress testing and scenario analysis not only to assess capital needs, but also to decide if measures should be put in place to minimise the adverse effect on the firm if the risks covered by the stress test or scenario analysis actually materialise. Such measures might be a contingency plan or more concrete risk mitigation steps.

3.8 Stress tests and scenario analyses should be carried out at least annually. A firm should, however, consider whether the nature of the major sources of risks identified by it in accordance with the overall Pillar 2 rule in Internal Capital Adequacy Assessment 3.1 and their possible impact on its financial resources suggest that such tests and analyses should be carried out more frequently. For instance, a sudden change in the economic outlook may prompt a firm to revise the parameters of some of its stress tests and change its scenario analyses. Similarly, if a firm has recently become exposed to a particular sectoral concentration, it may wish to amend and/or add some stress tests and scenario analyses in order to reflect that concentration.

3.9 The PRA expects a firm to project its capital resources and capital requirements over a three to five year horizon, taking account of its business plan and the impact of relevant adverse scenarios. In making the estimate, the firm should consider both the capital resources required to meet its capital requirements under the CRR and the capital resources needed to meet the overall financial adequacy rule. The firm should make these projections in a manner consistent with its risk management processes and systems.

3.10 The firm should document its stress testing and scenario analysis policies and procedures, as well as the results of its tests in accordance with Internal Capital Adequacy Assessment 13.1. These results should be included within the firm's ICAAP document.

## **Governance**

3.11 The PRA expects a firm's management body to be actively involved and engaged in all relevant stages of the firm's stress testing and scenario analysis programme. This would include establishing an appropriate stress testing programme, reviewing the programme's implementation (including the design of scenarios) and challenging, approving and taking action based on the results of the stress tests.

3.12 The PRA expects firms to assign adequate resources, including IT systems, to stress testing and scenario analysis, taking into account the stress testing techniques employed, so as to be able to accommodate different and changing stress tests at an appropriate level of granularity.

## **Scenarios**

3.13 Firms should develop a range of firm-wide scenarios including some based on macroeconomic and financial market shocks for the purposes of their own stress testing. These scenarios should be developed so as to be relevant to the circumstances of the firm, including its business model, and the market(s) in which it operates.

3.14 In identifying an appropriate range of adverse circumstances and events in accordance with Internal Capital Adequacy Assessment 12.1, a firm will need to consider:

- the nature, scale and complexity of its business and of the risks that it bears;
- its risk appetite, including in light of the adverse conditions through which it expects to remain a going concern;
- the cycles it is most exposed to and whether these are general economic cycles or specific to particular markets, sectors or industries;
- the behaviour of counterparties, and of the firm itself, including the exercise of choices (for example, options embedded in financial instruments or contracts of insurance); and
- for the purposes of Internal Capital Adequacy Assessment 12.1, the amplitude and duration of the relevant cycle which should include a severe downturn scenario based on forward-looking hypothetical events, calibrated against the most adverse movements in individual risk drivers experienced over a long historical period.

3.15 The calibration of stress testing and scenario analyses should be reconciled to a clear statement setting out the premises upon which the firm's internal capital assessment under the overall Pillar 2 rule in Internal Capital Adequacy Assessment 3.1 is based.

## **Common stress scenarios**

3.16 As part of its Annual Stress Testing framework, the Bank of England publishes a common stress scenario aimed at assessing the UK banking system's capital adequacy. This scenario is run concurrently across a number of participating firms, on an annual basis.

3.17 Additionally, for firms not participating in the concurrent stress testing, the PRA publishes a macroeconomic scenario to serve as a guide and, where relevant, as a severity benchmark, for firms designing their own stress scenarios.

3.18 Firms should consider the relevance of the PRA's stress scenario in the context of their business and specific risk drivers, and use this scenario as a starting point to build and calibrate their own scenarios. The scenario reflects minimum adverse conditions, through which firms should assess their ability to maintain minimum specified capital levels. This is particularly important for specialised firms, or firms whose business models are less affected by the PRA scenario (eg firms with major exposures to countries other than the United Kingdom, mono-lines, and investment banks).

3.19 More generally, all firms should continue to develop their own scenarios and ensure that these are as severe in relation to their business model as the concurrent stress testing scenario (for firms participating in concurrent stress testing) or the scenario published by the PRA (for all other firms).

3.20 The PRA may ask some firms to run concurrent stress test scenarios or the PRA scenario as part of their range of stress scenarios for Pillar 2 capital planning. Asking firms to run common scenarios, or scenarios that are broadly comparable in terms of severity (eg for firms with different business models) will allow supervisors to more easily compare and benchmark individual results and firms' approaches to stress testing.

3.21 In identifying adverse circumstances and events in accordance with Internal Capital Adequacy Assessment 12.1, a firm should consider the results of any reverse stress testing conducted in accordance with Chapter 15 of the Internal Capital Adequacy Assessment Part of the PRA Rulebook. Reverse stress testing may be expected to provide useful information about the firm's vulnerabilities for the purpose of meeting the firm's obligations under Internal Capital Adequacy Assessment 12.1. In addition, such a comparison may help a firm to assess the sensitivity of its financial position to different stress calibrations.

### **Forward-looking, multi-year risk assessment**

3.22 In carrying out the stress tests and scenario analyses required by the general stress and scenario testing rule in Internal Capital Adequacy Assessment 12.1, the PRA expects a firm to consider any impact of the adverse circumstances on its capital resources. In determining whether it would have adequate financial resources in the event of each identified severe adverse scenario, the firm should:

- only include financial resources that could reasonably be relied upon as being available in the circumstances of the identified scenario; and
- take account of any legal or other restriction on the use of financial resources.

3.23 In making the estimate required by Internal Capital Adequacy Assessment 12.3, a firm should project both its capital resources and its required capital resources over a time horizon of three to five years, taking account of its business plan and the impact of relevant adverse scenarios. The firm should consider both the capital resources required to meet its capital requirements under the CRR and the capital resources needed to meet the overall financial adequacy rule. The PRA's approach to projecting the Pillar 2A component of capital requirements is described in Chapter 9 in PRA

Statement of Policy 'The PRA's methodologies for setting Pillar 2 capital'.<sup>34</sup> The PRA considers this approach to be appropriate for most firms. The firm should make all these projections in a manner consistent with its risk management processes and systems as set out in Internal Capital Adequacy Assessment 3.1.

3.24 When deciding the planning horizon over which to conduct their analysis, firms should consider how long it might take to recover from any loss. The time horizon over which stress tests and scenario analyses should be carried out will depend on, among other things, the maturity and liquidity of the positions stressed. For example, for the market risk arising from the holding of investments, this will depend upon the extent to which there is a regular, open and transparent market in those assets, which would allow fluctuations in the values of the investments to be more readily and quickly identified.

3.25 In projecting its financial position over the relevant time horizon, the firm should:

- reflect how its business plan would respond to the adverse events being considered, taking into account factors such as changing consumer demand and changes to new business assumptions;
- consider the potential impact on its stress testing of dynamic feedback effects and second-order effects of the major sources of risk identified in accordance with the overall Pillar 2 rule in Internal Capital Adequacy Assessment 3.1;
- estimate the effects on its financial position of the adverse event without adjusting for management actions;
- separately, identify any realistic management actions that the firm could, and would, take to mitigate the adverse effects of the stress scenario; and
- estimate the effects of the stress scenario on its financial position after taking account of realistic management actions.

3.26 The PRA expects firms to identify any realistic management actions intended to maintain or restore capital adequacy. A firm should reflect management actions in its projections only where it could, and would, take such actions, taking account of factors such as market conditions in the stress scenario and any effects upon the firm's reputation with its counterparties and investors. The combined effect on capital and retained earnings should be estimated.

3.27 To assess whether prospective management actions in a stress scenario would be realistic, and to determine which actions the firm could and would take, the PRA expects a firm to take into account any preconditions that might affect the value of management actions as risk mitigants. It should then analyse the difference between the estimates of its financial position over the time horizon, both gross and net of management actions, in sufficient detail to understand the implications of taking different management actions at different times, particularly where they represent a significant divergence from the firm's business plan.

3.28 A firm should use the results of its stress testing and scenario analysis not only to assess capital needs, but also to decide if measures should be put in place to minimise the adverse effect on the

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<sup>34</sup> Available at <https://www.bankofengland.co.uk/prudential-regulation/publication/2015/the-pras-methodologies-for-setting-pillar-2-capital>.

firm if the risks covered by the stress or scenario test materialise. Such measures might be a contingency plan or more concrete and immediate risk mitigation steps.

## Double leverage

3.29 Where a firm is a member of a group in which a qualifying parent undertaking<sup>35</sup> has a double leverage ratio above 100%, or is projecting one above 100%, the PRA expects the firm to assess and mitigate the risks of double leverage, including the cash-flow risks incurred by its qualifying parent undertaking as part of its stress testing and scenario analysis. For this purpose, 'double leverage ratio' is defined as a qualifying parent undertaking's common equity capital investment in its subsidiaries,<sup>36</sup> divided by its own common equity capital.

3.29A For purposes of calculating the double leverage ratio, 'qualifying parent undertaking's common equity capital investment in its subsidiaries' is defined as the holding company's investment in common equity of its subsidiaries. For the avoidance of doubt, investment in Additional Tier 1 instruments, calculated according to CRR Article 61, should not be included. For purposes of calculating the double leverage ratio, 'own common equity capital' is defined as shareholder's equity less intangible assets, less deferred tax assets (DTAs), less Additional Tier 1 Instruments.

- (i) 'DTAs' has the same meaning as under the applicable accounting framework.
- (ii) 'Intangible assets' has the same meaning as under the applicable accounting framework and includes goodwill.
- (iii) Additional Tier 1 instruments should be calculated according to CRR Article 61.
- (iv) 'Applicable accounting framework' refers to the accounting standards to which the institution is subject under Regulation (EC) No 1606/2002 or Directive 86/635/EEC.

3.30 These expectations also apply where the firm is a member of a group that uses a different definition of double leverage, or calculates double leverage in respect of a grouping of companies,<sup>37</sup> and its double leverage ratio is over 100%, or is projected to be over 100%. In these circumstances, information should be provided in respect of the qualifying parent undertaking's double leverage ratio as set out above, as well as in respect of the aggregate double leverage ratio in those circumstances where double leverage occurs at different levels in the group, as set out above. Should the firm's own methodology differ from the one described in this document, it should provide information in respect of its own internal approach, as well as the approach described in this document.

3.31 Specifically, in its ICAAP document the PRA expects the firm to:

- provide details of the qualifying parent undertaking's double leverage ratio and the projected double leverage ratio on a forward-looking basis over a three- to five-year time horizon;
- explain how the risks of double leverage are assessed and managed, including any mitigating factors in place (eg any unencumbered liquid assets held by the qualifying parent undertaking to cover the risk of a shortfall in income to meet its interest obligations);

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<sup>35</sup> Section 192B FSMA.

<sup>36</sup> As defined in Article 4(1) of CRR.

<sup>37</sup> For example the ultimate qualifying parent undertaking and a number of intermediate parent undertakings.

- develop and analyse relevant stress or recovery scenarios, including where the qualifying parent undertaking's inflows from its subsidiaries are significantly reduced and/or market conditions make it difficult to rollover existing debt. Specifically, it should consider any constraints that have been, or might be, imposed on dividend payments from an entity established outside the United Kingdom to its qualifying parent undertaking;
- provide information on the qualifying parent undertaking's expected quarterly inflows and outflows under both normal and stressed conditions over a three- to five-year time horizon; and
- identify what management actions the firm would take in a stress to manage the risks of double leverage and the impact those management actions would have on the qualifying parent undertaking's inflows and outflows and on its double leverage ratio.

3.32 Firms for which the PRA is not the global consolidating supervisor are not expected to conduct this assessment or provide the relevant analysis in their ICAAP documents, unless the PRA requests otherwise.

3.33 Under the SMR,<sup>38</sup> firms are required to allocate a PR for managing the allocation and maintenance of the firm's capital, funding and liquidity to an individual performing an SMF.<sup>39</sup> The PRA expects:

- the SMF allocated this PR to ensure that the firm conducts the assessments specified in paragraphs 3.29 to 3.31 and to document them in the firm's ICAAP submissions; and
- firms to ensure this expectation is explicitly reflected in the relevant SMF's Statement of Responsibilities.

## 4 Reverse stress testing

4.1 This chapter on reverse stress testing was added to this supervisory statement on 3 August 2015 following consultation on proposals in CP17/15.<sup>40</sup>

4.2 Reverse stress testing is a risk management tool used to increase a firm's awareness of its business model vulnerabilities. Firms in scope of Chapter 15 of the Internal Capital Adequacy Assessment Part of the PRA Rulebook must carry out reverse stress testing in accordance with Chapter 15 of that Part. This includes requirements on the firm to reverse stress test its business plan; that is, to carry out stress tests and scenario analyses that test its business plan to failure.

4.3 Business plan failure in the context of reverse stress testing should be understood as the point at which the market loses confidence in a firm and, as a result, the firm is no longer able to carry out its business activities. Examples of this would be the point at which all or a substantial portion of the firm's counterparties are unwilling to continue transacting with it or seek to terminate their contracts, or the point at which the firm's existing shareholders are unwilling to provide new capital. Such a point may be reached well before the firm's financial resources are exhausted.

<sup>38</sup> See Rule 4.1(7) in the Allocation of Responsibilities part of the PRA Rulebook and PRA Supervisory Statement 28/15 'Strengthening individual accountability in banking', May 2017: <https://www.bankofengland.co.uk/prudential-regulation/publication/2015/strengthening-individual-accountability-in-banking-ss>.

<sup>39</sup> Typically the Chief Finance function (SMF2) or, depending on the organisational structure of a group, a Group Entity Senior Manager (SMF7).

<sup>40</sup> PRA Consultation Paper CP17/15, 'The PRA Rulebook: Part 3', April 2015, <https://www.bankofengland.co.uk/prudential-regulation/publication/2015/the-pra-rulebook-part-3>.

4.4 The PRA may request a firm to quantify the level of financial resources which, in the firm's view, would place it in a situation of business failure should the identified adverse circumstances crystallise.

4.5 In carrying out the stress tests and scenario analyses required by rule 15.2 of the Internal Capital Adequacy Assessment Part of the PRA Rulebook a firm should at least take into account each of the sources of risk identified in accordance with Internal Capital Adequacy Assessment 3.1.

4.6 Reverse stress testing should be appropriate to the nature, size and complexity of the firm's business and of the risks it bears. Where reverse stress testing reveals that a firm's risk of business failure is unacceptably high, the firm should devise realistic measures to prevent or mitigate the risk of business failure, taking into account the time that the firm would have to react to these events and implement those measures. As part of these measures, a firm should consider if changes to its business plan are appropriate. These measures, including any changes to the firm's business plan, should be documented as part of the results referred to in rule 15.4 of the Internal Capital Adequacy Assessment Part of the PRA Rulebook.

4.7 In carrying out its reverse stress testing, a firm could consider scenarios in which the failure of one or more of its major counterparties or a significant market disruption arising from the failure of a major market participant, whether or not combined, would cause the firm's business to fail. For an RFB, this supervisory statement should be read in conjunction with SS8/16<sup>41</sup>. SS8/16 sets out the PRA's expectation that an RFB sub-group should consider the failure of group entities that are not members of the RFB sub-group as part of reverse stress testing.

4.8 Firms may choose to use reverse stress testing as a starting point for their recovery plan scenarios.

## 5 The SREP

5.1 The SREP is a process by which the PRA, taking into account the nature, scale and complexity of a firm's activities, reviews and evaluates the:

- arrangements, strategies, processes and mechanisms implemented by a firm to comply with its regulatory requirements laid down in PRA rules and the CRR;
- risks to which the firm is or might be exposed;
- risks that the firm poses to the financial system; and
- further risks revealed by stress testing.

5.2 As part of the SREP, the PRA will review the firm's ICAAP and have regard to the risks outlined in the overall Pillar 2 rule in Internal Capital Adequacy Assessment 3.1, the firm's vulnerabilities under reverse stress testing, the governance arrangements of firms, its corporate culture and values, and the ability of members of the management body to perform their duties. The degree of involvement of the management body of the firm will be taken into account by the PRA when assessing the ICAAP, as will the appropriateness of the internal processes and systems for supporting and producing the ICAAP.

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41 'Ring-fenced bodies', November 2017: <https://www.bankofengland.co.uk/prudential-regulation/publication/2016/ring-fenced-bodies-ss>.

5.2A The PRA will consider whether it has reasonable grounds to suspect that money laundering or terrorist financing is being undertaken, or has been committed or attempted, or there is increased risk thereof in connection with that institution. If the PRA has reasonable grounds to suspect such activity or increased risk, it will take appropriate steps.

5.3 When the PRA reviews an ICAAP as part of the SREP, it does so as part of the process of determining whether all of the material risks have been identified and that the amount and quality of capital identified by the firm is sufficient to cover the nature and level of the risks to which it is or might be exposed.

5.4 The PRA may request a firm to submit the design and results of its reverse stress tests and any subsequent updates as part of its risk assessment.

5.5 The SREP will also consider:

- the results of stress tests carried out in accordance with the CRR by firms that use an internal ratings-based (IRB) approach or internal models for market risk capital requirements;
- the exposure to, and management of, concentration risk by firms, including their compliance with the requirements set out in Part Four of the CRR and Chapter 6 of the ICAA rules;
- the robustness, suitability and manner of application of policies and procedures implemented by firms for the management of the residual risk associated with the use of credit risk mitigation techniques;
- the extent to which the capital held by firms in respect of assets which it has securitised is adequate, having regard to the economic substance of the transaction, including the degree of risk transfer achieved;
- the exposure and management of liquidity risk by firms, including the development of alternative scenario analyses, the management of risk mitigants (including the level, composition and quality of liquidity buffers), and effective contingency plans;
- the impact of diversification effects and how such effects are factored into firms' risk measurement system;
- the geographical location of firms' exposures;
- risks to firms arising from excessive leverage;
- whether a firm has provided implicit support to a securitisation; and
- the exposure to and management of foreign currency lending risk to unhedged retail and SME borrowers by firms, in line with Title 6, section 2 paragraphs 158–59 of the EBA's Guidelines on common procedures and methodologies for the SREP;<sup>42</sup>
- the extent to which the allocation of the total amount of financial resources, own funds and internal capital between different parts of the consolidation group reflects the nature, level, and distribution of the risks to which the consolidation group is subject;

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42 See footnote (1) on page 14.

- the extent to which any capital requirements or buffers set on an entity established outside the United Kingdom, on an individual or sub-consolidated basis, exceed the requirements or buffers applicable at the consolidated group level to cover the same risk; and
- where a firm is a member of a group in which a qualifying parent undertaking has a double leverage ratio above 100%, or is projecting one above 100%, the extent to which the firm is managing the risks of double leverage, and the credibility of its related stress testing and scenario analysis.

5.5A Where groups contain an RFB sub-group, the SREP will also consider RFB group risk.

5.6 The PRA also assesses as part of the SREP the risks that the firm poses to the financial system.

5.7 The PRA may need to request further information and meet with the management body and other representatives of a firm in order to evaluate fully the comprehensiveness of the ICAAP and the adequacy of the governance arrangements around it. The management body should be able to demonstrate an understanding of the ICAAP consistent with its taking responsibility for it. And the appropriate levels of the firm's management should be prepared to discuss and defend all aspects of the ICAAP, covering both quantitative and qualitative components.

5.8 [Deleted]

5.8A In applying the principle of proportionality to the SREP, the PRA adheres to the approach in section 2.4 of the EBA Guidelines on common procedures and methodologies for the SREP which relates the frequency and intensity of the SREP to firms' nature, scale and complexity. The PRA categorises firms according to their significance to the stability of the UK financial system, in accordance with the criteria set out in 'The PRA's approach to banking supervision'.<sup>43</sup> The PRA has additional criteria for applying the principle of proportionality to particular aspects of the SREP:

- Smaller firms have fewer reporting requirements under the Pillar 2 reporting part of the Rulebook.<sup>44</sup>
- A proportionate approach is applied to the operational risk Pillar 2A add-for non-Category 1 firms.
- The PRA provides more proportionate scenarios for smaller firms' own stress testing. For example, the approach applied to the PRA buffer for new banks takes into account their recent entry to the market.<sup>45</sup>

5.9 On the basis of the SREP, the PRA will determine whether the arrangements implemented by a firm and the capital held by it provide sound management and adequate coverage of its risks. If necessary, the PRA will require the firm to take appropriate actions or steps at an early stage to address any future potential failure to meet its prudential regulatory requirements, or to prevent or mitigate the risk of business failure revealed by reverse stress testing. The PRA recognises that not every business failure is driven by lack of financial resources and will take this into account when reviewing a firm's reverse stress-test design and results.

<sup>43</sup> Paragraph 32 <https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/approach/banking-approach-2018.pdf>

<sup>44</sup> Rule 2.3 of the Pillar 2 Part of the PRA Rulebook

<sup>45</sup> Non-systemic UK banks: The Prudential Regulation Authority's approach to new and growing banks  
<https://www.bankofengland.co.uk/prudential-regulation/publication/2020/new-and-growing-banks>

5.10 There are two main areas that the PRA considers when assessing a firm's capital adequacy under a SREP: (i) risks to the firm which are either not captured, or not fully captured, under the CRR (eg IRRBB and concentration risk); and (ii) risks to which the firm may become exposed over a forward-looking planning horizon (eg due to changes to the economic environment). The PRA refers to the first area as Pillar 2A and the second as Pillar 2B.

5.11 To assess the capital adequacy of a firm under Pillar 2A, the PRA has developed capital methodologies. The methodologies are published in PRA Statement of Policy, 'The PRA's methodologies for setting Pillar 2 capital'.

5.12 The PRA will set Pillar 2A capital requirements in light of both the calculations included in a firm's ICAAP and the results of the PRA's own Pillar 2A methodologies. In considering the level of capital that is necessary to capture risks to which the firm is or might be exposed, the PRA also takes into account the extent to which those risks are mitigated by macroprudential buffers. Setting a Pillar 2A capital requirement is subject to peer group reviews to ensure consistency of decisions across firms.

5.12A [Deleted]

5.12B [Deleted]

5.12C [Deleted]

5.13 The PRA will review the firm's records referred to in Internal Adequacy Assessment 13.1 as part of its SREP to judge whether a firm will be able to continue to meet its CRR requirements and the overall financial adequacy rule in Internal Capital Adequacy Assessment 2.1 throughout the time horizon used for the capital planning exercise.

### **The setting of Pillar 2A capital requirements and the PRA buffer**

#### **Pillar 2A Capital Requirements**

5.14 Following the SREP, including both a review of the ICAAP and any further interactions with the firm, the PRA will normally set the firm a Pillar 2A capital requirement on an individual basis, for the amount and quality of capital that the PRA considers the firm should hold, in addition to the capital it must hold to comply with the CRR (Pillar 1 capital) to meet the overall financial adequacy rule in Internal Capital Adequacy Assessment 2.1. The PRA will additionally set Pillar 2A capital requirements for firms which must comply with the overall financial adequacy rule in Internal Capital Adequacy Assessment 2.1 on a consolidated basis and, where groups contain an RFB sub-group, on a sub-consolidated basis.

5.15 In many cases the PRA may decide to set Pillar 2A capital requirements on an individual basis by undertaking a detailed individual assessment, calculating the relevant Pillar 2A add-ons according to the individual firm's risk profile. Alternatively, the PRA may decide to set Pillar 2A capital requirements on an individual basis calibrated so that its TCR represents a share of the UK consolidated group or sub-consolidated group (where relevant) TCR where the firm is able to demonstrate that capital has been adequately allocated among subsidiaries, the members of the group or RFB sub-group are strongly incentivised to support each other, and there are no impediments to the transfer of capital within the group or RFB sub-group. Where a firm is not considered to have significant systemic impact, or where it has a very similar risk profile to the UK consolidation group (or RFB sub-consolidation group), the PRA may decide to set Pillar 2A on an individual basis by applying the same Pillar 2A add-on rate as calculated for the UK consolidated (or RFB sub-consolidated) Pillar 2A capital requirement to the individual total RWAs of the firm.

5.16 Where the PRA sets a firm-specific Pillar 2A capital requirement it will generally specify an amount of capital (Pillar 2A) that the firm should hold at all times in addition to the capital it must hold to comply with the CRR (Pillar 1). It will usually do so by stating that the firm should hold capital of an amount equal to a specified percentage of the firm's Pillar 1 RWAs (the total risk exposure amount calculated in accordance with Article 92(3) of the CRR), plus one or more static add-on in relation to specific risks in accordance with the overall Pillar 2 rule in Internal Capital Adequacy Assessment 3.1. The PRA requires firms to meet Pillar 2A with at least 56.25% CET1 capital, no more than 43.75% additional Tier 1 (AT1) capital and no more than 25% Tier 2. For these purposes, firms should follow the provisions on the definition of capital set out in the Definition of Capital Part of the PRA Rulebook and Supervisory Statement 7/13.<sup>46</sup>

5.17 It is for firms to ensure that they comply with the overall financial adequacy rule in Internal Capital Adequacy Assessment 2.1. If a firm holds the level of capital required under its TCR that does not necessarily mean that it is complying with the overall financial adequacy rule. Deviation by a firm from the terms of the Pillar 2A and TCR given to it by the PRA does not automatically mean that the firm is in breach of the overall financial adequacy rule or that the PRA will consider the firm is failing, or likely to fail, to satisfy the Threshold Conditions (TCs). However, firms should expect the PRA to investigate whether any firm is failing, or likely to fail, to satisfy the TCs, with a view to taking further action as necessary.

5.18 If a firm agrees with its TCR, the PRA will expect the firm to apply for a requirement under section 55M of the Financial Services and Markets Act 2000 (FSMA) to set the amount and quality of the Pillar 2A capital requirement. The firm will normally be invited to apply for such a requirement at the same time as it is advised of its Pillar 2A capital requirement. If a firm does not apply for such a requirement the PRA will consider using its powers under section 55M(3) to impose one of its own initiative.

5.19 [Deleted]

### The PRA buffer

5.20 Following the SREP, the PRA will also notify the firm of an amount of capital that it should hold as a PRA buffer, over and above the level of capital required to meet its TCR and over and above the CRD buffers. The PRA buffer, based on a firm-specific supervisory assessment, should be of a sufficient amount to allow the firm to continue to meet the overall financial adequacy rule in Internal Capital Adequacy Assessment 2.1. This should be the case even in adverse circumstances, after allowing for realistic management actions that a firm could, and would, take in a stress scenario.

5.21 In setting a PRA buffer for a firm the PRA will not just consider whether the firm would meet its CET1 capital requirements under the CRR and its Pillar 2A capital requirement in the stress scenario. Other factors informing the size of the PRA buffer include but are not limited to: the maximum change in capital resources and requirements under the stress; the firm's leverage ratio; the extent to which the firm has used up its CRD buffers (eg the systemically important financial institution (SIFI) and capital conservation buffers); Tier 1 and total capital ratios; and the extent to which potentially significant risks are not captured fully as part of the stress.

5.22 Where the PRA assesses a firm's risk management and governance (RMG) to be significantly weak, it may also set the PRA buffer to cover the risks posed by those weaknesses until they are

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46 PRA Supervisory Statement 7/13, 'CRD IV and capital', December 2013: <https://www.bankofengland.co.uk/prudential-regulation/publication/2013/crdiv-and-capital-ss>.

addressed. This will generally be calibrated in the form of a scalar applied to the amount of CET1 required to meet the firm's TCR. The scalar could be up to 40% of the total CET1 TCR (variable). If the PRA sets the PRA buffer to cover the risk posed by significant weaknesses in risk management and/or governance or applies a suspended scalar, the PRA will identify those weaknesses to the firm and expect the firm to address those weaknesses within an appropriate timeframe. Once the identified weaknesses have been remedied, the PRA will remove the scalar. If new weaknesses emerge that are not adequately addressed by the scalar or if remedial action taken by the firm has led to its removal a new scalar may be applied.

5.23 Where the PRA sets a PRA buffer it will generally do so stating that the firm should hold capital of an amount equal to a specified percentage of the firm's Pillar 1 RWAs (the total risk exposure amount calculated in accordance with Article 92(3) of the CRR). The PRA expects firms to meet the PRA buffer with 100% CET1. The PRA expects firms to meet the PRA buffer with additional CET1 capital to the CET1 capital maintained to meet its CRD buffers.

5.24 The PRA may set a firm's PRA buffer either as an amount of capital which it should hold from the time of the PRA's notification following the firm's SREP or, in exceptional cases, as a forward-looking target that a firm should build up over time. Where the general stress and scenario testing rule, as part of the ICAAP rules, applies to a firm on a consolidated and/or sub-consolidated basis the PRA may notify the firm that it should hold a PRA buffer on a consolidated and/or sub-consolidated basis (as applicable). The PRA may in certain circumstances notify a firm that it should hold a PRA buffer on an individual basis.

5.25 If a firm considers that the proposed Pillar 2A capital requirement or the PRA buffer advised to it by the PRA is inappropriate to its circumstances it should notify the PRA of this, consistent with Fundamental Rule 7. If, after discussion, the PRA and the firm do not agree on an adequate level of capital, the PRA may consider using its own initiative powers under section 55M of FSMA to impose a requirement on the firm to hold capital in accordance with the PRA's view of the capital necessary to comply with the overall financial adequacy rule in Internal Capital Adequacy Assessment 2.1. In deciding whether it should use its powers under section 55M, the PRA will take into account the amount of capital that the firm should hold for its PRA buffer.

5.25ZA The PRA's expectations for Pillar 2B of new and growing banks are set out in the SS3/21 'Non-systemic UK banks: The PRA's approach to new and growing banks'.<sup>47</sup>

#### Application of the PRA Buffer for subsidiaries of UK consolidation groups or RFB sub-groups

5.25A When setting the PRA buffer on an individual basis, the PRA's standard approach is to undertake a full assessment on the individual basis. Where the firm is part of a UK consolidation group or RFB sub-group (ie 'a subsidiary'), the PRA will set the PRA buffer in a similar way to the PRA approach to setting Pillar 2A capital requirements on an individual basis.<sup>48</sup> The approach depends upon: the transferability of group resources; the nature and extent of integration of the subsidiary; the likelihood of group support; and the significance of the entity and the risk profile of its business relative to the group.

5.25B The PRA's framework for applying the PRA buffer to subsidiaries takes the group-level PRA Buffer assessment as a starting point.

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<sup>47</sup> April 2021: <https://www.bankofengland.co.uk/prudential-regulation/publication/2020/new-and-growing-banks>

<sup>48</sup> Paragraphs 5.14 and 5.15 of SS31/15.

5.25C The PRA may set the PRA buffer for a subsidiary such that, when aggregated with the TCR and combined buffer, the total capital it is expected to hold is the same as the internal capital the firm determines in its internal capital assessment to be sufficient. Where the sum of TCR and combined buffer exceeds the capital the firm has determined in its internal assessment, the PRA expects to set a PRA Buffer of zero. Internal capital must be sufficient to cover all the risks to which it is exposed and to absorb potential losses from stress scenarios. Subject to supervisory judgement, this will be the case when the following conditions are met:

- on a UK consolidated basis, the PRA buffer plus combined buffers and TCR is the same as the internal capital the group considers to be adequate (eg, when the PRA buffer is zero and the group considers regulatory requirements for capital are sufficient); and
- on an individual basis, the PRA has not identified it as having materially different capital needs in a medium-term stress, or to be exposed to materially different risks, to those of the group.

5.25D The PRA may also calibrate the PRA buffer on an individual basis in this way where these conditions are not met but the firm is not considered to be material to its consolidation group or RFB sub-group, and the PRA considers financial resources to be transferable between the group entities and judges the parent to be likely to support a failing subsidiary. A subsidiary is considered not material if it comprises less than 5% of the UK consolidation group RWAs, leverage exposures and operating income.

5.25E Where a firm has a very similar risk profile to its consolidation group or RFB sub-group (for example, where a subsidiary comprises more than 80% of the UK consolidation group's RWAs and the rest of the group undertakes similar activities as the subsidiary), the PRA may decide to set the PRA buffer on an individual basis by reference to the UK consolidated (or RFB sub-consolidated) PRA buffer calculation. Where consolidated or sub-consolidated PRA buffer calculations include add-ons for group risk, these will not be included in the calculation of the subsidiary's PRA buffer.

5.25F The PRA will set the PRA buffer according to a comprehensive individual assessment if none of the above approaches is applicable. The PRA may also set the PRA buffer according to the full assessment process where a supervisor identifies any factors that mean the above approach is not appropriate, such as:

- material impediments to the transferability of capital within the group;<sup>49</sup>
- the subsidiary is a specialist subsidiary containing a high concentration of a group's business that could lead to a negative outcome in a stress, but this concentration is offset at a group wide level;
- there are significant weaknesses in the risk management or governance of the subsidiary;
- the subsidiary has significant weaknesses that call into question the adequacy of existing capital requirements; or
- other material supervisory concerns lead the supervisor to consider the firm's internal capital to be insufficient.

## **Transitional arrangements**

5.26 [Deleted]

5.27 [Deleted]

5.28 [Deleted]

5.29 [Deleted]

5.30 [Deleted]

## **Failure to meet TCR and use of the PRA buffer**

5.31 The PRA expects every firm to hold at least the level of capital it is required to meet its TCR at all times. If a firm's capital has fallen or is expected to fall below that level it should inform the PRA as soon as practicable explaining why this has happened or is expected to happen. The firm will also be expected to discuss the actions that it intends to take to increase its capital and/or reduce its risks (and therefore capital requirement), and any potential modification that it considers should be made to the Pillar 2A capital requirement.

5.32 Where this has happened, the PRA may ask a firm for alternative and more detailed proposals or further assessments of capital adequacy and risks faced by the firm. The PRA will seek to agree with the firm the appropriate timescales and the scope for any such additional work.

5.33 Use of the PRA buffer is not itself a breach of capital requirements or TCs. The PRA expects firms to use their PRA buffer (and indeed other capital buffers<sup>50</sup>) in times of stress. Use of buffers (including both the combined buffer and PRA buffer) are what firms and the PRA model as part of their stress tests. The PRA does not expect or require firms to finance themselves with more capital than the total of their regulatory requirements and buffers. However, where a firm has a PRA buffer in place, it should not use that buffer in the normal course of business or enter into it as part of its base business plan.

5.34 Consistent with Fundamental Rule 7, a firm should notify the PRA as early as possible where it has identified that it would need to use its PRA buffer (even if the firm has not accepted the PRA's

49 As defined in SS 31/15 – Paragraphs 5.20 to 5.24.

50 Refer to SS6/14 'Implementing CRD IV: Capital buffers' for details on the use of the capital buffers:  
<https://www.bankofengland.co.uk/prudential-regulation/publication/2014/implementing-crdiv-capital-buffers-ss>.

assessment of the amount of capital required for the PRA buffer). The firm's notification should state as a minimum:

- what adverse circumstances are likely to lead the firm to draw down its PRA buffer;
- how the PRA buffer will be used up in line with the firm's capital planning projections; and
- the plan and timeframe to restore the PRA buffer.

5.35 A firm which does not meet its PRA buffer can expect enhanced supervisory action, and should prepare a capital restoration plan<sup>51</sup>. If the PRA is satisfied with the rationale presented, the PRA will be content for firms to rebuild their buffers over a reasonable period of time. In exercising its judgement on what constitutes a reasonable time to rebuild the PRA buffer (and potentially other capital buffers) and other potential supervisory action, the PRA will take into account how far the firm has run into its buffers, the expected duration of the stress, the drivers of that stress, the context of that stress (whether firm-specific or systemic) and macroeconomic and financial conditions. If the PRA is not satisfied with the capital restoration plan or with the firm's reasons for using the buffer it may consider using its powers under section 55M of FSMA to require the firm to raise sufficient capital to meet the buffer within an appropriate timeframe.

5.36 The automatic distribution constraints associated with the CRD buffers do not apply to the PRA buffer.

## **Disclosure**

5.37 Firms should disclose the PRA's SREP feedback letter setting Pillar 2A capital requirements and, where applicable, the PRA buffer to their auditors. The PRA expect firms to publicly disclose the amount and quality of TCR which apply to them at the highest level of consolidation in the UK. The PRA also expects RFBs to disclose their TCR on a sub-consolidated basis where an RFB sub-group is established. In those circumstances in which Pillar 2A has not been set as a requirement, the PRA expects firms to disclose their total Pillar 1 plus Pillar 2A capital guidance. Otherwise, the PRA expects firms to treat all other information relating to TCR, including details of its constituent parts, and all information relating to the PRA buffer, as confidential unless they are required to disclose it by law. If firms wish to disclose the PRA's SREP feedback letter or any part of it to any third parties (other than their auditors) they should, consistent with Fundamental Rule 7, provide appropriate prior notice to the PRA of the proposed form, timing, nature and purpose of the disclosure.

5.38 Where an immediate market disclosure obligation exists, prior notification to the PRA should not lead to any delay in disclosure. But any firm intending to disclose information relating to TCR (except the total figure) or the buffers should (consistent with Fundamental Rule 7), where reasonably practicable, provide appropriate notice in advance of the proposed disclosure and the reasons for it.

The PRA does not advise firms on their market disclosure obligations and firms should seek their own advice on this matter. The FCA is responsible for oversight of issuers' compliance with their market disclosure obligations.

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<sup>51</sup> Where a firm does not meet its combined buffer it must do so as a part of a capital conservation plan including the information in Capital Buffers 4.5.