BANK OF ENGLAND
PRUDENTIAL REGULATION
AUTHORITY

Consultation Paper | CP1/15

Assessing capital adequacy under Pillar 2

January 2015

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Responses are requested by Friday 17 April 2015.

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Contents

1 Overview

1.1 This consultation paper (CP) sets out proposed changes to the Prudential Regulation Authority's (PRA's) Pillar 2 framework[1] for the banking sector, including changes to rules, and supervisory statements. It also introduces the content of a new statement of policy: *The PRA's methodologies for setting Pillar 2 capital*. This sets out the methodologies that the PRA proposes to use to inform its setting of firms' Pillar 2A capital requirements.

1.2 Pillar 2 is intended to ensure that firms have adequate capital to support the relevant risks in their business, and that they have appropriate processes to ensure compliance with CRD IV.[2] It is also intended to encourage firms to develop and use better risk management techniques in monitoring and managing their risks. Pillar 2 therefore acts to further the safety and soundness of firms, in line with the PRA's objectives.

1.3 There are two main areas that the PRA considers when conducting a Pillar 2 review: (i) risks to the firm which are either not captured, or not fully captured, under the CRR; and (ii) risks to which the firm may become exposed over a forward-looking planning horizon (eg due to changes in the economic environment).

1.4 The introduction of CRD IV and the publication by the European Banking Authority (EBA) on guidelines for the Supervisory Review and Evaluation Process[3] ('EBA SREP guidelines') has prompted the PRA to review its Pillar 2 framework. The changes proposed in this CP complement the EBA SREP guidelines.

1.5 The PRA is also taking this opportunity to re-align its Pillar 2 framework with its approach document[4] and improve its own Pillar 2A capital methodologies so they are more risk sensitive and can be applied more consistently.

1.6 The PRA has already consulted on changes to the Pillar 2 framework in CP5/13[5] and published final policy in PS7/13.[6] CP1/15 continues the reform of Pillar 2.

1.7 Finally, the PRA is consulting on proposed changes to its assessment of firms' capital adequacy to enhance the transparency of the PRA's practices and support accountability. The PRA hopes that the publication of its Pillar 2A methodologies will help firms to understand the rationale for the PRA's decisions and plan accordingly.

Structure of this paper

1.8 This paper covers five areas.

(i) Chapter 3: Pillar 2A methodologies. This chapter outlines the proposed new approaches for determining Pillar 2A capital for credit risk, operational risk, credit concentration risk and pension obligation risk, alongside the existing approaches for market risk, counterparty credit risk and interest rate risk in the non-trading book (usually referred to as interest rate risk in the banking book (IRRBB)). It also details the proposed associated data requirements.

(ii) Chapter 4: The PRA buffer. This chapter explains how the PRA proposes to operate the new buffer regime.

(iii) Chapter 5: Governance and risk management. This chapter outlines proposals to tackle weak governance and risk management under Pillar 2.

(iv) Chapter 6: Disclosure. This chapter considers the impact of the proposed Pillar 2 reforms on capital disclosure and makes proposals for a more transparent regime.

(v) Chapter 7: Cost benefit and competition analysis. This chapter assesses the impact of the proposed reforms.

1.9 The PRA is consulting on all proposals relating to the setting of the PRA buffer, the treatment of weak governance and risk management and disclosure considerations as set out in Chapters 4, 5 and 6. The PRA is only consulting on the proposed Pillar 2A capital methodologies for credit risk, credit concentration risk, operational risk and pension obligation risk. The other Pillar 2A methodologies (ie IRRBB, market risk, and

(1) Chapter 2 explains the Pillar 2 framework, including its purpose and how it relates to the PRA's objectives.
(2) The Capital Requirements Regulation (575/2013) (CRR) and Capital Requirements Directive (2013/36/EU) (CRD), jointly 'CRD IV'.
(3) www.eba.europa.eu/documents/10180/935249/EBA-GL-2014-13+%28Guidelines+on+SREP+methodologies+and+processes%29.pdf/4b842c7e-3294-4947-94cd-ad7f94405d66.
(4) *The Prudential Regulation Authority's approach to banking supervision*, June 2014; www.bankofengland.co.uk/publications/Documents/praapproach/bankingappr1406.pdf.
(5) *PRA Consultation Paper CP5/13*, 'Strengthening capital standards: implementing CRD IV', August 2013: www.bankofengland.co.uk/pra/Documents/publications/policy/2013/implementingcrdivcp513.pdf.
(6) *PRA Policy Statement PS7/13*, 'Strengthening capital standards: implementing CRD IV, feedback and final rules', December 2013; www.bankofengland.co.uk/pra/Documents/publications/ps/2013/ps713.pdf.

counterparty risk) are not changing and the PRA does not seek comments on them. The PRA expects to review these in the future and may decide to amend its approach in view of the changes in Pillar 1 that may take place as a result of initiatives currently being considered by the Basel Committee. Although the PRA is not consulting on those methodologies, the PRA believes their publication is useful and in keeping with its objective of being more transparent and accountable.

1.10 The reader is also referred to:

- Appendix 1: draft rules on Pillar 2 reporting including reporting templates and instructions;
- Appendix 2: draft supervisory statement *The Internal Capital Adequacy Assessment Process (ICAAP) and the Supervisory Review and Evaluation Process (SREP)*; and
- Appendix 3: draft statement of policy *The PRA's methodologies for setting Pillar 2 capital*.

Level of application and links with other policy initiatives

1.11 This consultation is relevant to banks, building societies and PRA-designated investment firms ('firms').

1.12 Currently the PRA sets Individual Capital Guidance (ICG) and capital planning buffers on a consolidated basis and, where necessary, on an individual basis. The PRA is proposing to continue this practice for ICG and, in the future, for the PRA buffer. The supervisory statement *The Internal Capital Adequacy Assessment Process (ICAAP) and the Supervisory Review and Evaluation Process (SREP)* provides further details regarding the level of application of the ICG and the PRA buffer.

1.13 The application of the Pillar 2 capital framework to ring-fenced banks will be covered in a banking reform CP to be issued later in 2015.

1.14 This consultation only considers capital adequacy. The PRA's approach to supervising liquidity and funding risk, including transitional arrangements on Pillar 2 matters, is explained in CP27/14.(1)

1.15 This CP covers the risk of excessive leverage in the context of a firm's PRA buffer assessment.

1.16 This CP does not cover the minimum requirement for own funds and eligible liabilities (MREL) under the Banking Recovery and Resolution Directive (BRRD). Under BRRD, the Bank of England, as resolution authority, will have power to set MREL, in consultation with the PRA as national competent authority, and must increase MREL for a particular firm where it concludes that there are barriers to resolution. MREL will be set having regard to risk and systemic risk around resolution posed by firms. The Bank of England will consult on its approach to MREL in 2015, taking account of EBA technical standards to specify the criteria for setting MREL.

1.17 This CP also considers the impact of proposals on firms entering into or expanding in the banking sector. The proposals are in keeping with the PRA's and FCA's *A review of requirements for firms entering into or expanding in the banking sector: one year on*,(2) published in July 2014.

Statutory obligations

Statutory obligations

1.18 In discharging its general functions of making rules and determining the general policy and principles by reference to which it performs particular functions, the PRA must, so far as reasonably possible, act in a way that advances its general objective to promote the safety and soundness of PRA-authorised persons, and facilitates effective competition in the markets for services provided by PRA-authorised persons (the secondary objective). It must also have regard to the regulatory principles, including proportionality.

1.19 CRD IV requires supervisory authorities to consider whether there are any risks not adequately captured or not captured at all by Pillar 1 and, where appropriate, to set additional capital to mitigate those risks. The framework that competent authorities use to approach this assessment is known as Pillar 2. The proposals in this CP are intended to ensure that the PRA's Pillar 2 framework is aligned to changes introduced by CRD IV and that the PRA's approach to assessing firms' capital adequacy conforms to the EBA SREP guidelines.

1.20 The proposed changes to the PRA's Pillar 2A methodologies are intended to enhance the PRA's assessment of firms' capital adequacy, and support more consistent and transparent outcomes for firms. The PRA believes these proposals will advance the PRA's general objective. Further information on the purpose and intent of the policies and proposed PRA rules, supervisory statement and statement of policy are set out in the CP.

1.21 These proposals have the potential to change competitive conditions in which firms operate. Generally, the PRA anticipates a redistribution of capital requirements, with higher total Pillar 2A requirements for systemically important firms and lower total Pillar 2A requirements for smaller firms and new entrants. An economic analysis of the proposals

(1) *PRA Consultation Paper CP27/14*, 'CRD IV: Liquidity', November 2014; www.bankofengland.co.uk/pra/Documents/publications/cp/2014/cp2714.pdf.
(2) www.bankofengland.co.uk/pra/Documents/publications/reports/2014/barriers2014.pdf.

(including a cost benefit analysis of the proposed rules) can be found in Chapter 7 of this paper.

1.22 The purpose of the proposed rules on Pillar 2 data reporting is to enable the PRA to implement its approach to Pillar 2 in a consistent and more transparent manner and to help advance the PRA's general objective. The PRA's view is that the proposed rules will not, of themselves, change competitive conditions in which PRA-supervised firms operate and are compatible with the PRA's secondary objective of facilitating effective competition. Therefore the PRA considers that the proposed rules are compatible with the PRA's duties and the regulatory principles.

Impact on mutuals

1.23 The PRA has a statutory requirement to state whether the impact of proposed rules on mutuals will be significantly different from the impact on other firms.[1] The proposed rules on data requirements will affect mutuals but the PRA has taken steps to ensure that the impact is not significantly different than for other firms and, for some elements, has reduced the granularity of data required on the basis of proportionality.

1.24 Given that mutuals are more constrained in their ability to raise capital than other firms, they are less able to adjust to a significant increase in capital requirements. However, the PRA's analysis is that these proposals will not have a significantly different impact on mutuals than other firms and will not generally lead to significant increases in capital requirements for mutuals. The impact on mutuals is discussed in more detail in this CP.

Equality and Diversity

1.25 The PRA may not act in an unlawfully discriminatory manner. It is also required under the Equality Act 2010 to have due regard to the need to eliminate discrimination and to promote equality of opportunity in carrying out its policies, services and functions. As part of this, the PRA assesses the equality and diversity implications of any new policy proposals considered. The PRA believes that these proposals do not give rise to equality and diversity implications.

Responses and next steps

1.26 Both the CRD IV capital conservation and systemic risk buffer and the EBA SREP guidelines will come into force from 1 January 2016.[2] The PRA is therefore proposing to implement the new Pillar 2 framework from 1 January 2016. This consultation closes on Friday 17 April 2015. Views are welcome on the issues raised in the CP. In particular, respondents may wish to comment on the:

- suitability of the approaches proposed for the assessment of credit risk, operational risk, credit concentration risk, and pension obligation risk;
- proposals to treat weak risk management and governance; and
- approach proposed for the PRA buffer.

1.27 The PRA also invites feedback on the effect of applying the credit concentration risk methodology to firms with a large proportion of lending to a small group of obligors or to firms that place liquidity funds with a small number of institutions.

1.28 Finally, the PRA invites firms to include in their response their own assessment of the impact of the proposals.

1.29 The consultation is wide ranging and makes proposals on issues that are central to a firm's capital adequacy. Respondents' feedback is therefore important in helping to shape the framework. To facilitate this process, respondents are requested to structure their responses on a chapter-by-chapter basis. Please address any comments or enquiries to CP1_15@bankofengland.co.uk.

1.30 The PRA plans to publish a policy statement with feedback, finalised rules, supervisory statement and a statement of policy in July 2015.

(1) Mutuals are defined as building societies, friendly societies, industrial provident societies and EEA mutual societies.
(2) The CRD IV countercyclical buffer is already in operation but the current rate for the United Kingdom is 0%. The Financial Policy Committee decided to recognise the 1% countercyclical buffer rates set by the Norwegian and Swedish authorities. These rates should be applied by UK-regulated banks, building societies and investment firms with relevant exposures located in these countries in calculating their institution-specific countercyclical buffers from 3 October 2015. www.bankofengland.co.uk/publications/Documents/records/fpc/pdf/2014/record1410.pdf.

2 The Pillar 2 framework — background

Regulatory context

2.1 The proposals in this CP implement Section III of the CRD and are in line with the EBA SREP guidelines.

2.2 Changes are also required to the capital planning buffer (CPB) regime following the introduction of the CRD IV buffers. This CP discusses the factors that will inform the setting of the new PRA buffer and how the PRA intends to phase it in.

2.3 The purpose of Pillar 2 capital is to:

- ensure firms have adequate capital to support the relevant risks in their business;
- ensure firms have appropriate processes to comply with CRD IV;
- encourage firms to develop and use better risk management techniques in monitoring and managing their risk;
- enable firms to continue to meet their capital requirements during periods of stress; and
- ensure systemically important firms are held to higher standards.

2.4 Pillar 2 capital therefore acts to further the safety and soundness of firms, in line with the PRA's general objective.

2.5 The Supervisory Review and Evaluation Process (SREP) is the PRA's review and evaluation of:

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

2.6 There are two mains areas that the PRA considers when conducting a SREP: (i) risks to the firm that are either not captured, or not fully captured, under the Pillar 1 requirements of CRR; 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 to the second as Pillar 2B. In addition to the Pillar 1 requirements of the CRR, the PRA regards capital held under Pillar 2A as the minimum level of regulatory capital a firm should maintain at all times to cover adequately the risks to which it is or might be exposed, and to comply with the overall financial adequacy rule. Pillar 2B is a capital buffer which helps to ensure that firms can continue to meet minimum requirements (Pillar 1 and Pillar 2A) during a stressed period.

2.7 Under Pillar 1, firms are required to calculate their capital requirements in accordance with the methodologies agreed in the CRR. Under Pillar 2, firms are required to undertake a regular assessment of the amounts, types and distribution of capital that they consider adequate to cover the level and nature of risks to which they are, or might be, exposed. This assessment may lead to firms identifying risks that are inadequately covered under Pillar 1 or not covered at all.

2.8 As part of the PRA's supervision of firms, the PRA has developed methodologies for assessing whether the amount and quality of capital held by a firm is sufficient to cover the nature and level of the risks to which a firm is, or might be, exposed. The output of these methodologies, supervisory judgement and a firm's own assessment, collectively inform the PRA's setting of ICG and, if needed, the PRA buffer.

2.9 The PRA continues to expect firms to carry out their own assessment of the appropriate level of Pillar 2 capital and to communicate it clearly in the Internal Capital Adequacy Assessment Process (ICAAP) document.

The PRA's approach to banking supervision

2.10 The PRA first published its approach document in October 2012.(1) This explained that the SREP, including guidance about the adequacy of a firm's capital, is part of a continuous assessment and is carried out with differing frequencies given the nature, scale and complexity of a firm.

2.11 The reformed Pillar 2 framework set out in this CP emphasises the key features of the PRA supervisory approach:

(1) The PRA's approach to banking supervision is evolving and the approach document is, likewise, updated at appropriate times. Since October 2012, the approach document has been updated in April 2013 and June 2014. All versions are available at www.bankofengland.co.uk/publications/Pages/other/pra/supervisoryapproach.aspx.

- the SREP will focus on the material risks a firm is exposed to;
- supervisory judgment will be a key input to the PRA's decision on the setting of ICG and the PRA buffer; and
- the PRA will continue to be proportionate in its approach to assessing capital, especially when considering firms with the lowest potential impact on the stability of the financial system.

2.12 The reform of the Pillar 2 framework aims to:

- streamline the SREP by clarifying the inputs to be used by supervisors to inform the setting of additional capital;
- strike the right balance between supervisory judgement on the one hand and constraints imposed to ensure consistent outcomes on the other; and
- publish methodologies and more generally allow for greater transparency, which in turn promotes PRA accountability and capital predictability.

Disclosure

2.13 The PRA informed all firms in 2014 clarifying its approach to firms publicly disclosing information relating to ICG. The PRA reminded firms that ICG letters are prepared for regulatory purposes only, and that their contents could be misunderstood or misinterpreted if disclosed out of context. The letter also recognised increasing pressure on firms to provide greater transparency to investors, which the PRA accepted is partly driven by regulatory reforms.

2.14 The letter stated the PRA's general position that firms should treat their ICG as confidential, unless they are required to disclose it by law. But the letter also said that the PRA would consider firms disclosing information relating to ICG on a case-by-case basis. Since then, a number of firms have voluntarily disclosed their total ICG, notifying the PRA in advance.

2.15 Taking into account the market impact of Pillar 2 disclosures and the proposed enhancements to Pillar 2 methodologies and transparency of the Pillar 2 framework, the PRA is proposing changes to its approach to Pillar 2 disclosure.

PS7/13 policy changes

2.16 In December 2013, the PRA made changes to the Pillar 2 framework as set out in PS7/13, whereby:

- the PRA increased the quality of Pillar 2A capital to reflect the composition of Pillar 1 capital. As of January 2015, all firms are expected to hold at least 56% of Pillar 2A in Common Equity Tier 1 capital (CET1), and no more than 25% in Tier 2 capital;
- pension obligation risk should be treated like other Pillar 2A risks in terms of the quality of capital held against it, given that pension obligation risk can crystallise while a firm is a going concern and given the materiality and volatility of accounting measures of pension deficits;
- the purpose of the PRA buffer is to enable a firm to meet its minimum capital requirements under stress, in line with the PRA's risk appetite;
- buffers determined by the Financial Policy Committee (FPC) in deploying its macroprudential instruments should be additional to any PRA buffer assessment, in order to ensure the effective transmission of the FPC decisions;
- capital used to meet a firm's CRD IV buffers may not be used to meet its PRA buffer;
- capital that firms use to meet their minimum requirements (Pillar 1 and Pillar 2A) cannot be counted towards meeting their buffers; and
- the PRA buffer should be held in CET1, consistent with the CRD IV buffers.

3 Pillar 2A methodologies

3.1 The PRA routinely sets Pillar 2A capital for credit, market, counterparty and operational risks where Pillar 1 capital requirements are found to underestimate risk. The PRA also sets Pillar 2A capital for IRRBB, credit concentration risk and pension obligation risk, which are not captured under the Pillar 1 regime. It may also set capital for other risks depending on their materiality to the firm.

3.2 In the draft statement of policy in Appendix 3, the PRA sets out the proposed methodologies for credit concentration, credit, operational and pension obligation risks. For the purpose of transparency it also sets out the PRA's existing methodologies for determining Pillar 2A capital held against IRRBB, market risk and counterparty credit risk but it is not proposing to make changes to them now. Decisions to set capital against other risks are taken by supervisors on a case-by-case basis.

3.3 Future changes to the Pillar 1 approaches may require the PRA to review its methodologies. The Basel Committee is considering a number of changes to the credit and operational risk standardised approaches, and the fundamental review of the trading book has not yet concluded. The Committee is also considering the possibility of addressing IRRBB under Pillar 1. A more risk sensitive and comprehensive approach under Pillar 1 approaches would reduce the need for capital under Pillar 2A.

3.4 Pillar 2A capital is an extension of Pillar 1. In 2013, the PRA decided that the quality of Pillar 2A capital should be the same as for Pillar 1. The Pillar 2A methodologies have therefore been calibrated to estimate the amount of total capital required to absorb additional unexpected losses, at a high confidence level (in most cases equivalent to the one assumed under Pillar 1).

3.5 Further details on the individual Pillar 2A methodologies and associated reporting requirements are provided in this section and in the draft statement of policy.

3.6 Firms will continue to be required to undertake an ICAAP in accordance with the PRA's ICAAP rules.(1)

Reporting

3.7 The PRA proposes to make rules requiring firms to submit data to the PRA. The purpose of the rules is to enable the PRA to implement its new approach to Pillar 2 for all firms by requiring them to submit data not currently collected routinely or consistently across all firms. Draft rules can be found at Appendix 1. Under the proposed rules:

- all firms will be required to submit a summary of the firm's own assessment of its Pillar 2A capital requirement;
- all firms will be required to submit data for credit concentration risk;
- firms with defined benefit pension schemes will be required to submit data for pension obligation risk;
- PRA Category 1 firms will be required to submit data for operational risk;
- firms with permission to use the internal ratings-based (IRB) approach for retail exposures will be required to submit data for retail exposures; and
- firms with significant illiquidity risk in their trading book will be required to submit data for market risk, if data have not already been submitted to the PRA by other means.

3.8 The PRA expects that it will also request further data from firms, as set out below, to inform its Pillar 2 approach on a case-by-case basis:

- the PRA may ask firms that are not Category 1 firms to submit data for operational risk; and
- firms may be asked to submit data for credit risk based on the standardised approach for wholesale and retail exposures.

3.9 The PRA proposes that firms submit data at the same time as their ICAAP document. The PRA may request more frequent reporting on a case-by-case basis.

3.10 Where the PRA has requested additional data from firms to help facilitate its SREP assessment, the quality and granularity of these data has been variable. The PRA expects that, when requested, a firm should be able to supply data

(1) http://media.fshandbook.info/Handbook/Internal_Capital_Adequacy_Assessmentv1_PRA_20140101.pdf.

that will enable the PRA to run the assessment methodologies outlined in this CP. Of particular note is operational risk where the PRA typically sees data that rely heavily on subjective inputs, but lack adequate documentation setting out the supporting assumptions.

3.11 Firms will be required to collate and submit the data on the same individual or consolidated basis as required by the ICAAP rules in the PRA Rulebook.

3.12 The PRA has developed templates for firms to report Pillar 2 data. If a firm is required to report the data the firm must use the template provided. The new Pillar 2 data templates have been designed to avoid duplication with data already collected by the PRA. The PRA expects firms to return the templates alongside their ICAAP submission via Excel spreadsheets and send to the PRA by email using a pre-agreed encryption method.

3.13 The PRA is reviewing its data requirements against existing data collections. The Pillar 2 data requirements in this paper will be reviewed as part of this wider process and may be changed at that point, subject to consultation.

Transitional arrangements

3.14 The PRA estimates that the impact of the proposed new Pillar 2A methodologies should be modest for most firms and, therefore, the PRA is not proposing a phased implementation. However, should changes in firms' Pillar 2A requirements cause concern for safety and soundness, the PRA will consider transitional arrangements on a case-by-case basis. Further details on the estimated impact can be found in Chapter 7.

Setting ICG

3.15 ICG is currently set as a formula, which can comprise both a variable and fixed element: a firm must, for instance, hold 'capital in excess of 110% of Pillar 1 plus fixed add-ons'.

3.16 The PRA proposes changing the form of ICG so that the variable element is expressed as a percentage of risk-weighted assets (RWAs). This is consistent with how the CRD IV combined buffer and PRA buffer will be applied and also with the EBA SREP guidelines. Under the proposed approach, firms will be required to hold an amount of capital equal to 'X% of RWAs, plus fixed add-ons'.

Maintenance of the Pillar 2A methodologies

3.17 The PRA might need to update the calibration of its Pillar 2A methodologies periodically as new data become available or when structural changes occur. The PRA does not expect updates to methodologies to occur frequently as the stability of the approach is an important feature of the proposed new framework. However, when changes are required, the PRA will consult accordingly.

4 The PRA buffer

4.1 The PRA buffer will replace the current CPB from 1 January 2016. It will share with it the following features:

- the PRA buffer is not a minimum to be held at all times, but rather a buffer that can be drawn down in adverse circumstances;
- use of the buffer is not itself a breach of capital requirements or Threshold Conditions;
- unlike the CRD IV buffers, use of the buffer will not lead to automatic capital distribution restrictions;
- it is a firm-specific measure set to tackle specific risks on a case-by-case basis; and
- subject to a firm's market disclosure and transparency obligations, it is confidential between the firm and the PRA.

4.2 All firms will be subject to a PRA buffer assessment and the PRA will set a PRA buffer only if it judges that the CRD IV buffers are inadequate for a particular firm given its vulnerability in a stress scenario, or where the PRA has identified risk management and governance failings, which the CRD IV buffers are not intended to address.

4.3 The draft statement of policy at Appendix 3 sets out the key principles the PRA proposes to consider when setting a firm's PRA buffer. It covers:

- the key elements the PRA will consider when performing a PRA buffer assessment and setting a firm's PRA buffer;
- how the PRA proposes to hold systemically important firms to a higher standard;
- how the PRA proposes to transition to the PRA buffer from 1 January 2016; and
- the form of the PRA buffer.

4.4 The PRA's new policy on the PRA buffer will be introduced from January 2016. The proposals in this paper will not affect decisions on setting firms' CPBs during 2015.

4.5 The PRA buffer is not intended to capture MREL under the BRRD. The Bank of England, as resolution authority, in consultation with the PRA as national competent authority, will consult on its approach to MREL setting in 2015.

Background

4.6 As part of the CRD IV consultation, the PRA proposed in CP5/13[1] that the:

- PRA buffer assessment should be the additional capital resources that firms should hold in order to continue to meet their capital requirements under stress. This is unchanged from the CPB;
- PRA will set PRA buffers on the basis of a range of factors including, but not limited to, firm-specific stress test results;
- PRA buffer should be held in the form of CET1 capital by all firms and the PRA will consider the appropriate transition for the change in the quality of capital from the CPB; and
- PRA buffer should be offset against a firm's systemic risk and capital conservation buffers, so the PRA buffer would be any excess capital required over and above the systemic risk buffers and the capital conservation buffer.

4.7 The PRA also proposed that, while it would assess how much additional capital all firms would need to continue to meet their capital requirements under stress, it would not set an additional PRA buffer for a firm where its CRD IV buffers were deemed sufficient.

4.8 The PRA proposed that a firm that did not have sufficient capital to meet its PRA buffer could expect enhanced supervisory action and should prepare a capital restoration plan, but the automatic distribution constraints associated with the CRD IV buffers would not apply to the PRA buffer.

4.9 The PRA did not set out any final decisions on the PRA buffer in PS7/13[2] but said that it expected to consult on the approach to Pillar 2, covering in particular the transition to the PRA buffer and the relationship between the PRA buffer and concurrent stress testing as set out in a discussion paper in October 2013.

(1) Chapter 3 of Part I of *PRA Consultation Paper CP5/13*, 'Strengthening capital standards: implementing CRD IV', August 2013; www.bankofengland.co.uk/pra/Documents/publications/cp/2013/cp513.pdf.
(2) *PRA Policy Statement PS7/13*, 'Strengthening capital standards: implementing CRD IV, feedback and final rules', December 2013; www.bankofengland.co.uk/pra/Documents/publications/ps/2013/ps713.pdf.

4.10 DP10/13[1] set out the main features of the proposed stress-testing framework over the medium term, also known as the Concurrent Stress Testing Framework. It stated that this framework would apply to the major UK banks as well as significant UK subsidiaries of foreign global systemically important banks.[2] This framework is expected to influence the way the PRA implements the PRA buffer, for example it will determine the stress testing approach adopted for banks within the scope of the framework.

4.11 The Bank of England has already indicated that, following the completion of the 2014 concurrent stress testing exercise — and taking into account both the responses to DP10/13 and the lessons learned from the 2014 exercise — it will publish further material setting out how it intends to develop the stress testing framework. The PRA will continue to develop the stress testing framework and the PRA buffer regime in parallel.

4.12 The PRA proposes that a range of factors should influence the setting of the PRA buffer, consistent with those set out in *Stress testing the UK banking system: key elements of the 2014 stress test*[3] published in April 2014.

4.13 The PRA proposes to amend SS5/13[4] and SS6/13[5] to introduce the new PRA buffer policy with effect from 1 January 2016 (see Appendix 2) and to introduce further details on the PRA's approach to setting the PRA buffer in a statement of policy (see Appendix 3).

Transitional arrangements

4.14 Currently most firms can meet their CPB with total capital, ie the quality of capital used to meet the CPB is not constrained. In the new Pillar 2 regime, all firms will be expected to hold their PRA buffer entirely in the form of CET1 capital. This is consistent with the CRD IV buffers to which the PRA buffer assessment relates.

4.15 The PRA proposes to phase in the requirement to hold the PRA buffer in the form of CET1 capital. The PRA proposes that firms should be expected to meet their PRA buffer in increasing proportions of CET1 from January 2016 to January 2019:

- 25% by January 2016;
- 50% by January 2017;
- 75% by January 2018; and
- 100% by January 2019.

4.16 This should allow sufficient preparation time for firms and preserve the effect of the transition towards the CRD IV buffers. During the transitional period, all firms will be expected to meet the remaining portion of their PRA buffer with any form of CRR-compliant regulatory capital. The largest firms are already expected to hold a Core CPB in the form of CET1 capital and the transitional provisions would not apply to them. More generally, supervisors would retain the flexibility as to the quality of capital a firm should hold to meet its PRA buffer during the transitional period.

Form of the PRA buffer

4.17 The CPB is currently set in absolute amounts. The PRA proposes to set the PRA buffer as a percentage of RWAs, like the CRD IV buffers.

4.18 Keeping the PRA buffer as an absolute amount would avoid pro-cyclicality. Indeed, if the buffer amount is set as a percentage of a firm's RWAs and they increase during a downturn, so too will the buffer amount. It would also prevent any double counting of growth or deleveraging already factored into the projections used to derive the PRA buffer.

4.19 However, the PRA considers that the impact of cyclicality and double counting in practice is limited by:

- the annual review of the PRA buffer for firms covered by concurrent stress testing, which will ensure that such buffers remain up to date and pro-cyclicality is limited; and

- consideration of other factors when setting the PRA buffer, compared to the more mechanical calculation of the CPB.

4.20 As regards firms not covered by concurrent stress testing, the PRA proposes carrying out PRA buffer assessments as needed when firms' circumstances change, in particular when RWAs change more rapidly than previously assumed, to ensure that the PRA buffer remains appropriate.

(1) *A framework for stress testing the UK banking system*, October 2013; www.bankofengland.co.uk/financialstability/fsc/Documents/discussionpaper1013.pdf.
(2) Currently, eight firms are covered by concurrent stress testing. Over time, medium-sized banks may also be covered by the framework, though subjected to a proportionate version of the exercise.
(3) www.bankofengland.co.uk/financialstability/Documents/fpc/keyelements.pdf.
(4) *PRA Supervisory Statement SS5/13*, 'The Internal Capital Adequacy Assessment Process (ICAAP) and the Supervisory Review and Evaluation Process (SREP)', December 2013; www.bankofengland.co.uk/pra/Documents/publications/policy/2013/icaapss513.pdf.
(5) *PRA Supervisory Statement SS6/13*, 'Stress testing, scenario analysis and capital planning', December 2013; www.bankofengland.co.uk/pra/Documents/publications/ss/2013/ss613.pdf.

5 Risk management and governance

5.1 The PRA already addresses weak risk management and governance under Pillar 2. This chapter sets out the proposed changes to the current Pillar 2 policy to address threats that weak risk management and governance pose to the PRA's safety and soundness objective.

5.2 The approach will be applied to all PRA firms.

5.3 Academic studies and reports[(1)] on the cause of bank failure during the global financial crisis suggest that there is a link between weak risk management and governance (RM&G) and bank failure. Furthermore, the PRA is of the view that poor governance is often a leading indicator of financial weakness. Higher capital buffers do not solve RM&G problems but might buy time for supervisory and firm action to tackle weaknesses. A secondary — and desirable — effect of capitalising weak RM&G is to incentivise firms to act to address identified problems.

5.4 The PRA therefore proposes that firms with significantly weak RM&G should hold additional capital in the form of a buffer to cover the risks posed by those weaknesses until they are addressed. Capital is not a permanent mitigant to weak RM&G.

5.5 Risks arising from firm-wide RM&G concerns are likely to increase with balance sheet size. For this reason, the PRA proposes to calibrate the addition to the PRA buffer as a scalar applied to firms' CET1 Pillar 1 plus Pillar 2A capital requirements as these in combination reflect the risks inherent within a firm.

5.6 In such cases, the PRA proposes to apply a scalar ranging from 10% to 40% of a firm's CET1 Pillar 1 plus Pillar 2A capital requirements. The PRA may decide on a larger scalar within that range should the PRA buffer assessment reveal greater vulnerabilities to stress.

5.7 Where applied, the RM&G scalar would form part of the PRA buffer to increase resilience to stress, given that RM&G failings may increase a firm's vulnerability in a stress scenario. The PRA buffer will therefore be larger than it would be were RM&G not assessed to be significantly weak.

5.8 In the event the PRA sets additional capital to cover the risks posed by significant weaknesses in RM&G, the supervisor will explain the specific failings that the PRA has identified and the firm will be expected to produce a plan to address these failings. Once the failings have been addressed, the RM&G element of the PRA buffer will be removed.

(1) Aebi, V, Sabato, G and Schmid, M (2011), 'Risk management, corporate governance and bank performance in the crisis', *Mimeo*, October. Ellul, A and Yerramilli, V (2011), 'Stronger risk controls, lower risk: evidence from US bank holding companies', *Mimeo*, February. Beltratti, A and Stulz, RM (2009), 'Why did some banks perform better during the credit crisis? A cross-country study of the impact of governance and regulation', *NBER Working Paper, No. 15180*, July. 'Walker report: a review of corporate governance in UK banks and other financial entities - final recommendations', 26 November 2009. 'FSA Board report: the failure of the Royal Bank of Scotland', December 2011. 'Parliamentary Commission on Banking Standards: An accident waiting to happen', 4 April 2013.

6 Disclosure

6.1 Until recently, firms have not felt bound to disclose Pillar 2 capital to the market and have generally kept it confidential. However, Pillar 2A will affect the capital ratio at which automatic capital distribution restrictions are triggered under CRD IV. This has led to increased market interest in Pillar 2A and to some firms disclosing their overall Pillar 2A requirement.

6.2 A small number of firms have decided to disclose their overall Pillar 2A requirement, expressed as a percentage of RWAs. Pillar 2B has not been disclosed.

6.3 The PRA believes pressure to disclose is likely to increase as CRD IV buffers are phased in from January 2016. The PRA therefore proposes to change its position on the confidentiality of aggregate Pillar 2A requirements from January 2016 and let firms decide whether to disclose their ICG. However, the PRA will continue to regard the components of Pillar 2A as well as the PRA buffer as confidential unless disclosure is required by law, and the PRA still expects firms to notify the PRA in advance of any proposed disclosure announcement.

6.4 Taking the view that disclosure of Pillar 2A capital is increasingly likely, the PRA has taken steps to enhance the transparency of Pillar 2A capital decisions and decided to publish the proposed new methodologies.(1) The PRA also intends to publish aggregate statistics on the level of Pillar 2A capital annually in the Bank of England's *Financial Stability Report*.

(1) See Appendix 3.

7 Cost benefit analysis

7.1 The PRA has conducted an analysis of the costs and benefits of introducing the changes to its Pillar 2 framework proposed in this CP. All estimates provided are sensitive to the underlying assumptions and data.

Baseline for calculations

7.2 The analysis relies on the PRA's current Pillar 2 framework as a baseline and takes account of changes relating to CRD IV implementation that have already been consulted on and will be effective ahead of the proposed implementation of proposals within this CP. For example, the analysis assumes that firms are already holding 56% of their Pillar 2A requirement in CET1. The analysis is based on the current definition of capital and, where applicable, takes account of transitional arrangements relating to CRD IV.

7.3 The sample tested accounts for 90% of the total RWAs of PRA-supervised firms. The sample is representative of the firms regulated by the PRA and includes large deposit takers, investment firms, overseas banks, smaller banks, and building societies.

Benefits

7.4 The proposed changes will support a more risk-sensitive and consistent approach to setting Pillar 2A capital. The proposals also aim to provide greater transparency of the PRA capital setting process, allowing firms to manage present and future regulatory capital demands more efficiently. Greater transparency of the Pillar 2A methodologies will help to mitigate the risk of a disorderly reaction to any firms deciding to disclose their Pillar 2A capital.

7.5 The proposals will help to advance the PRA's safety and soundness objective by ensuring firms' Pillar 2A capital better captures risks not covered, or inadequately covered, by Pillar 1. Further, the PRA believes these proposals will make relative market conditions more attractive for new entrants and smaller firms than under the current framework.

7.6 A more consistent approach across PRA firms will also reduce differences in supervisory assessments of similar risks. Inconsistent outcomes can unintentionally impose higher costs on, or confer benefits to, some firms which in turn can cause competitive distortion in the markets.

7.7 As a consequence of better measurement and stronger capitalisation of firms' risks, investor confidence may increase and some firms might benefit from a reduction in the cost of capital.

Costs to regulated firms

7.8 Only the aggregate costs are presented in this chapter to avoid disclosing the position of individual firms.

7.9 As a result of more risk-sensitive approaches, some firms' Pillar 2 capital requirements and buffers will increase. Firms with insufficient capital resources to meet their new Pillar 2 requirements and buffers will face costs to raise additional capital. However, the PRA estimates this to affect a small number of PRA-supervised firms.

Pillar 2A

7.10 Not all firms will be affected identically: increases in certain risk areas might be offset in other areas as the impact is closely related to a firm's risk profile. For instance:

- Firms with low credit concentration risk may see a reduction in capital, whereas firms with high credit concentration risk are likely to see an increase in capital. However, the proposed methodology is based on RWAs, whereas the current methodology is based on exposures, so high concentration in low risk weight portfolios will result in a lower credit concentration risk charge than under the current methodology.

- The proposed methodology for credit risk for portfolios being capitalised under the standardised approach will be more flexible, as it allows for excess capital relative to IRB benchmarks to offset the capital of those credit portfolios whose SA risk weights are lower than the IRB benchmarks. However, firms particularly concentrated in certain types of activities (eg credit cards or high loan-to-value mortgage lending) may see no reduction, or may see an increase in capital as a result of the new proposed methodology, because SA tends to result in lower capital for those portfolios compared with IRB benchmarks.

7.11 Smaller firms might find it more difficult to diversify than larger firms so supervisors can exercise judgment to reflect such considerations when setting firms' ICG.

7.12 For the smaller firms included in the impact assessment sample, the results indicated a decrease in total Pillar 2A capital. This is driven by a material decrease in pension risk and credit risk capital, which is not compensated by the increase in capital for credit concentration risk. Nevertheless the PRA invites smaller firms, niche players and challenger banks to consider how the proposals could affect their respective business models.

7.13 The impact on large banks and investment firms is not large: the PRA estimates the total impact of the proposals to increase overall Pillar 2A capital requirements by 0.23% of RWAs. This is an increase in Pillar 2A capital of less than 10%.

7.14 On the basis of the PRA's impact analysis, the proposals are not likely to produce disproportionate impacts on firms of particular types or size.

Pillar 2B

7.15 Firms may be expected to hold additional Pillar 2B capital for weak RM&G. Where applied, this could increase CET1 capital buffers by 10% to 40% of a firm's CET1 Pillar 1 plus Pillar 2A minimum capital requirements, depending on the severity of firms' failings. Where applied, the RM&G scalar would form part of the PRA buffer.

7.16 The PRA has assumed that the level of the PRA buffer is similar to the existing CPB and assessed the extent to which it would exceed the combined buffer for the whole population of firms. For a vast majority of firms, the conservation buffer (and the systemic risk buffer where relevant) is higher than the PRA buffer assessment. For those firms, the PRA buffer will only comprise a governance element (where applied).

Reporting

7.17 In addition to any direct cost of capital, the PRA expects some additional minor costs for reporting data to support the calculations of the proposed Pillar 2A methodologies. However, the PRA does not believe firms will need to produce new data for this purpose and the PRA only requires data not already collected in COREP, FINREP or the Firm Data Submission Framework programme.

7.18 Firms will also be required to calculate some of the proposed methodologies (eg pension risk stressed accounting deficits) and this is likely to be different from their own internal approaches and could incur additional cost.

Costs to the PRA

7.19 The implementation of the new proposals will require a change in the way the PRA conducts SREPs. New processes will be needed to ensure that consistent decisions are taken across firms. This will be more acute in areas where a greater degree of supervisory judgment is expected (eg operational risk and concentration risk).

7.20 A new data management storage solution and systems will need to be created to support peer reviews and process the calculations of the capital benchmarks.

7.21 Additional specialist resources may also be required to support some of the new methodologies.

Appendices

1 Draft rules on Pillar 2 reporting including reporting templates and instructions

2 Draft supervisory statement *The Internal Capital Adequacy Assessment Process (ICAAP) and the Supervisory Review and Evaluation Process (SREP)*

3 Draft statement of policy *The PRA's methodologies for setting Pillar 2 capital*

PILLAR 2 REPORTING INSTRUMENT 2015

Powers exercised

A. The Prudential Regulation Authority (“PRA”) makes this instrument in the exercise of the following powers and related provisions in the Financial Services and Markets Act 2000 (“the Act”):

(1) section 137G (The PRA’s general rules); and
(2) section 137T (General supplementary powers).

B. The rule-making powers referred to above are specified for the purpose of section 138G(2) (Rule-making instruments) of the Act.

Pre-conditions to making

C. In accordance with section 138J of the Act (Consultation by the PRA), the PRA consulted the Financial Conduct Authority. After consulting, the PRA published a draft of proposed rules and had regard to representations made.

Commencement

D. This instrument comes into force on [**DATE**].

Amendments to the PRA Handbook

E. The Supervision manual (SUP) of the PRA’s Handbook of rules and guidance is amended in accordance with the Annex to this instrument.

Citation

F. This instrument may be cited as the Pillar 2 Reporting Instrument 2015.

By order of the Board of the Prudential Regulation Authority
[DATE]

Annex

Amendments to the Supervision manual (SUP)

After SUP 16.19 insert the following new section. The text is not underlined.

16.20 Pillar 2 reporting

Application

16.20.1 R This section applies to:

(1) a *CRR firm* that is neither a *subsidiary* of a *parent undertaking* incorporated in or formed under the law of any part of the *United Kingdom* nor a *parent undertaking*;

(2) a *CRR firm* that is not a member of a *consolidation group*;

(3) a *CRR firm* which is a *parent institution in a Member State*; and

(4) a *CRR firm* controlled by a *parent financial holding company in a Member State* or a *parent mixed financial holding company in a Member Stat*e, if the *PRA* is responsible for supervision of that *firm* on a consolidated basis under Article 111 of the *CRD*.

16.20.2 R A *firm* to which this section applies by virtue of:

(1) SUP 16.20.1R(1) or SUP 16.20.1R(2) must comply with this section on an individual basis; and

(2) SUP 16.20.1R(3) or SUP 16.20.1R(4) must comply with this section on a consolidated basis.

16.20.3 G This section applies to the same *firms* and on the same basis as *rules* 14.1-14.4 of the ICAA Part of the *PRA* Rulebook.

Interpretation

16.20.4 R In this section:

(1) “consolidated basis” has the meaning given in Article 4(1)(48) of the *EU CRR*;

(2) “IRB Approach” has the meaning given in Article 143 of the *EU CRR*;

(3) “market risk” means the risk that arises from fluctuations in values of or income from assets or in interest or exchange rates;

(4) “operational risk” has the meaning given in Article 4(1)(52) of the *EU CRR*; and

(5) "pension obligation risk" means:

(a) the risk to a *firm* caused by its contractual or other liabilities to or with respect to a pension scheme (whether established for its employees or those of a related company or otherwise); or

(b) the risk that the *firm* will make payments or other contributions to or with respect to a pension scheme because of a moral obligation or because the *firm* considers that it needs to do so for some other reason.

Reporting requirements

16.20.5 R A *firm* must submit the *data item* FSA071 for the risk assessments required in the ICAA Part of the *PRA* Rulebook.

16.20.6 R A *firm* must submit the *data items* FSA078 and FSA079 for concentration risk.

16.20.7 R A significant *firm* must submit the *data items* FSA072, FSA073, FSA074 and FSA075 for operational risk.

16.20.8 G In SUP 16.20.7R and SUP 16.20.12R(1) a 'significant *firm*' means a deposit-taker or designated investment firm whose size, interconnectedness, complexity and business type gives it the capacity to cause very significant disruption to the UK financial system (and through that to economic activity more widely) by failing or by carrying on its business in an unsafe manner.

16.20.9 R A *firm* with significant illiquid risk in its trading book must submit the *data item* FSA080 for market risk, unless the data required in that *data item* has already been reported to the *PRA* by other means.

16.20.10 R A *firm* with an *IRB permission* to use the IRB Approach for retail claims or contingent retail claims must submit the *data item* FSA082 for credit risk that relates to the IRB Approach for retail exposures.

16.20.11 R A *firm* with a *defined benefit occupational pension scheme* must submit the *data item* FSA081 for pension obligation risk.

Submission

16.20.12 R A *firm* must submit the *data items* required by this section to the *PRA*:

(1) if it is a significant *firm*, on an annual basis; or

(2) if it is not a significant *firm*, on a regular basis that is proportionate to the nature, scale and complexity of the *firm's* activities.

16.20.13 R *Data items* must be submitted to the *PRA* by electronic means.

16.20.14 R When submitting the required *data item*, a *firm* must use the template for the *data item* set out in SUP 16 Annex 39AR.

…

After SUP 16 Annex 38R insert the following new annexes

16 Annex 39AR **Templates for data items for SUP 16.20**

This annex consists only of one or more templates. Templates are to be found through the following address:

Templates for SUP 16.20 – SUP 16 Annex 39AR *[hyperlink to Templates in Annex B]*

16 Annex 39BG **Guidance notes for templates in SUP 16 Annex 39AR**

This annex consists only of guidance notes. The guidance notes are to be found through the following address:

Guidance notes for templates in SUP 16 Annex 39AR – SUP 16 Annex 39BG *[hyperlink to guidance notes in Annex B]*

For consultation as part of CP 1/15 available at [insert link to CP]

Templates in SUP 16 Annex 39AR

Summary of contents

Reporting date and firm identifier

Firm name:		**FRN:**	
Risk type:	Pillar 2 data	**Reporting date:**	
PRA analysis period:		**Reporting Currency**	
Category	**Name**	**Tel Number ☎**	**E-mail ✉**
Firm primary contact			
Firm secondary contact			
PRA primary contact			
PRA secondary contact			
For Future Use			
Submission ID:	1	**Previous ID:**	
Submission period type:	annual	**Version No:**	1.0

P2A add-on categories	Pillar 1, Currency (firms can provide this information at the ICAAP reference date to facilitate PRA review)	P2, Currency	Comments
Total P1			
Credit			
Market			
Operational (total)			
Conduct			
Non-conduct			
Concentration (total)			
Single Name			
Sector			
Geographical International			
Other concentration			
Pensions			
Interest Rate Risk in the Banking Book			
Other P2 add-on			
Other add-on 1			
Other add-on 2			
Other add-on 3			
Other add-on 4			
Other add-on 5			
Total P2A			
Total ICG, £			
Total ICG, % of Pillar 1			

Reporting date and firm identifier

Historical Period				
Calendar Year	**Conduct / Non-Conduct**	**Event Type (Specified by Art.324 CRR)**	**Operational Risk Loss Net of Direct recoveries but Gross of Indirect recoveries (such as Insurance)**	**Number of Operational Losses**

FSA073 - OR HL Details

Appendix 1

Reporting date and firm identifier

Unique ID	Legal Entity	Regulatory Business Line (Specified in Art.317 CRR)	Event Type (Specified in Art.324 CRR)	Conduct / Non-Conduct	Country Where Loss Occurred (As listed in ISO 3166)	Date of Occurrence	Date of Discovery	Date Logged	Date of Financial Impact	Operational Risk Loss Gross of Direct and Indirect recoveries	Operational Risk Loss Net of Direct recoveries but Gross of Indirect recoveries (such as Insurance)	Number of Events	Event Description

Reporting date and firm identifier			
Forecast Period			
Calendar Year	**Conduct / Non-Conduct**	**Operational Risk Loss Net of Direct recoveries but Gross of Indirect recoveries (such as Insurance)**	**Rationale**

BANK OF ENGLAND
PRUDENTIAL REGULATION
AUTHORITY

FSA075 - OR Scenarios Data

Appendix 1

Reporting date and firm identifier

Scenario definition					Frequency & Severity Distributions											Loss Distributions									
Event Type (Specified by Art.324 CRR)	Scenario name	Scenario Description	Legal Entity / Region / Business Line (as relevant)	Relevant Documentation (please list the documents that contain all relevant information)	Annual Frequency (average number of losses per year)	Severity 1 (amount)	Probability 1 (1 in X events	Severity 2	Probability 2	Severity 3	Probability 3	Severity 4	Probability 4	Severity 5	Probability 5	Loss Distr. 1 (amount)	Probability 1 (1 in X years prob=1-1/X)	Loss Distr. 2	Probability 2	Loss Distr. 3	Probability 3	Loss Distr. 4	Probability 4	Loss Distr. 5	Probability 5

Credit Risk Standardised Approach (SA) - wholesale portfolios

Primary Segment	Risk Metric / Sub segment	Banking Book non-defaulted assets				Banking Book defaulted assets		Comments
		Drawn Amount	Limit	EAD	RWA	EAD	RWA	
Corporate	Turnover > £500m							
Corporate	£50m<Turnover <£500m							
Corporate	<£50m Turnover							
Sovereign	AAA to AA- (credit quality Step 1)							
Sovereign	A+ to A- (credit quality step 2)							
Sovereign	BBB+ to BBB- (credit quality step 3)							
Sovereign	BB+ to BB- (credit quality step 4)							
Sovereign	B+ to B- (credit quality step 5)							
Sovereign	CCC+ to C (credit quality step 6)							
Institutions	AAA to AA- (credit quality Step 1)							
Institutions	A+ to A- (credit quality step 2)							
Institutions	BBB+ to BBB- (credit quality step 3)							
Institutions	BB+ to BB- (credit quality step 4)							
Institutions	B+ to B- (credit quality step 5)							
Institutions	CCC+ to C (credit quality step 6)							
CRE	CRE Investment							
CRE	CRE Development							
CRE	CRE Other							
Other wholesale portfolios								
Total	Portfolio Level							

Firms' notes/qualitative information on data reported

Credit Risk Standardised Approach (SA) - retail portfolios

Loan type	Primary Segment	Classification *****	Banking Book non-defaulted assets					Banking Book defaulted assets		Comments
			**** Average LTV	Drawn Amount	Limit	EAD	RWA	EAD	RWA	
UK mortgage lending	*Prime	0% <=LTV <50%								
	Prime	50% <=LTV <60%								
	Prime	60% <=LTV <70%								
	Prime	70% <=LTV <80%								
	Prime	80% <=LTV <90%								
	Prime	90% <=LTV <100%								
	Prime	LTV > 100%								
	**BTL	0% <=LTV <50%								
	BTL	50% <=LTV <60%								
	BTL	60% <=LTV <70%								
	BTL	70% <=LTV <80%								
	BTL	80% <=LTV <90%								
	BTL	90% <=LTV <100%								
	BTL	LTV > 100%								
	Other mortgages									
Non-UK mortgages***	Prime									
	BTL									
	Other mortgages									
Loans	Personal Loans									
QRRE	Revolving loans & overdrafts									
	Credit cards	UK Credit Cards								
	Credit cards	Int. Credit Cards								
All other retail lending (provide description below)										
	Total									

Firms' notes/qualitative information on data reported

If detail of "Other mortgages" or "All other retail lending" has been provided, please provide a description of the lending.

Concentration Risk - Minimum Data Requirements

Concentration risk type	Total RWA (portfolio within scope)	HHI
Single name		
Sector		
Geographic (international)		

Firms' notes/qualitative information on data reported

Concentration Risk - Additional Data Required

Single name concentration risk:

- Please provide a list of the top 20 largest exposures, as measured by exposures size, together with the respective EADs (exposure measure used for calculation of regulatory capital requirements), RWAs and indicators for sovereign and CCP (Central Counterparty) exposures.

Top 20 Single name exposures Counterparty Identifier	EAD	RWA	Sovereign Exposure (y/n)	CCP Exposure (y/n)
Total of top 20				

Sector concentration risk:

- Please provide the total EAD (exposure measure used for calculation of regulatory capital requirements) and RWA per defined sector.

Sector Distribution Wholesale portfolio: Banking and Trading book	EAD	RWA
Agriculture, Forestry & Fishing		
Construction		
Finance Industry		
Real Estate		
Manufacturing		
Mining & Quarrying		
Retail / Wholesale trade		
Business Services & Other		
Transport, Utilities & Storage		
Totals		

Geographic (International) concentration risk:

- Please provide the total EAD (exposure measure used for calculation of regulatory capital requirements) and RWA per defined economic region.

Geographic (International) Distribution by economic region All credit portfolios excl. mortgages under standardised approach	EAD	RWA
United Kingdom		
North America		
South America, Latin America & Caribbean		
Euro area		
Eastern Europe & Central Asia		
East Asia & Pacific		
South Asia		
Middle East & North Africa		
Sub-Saharan Africa		
Totals		

Firms' notes/qualitative information on data reported

Illiquid Risk Data Submission   Reporting date and firm identifier -- Reporting Currency = *XXX*

Legal Entity	Business Unit	Sub Business Unit	Desk	Currency Of Exposure	Product Type	Illiquidity Type	Scenario Description	Notional Value	Market Value	Liquidity Horizon	Stress Shifts	Revaluation Method	Calibration Date Range	Stress Loss	Capital Mitigant	Capital Mitigant Value	Regulatory Regime	Trading Status	Position Count

BANK OF ENGLAND
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FSA081 Pension

Appendix 1

Pension Risk Information Request

Name of firm		**Colour coding**
Effective date		No colour: All firms
Currency used		Yellow: deposit-takers and designated investment firms whose size, interconnectedness, complexity and business type give them the capacity to cause either some disruption or very significant disruption to the UK financial system (and through that to economic activity more widely) by failing or by carrying on their business in an unsafe manner; others on an exception basis
Units used (eg £'000, £m, £bn)		Grey: deposit-takers and designated investment firms whose size, interconnectedness, complexity and business type give them the capacity to cause very significant disruption to the UK financial system (and through that to economic activity more widely) by failing or by carrying on their business in an unsafe manner; others on an exception basis

Section I - information on the scheme	Total	Scheme 1	Scheme 2	Scheme 3	Scheme 4	Scheme 5	Scheme 6	Scheme 7	Scheme 8	Other schemes and post retirement employee benefits	Details, comments and notes
Name of scheme											
Total Market value of assets at effective date											
Market value of following asset components at effective date											
UK Equities											
Overseas equities											
Property											
UK Conventional gilts											
UK index linked gilts											
Overseas government bonds											
UK fixed interest corporate bonds: AAA											
UK fixed interest corporate bonds: AA											
UK fixed interest corporate bonds: A											
UK fixed interest corporate bonds: BBB and other											
UK index linked corporate bonds											
Overseas corporate bonds											
Cash											
Hedge funds											
Swaps (please specify)											
Other derivatives (please specify)											
Infrastructure											
Reinsurance											
Other (please specify)											
Asset PV01											
Asset IE01											
Liabilities at accounting value at effective date											
Active members											
Deferred pensioners											
Current pensioners and dependents											
Liability PV01											
Liability IE01											
Deficit (surplus) in pension scheme - on an accounting basis											
Section 75 valuation (i.e. value of liabilities)											
Macaulay durations of the following											
Active members											
Deferred pensioners											
Pensioners											
UK Conventional gilts											
UK index linked gilts											
Overseas government bonds											
UK fixed interest corporate bonds											
UK fixed interest corporate bonds: AAA											
UK fixed interest corporate bonds: AA											
UK fixed interest corporate bonds: A											
UK fixed interest corporate bonds: BBB and other											
UK index linked corporate bonds											
Overseas corporate bonds											
Proportion of schemes attributable to firm (where applicable)											
Pensions accounting assumptions											
Discount rate per annum											
Salary inflation rate per annum											
Retail Price Index (RPI) rate per annum											

Consumer Price Index (CPI) rate per annum											
Pension increases in payment (by tranche) rate per annum											
Revaluation in deferment rate per annum											

	Comments
Explanation of principles underlying choice of pensions accounting assumptions for each DB plan in the group, and whether this has received auditor acceptance	

Section II - Pillar 2 Calculations	*Firm's assessment*	*Stress scenario 1*	*Stress scenario 2*	*Details, comments and notes*
Total pillar 2 pensions risk capital				
Deficit (surplus) of the pension scheme - firm's own basis as well as accounting basis (for stress scenarios)				
Incremental deficit from 1-year stress				
Minus: management actions and offsets				
Management action 1 (please describe)				
Management action 2 (please describe)				
Management action 3 (please describe)				
Management action 4 (please describe)				
Other management actions (please describe)				
Minus: pillar 1 pensions capital				

	Comments
Additional information for SPVs - see guidance	
Breakdown of PV01 and IE01 - see guidance	

Additional documents
Please provide latest funding update and triennial valuation report.

Firms' further notes/qualitative information on data reported

IRB data to create exposure weighted IRB risk weight for Pillar 2A credit risk approach - retail portfolios

Loan type	Primary Segment	Classification *****	Banking Book non-defaulted assets					Banking Book defaulted assets			Comments
			****Average LTV	Limit	EAD	RWA	EL	EAD	RWA	EL	
UK mortgage lending	*Prime	0% <=LTV <50%									
	Prime	50% <=LTV <60%									
	Prime	60% <=LTV <70%									
	Prime	70% <=LTV <80%									
	Prime	80% <=LTV <90%									
	Prime	90% <=LTV <100%									
	Prime	LTV > 100%									
	**BTL	0% <=LTV <50%									
	BTL	50% <=LTV <60%									
	BTL	60% <=LTV <70%									
	BTL	70% <=LTV <80%									
	BTL	80% <=LTV <90%									
	BTL	90% <=LTV <100%									
	BTL	LTV > 100%									
	Other mortgages										
Non-UK mortgages***	Prime										
	BTL										
	Other mortgages										
Loans	Personal Loans										
QRRE	Revolving loans & Overdrafts										
	Credit cards	UK Credit Cards									
	Credit cards	Int. Credit Cards									
All other retail lending (provide description below)											
	Total										

Firms' notes/qualitative information on data reported

P2 Data - Guidance

Appendix 1

for consultation as part of CP1/15, available at [link]

Guidance notes in SUP 16 Annex 39BG

Summary of contents

Reporting Schedule

Appendix 1

Templates	Scope of population	Group/individual entities	Reporting period/submission deadlines	Reporting frequency
Summary of P2 data Template FSA071 - Firm information and P2 summary assessment	All firms	On an individual or consolidated basis in accordance with SUP 16.20.2R; individual entities within a group on a case-by-case basis	in conjunction with ICAAP submission dates	We expect firms will submit the templates at the same time as their ICAAPs or as requested
Operational Risk Templates FSA072 - Pillar 2 OpR Historical losses FSA073 - Pillar 2 OpR Historical Loss Details FSA074 - Pillar 2 OpR Forecast Losses FSA075 - Pillar 2 OpR Scenario Data	Significant firms; others on an exception basis	On an individual or consolidated basis in accordance with SUP 16.20.2R; individual entities within a group on a case-by-case basis	in conjunction with ICAAP submission dates	We expect firms will submit the templates at the same time as their ICAAPs or as requested
Credit Risk Standarsides Approach Templates FSA076 - Pillar 2 Credit Standardised Approach Wholesale FSA077 - Pillar 2 Credit Standardised Approach Retail	On an exception only basis	On an individual or consolidated basis as requested; individual entities within a group on a case-by-case basis	in conjunction with ICAAP submission dates	We expect firms will submit the templates at the same time as their ICAAPs or as requested
Concentration Risk Templates FSA078 - Pillar 2 Concentration Minimum data requirements FSA079 - Pillar 2 Concentration Additional data requirements	All firms	On an individual or consolidated basis in accordance with SUP 16.20.2R; individual entities within a group on a case-by-case basis	in conjunction with ICAAP submission dates	We expect firms will submit the templates at the same time as their ICAAPs or as requested
Market Risk Template FSA080 - Pillar 2 Market Risk	Firrms with significant illiquid risk in their trading or available for sale books not already in FDSF on an exception basis	On an individual or consolidated basis in accordance with SUP 16.20.2R; individual entities within a group on a case-by-case basis	on a case-by-case basis	We expect firms will submit the templates at the same time as their ICAAPs or as requested
Pension Risk Template FSA081 - Pillar 2 Pension Risk	All firms with defined benefit pension schemes	On an individual or consolidated basis in accordance with SUP 16.20.2R; individual entities within a group on a case-by-case basis	in conjunction with ICAAP submission dates	We expect firms will submit the templates at the same time as their ICAAPs or as requested
Credit Risk Internal Ratings Based Approach Templates FSA082 - Pillar 2 Credit IRB retail	Firms with an IRB permission for retail exposures	On an individual or consolidated basis in accordance with SUP 16.20.2R	on a case-by-case basis - data as of 31/12	We expect firms will submit annually

Guidance on terms used

Appendix 1

Guidance on terms used in the templates in SUP 16 Annex 39AR and the guidance notes in this SUP 16 Annex 39BG:

Reference to COREP means the reporting requirements in Commission Implementing Regulation (EU) No 680/2014 of 16 April 2014 laying down implementing technical standards with regard to supervisory reporting of institutions according to *EU CRR*

Templates	Term	Guidance on terms used
FSA076, FSA077 and FSA082	Banking Book assets	Assets other than trading book assets
	Trading book assets	All positions in CRD financial instruments and commodities held by an institution either with trading intent, or in order to hedge positions held with trading intent
FSA076 and FSA077	Standardised Approach	The Approach to credit risk capital requirements described in *EU CRR* Art. 111-141
FSA082	IRB approach	The Approach to credit risk capital requirements described in *EU CRR* Art. 142-191
FSA076 and FSA077	Wholesale Portfolios	Defined based on firms' approaches for capital calculation and consistent with the *EU CRR*
FSA076, FSA077 and FSA082	Retail Portfolios	Defined based on firms' approaches for capital calculation and consistent with the *EU CRR*
FSA076 and FSA077	Corporate	Asset classes defined as per COREP - Exposures as per Art.112 point (g) of *EU CRR*
FSA076, FSA077, FSA079	Sovereign	Asset classes defined as per COREP - Exposures as per Art.112 point (a) and Art. 147 (3) of *EU CRR*
FSA076 and FSA077	Institutions	Asset classes defined as per COREP - Exposures as per Art.112 point (f) and Art.147 (4) of *EU CRR*
FSA076 and FSA077	Turnover	Total volume of all transactions
FSA076 and FSA077	CRE	Commercial real estate asset classes defined as per COREP - Non-retail exposures secured by immovable property as defined in Art. 124 of *EU CRR*
FSA076 and FSA077	Other wholesale portfolios	Non-retail exposures as per Art.112 points (k) to (q) of *EU CRR* . Firms should provide a short description of this lending
FSA076 and FSA077	Credit Quality Steps/external ratings	Credit quality steps /external ratings defined as in COREP - Art. 135-141 *EU CRR*
FSA076 and FSA077	CRE Development	CRE as in COREP; Development means the loan is for building new or refurbishing existing property whether for ultimate sale or rental and the primary means of repayment is through the completion of that development. Includes: • house builder with non-recourse SPV exposure for a specific property development; and • specific developments or structured exposures for corporate property companies (e.g. British Land PLC). Excludes trading exposures to house builders.
FSA076 and FSA077	CRE Investment	CRE as in COREP; Investment means the exposure/facility is secured against property and the rental income from the property is the primary means of repayment of the facility. Includes: • exposures to commercial real estate properties where the development phase has been concluded; • hotels and nursing homes on a third party lease. Excluding: . Trading exposure to house builders . Loans to social housing associations . Other nursing home and hotel loans (ie owner occupied) . Operating Company (Op Co)/ Proprietary Company (Prop Co) exposures within a wider corporate relationship . Other exposures of a corporate property companies (eg general corporate unsecured balance sheet lending) . CRE exposures held at Fair Market Value . Hedging positions where there is no debt
FSA076 and FSA077	CRE Other	This is a residual category - Firms using this line have to provide a description of the lending
FSA076, FSA077 and FSA082	Non-defaulted assets	Exposures other than those classified as defaulted assets
FSA076, FSA077 and FSA082	Defaulted assets	Exposures which have been classified as “defaulted exposures” according to *EU CRR* Art. 127 and 178. Non-defaulted exposures are those that satisfy either or both of the following criteria: (a) material exposures which are more than 90 days past-due; (b) the debtor is assessed as unlikely to pay its credit obligations in full without realisation of collateral, regardless of the existence of any past-due amount or of the number of days past due.
FSA076 and FSA077	Drawn Amount	Amount of a loan drawn by a borrower on a specified date. Balances should be reconcilable to the statutory accounts and regulatory returns. For retail, loan balances should be entered net of write-offs and gross of Provisions. Balances should be gross of any off-set balances, i.e. the actual outstanding principal amount owed.

	FSA076, FSA077 and FSA082	Limit	Maximum amount that can be drawn by a borrower as on a specified date. Limits should be completed to reflect redraw and / or further credit line facilities. If there is no pre-agreed facility, populate the limit with the drawn balance.
	FSA076, FSA077 and FSA082	EAD	Exposure at default (IRB approach) or expoure (standardised approach) as defined in COREP. Exposures are reported after incorporating value adjustments, credit risk mitigation and credit conversion factors
	FSA076, FSA077 and FSA082	RWA	For templates FSA076, FSA077 and FSA082, risk weighted exposure amounts for credit and dilution risk and free deliveries as per Art. 92(3) point (a) of *EU CRR* .
	FSA082	EL	Expected losses as defined in COREP - Art. 158-159 of *EU CRR* . This is the amount expected to be lost on an exposure from a potential default of a counterparty or dilution over a one year period. For securitised assets, it is the actual principal write-down suffered by the instrument, net of any impairment already taken through P&L For Counterparty Credit Risk (Art.272(1) *EU CRR*), the projected losses are comprised of default losses (i.e. losses due to default of counterparties which is captured by the PRA handbook definition referred to above) and CVA impact (i.e. fair value losses and gains arising from changes in the credit worthiness of a firm’s counterparties as per Art.381 *EU CRR*).
	FSA077, FSA082	UK Mortgage Lending	All retail lending secured on land and buildings in the UK
	FSA077, FSA082	Non-UK Mortgage Lending	All retail lending secured on land and buildings outside of the UK
	FSA077, FSA082	Prime	Mortgages that are fully verified, with no previous arrears or County Court Judgements, owner occupied, with max initial LTV of 100%. This definition includes 'prime income verified' mortgages under the Building Societies Loan Book data report.
	FSA077, FSA082	BTL	This definition includes both Buy-To-Let (BTL) and Consent-to-let (CTL) mortgages. BTL are Mortgages where the borrower purchases a residential property with the intention of letting it out on a rental basis. The majority of BTL loans will be those used by the borrower to acquire a property with the intention of letting it on a commercial basis to unrelated third parties. CTL are mortgages related to properties that were originally bought <u>without</u> the intention to let out, and subsequently becoming ‘unable’ to be sold.
	FSA077, FSA082	Mortgages with impaired credit history	Mortgages where at least one of the following conditions was met at the time of making the loan: (i) Arrears on a previous (or current) mortgage or other secured loan within the last two years, where the cumulative amount overdue at any point reached three or more monthly payments. (ii) Arrears on a previous (or current) unsecured loan within the last two years, where the cumulative amount overdue at any point reached three or more monthly payments. (iii) One or more county court judgements (CCJs), with a total value greater than £500, within the last three years. (iv) Being subject to an individual voluntary arrangement (IVA) at any time within the last three years. (v) Being subject to a bankruptcy order at any time within the last three years. For clarification: • Firms should not include technical arrears as part of the above definition, with technical arrears being circumstances where the borrower has been the victim of a banking error giving rise to a late payment. • In (i) to (v), firms should ignore whether the borrower has subsequently paid-off arrears, or has satisfied/discharged a CCJ or IVA or bankruptcy (i.e. a borrower with a satisfied CCJ greater than £500 should be defined as impaired). • In the case of loans involving two or more borrowers, the impaired credit test is whether any one of the borrowers individually meets any of the five listed impaired credit conditions.
	FSA077, FSA082	Other Mortgages	This is a residual category - Firms using this line have to provide a description of the lending
	FSA077, FSA082	Personal Loans	Includes loans granted to households and non-profit institutions serving households, including credit for consumption (loans granted for the purpose of mainly personal use in the consumption of goods and services). Credit for consumption granted to sole proprietors/unincorporated partnerships is comprised in this category, if the reporting firm knows that the loan is predominantly used for personal consumption purposes. As defined by Table, Asset categories, 2(a) point 1 of ECB BSI regulation No 25/2009
	FSA077, FSA082	QRRE	Qualifying revolving retail exposures as defined in Art.154 (4) *EU CRR*

Guidance on terms used

Appendix 1

	FSA077, FSA082	revolving loans & overdrafts	Covers revolving loans and overdrafts. Revolving loans are loans that have all the following features: 1. The borrower may use or withdraw funds to a pre-approved credit limit without giving prior notice to the lender; 2. the amount of available credit can increase and decrease as funds are borrowed and repaid; 3. the credit may be used repeatedly; 4. there is no obligation of regular repayment of funds. Revolving loans include the amounts obtained through a line of credit and not yet repaid (outstanding amounts). A line of credit is an agreement between a lender and borrower that allows a borrower to take advances, during a defined period and up to a certain limit, and repay the advances at his discretion before a defined date. Amounts available through a line of credit that have not been withdrawn or have already been repaid are not to be considered under any BSI category. Overdrafts are debit balances on current accounts. Both revolving loans and overdrafts exclude loans provided through credit cards. The total amount owed by the borrower is to be reported, irrespective of whether it is within or beyond any limit agreed beforehand between the lender. As defined by Table, Asset categories, 2(c) of ECB BSI regulation No 25/2009
	FSA077, FSA082	Credit Cards	This category comprises credit granted to households or non-financial corporations either via delayed debit cards (i.e. cards providing convenience credit as defined below) or via credit cards (i.e. cards providing convenience credit and extended credit). Credit card debt is recorded on dedicated card accounts and therefore not evident on current or overdraft accounts. Convenience credit is defined as the credit granted at an interest rate of 0 % in the period between the payment transaction(s) effectuated with the card during one billing cycle and the date at which the debit balances from this specific billing cycle become due. Extended credit is defined as the credit granted after the due date(s) of the previous billing cycle(s) has/have passed, i.e. debit amounts on the card account that have not been settled when this was first possible, for which an interest rate or tiered interest rates usually greater than 0 % are charged. Often minimum instalments per month have to be made, to at least partially repay extended credit. As defined by Table, Asset categories, 2(b) of ECB BSI regulation No 25/2009
	FSA077, FSA082	Credit Cards - UK	Classification between UK and International is made based on the country where the money has been “dispersed to” as opposed to the country where the lending has been “booked”
	FSA077, FSA082	Credit Cards - International	Classification between UK and International is made based on the country where the money has been “dispersed to” as opposed to the country where the lending has been “booked”
	FSA077, FSA082	LTV - Loan to value	Current balance outstanding divided by the property valuation. The property valuation should follow the valuation rules set out for the calculation of regulatory capital under CRD.
	FSA077, FSA082	Average LTV	EAD weighted indexed LTV percentages. The property valuation should follow the valuation rules set out for the calculation of regulatory capital under CRD.
	FSA077, FSA082	Indexed LTV for LTV bands	We define *Indexed Loan to Value* (LTV) as the current loan balance outstanding divided by the indexed property valuation. The indexed valuation is taken to be the market value of the property which is subject to the mortgage at the end of the month selected for reporting. The existence of additional collateral on any other property should be ignored when calculating LTV. Please state the method you used to estimate market value. This may for example be by multiplying the valuation at origination by the change since origination in a house-price index.
	FSA078, FSA079	RWA, EAD, for concentration risk	The definitions of RWA and EAD are the same as in *EU CRR* but for concentration risk we include both banking book and trading book credit risk assets, i.e. all items in Art.92 (3) points (a) and (f) of *EU CRR*. Additionally, in these templates certain portfolios are excluded and certain exposures have to be aggregated together. See Concentration Risk instructions for detail.
	FSA078, FSA079	Top 20 single name exposures	Please see Concentration Risk instructions for portfolios in scope and aggregation
	FSA079	CCP - Central Counterparty	Central Counterparty/CCP as defined in point (1) of Art. 2 of Regulation (EU) No 648/2012
	FSA079	Sector	Sector definitions based on NACE codes - refer to Concentration Risk instructions for detail on how to aggregate
	FSA079	Economic region	Sector definitions taken from COREP but certain economic regions are aggregated - refer to Concentration Risk instructions for detail
	FSA081	PV01	The change in the value of the assets or liabilities for a 1 basis point change in the interest rate
	FSA081	IE01	The change in the value of the assets or liabilities for a 1 basis point change in the inflation rate
	FSA081	effective date	The date at which the asset and liability values are calculated
	FSA081	overseas (for equities, bonds)	Non-UK equities or bonds
	FSA081	Macaulay duration	The weighted average maturity of the cashflows using the present value of each cashflow as the weight
	FSA081	proportion of scheme attributable to firm	The percentage of the stressed deficit of the pensions scheme notionally allocated to the firm for the purposes of calculating pensions risk capital
	FSA081	SPV - Special Purpose Vehicle	Contingent assets which provide additional security for the pension scheme (such as an escrow account or some other form of security arrangement)
	FSA081	Section 75 (S75)	Section 75 of the Pensions Act 1995
	FSA081	management action/offset	Management actions/offsets claimed - the eligibility criteria for pension obligation risk are set out in the Statement of Policy on Pillar 2
	FSA081	stress scenarios	Stress scenarios for pension obligation risk as summarised in the Statement of Policy on Pillar 2

General Guidance - all templates

Please specify the reference date for submission - should coincide with the ICAAP reference date, except for FSA080 and FSA082

Except where specified (eg market risk) you should report in the currency of your ICAAP ie in either Sterling, Euro, US dollars, Canadian dollars, Swedish Kroner, Swiss Francs or Yen. Please specify the currency used. Figures should be reported in million.

Except where specified definitions are in line with COREP and CRDIV

Template FSA071 - Firm information & Pillar 2A summary assessment

In this template, firms are expected to report their own assessment of the Pillar 2 capital that they consider adequate to cover the risks assessed in accordance with the ICAA
For Pillar 1 data, firms are expected to provide this information at the ICAAP reference date to facilitate PRA review.

BANK OF ENGLAND
PRUDENTIAL REGULATION AUTHORITY

FSA072-FSA075 OpR G

Appendix 1

FSA072-FSA075 Pillar 2 OpR Guidance

No.	Information requested	Worksheet	Information supplied to satisfy request (To be completed by the Firm)	Date Submitted	Comments
OR Loss Information					
1	For each event type as per Art.324 CRR, Total Operational Risk losses (net loss1 and number of losses) by calendar year for past completed years since 2008 with conduct/legal events reported separately.	**FSA072 - Historical OR losses**	See Worksheet		
2	For each event type as per Art.324 CRR, details of the top 10 (in terms of net financial impact*) Operational Risk losses in each year since 2008 (including loss description, date of occurrence, date of financial impact and net financial impact).	**FSA073 - Historical OR Loss Details**	See Worksheet		
3	Forecast for total operational risk losses for the current calendar year and next three years (or as many years as you have forecasts for) for all operational risk events with conduct/legal events reported separately. The forecast amounts need to be explained by a clear and coherent rationale.	**FSA074 - Forecast OR losses**	See Worksheet		
	[1] Operational Risk Loss Net of Direct recoveries but Gross of Indirect recoveries (such as Insurance)				
OR Scenario Information					
4	Documentation on the principles and guidelines for conducting the scenario identification and analysis process; training material provided to workshop participants	NA			
5	Complete, detailed documentation of all top scenarios[2], including any assessments and rationale. Each scenario must have at least one of the following: a) an annual frequency[3] and at least 2 conditional severity impacts[4] with the associated probability of occuring at maximum these severity impacts (e.g. plausible event: for this particular scenario, when an operational risk loss event occurs, it has 50% probability of being £1M or less) or b) at least 2 annual operational risk loss amounts with the associated probability of occuring at maximum these annual loss impacts (e.g. plausible year: for this particular scenario, there is a 50% probability of annually occuring £10M of operational risk losses or less) The 2 conditional severity impacts (resp. 2 annual operational risk amounts) must come from the same scenario with the same coherent and realistic story line consistent with the firm's business and operational risk profile. The assessment must be driven by the Unit of Measure's tail risk assessment and the difference between the 2 severity impacts (resp. 2 annual operational risk amounts) could reflect control failures (design & effectiveness), macro-economic environment,etc... When more than 2 severity impacts (resp. annual operational risk amounts) have been assessed for a single scenario, all severity impacts (resp. annual operational risk amounts) and their corresponding probability must be provided. When the same scenario is applied to different regions/business lines/organisation units/etc... , all assessments across all different regions/business lines/organisation units/etc... must be provided. (The information requested in the items below should align with these top scenarios, where applicable).	**FSA075 - Scenario Data**	See Worksheet		
6	Data provided to the workshop participants prior to/during the workshop discussions for the Top scenarios.	NA			
7	Documentation/minutes evidencing the process that was gone through / meetings that were held to identify, assess and challenge the scenarios.	NA			
	[2] Scenarios ordered by their implied operational risk capital achieved with a soundness standard comparable to a 99.9% confidence interval over a one-year period on a stand-alone basis i.e. not accounting for any diversification benefits. The top scenarios must be the ones provided at either the Board, Executive Committee or at the Risk Committee for risk management purpose (it is expected to see at least 10 scenarios not related to conduct/legal events and additionally the top 3 conduct/legal scenarios). [3] expected number of loss events per year. [4] a conditional severity impact is a loss amount given that an operational risk event has occurred				
OR Capital Model Information					
8	Documentation on the use of the scenarios assessment within the operational capital model to derive the Pillar 2A operational risk capital requirement (e.g. Operational Risk Model Documentation) - only if relevant.	NA			

For Information

a. We expect the data to be **re-submitted in full** every year, i.e. if the firm submits historical data from 2001 to 2004 this year, next year the firm will need to submit the full dataset from 2001 to 2005 and not just the year 2005.

b. Date of Occurrence: the date when the event happened or first began
Date of Discovery: the date on which the firm became aware of event
Date Logged: the date on which the event was first registered into the firm's system
Date of Financial impact: the date when a loss or reserve/provision was first recognized in the P&L

c. Gross loss includes external lawyers fees, court fees, other Litigation expenses etc. as well as the cost of settlement

Template FSA076 – Pillar 2 Credit SA Wholesale & Template FSA077 - Pillar 2 Credit SA Retail

If asked to, supply data on all your Wholesale and Retail portfolios for which you calculate capital requirements using the Standardised Approach for Credit Risk. Please complete the data templates following the instructions below:

- Please provide the data at the reference date used for your ICAAP report.
- All data should be the regulatory inputs used in the capital calculations.
- Please provide data for both performing and defaulted Banking Book assets.
- We require the data to be split along specific dimensions within each portfolio. The first 2/3 columns of each template define the required segmentation.
- Please provide the Drawn Amount, Limit, EAD, and RWA data in either £Million or $Million. Also, please state the denomination that you are using, and use this denomination consistently throughout the submission.
- Please provide the average LTV data as EAD weighted percentages.
- Please ensure that you do not provide negative values for data items that are greater than or equal to zero e.g. EAD and RWA.
- If you have made any modifications to the required segmentation, please highlight this consistently throughout the submission as well as in your covering note to the PRA.
- If you are not able to provide the data using the prescribed segmentation criteria please contact the PRA for further guidance.

Template FSA082 - Pillar 2 Credit IRB retail

Please supply data on your Retail portfolios for which you calculate capital using an IRB approach (i.e. RIRB, AIRB, FIRB or slotting). In completing the data templates:

- Please provide the data as the most recent date of the firm's annual or semi-annual financial statements, whichever is most recent.
- All data should be the regulatory inputs used in the capital calculations.
- The RWA should reconcile to the Pillar 1 amounts that firms are reporting, including PD/LGD regulatory floors but excluding Basel I floors
- Please provide data for both performing and defaulted Banking Book assets.
- We require the data to be split along specific dimensions within each portfolio. The first 2 columns of the retail template define the required segmentation.
- Please provide the Limit, EAD, EL and RWA data in either £Million or $Million. Also, please state the denomination that you are using, and use this denomination consistently throughout the submission.

- Please provide the average LTV data as EAD weighted percentages.
- Please ensure that you do not provide negative values for data items that are greater than or equal to zero e.g. EAD and RWA.
- If you have made any modifications to the required segmentation, please highlight this consistently throughout the submission as well as in your covering note to the PRA.
- If you are not able to provide the data using the prescribed segmentation criteria then please contact the PRA.

Template FSA078 - Pillar 2 Concentration Minimum data requirements & Template FSA079 - Pillar 2 Concentration Additional data requirements

Section 1: Firm minimum data requirements (FSA078)

1. For the assessment of single name, sector and geographic (international) concentration risk firms are required to provide (i) the total RWA and (ii) calculate the HHI of the portfolios within scope (see Section 2) for each of the concentration risk types. RWAs should be calculated based on the approach used to calculate the Credit Risk Requirement (CRR), i.e. Standardised, Foundation IRB or Advanced IRB. For Counterparty Credit Risk (CCR) exposures the CVA component of the capital requirements should be excluded from the RWA estimate. For Central Counterparty (CCP) exposures the Default Fund Contribution (DFC) should be included in both the EAD and RWA
2. The HHI is calculated as:

$$HHI = \frac{\sum w(i)^2}{(\sum w(i))^2}$$

where
$w(i)$ represents

- *Single name concentration risk* : the total credit risk RWA of a single counterparty aggregated to ultimate Group parent level;
- *Sector concentration risk* : the total credit risk RWA per defined sector (see Table 1);
- *Geographic (international) concentration risk* : the total credit risk RWA per defined economic region (see Table 2).

Section 2: Portfolios in scope

3. Single name concentration risk: Wholesale credit (non-retail) portfolio exposures across both banking and trading book excluding inter-group transfers, securitisations and defaulted assets. RWAs should be aggregated to ultimate Group Parent level. Investment trusts should be included as single exposure; any diversification within the trust

4. Sector concentration risk: Wholesale credit (non-retail) portfolio exposures across both banking and trading book excluding inter-group transfers, sovereigns, housing associations and defaulted assets. RWAs should be aggregated according to the following sector breakdown:

Table 1: Sector Breakdown
Agriculture, Forestry & Fishing
Construction
Finance Industry
Real Estate
Manufacturing
Mining and Quarrying
Retail / Wholesale trade
Business Services & Other
Transport, Utility & Storage

5. Geographic (International) concentration risk: Wholesale and retail credit portfolio exposures across both banking and trading book excluding Residential Mortgages on The Standardised Approach and defaulted assets. RWAs should be aggregated according to the following regional breakdown based on the country of origination of the exposure:

Table 2: Geographic Regional Breakdown
United Kingdom
North America
South America, Latin America & Caribbean
Euro area
Eastern Europe & Central Asia
East Asia & Pacific
South Asia
Middle East & North Africa
Sub-Saharan Africa

Section 3: Additional information

6. All firms are required to provide additional information as specified in FSA079 to facilitate supervisory judgement and peer comparisons.

Template FSA080 - Pillar 2 Market Risk

Column A - Legal Entity: in this column provide the legal entity in which each position is booked in; *e.g. xxx Plc, xxx Bank Group etc.* Each entry in this column will span more than one row if multiple risk factors are used in calculating the 'stress loss' or illiquidity add-on. Where this is the case the entry should be merged across the rows.

Column B - Business Unit: in this column provides the business area or asset class each position belongs to; *e.g. Fixed Income, Currencies and Commodities, Equity, Wealth Management, Treasury etc.* Where illiquid risk spans multiple business units (e.g. 3M-6M tenor basis risk) this field may be populated with "All".

Column C - Sub Business Unit: in this column provide the sub-business area each position belongs to; *e.g. Rates, Rates Exotic, Rates Vanilla etc.* Where illiquid risk spans multiple sub business units (e.g. 3M-6M tenor basis risk) this field may be populated with "All".

Column D - Desk: in this column provide the name of the trading desk each position belongs to; *e.g. GBP Options Trading, GBP Flow Trading etc.* In practice, the desk should be the lowest hierarchical level which contains both the illiquid product and its hedges.

Column E - Currency of Exposure: This should be the currency of the value generated by the booking system.

Column F - Product Type: in this column provide a brief description for each position identified. This position can be a specific illiquid product or risk. The description should be of sufficient detail for a competent valuation/market risk specialist with no prior knowledge of the position to understand it. Provide referenced word or pdf document separately if needed; *e.g. Power Reverse Dual Currency (PRDC), complex hybrid derivative, detailed payoff, Rates 3M-6M basis etc.*

Column G - Illiquidity Type: in this column provide the market dynamic of each position. Select from drop-down menu and include any other illiquidity type descriptor where the existing list is not sufficient.

Column H - Scenario Description: in this column provide a description of the stress testing scenario used to calculate the illiquidity add-on (*e.g. for PRDCs, all risk factors are shocked and then individual spot/volatility shocks for the underlying rates and FX pair are subtracted giving an illiquidity loss for unhedgeable risks).* Note: the actual shocks will be in Column L - The scenario calculation should be full revaluation for products which contain significant non-linearity and should capture those risks not captured in Pillar 1.

Column I - Notional Value: in this column provide the aggregated notional amount for each illiquid position, separating long and short positions; *e.g. Long JPY50Bn, Short JPY 500Bn etc.* This field may be left unpopulated for some non-product specific risks.

Column J - Market Value: mid-level market valuation of the illiquid positions in the portfolio, excluding any fair value adjustments, separating long and short positions; *e.g. Long $0.5Bn, Short $5Bn etc.* This field may be left unpopulated for some non-product specific risks.

Column K - Liquidity Horizon: in this column provide the estimated exit or immunisation period for each position, based on size of the position and average daily trading activity of the underlying product or exposure; select from drop-down menu.

Column L - Stress Shifts: in this column provide quantifications of changes in parameters in stress testing; *e.g. USD/JPY depreciate 20%, USD rates up 100bp, JPY rates up 10bp, volatility up by 50% on a relative basis, correlation down by 10% etc.* Ensure all shifts are listed individually.

Column M - Revaluation Method: in this column provide the method of calculating stress loss. Select from the drop-down menu which contains Full, Sensitivity or Grid based revaluation. Where an alternative method is used provide a suitable description.

Column N - Calibration Date Range: in this column provide the date range during which the stress shifts are calibrated; *e.g. 6m month change in correlation in H1 2008 etc.*

Column O - Stress Loss: in this column provide the amount of stress loss for each position under the stress scenario specified (Col G); e.g. 50,000,000 etc. Note that this stress loss should stem from a firm defined scenario which will generate a potential loss.

Column P - Capital Mitigant: in this column provide the description of any mitigant type for the stress loss; e.g. fair value reserve, prudent valuation adjustment etc.

Column Q - Capital Mitigant Value: in this column provide the amount of any mitigation for the stress loss, for each of the mitigants identified in Col O; e.g. (fair value reserve) 20,000,000, (prudent valuation adjustment) 50,000,000 etc.

Column R - Regulatory Regime: in this column provide the method for which Pillar 1 regulatory capital is calculated. Select from drop-down menu.

Column S - Trading Status: in this column provide the status of trading by the firm; e.g. Active market marking, Legacy positions seeking exit, hold to maturity etc.

Column T - Position Count: for individual (rather than basis type positions) derivative products we would like to see a position count so that we can consider the average size deal using the notional value above.

Template FSA081 - Pillar 2 Pension risk

Information required

A firm must submit the data items required by this template proportionately to the nature, scale and complexity of its activities. A graduated approach is described by the colour codes below:

Colour coding
No colour: All firms
Yellow: deposit-takers and designated investment firms whose size, interconnectedness, complexity and business type give them the capacity to cause either some disruption or very significant disruption to the UK financial system (and through that to economic activity more widely) by failing or by carrying on their business in an unsafe manner; others on an exception basis
Grey: deposit-takers and designated investment firms whose size, interconnectedness, complexity and business type give them the capacity to cause very significant disruption to the UK financial system (and through that to economic activity more widely) by failing or by carrying on their business in an unsafe manner; others on an exception basis

General instructions

Firms are required to provide separate information for the largest defined benefits schemes they have material responsibility for, using separate columns for scheme 1, scheme 2 etc.. Please aggregate all the non-material defined benefits pensions in the designated column.

Assets must be reported at market value at the effective date; liabilities must be reported at accounting value (except where otherwise stated) at the effective date.

We draw attention to the column entitled 'details, comments and notes', where the firm can enter, or provide links to, additional information in support of the data provided in the columns to the left of it.

In Section I the deficit (surplus) of the pension schemes must be calculated by valuing the assets at market value and the liabilities at accounting value.

Additionally, firms must report the S75 value of the liabilities of each scheme, calculated in accordance to Section 75 of the Pensions Act 1995.

Firms should, in the designated section, explain the principles underlying the choice of pensions accounting assumptions for each defined benefit plan and whether the principles and the choice in the most recent year have received auditor acceptance.

In 'Section II - Pillar 2 calculations' firms must report the deficit (surplus) of the pension fund under stress scenarios, as specified in the Statement of Policy on Pillar 2

In 'Section II - Pillar 2 calculations' the deficit (surplus) should be calculated using the firm's own methodology (in the column 'firm's assessment') as well as the accounting basis ('stress scenario' columns).

In 'Section II - Pillar 2 calculations', the incremental deficit from 1-year stress is the stressed deficit minus the starting deficit

In 'Section II - Pillar 2 calculations' firms are required to provide a description and separate quantification for each management action and offset they wish to claim for the calculation of Pillar 2A for pension risk capital. We will also need an explanation of why each action would be effective in a stress and how it fulfils the PRA eligibility criteria for accepting management actions and offsets. Firms should provide this information in the column entitled 'details, comments and notes'.

SPVs - special purpose vehicles

deposit-takers and designated investment firms whose size, interconnectedness, complexity and business type give them the capacity to cause very significant disruption to the UK financial system (and through that to economic activity more widely) by failing or by carrying on their business in an unsafe manner; others on an exception basis

In relation to any special purpose vehicles (SPV) or similar arrangements proposed to be used as an offset to Pillar 2 pensions risk capital, firms are required to provide to the PRA:

- The document or agreement governing that vehicle
- Summaries of the above, the purpose of the vehicle, and how it operates.
- Explanation of the effectiveness of the vehicle as a mitigant to risk in a going concern scenario.
- A breakdown of the investments of the vehicle at the effective date at individual asset level
- Explanations of how the assets held by the vehicle change over time.
- If the SPV is held on the firm’s balance sheet, a breakdown at the effective date of the risk-weightings of the assets and an explanation of those risk weightings.
- Breakdown at the effective date of assets to which prudential filters have been applied, together with an explanation of these prudential filters.
- Explanation of the valuation methodology used for these assets.
- Explanation of how the SPV contributes to the capital resources of the group and solo entities.

Quantitative information should be provided in separate lines at the bottom of this template, with any commentary added in the designated box.

Breakdown of PV01 and IE01

deposit-takers and designated investment firms whose size, interconnectedness, complexity and business type give them the capacity to cause very significant disruption to the UK financial system (and through that to economic activity more widely) by failing or by carrying on their business in an unsafe manner; others on an exception basis

This information should be provided in separate lines at the bottom of this template, with any commentary in the designated box.

Firms are required to provide the PV01 and IE01 of the assets and separately the liabilities of each pension plan at the effective date in the designated cell of the template. Additionally, firms are required to provide: (i) the PV01 and IE01 of the assets separately for each asset class listed in the template (including each rating class for corporate bonds); (ii) the PV01 and IE01 of the liabilities, split by type of member (active, deferred, pensioner); (iii) the IE01 of the liabilities further split by type of increase for each material tranche, for example (this is not intended to be an exhaustive list):

• Salary increases before retirement
• Revaluation in deferment
• RPI increases in payment
• RPI increases in payment with a collar of 0%pa and a cap of 5%pa.
• Other

The IE01 of the liabilities should be calculated without allowing for any caps and floors. For example, if a tranche of benefit is subject to RPI increases in payment with a cap of 2.5%pa, then the IE01 should be calculated assuming full RPI linkage without capping the increase at 2.5%.

Additional documents to be attached to the submission

All firms

Please provide latest funding update and triennial valuation report in respect of UK schemes only. These are the reports provided by the scheme actuary to the trustees of the pension plan.

Appendix 2

BANK OF ENGLAND
PRUDENTIAL REGULATION AUTHORITY

Supervisory Statement | SS[xx]/15

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

January 2015

1 Introduction

1.1 This supervisory statement is aimed at firms to which CRD IV[1] applies.

1.2 It provides further detail in relation to the high-level expectations outlined in *The PRA's approach to banking supervision*.[2]

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 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: *The SREP* sets out the factors that the PRA takes into consideration to assess a firm's ICAAP. It explains the setting of Individual Capital Guidance (ICG) and the PRA buffer, the consequences in the event a firm fails to meet ICG or uses the PRA buffer, and that the PRA is collecting data to support the SREP.

1.6 This supervisory statement should be read in conjunction with the statement of policy *The PRA's methodologies for setting Pillar 2 capital*.

2 Expectations of firms undertaking an ICAAP

2.1 A firm must carry out an ICAAP in accordance with the PRA's ICAAP 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. 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 proposed requirements in relation to liquidity risk may be found in CP27/14.[3]

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.

IRRBB

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

(1) The Capital Requirements Directive (2013/36/EU) (CRD) and the Capital Requirements Regulation (575/2013) (CRR), jointly 'CRD IV'.
(2) June 2014; www.bankofengland.co.uk/publications/Documents/praapproach/bankingappr1406.pdf.
(3) *PRA Consultation Paper CP27/14*, 'CRD IV: Liquidity', November 2014; www.bankofengland.co.uk/pra/Documents/publications/cp/2014/cp2714.pdf.

2.8 The systems and processes should allow the firm to:

- measure the exposure and sensitivity of its activities, if material, to re-pricing 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);
- 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;
- 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
- measure the exposure and sensitivity of its available-for-sale and fair value exposures to changes in value resulting from yield curve and basis risk.

2.9 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 activities should cover the following issues as appropriate:

- the internal definition of the boundary between 'banking book' and 'trading activities';
- the definition of economic value and its consistency with the method used to value assets and liabilities (eg discounted cash flows);
- the size and the form of the different shocks to be used for internal calculations;
- the use of a dynamic and/or static approach in the application of interest rate shocks;
- the treatment of commonly called 'pipeline transactions' (including any related hedging);
- the aggregation of multi-currency interest rate exposures;
- the inclusion (or not) of non-interest bearing assets and liabilities (including capital and reserves);
- the treatment of current and savings accounts (ie the maturity attached to exposures without a contractual maturity);
- the treatment of fixed-rate assets or liabilities where customers still have a right to repay or withdraw early;
- 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);
- the degree of granularity employed (eg offsets within a time bucket); and
- whether all future cash flows or only principal balances are included.

2.10 For building societies, interest rate risk should be managed with reference to the PRA's draft supervisory statement on supervising building societies' treasury and lending activities.[1] Only societies not on the administered or matched approach to financial risk management should incur any significant interest rate risk.

2.11 In accordance with Internal Capital Adequacy Assessment 9.2, a firm should apply a 200 basis point shock in both directions to each major currency exposure. The PRA will periodically review whether the level of the shock is appropriate in light of changing circumstances, in particular the general level of interest rates (for instance, during periods of very low interest rates) and their volatility. The level of shock required may also be changed in accordance with guidelines issued by the European Banking Authority (EBA). A firm's internal systems should, therefore, be flexible enough to compute its sensitivity to any standardised shock that is prescribed.

2.12 Alongside the requirement to monitor and evaluate the potential impact of changes in interest rates on economic value, the PRA expects firms to monitor the potential impact on earnings volatility. This should be assessed on an appropriate timeframe of three to five years, and factor in 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. Careful consideration should be given to how any resulting volatility is managed.

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.

(1) Appendix 2d of *PRA Consultation Paper CP25/14*, 'The PRA Rulebook: Part 2', November 2014; www.bankofengland.co.uk/pra/Documents/publications/cp/2014/cp2514.pdf.

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

2.14 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

2.15 Under the Systems Sourcebook, SYSC 12.1.8R, of the PRA Handbook 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.

Operational risk

2.16 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 permission, compliance with,

the Committee of European Banking Supervisor's Guidelines on the management of operational risk in market-related activities published in October 2010.(1)

2.17 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 Advanced Measurement Approach (AMA) — Extensions and Changes, published in January 2012.(2)

2.18 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
- regular stress testing of the business continuity plan in an appropriate and proportionate manner.

2.19 In addition, the PRA expects that smaller firms will not be able to complete the operational risk data templates and 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

2.20 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.

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

(1) www.eba.europa.eu/regulation-and-policy/operational-risk/guidelines-on-the-management-of-operational-risk-in-market-related-activities.
(2) www.eba.europa.eu/-/guidelines-on-ama-extensions-and-chang-1.

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

2.22 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[1] basis in carrying out this assessment.

2.23 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.

2.24 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.

2.25 As part of their ICAAP submission, firms are required to calculate and report the stressed accounting value of their pension scheme's assets and liabilities using stress scenarios specified by the PRA in accordance with SUP 16.20.12R. This requirement is in addition to the firm's own assessment referred to above. 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.

2.26 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.

2.27 More information on the scenarios is available in the 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.

2.28 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.

2.29 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

2.30 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.

2.31 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.

2.32 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

2.33 There are situations where liabilities related to a defined benefit pension fund may, as the sponsor firm's financial

(1) http://ec.europa.eu/internal_market/accounting/docs/consolidated/ias_en.pdf.

condition deteriorates, increase substantially and unexpectedly above the stressed deficit which is covered under Pillar 2A.[1]

2.34 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.

2.35 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. Additionally, under SUP 16.20.12R 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.

Foreign currency lending to unhedged retail and SME borrowers

2.36 Foreign currency lending is defined in the EBA Guidelines on capital measures for foreign currency lending to unhedged borrowers under the Supervisory Review and Evaluation Process (SREP).[2]

2.37 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 II, section 1 paragraph 9 of the EBA's Guidelines on capital measures for foreign currency lending to unhedged borrowers under the Supervisory Review and Evaluation Process (SREP). Where a firm meets the threshold it should notify the PRA and reflect the risk in its ICAAP.

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 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. This might be a proportionate approach to risk management for an unsophisticated business;

(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

(1) 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 Banking 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.
(2) www.eba.europa.eu/documents/10180/535130/EBA-GL-2013-02+%28Guidelines+on+capital+measures+for+FX+lending%29.pdf/966f1ca0-7454-4003-a40a-e2fc98214fc1. Title I 'Subject matter, scope and definitions' of the EBA Guidelines, section 2, page 8, provides definitions of 'FX', 'FX lending', (ie 'foreign currency lending') and 'unhedged borrower'.

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 premise 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 Concurrent Stress Testing framework,(1) 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.(2)

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

(1) *A framework for stress testing the UK banking system*, October 2013; www.bankofengland.co.uk/financialstability/fsc/Documents/discussionpaper1013.pdf.
(2) The PRA scenario for 2014 was published in October 2014: www.bankofengland.co.uk/pra/Pages/supervision/activities/anchorscenario.aspx.

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 the concurrent stress test scenario or 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 SYSC 20. 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 firm should make 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 asses 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 or scenario test materialise. Such measures might be a contingency plan or more concrete and immediate risk mitigation steps.

4 The SREP

4.1 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.

4.2 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 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.

4.3 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.

4.4 The SREP will also consider:

- the results of stress tests carried out in accordance with the CRR by firms that use the 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 ICAAP 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 the EBA's Guidelines on capital measures for foreign currency lending to unhedged borrowers under the Supervisory review and Evaluation Process (SREP).[1]

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

4.6 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

(1) See footnote (2) on page 6.

defend all aspects of the ICAAP, covering both quantitative and qualitative components.

4.7 The SREP will generally be the same across all types of firms, but will be proportionate to the nature, scale and complexity of a firm's activities. There may also be a different emphasis depending on the type of firm or its potential risk to the financial system. For example, banks and building societies may be more exposed to credit concentration risk and IRRBB, with investment firms being more likely to be exposed to market risk. These potentially different areas of emphasis will be reflected in the conduct of the SREP, where applicable, for relevant firms.

4.8 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.

4.9 There are two main areas that the PRA considers when conducting 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.

4.10 To assess the capital adequacy of a firm under Pillar 2A, the PRA has developed capital methodologies. The methodologies are published in the statement of policy *The PRA's methodologies for setting Pillar 2 capital*.

4.11 The PRA will set ICG in light of both the calculations included in a firm's ICAAP and the results of the PRA's own Pillar 2A methodologies. Setting ICG is subject to peer group reviews to ensure consistency of decisions across firms.

4.12 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 ICG and the PRA buffer

ICG

4.13 Following the SREP, including both a review of the ICAAP and any further interactions with the firm, the PRA will normally set the firm an ICG, advising the firm of the amount and quality of capital that the PRA considers the firm should hold to meet the overall financial adequacy rule in Internal Capital Adequacy Assessment 2.1.

4.14 The PRA will set ICG on a consolidated basis to firms which must comply with the overall financial adequacy rule in Internal Capital Adequacy Assessment 2.1 on a consolidated basis. The PRA may decide not to set ICG on an individual basis to members of a group where firms are able to demonstrate that capital has been adequately allocated among subsidiaries and that there are no impediments to the transfer of capital within the group. This does not absolve individual firms or members of the group of their obligation to comply with the overall financial adequacy rule in Internal Capital Adequacy Assessment 2.1, which applies to all firms on an individual basis whether or not it also applies to the firm on a consolidated basis.

4.15 Where the PRA gives ICG to a firm 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 expects firms to meet Pillar 2A with at least 56% CET1 capital and no more than 25% Tier 2.

4.16 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 recommended as its ICG that does not necessarily mean that it is complying with the overall financial adequacy rule. Deviation by a firm from the terms of the ICG 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.

4.17 The PRA expects a firm not to meet the CRD IV buffers with any CET1 capital maintained to meet its ICG. If a firm agrees with its ICG, the PRA will expect the firm to apply for a requirement under section 55M of the Financial Services and Markets Act 2000 (FSMA) preventing the firm from meeting any of the CRD IV buffers that apply to it with any CET1 capital maintained to meet its ICG. The firm will normally be invited to apply for such a requirement at the same time as it is advised of its ICG. 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.

4.18 Where a firm is subject to the Basel I floor, the PRA expects a firm not to meet the CRD IV buffers with any CET1 maintained by the firm to meet the Basel I floor and will use its powers under section 55M to prevent a firm from doing so. Where applicable to a firm, global and other systemically important institution buffers will also be set by the PRA using its powers under section 55M.

The PRA buffer

4.19 Following the SREP, the PRA may also notify the firm of an amount of capital that it should hold as a PRA buffer, over and above the level of capital recommended as its ICG and over and above the CRD IV 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.

4.20 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 ICG 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 IV 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.

4.21 Where the PRA assesses a firm's risk management and governance to be significantly weak, it may set the PRA buffer to include an amount of capital to cover the risks posed by those weaknesses until they are addressed. This will generally be calibrated in the form of a scalar applied to the amount of CET1 required to meet Pillar 1 plus Pillar 2A. Depending on the severity of the weaknesses identified, the scalar could range from 10% to 40%. If the PRA sets the PRA buffer to cover the risk posed by significant weaknesses in risk management or governance it will identify those weaknesses to the firm and expect the firm to address those weaknesses within an appropriate timeframe.

4.22 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 IV buffers.

4.23 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 basis the PRA may notify the firm that it should hold a PRA buffer on a consolidated basis. The PRA may in certain circumstances notify a firm that it should hold a PRA buffer on an individual basis.

4.24 If a firm considers that the ICG 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 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.

Transitional arrangements

4.25 All firms are expected to hold the PRA buffer entirely in CET1 capital from 1 January 2019.

4.26 Firms are expected to meet their PRA buffer in increasing proportions of CET1 from January 2016 to January 2019:

- at least 25% by January 2016;
- 50% by January 2017;
- 75% by January 2018; and
- 100% by January 2019.

4.27 During the transitional period, firms may meet the remaining portion of their PRA buffer with any form of CRR-compliant regulatory capital unless the PRA decides that in the particular circumstances of an individual firm it should hold higher quality capital to meet the PRA buffer.

4.28 Some firms have been set a Core Capital Planning Buffer in the form of CET1 capital. The PRA expects these firms to meet their PRA buffer entirely in CET1 capital from 1 January 2016.

4.29 The PRA will continue to apply a more flexible approach to new entrants and expanding banks when setting the PRA buffer, as set out for the CPB in the Bank of England and Financial Conduct Authority (FCA) publication *A review of requirements for firms entering into or firms expanding in the banking sector: one year on*.[1]

(1) Bank of England and FCA, July 2014; www.bankofengland.co.uk/pra/Documents/publications/reports/2014/barriers2014.pdf.

Failure to meet ICG and use of the PRA buffer

4.30 The PRA expects every firm to hold at least the level of capital advised to it in its ICG 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 (even if the firm has not accepted the ICG given by the PRA), 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 ICG.

4.31 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.

4.32 Use of the PRA buffer is not itself a breach of capital requirements or TCs. However, where a firm has a PRA buffer in place, it should only use that buffer to absorb losses or meet increased capital requirements if certain adverse circumstances materialise. These should be circumstances beyond the firm's normal and direct control, whether relating to a deteriorating external environment or periods of stress such as macroeconomic downturns or financial/market shocks, or firm-specific circumstances.

4.33 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 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 force 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
- what plan is in place for the eventual restoration of the PRA buffer.

4.34 A firm which does not meet its PRA buffer can expect enhanced supervisory action, and should prepare a capital restoration plan. 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.

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

Disclosure

4.36 Firms should disclose the letter setting ICG or the PRA buffer to their auditors and may disclose their total ICG to other third parties. Otherwise, the PRA expects firms to treat all other information relating to ICG, 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 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.

4.37 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 ICG (except the total ICG) 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.

4.38 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.

Pillar 2 data reporting

4.39 Firms are required under SUP 16.19 to report data to the PRA. Firms may also be asked to submit further data. This information together with other data already collected in other regulatory reports will allow the PRA to assess a firm's ICAAP. The data collection will cover:

- the results of the Pillar 2 capital methodologies calculated by firms;
- data that will be used by the PRA to process the Pillar 2A capital methodologies;
- data that will allow supervisors to verify the calculation of the Pillar 2A capital methodologies; and
- data that will provide additional information on the nature and scale of the Pillar 2 risks a firms is exposed to.

4.40 The PRA has developed templates for firms to use when reporting Pillar 2 data. Where a firm will be required to report the data the firm must use the template and the instructions provided. A link to the templates and instructions is available on the PRA website: www.bankofengland.co.uk/pra/Pages/publications/cp/2015/cp115a.aspx.

4.41 Firms are expected to return the templates in conjunction with their ICAAP submission via Excel spreadsheets and send to the PRA by email using a pre-agreed encryption method.

Appendix 3

BANK OF ENGLAND
PRUDENTIAL REGULATION
AUTHORITY

Statement of Policy

The PRA's methodologies for setting Pillar 2 capital

January 2015

Contents

1 Introduction

1.1 This statement of policy sets out the methodologies that the Prudential Regulation Authority (PRA) uses to inform the setting of Pillar 2 capital for firms to which CRD IV[1] applies.

1.2 Section I: Pillar 2A methodologies sets out the methodologies the PRA will use to inform the setting of a firm's Pillar 2A capital requirements for credit risk, market risk, operational risk, counterparty credit risk, credit concentration risk, interest rate risk in the non-trading book (hereafter referred to as interest rate risk in the banking book (IRRBB)) and pension obligation risk.

1.3 Section II: Pillar 2B provides information on the purpose of the PRA buffer, how it is determined and how it relates to the CRD IV buffers. Section II also provides details on the PRA's approach to tackling weak governance and risk management under Pillar 2B.

1.4 Firms are required by SUP 16.20, or may be asked, to submit data to inform the PRA's approach to setting Pillar 2 capital requirements.

(1) The Capital Requirements Regulation (575/2013) (CRR) and Capital Requirements Directive (2013/36/EU) (CRD), jointly 'CRD IV'.

Section I:
Pillar 2A methodologies

2 Credit risk

2.1 This chapter sets out the methodology the PRA uses to inform the setting of a firm's Pillar 2A capital requirements for credit risk.

Definition and scope of application

2.2 Credit risk is the risk of losses arising from a borrower or counterparty failing to meet its obligations as they fall due.

2.3 A firm's capital requirements for credit risk are determined in accordance with Pillar 1 of the Capital Requirements Regulation (CRR). However, the PRA believes that there are asset classes for which the standardised approach (SA) underestimates the risk (eg zero risk-weighted sovereigns). The PRA therefore assesses credit risk as part of its Pillar 2 review of firms' capital adequacy.

2.4 The approach detailed below is applied to all firms using the SA and to those firms employing internal ratings-based (IRB) models that capitalise a significant share of their total exposures using the SA (the methodology is therefore applied to exposures subject to a partial use exemption). Application of the approach may be expected to be significant where a firm has higher-risk exposures on the SA and lower-risk exposures on the IRB approach, or where the SA treatment is especially favourable (eg sovereigns).

2.5 Where the underestimation of Pillar 1 capital is due to deficiencies in IRB models, the PRA addresses the capital shortfall by requiring the firm to remediate the shortcomings of the Pillar 1 models rather than setting Pillar 2A capital requirements.

Methodology for setting Pillar 2A capital for credit risk

2.6 The methodology used to inform the setting of firms' Pillar 2A capital requirements for credit risk is based on a comparison of firms' SA risk weights at a portfolio level to an IRB risk-weight benchmark (see **Table A**). Benchmarks have been calculated for mortgages (distinguished by loan to value (LTV) bands into fourteen categories), credit cards (both domestic and international), corporates, sovereigns and institutions (the latter mapped to credit quality steps).

2.7 The PRA's use of this approach does not imply that estimated IRB risk weights are a better reflection of underlying risk than the SA. For that reason the methodology includes scope for the exercise of supervisory judgement where there are acknowledged problems with IRB models (eg inadequate historical data).

2.8 The PRA has not calculated benchmarks for the portfolios: for which, whilst material for SA firms, the PRA does not have sufficient data to produce a reliable benchmark for; that are immaterial for SA firms; and where the difference between the IRB and SA risk weight is small. The PRA is going to collect data, as they become available, on a wider range of credit risk portfolios than in **Table A**. When the PRA has sufficient data, the PRA may develop more formal benchmarks for those portfolios.

2.9 The PRA uses data collected via regulatory returns, stress testing, hypothetical portfolio exercises, Pillar 2 data reporting as required by SUP 16.20 and firm-specific data requests. Each portfolio average risk weight is weighted by exposure amount. While average risk weighting gives a greater degree of importance to larger portfolios, this also reflects the fact that the associated models have been subject to a greater degree of scrutiny by the PRA.

2.10 The method used to inform the judgement as to whether a firm should hold additional capital for credit risk under Pillar 2A involves a calculation on an aggregate basis. If the benchmark implies that the SA Pillar 1 capital charge overestimates the level of capital required for a given portfolio when compared to IRB data, the calculated excess can be used against shortfalls in those portfolios for which the benchmark implies that the SA Pillar 1 capital charge is lower than IRB.

2.11 Supervisory judgement is then used to determine the credit risk add-on, taking into account considerations such as firms' own assessments, the IRB benchmark range, the PRA's confidence in the benchmarks and supervisory knowledge of the credit risk portfolios acquired via continuous assessment.

2.12 Initial analysis of the data indicates that relatively few firms would be subject to an add-on using this methodology. Therefore, the PRA applies it on an exceptions-only basis. Firms that are likely to be subject to it include, but are not limited to, those with significant exposures to sovereigns, high LTV mortgages, credit cards and commercial real estate.

Table A Credit risk IRB benchmark

	SA RW	Exposure weighted average RW	Lower range RW	Upper range RW
Mortgages				
Prime				
0% <= LTV <50%	35.0%	3.3%	2.8%	3.8%
50% <= LTV <60%	35.0%	6.0%	5.1%	7.0%
60% <= LTV <70%	35.0%	8.9%	7.5%	10.2%
70% <= LTV <80%	35.0%	12.7%	10.8%	14.6%
80% <= LTV < 90%	36.0%	18.4%	15.6%	21.1%
90% < = LTV < 100%	43.0%	31.4%	29.9%	36.1%
>=100%		53.9%	45.8%	62.0%
Buy to let				
0% <= LTV <50%	35.0%	4.1%	3.5%	4.7%
50% <= LTV <60%	35.0%	9.7%	8.2%	11.1%
60% <= LTV <70%	35.0%	12.5%	10.6%	14.4%
70% <= LTV <80%	35.0%	17.5%	14.9%	20.2%
80% <= LTV < 90%	36.0%	32.0%	27.2%	36.8%
90% < = LTV < 100%	43.0%	43.1%	36.7%	49.6%
>=100%				
Credit cards				
Revolving retail expo				
UK credit cards	75.0%	107.0%	91%	123%
International credit cards	75.0%	168.0%	143%	193%
Corporate				
Large corporates		54.1%	46%	62%
Mid corporates		79%	67%	91%
SME	75.0%	77.7%	66.1%	89.4%
Sovereign				
High grade (CQS1)	0.0%(a)	7.4%	6%	8%
Upper medium grade (CQS2)	20.0%	15%	13%	18%
Lower medium grade (CQS3)	50.0%	35%	30%	40%
Non-investment grade speculative (CQS4)	100.0%	77%	66%	89%
Highly speculative (CQS5)	100.0%	134%	114%	154%
Substantial risks (CQS6)	150.0%	220%	187%	253%
Commercial real estate				
Commercial real estate	100%	125%	100%	150%
Institutions				
High grade (CQS1)	20.0%	11.5%	10%	13%
Upper medium grade (CQS2)	50.0%	12%	10%	13%
Lower medium grade (CQS3)	50.0%	28%	24%	32%
Non-investment grade speculative (CQS4)	100.0%	42%	36%	48%
Highly speculative (CQS5)	100.0%	90%	76%	103%
Substantial risks (CQS6)	150.0%	278%	236%	320%

(a) To note, these SA risk weights would not apply to EU sovereign exposures which benefit from a 0% risk weight irrespective of their external credit rate (or CQS).

Reporting

2.13 Standardised data are requested by supervisors on an exceptions-only basis. Supervisors need to assess in advance of the Supervisory Review and Evaluation Process (SREP) whether a firm is likely to need an additional Pillar 2A credit risk add-on and, if so, to ask the firm to complete the templates for wholesale and retail credit exposures under the SA. Firms with high exposures to certain types of asset (eg credit cards, high LTV non-prime mortgages, zero risk-weighted sovereign exposures and commercial real estate) are more likely to be asked to submit these data.

2.14 The standardised data cover a larger array of data than considered in the benchmark table to inform the assessment of the credit portfolios reported under the SA.

2.15 To calibrate the Pillar 2 credit risk methodology the PRA collects data. Firms with permission to use the IRB approach for retail exposures are required by SUP 16.20 to submit data on retail exposures. This requirement is not linked to individual Internal Capital Adequacy Assessment Process (ICAAP) submissions.

3 Market risk

3.1 This chapter sets out the methodology the PRA uses to inform the setting of a firm's Pillar 2A capital requirements for market risk.

Definition and scope of application

3.2 Market risk is the risk of losses resulting from adverse changes in the value of positions arising from movements in market prices across commodity, credit, equity, FX and interest rates risk factors.

3.3 The Pillar 2A approach to market risk applies to all firms and covers all positions in the trading and available-for-sale books, including securitisation instruments/positions and covered bonds booked in the trading and available-for-sale books.

3.4 The PRA's review of a firm's risks and risk management standards applies equally to positions covered by approved models or standardised approaches and, as such, is relevant to firms both with and without advanced model approval. In practice, however, the PRA expects the Pillar 2A regime for market risk to affect mainly firms with material trading books, which are typically those firms with advanced market risk model permission.

3.5 Where the underestimation of Pillar 1 capital is due to deficiencies of advanced models, the PRA addresses the capital shortfall by requiring the firm to remediate the shortcomings of the Pillar 1 model rather than setting a Pillar 2A capital requirement.

Methodology for setting Pillar 2A capital for market risk

3.6 CRR Part Three, Title IV sets out the methodologies that firms must apply when calculating capital requirements for market risk under Pillar 1. The PRA may require firms to hold additional capital under Pillar 2A to cover risks likely to be underestimated or not covered under Pillar 1. The majority of such risks relate to illiquid, one-way and concentrated positions (referred to collectively as illiquid risks), which may not be capitalised appropriately.

3.7 To inform the setting of Pillar 2A capital, the PRA relies on a firm's own methodologies for assessing illiquid and concentrated positions. This is because market risk is specific to firms' individual positions. The PRA's focus is on the quality of firms' methodologies, including the magnitude of market shocks applied to illiquid risks. The PRA also assesses the firm's abilities to manage the risk.

3.8 When assessing firms' own calculations, the PRA will:

- review the completeness of illiquid risk identification by the firm;
- assess whether the stresses designed and calibrated by the firm are appropriate to measure the risk given a 1-in-1,000 year confidence level over one year (and, if not, request the firm to apply alternative stresses);
- assess the suitability of any existing capital mitigants or reserves which are proposed to offset the calculated stressed losses and discount these where not relevant; and
- set a Pillar 2A capital add-on such that the sum of the Pillar 1 (and Pillar 1 adjustments for model risks) and the Pillar 2A capital requirements is sufficient to cover losses at a 1-in-1,000 year confidence level.

3.9 In addition to the Pillar 2A add-ons for illiquid, concentrated and one-way positions, the PRA may also request a firm to hold additional capital under Pillar 2A where the PRA identifies deficiencies in a firm's market risk systems and controls.

Reporting

3.10 The PRA already collects information on illiquid, concentrated and one-way positions from firms participating in the Firm Data Submission Framework (FDSF) programme. This information is used for assessing the adequacy of a firm's capital under Pillar 2A.

3.11 Firms with significant illiquid risk in their trading books are required by SUP 16.20 to submit data on market risk, unless those data have already been submitted as part of the FDSF programme.

4 Operational risk

4.1 This chapter sets out the methodology the PRA uses to inform the setting of a firm's Pillar 2A capital requirements for operational risk.

4.2 The approach applies to all PRA Category 1 firms but may be extended to other firms depending on the level of sophistication of the firm's internal operational risk management.

4.3 In determining whether to use the methodology described below to non-Category 1 firms, the PRA takes into account the size and complexity of a firm, as well as the sophistication of a firm's internal operational risk management. Where the PRA decides not to use the full methodology, it assesses operational risk on the basis of data provided by the firm, the firm's own assessment of operational risk and supervisory judgement.

Definition and scope of application

4.4 Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, and includes legal risk.

4.5 Pillar 1 standardised approaches for operational risk use gross income as a measure of risk. This is not risk sensitive. During the recent economic downturn, incomes dropped but operational risk exposures, in many cases, remained the same or increased. The PRA therefore assesses operational risk as part of its Pillar 2 review of firms' capital adequacy.

4.6 Conduct risk has become a recurrent and a material source of losses for many firms but the existing approaches (Basic Indicator Approach (BIA), the Standardised Approach (TSA) and the Alternative Standardised Approach (ASA)) for calculating Pillar 1 operational risk capital do not reflect the nature and scale of recent conduct risk losses.

4.7 For the purpose of the PRA assessment conduct risk losses are defined as losses in the Basel loss event category 'Clients, Products and Business Practices' (CPBP).[1] Currently, conduct and legal losses make up the bulk of CPBP losses. In the current environment CPBP losses are considered a proxy of conduct risk losses.

4.8 The approach detailed below applies to firms using BIA, TSA or ASA to calculate Pillar 1 operational risk capital requirements.

4.9 The approach does not apply to firms on the Advancement Measurement Approach (AMA) unless there are outstanding material remedial actions associated with their AMA approval. In that case additional capital may be required.

Methodology for setting Pillar 2A capital requirements for operational risk

4.10 The approach considers non-conduct risk separately from conduct risk.

4.11 Where a firm's operational risk management and measurement framework are of AMA standard, the firm's ICAAP will be the main input into the setting of Pillar 2A capital for operational risk.

4.12 Sizing capital for operational risk is a significant challenge. The loss distribution is unusually fat-tailed, with infrequent but very large losses and there is a paucity of data. This problem applies to all operational risks but is especially acute for conduct risk. The loss estimates below do not overcome these fundamental problems but they deliver better outcomes than relying on inadequate Pillar 1 approaches. They provide a simple, transparent and consistent way for the PRA to assess Pillar 2A operational risk across firms.

4.13 Conduct risk is not assessed using pre-determined distributions or scalars because of the difficulties in estimating the tail of the loss distribution. Modelling such high-impact but low-frequency losses is extremely challenging. In addition, modelling techniques for extrapolating to the tail rely on the assumption that conduct risk events are independent and recent observed conduct loss patterns show this is not the case.[2]

(1) CRR Article 324.
(2) Two econometric studies provide such evidence:
 (i) Gillet, Roland, Georges Hübner and Séverine Plunus (2010), 'Operational Risk and Reputation in the Financial Industry', *Journal of Banking and Finance*, Vol. 34, pages 224–35, argues that poor firm management creates an expectation that operational events (in general) are correlated.
 (ii) Perry, Jason and Patrick de Fontnouvelle (2005), 'Measuring Reputational Risk: The Market Reaction to Operational Loss Announcements', unpublished Working Paper, Federal Reserve Bank of Boston, finds evidence of stickiness of internal fraud events.

4.14 The Pillar 2A capital for conduct risk is informed by: supervisory knowledge of a firm's exposure to conduct risk; a firm's largest conduct losses over the past five years; the level of expected annual loss for conduct risk; and conduct-related scenarios where potential exposures over a shorter time horizon (eg five years) are considered. As a result, the determination of additional Pillar 2A capital for conduct risk is driven predominantly by supervisory judgement.

4.15 The PRA uses three loss estimates, described below, to inform the setting of a firm's capital requirement for non-conduct risk.

(i) The first estimate (C1) is based on a firm's forecast of its expected losses due to operational risk in the next year(s), extrapolated to estimate the loss at the 1-in-1,000 year confidence level (assuming a given relationship between expected loss and unexpected loss). The expected loss forecasts exclude 'material conduct and legal risk'. The extrapolation is dependent on the type of business undertaken by a firm, distinguishing between universal banks, predominately domestic banks and wholesale banks.

(ii) The second estimate (C2) is based on the average of the firm's five largest losses by Basel event type (excluding CPBP) for each year. This calculation is repeated for each of the past five years, and the event type resulting in the largest capital requirement (calibrated at a 1-in-1,000 year confidence level) is used. A Pareto distribution is used to calibrate the operational risk capital for each event type by using a predetermined shape parameter. Currently, the shape parameters are defined by event types but are constant for all firms. The calibration and five-year time horizon might be reconsidered as the PRA obtains more loss data.

(iii) The third estimate (C3) uses a firm's scenario assessments (excluding scenarios associated with CPBP event types). For each scenario, either one frequency and at least two severity impacts, or at least two annual impact assessments, are used to fit a calibration-free, fat-tailed distribution to determine the annual impact at a 1-in-1,000 year confidence level. The C3 estimate is obtained by summing the five largest annual impacts to which a predefined diversification benefit is applied. The same diversification benefit is applied to all types of firms.

4.16 Supervisory judgement is used to determine the operational risk add-on, taking into account considerations such as: the quality of the firm's own Pillar 2A assessment; the capital range generated by C1, C2 and C3 for non-conduct risk; confidence in the firm's scenario analysis process and internal loss data; the quality of the firm's operational risk management and measurement framework; and peer group comparisons.

4.17 The Pillar 2A capital is the sum of the capital adjustment for conduct risk and non-conduct risk.

Reporting

4.18 All PRA Category 1 firms must report the data contained in the operational risk Pillar 2 data templates in accordance with SUP 16.20. The PRA expects that firms will submit the templates at the same time as their ICAAP document. The PRA may also request some Category 2 firms to report the same data and will notify the firms accordingly in advance of their submitting an ICAAP document.

5 Counterparty credit risk

5.1 This chapter sets out the methodology the PRA uses to inform the setting of a firm's Pillar 2A capital requirements for counterparty credit risk (CCR), including settlement risk.

5.2 The PRA's review of a firm's CCR and risk management standards applies equally to positions covered by advanced models or standardised approaches and, as such, is relevant to firms both with and without advanced model approval. In practice, however, the PRA expects the Pillar 2A regime for CCR to affect mainly those firms with material derivatives, margin lending, securities lending, repurchase and reverse repurchase or long settlement transaction businesses.

Definition and scope of application

5.3 CCR is the risk of losses arising from the default of the counterparty to derivatives, margin lending, securities lending, repurchase and reverse repurchase or long settlement transactions before final settlement of the transaction's cash flows and where the exposure at default is crucially dependent on market factors.

5.4 For firms with advanced model permission,(1) deficiencies or issues in the quantification of the capital needed to mitigate CCR adequately, or other shortcomings in the management of such risk, are addressed as part of the model approval and review process, with any additional capital requirements reflected via model multipliers or add-ons under Pillar 1 in line with Article 101 of the Capital Requirements Directive (CRD).(2)

5.5 For firms with advanced model permission, the PRA will focus on areas of risk that are not covered by internal modelling. Examples include concentration risk and settlement risk.

5.6 For firms without advanced model permission, or for products and counterparties not included in a CCR advanced model permission, the focus of the Pillar 2A review will be broader and cover key areas that would otherwise be assessed as part of model permission. In particular: qualitative requirements for CCR; credit concentration risk; IT sufficiency and data quality; settlement risk; collateral management; wrong-way risk; stress testing of CCR; model validation; and the limitations of non-advanced methods.

Qualitative requirements for CCR

5.7 CRR Articles 286–294 set out a number of qualitative requirements that firms must meet in order to use the advanced model for CCR. The PRA's view is that these qualitative standards should be the basis for assessing CCR risk management by all firms. The PRA assesses firms' management standards for CCR against these qualitative standards and may require firms to hold additional capital under Pillar 2 to address material deficiencies. The PRA focuses on the following areas: collateral disputes, collateral concentration and stress testing.

Relationship with concentration risk

5.8 The PRA captures CCR exposures in the firm's assessment of concentration risk, as set out in Chapter 5. The PRA addresses concentration risk by looking at single name, sectoral and geographical credit concentration across all exposures, including exposures and facilities across the trading and banking book.

IT sufficiency and data quality

5.9 IT and data issues can compromise the effectiveness of risk management and the calculation of capital requirements. For firms with advanced model permission, IT sufficiency and data quality are reviewed as part of an internal model application. For firms using standardised approaches, and for products not included within the scope of internal models, the Pillar 2A review focuses on IT sufficiency and data quality related to trade capture, exposure information for risk management and capital calculation. The PRA may require a firm to hold additional capital under Pillar 2A to address identified deficiencies.

Settlement risk

5.10 Settlement risk for transactions where the settlement or delivery date is no later than the market standard or five business days after the transaction date is not capitalised under Pillar 1.

(1) These include the Internal Model Method in CRR Article 283 and the Internal Models Approach for Master Netting Agreements in CRR Article 221.
(2) See footnote (1) on page 5.

5.11 For firms with advanced model permission, the risk management framework for settlement risk is reviewed as part of the advanced model application and its ongoing review.

5.12 Where firms do not adequately manage settlement risk arising from products outside the scope of an advanced CCR model[1] (eg through pre-deal checking, defined limit frameworks, appropriate reporting), the PRA may challenge the appropriateness of a zero capital requirement for such risk and require firms to hold additional capital under Pillar 2.

5.13 The review of settlement risk management will also include those products that do not attract CCR capital but give rise to settlement risk (eg cash securities transactions that are not conducted on a delivery versus payment basis).

Collateral management

5.14 The risk mitigation effects of collateral on derivative and repo-style transactions are incorporated into exposure calculations. However, the way in which collateral is used can give rise to additional risks. One particular area of concern is the re-use of collateral, for example when securities posted by a counterparty are re-used to collateralise an exposure with a riskier counterparty which does not segregate them. In such cases a firm may face liquidity constraints and losses if the counterparty defaults.

5.15 Collateral management is reviewed as part of the advanced model application and its ongoing review. For firms without advanced model permission, the PRA reviews firms' management of risks arising from collateral and may ask such firms to hold additional capital under Pillar 2 to address risks not sufficiently covered under Pillar 1.

Wrong-way risk

5.16 Other than for specific wrong-way risk,[2] the CCR capital framework assumes independence between the creditworthiness of a firm's counterparty and the level of exposure to that counterparty. Wrong-way risk, where there is an adverse relationship between the exposure to the counterparty and the creditworthiness of that counterparty, arises in circumstances in which this assumption does not hold.

5.17 Wrong-way risk frameworks of firms with advanced model permission are reviewed as part of their Internal Model Method application process. The PRA expects firms without advanced model permission to identify, monitor, manage, mitigate and capitalise their wrong-way risk appropriately. Misidentification of wrong-way risk leads to underestimation of risks and undercapitalisation. The PRA reviews the firm's management and capitalisation of wrong-way risk in its Pillar 2 assessment and may ask firms to hold additional capital under Pillar 2A to address identified deficiencies.

Stress testing

5.18 The PRA considers stress testing to be an important complement to business-as-usual measures of CCR exposure used for risk management. Firms with advanced model permission are required to carry out comprehensive stress testing analysis for both risk management and capital adequacy assessments. The PRA expects a firm without advanced model permission, or with material proportions of business outside the scope of advanced model permission, to carry out stress testing that is commensurate with the complexity of its business. The PRA focuses on CCR stress testing capabilities in its Pillar 2 assessment and may ask firms to hold additional capital under Pillar 2A to address identified deficiencies.

Model validation

5.19 Models are used extensively in the measurement of CCR, for the modelling of risk factors, the pricing of instruments and the quantification of risk. Firms with CCR advanced model permission have their model validation functions reviewed as part of the application and review processes. The PRA expects firms without CCR advanced model permission (but still using models in their CCR management) to have a model validation function that meets the PRA's expectations. The PRA focuses on the model validation function in its Pillar 2 assessment and may ask firms to hold additional capital under Pillar 2A to address identified deficiencies.

Accuracy of the exposures and of the inputs under non-advanced methods

5.20 There are a number of known areas of weakness in the calculation of exposure under some of the non-advanced Pillar 1 approaches for CCR (eg the Mark-to-Market Method and the Standardised Method).

5.21 In particular, the standardised approaches are relatively crude and may not be appropriate for more complicated trades or trades with unusual features. While regulation is being amended to cover some of these issues[3] some firms may be undercapitalised. The PRA reviews the risks that are not adequately captured by standardised approaches in its Pillar 2 assessment and may ask firms to hold additional capital under Pillar 2A to address identified deficiencies.

(1) This would include products (eg cash equities and cash bonds) that can result in settlement risk that don't attract counterparty credit risk.
(2) As defined in CRR Article 291.
(3) The Basel Committee has agreed a new Non-Internal-Model-Method (NIMM) to replace the Current Exposure Method and the Standardised Method in March 2014, see www.bis.org/publ/bcbs279.pdf.

5.22 Finally, inputs to the standardised approaches may come from a model or rely on prudent valuation. Where such inputs are inaccurate firms may fail to manage their exposures properly and may be under-capitalised. The PRA reviews the accuracy of those inputs to calculate Pillar 1 CCR charges and may ask firms to hold additional capital under Pillar 2A to address identified deficiencies.

6 Credit concentration risk

6.1 This chapter sets out the methodology the PRA uses to inform the setting of a firm's Pillar 2A capital requirements for single name, sector and geographical credit concentration risk in the banking and trading books.

Definition and scope of application

6.2 Credit concentration risk is the risk of losses arising as a result of concentrations of exposures due to imperfect diversification. This imperfect diversification can arise from the small size of a portfolio or a large number of exposures to specific obligors (single name concentration) or from imperfect diversification with respect to economic sectors or geographical regions.

6.3 For the purposes of the methodology specified below, only wholesale credit portfolios are considered for single name and sector concentration risk (excluding securitisation, intra-group exposures and non-performing loans). All credit portfolios other than residential mortgage portfolios on the standardised approach are considered for geographic concentration risk.

Methodology for setting Pillar 2A capital for credit concentration risk

6.4 Firms are required to calculate a credit concentration risk measure, the Herfindahl-Hirschman Index (HHI), for all relevant portfolios (single name, pre-defined industry sectors and geographic regions). The HHI is defined as the sum of the squares of the relative portfolio shares of all borrowers (these portfolio shares are calculated using risk-weighted assets (RWAs)). Well-diversified portfolios have an HHI close to 0, whilst the most concentrated portfolios have a number close to 1. The HHI is a good indicator of the level of credit concentration risk within a portfolio. Mapping models translate a firm's HHI into a proposed capital add-on range. The table mapping the HHI for single name, sector and geographical credit concentration to capital add-on ranges is set out in **Figure 1**.

6.5 The mapping models for single name, sector and geographical credit concentration are described below.

Single name concentration risk

6.6 The Gordy-Lütkebohmert (GL) methodology[1] is an extension of the Basel risk-weight function and aims to quantify the undiversified idiosyncratic risk in a credit portfolio not considered to be sufficiently granular. The GL methodology uses credit risk parameters to quantify the single name risk in a portfolio and suggests the necessary capital add-on range to account for single name concentration risk.

Sector and geographic credit concentration risk

6.7 When assessing the degree to which a firm might be subject to industry sector or geographical credit concentration risk, the PRA adopts a methodology based on published multi-factor capital methodologies (eg Düllmann and Masschelein).[2]

6.8 The PRA has constructed a benchmark portfolio based on the average lending distribution from a sample of well-diversified firms. The PRA developed a multi-factor capital model, which takes into account the default rate volatilities (intra-sector and intra-region correlation) of eight pre-defined geographic regions and industry sectors as well as default rate volatility correlations between pre-defined geographic regions and industry sectors (inter-sector and inter-region correlations).

6.9 Sectors are aligned to Standard Industry Classification (SIC) codes (EU/US standard classification codes (set out in **Table B**)), while the geographical regions are based on the International Monetary Fund's definition of the main global economic regions (set out in **Table C**). The United Kingdom is considered separately.

6.10 The multi-factor model is calibrated so that the capital requirement for a well-diversified lending portfolio (the benchmark portfolio) using the multi-factor model and a single risk factor model (on which the IRB framework is based) are equal. The PRA created a sequence of portfolios with increasing levels of concentration and compared the capital requirements derived from the multi-factor model with those derived from the single-factor risk model. The difference in the capital requirements between the multi-factor and single-factor risk model (capital add-ons) was compared to the HHI measures of concentration. The relationship between the two measures is strong. The PRA has therefore mapped

(1) Gordy, M and Lütkebohmert, E (2007), 'Granularity adjustment for Basel II', *Discussion Paper 01/2007*, Deutsche Bundesbank.
(2) Düllmann, K and Masschelein, N (2007), 'A tractable model to measure sector concentration risk in credit portfolios', *Journal of Financial Services Research*, Vol. 32, pages 55–79.

Figure 1 Concentration risk — mapping of capital add-on ranges to HHI

Concentration risk bucket	1	2	3	4	5
Single name concentration risk (granularity):					
HHI_{RWA}	0% – 0.29%	0.29% – 0.59%	0.59% – 1.15%	1.15% – 1.65%	> 1.65%
Capital add-on (% portfolio RWA)	0% – 0.5%	0.5% – 1%	1% – 2%	2% – 3%	3% – 4%
Sector concentration risk:					
HHI_{RWA}	11.1% – 20.3%	20.3% – 25.8%	25.6% – 41.7%	41.7% – 67.4%	> 67.4%
Capital add-on (% portfolio RWA)	0% – 0.25%	0.25% – 0.5%	0.5% – 1%	1% – 1.5%	1.5% – 2.8%[a]
Geographic (international) concentration risk:					
HHI_{RWA}	11.1% – 24.9%	24.9% – 34.5%	34.5% – 47.8%	47.8% – 77.9%	> 77.9%
Capital add-on (% portfolio RWA)	0% – 0.2%	0.2% – 0.5%	0.5% – 0.8%	0.8% – 1.25%	1.25% – 1.4%

(a) 2.8% for CRE but 2% for financial.

Table B Breakdown of sectors

Agriculture, forestry and fishing
Construction
Financial industry (bank and non-bank)
Real estate (commercial)
Manufacturing
Mining and quarrying
Wholesale and retail trade
Services and other
Transport, storage and utilities

Table C Geographical breakdown

United Kingdom
North America
South/Latin America and Caribbean
European (west) area
Eastern Europe and Central Asia (including Russian Federation)
East Asia and Pacific
South Asia
Middle East and North Africa
Sub-Saharan Africa

the HHI measures to capital add-on ranges derived from its multi-factor capital model.

6.11 Given a capital add-on range produced by the concentration risk models, the PRA exercises its judgement as to where within that range the capital requirement should fall. In order to promote consistency of judgement, there is a default presumption that unless there are compelling reasons to deviate from it, the add-on will fall at the mid-point.

6.12 The quantitative methodologies informing the recommended capital add-on ranges have been constructed so as to apply independently of one another in order to avoid double counting. The capital add-on for credit concentration risk is therefore the sum of the respective add-ons for each credit concentration risk type.

6.13 Because the measure of credit concentration risk derives from the Pillar 1 risk assessment (ie it is based on the risk weighting of the obligor, sector or geographic regions versus the portfolio risk weight), a large number of exposures with low risk weights will be considered less risky than a large number of exposures with high risk weights.

6.14 Where the PRA believes that a firm's credit risk RWAs do not accurately reflect the underlying credit risk within a portfolio, the Pillar 2A credit concentration risk charge may be adjusted upwards.

6.15 Capital held against potential losses from credit valuation adjustments are excluded from the credit concentration risk assessment.

Reporting

6.16 All firms must report the data contained in the credit concentration risk Pillar 2 data template in accordance with SUP 16.20. Firms are expected to submit the template for concentration risk as part of their ICAAP submission. These templates will include information on the portfolio HHI for each of the concentration risk types and additional information on portfolio composition.

7 Interest rate risk in the banking book

7.1 This chapter sets out the methodology the PRA uses to inform the setting of a firm's Pillar 2A capital requirements for interest rate risk in the non-trading book, commonly known as interest rate risk in the banking book (IRRBB).

Definition and scope of application

7.2 IRRBB is the risk of losses arising from changes in the interest rates associated with banking book items.

7.3 For larger or more complex firms the PRA employs a comprehensive approach to its IRRBB risk assessment that reviews duration risk, basis risk and, as necessary, optionality risk.

- Duration risk arises when the re-pricing of banking products (assets and liabilities) is mismatched across time buckets. Firms generate these positions via the normal running of their banking book and manage the resultant risks through their internal management processes and hedging activities.
- Basis risk is generated by banking book items that re-price in relation to different reference rates. The most common and material basis risks seen within UK banks derive from products re-pricing against policy rates (eg Bank Rate) and market rates (eg Libor). As part of the review of basis risk the PRA also considers asset swap spread risk, which typically arises when firms hedge the duration risk associated with fixed rate securities using derivatives (typically interest rate swaps).
- Optionality risk arises from the discretion that a bank's customers and counterparties have in respect of their contractual relations with the bank in the form of financial instruments. Embedded options are diverse and firm-specific and include prepayment risk on fixed rate loans and deposits and switching risk on non-interest bearing current accounts. Optionality risk is considered separately when material.

7.4 Smaller and less complex firms are subject to a standard approach which is based on reviewing their own policy limits for interest rate risk and, where appropriate, basis risk. A proportionate approach is applied where a firm demonstrates some aspects of complexity with a detailed review undertaken of the policy limit-setting approach, the potential for any breaches and the ability of the firm to manage the associated risks.

Comprehensive methodology for setting Pillar 2A capital for IRRBB

7.5 Large firms or those with more complex IRRBB risk exposures are subject to a comprehensive risk assessment process. This assessment involves the collection and processing of granular risk data provided by the firm and a review process including firm meetings and discussion. Together this ensures that the PRA has the appropriate information to understand and evaluate the firm's IRRBB risks and management processes.

7.6 The data for this process are collected in a standard data report from the firm. The data are processed using internal PRA systems. A range of value-at-risk and earnings-at-risk based measures are used to calculate capital requirements. The FSA017 regulatory return, which provides more aggregated re-pricing information, can be used to validate the data provided.

7.7 The methodology with respect to duration risk, basis risk and optionality risk is detailed below.

Duration risk

7.8 To assess duration risk, firms are first requested to allocate all items to the relevant time bucket and to report their exposure in each time bucket, as follows:

- fixed-rate assets or liabilities are allocated to the time bucket corresponding to their maturity (allowing for behavioural prepayment adjustments);
- floating-rate assets or liabilities are allocated to the time bucket corresponding to the frequency of re-set, with behavioural adjustments for administered rate products;
- derivatives are allocated according to their contractual re-pricing dates; and
- non-determinate items (ie those that do not have a pre-set contractual maturity, such as sight deposits and current accounts) are allocated to time buckets based on firms' assumptions. The PRA expects firms to justify these assumptions and any changes to them.

7.9 Second, the net interest rate gap of the firm for each time bucket is calculated for each material currency.

7.10 A shock is then applied to the net interest rate position for each respective time bucket. The methodology uses a range of currency-specific yield curve volatility parameters and a set of different interest rate shocks.

7.11 The VaR model is calibrated to a 1-in-100 year confidence level and uses a one-year holding period to reflect the potentially illiquid nature of banking book positions. Historical observations normally include ten years of yield curve data and are designed to capture stressed market conditions.

7.12 For each significant currency, the different interest rate shocks are applied to the net interest rate gaps in each time bucket. The methodology uses both government yield curves and Libor swap curves by material currency in order to calculate the potential impact of the interest rate risk shocks.

7.13 Economic value (EV) changes are then summed up across all time buckets in order to assess the change of the firm's EV due to its IRRBB exposure to an interest rate shock.

Basis risk

7.14 The review of basis risk concentrates on net policy rate and net Libor (contractual and behavioural) exposures including on- and off-balance sheet positions. The assessment is designed to capture the risk of market funding costs rising relative to a more stable policy benchmark.

7.15 The assessment process involves collecting information on variable rate re-pricing in order to calculate the net policy rate position by currency. These positions include: customer products linked contractually to policy rates; customer products that are expected to price in line with policy rates behaviourally; balances held with central banks that are currently priced in line with policy rates; and derivative hedges based on policy or correlated indices.

7.16 The PRA measures basis risks by applying to each firm's nominal exposure a change of the spread between the two reference rates on which the bank incurs basis risk exposure. The potential movement between the reference rates employs a statistical approach based on historical observations, at a 1-in-100 year confidence level.

7.17 The PRA measures how significant shifts in the market pricing of hedging Libor versus policy rate exposure over a one-year period can move over a three-month period. This is likely to involve the use of Overnight Indexed Average and Libor swaps.

7.18 The approach generates a one-year EaR measure to assess the capital requirement for basis risk. The calculation considers the net Bank Rate position exposed to a Libor funding shock.

7.19 Asset swap spread risk arises when firms hedge the duration risk associated with fixed rate securities using derivatives (typically interest rate swaps). This generates a valuation risk through asymmetric movements between the value of the bond (eg gilt) and the derivative (eg swap). The ongoing valuation risks should be managed within appropriate risk limits and capitalised.

7.20 The PRA considers movements in securities, eg gilts, hedged by swaps versus those of swap rates (for similar time buckets observed over a ten-year period). The VaR model is calibrated at a 1-in-100 year confidence level and uses a one-year holding period.

Optionality risks

7.21 In the United Kingdom, prepayment risk on lending is limited by the typically short re-pricing duration of fixed-rate products (retail mortgages and unsecured lending are typically fixed for terms not exceeding five years).

7.22 The impact of behavioural factors on certain non-determinate liabilities such as current accounts (eg customer switching) should be considered by firms. The behaviour of some components of these current account balances remains uncertain and may be affected by a change in interest rates.

7.23 The comprehensive approach involves discussing optionality risks with the firm during the risk assessment process in order to understand the materiality (or otherwise) of embedded option features. Dependent on the nature of a firm's business this could include non-UK products that have material embedded option features for which additional information may be requested.

Other IRRBB risks

7.24 Other IRRBB risks that may be considered, if material, include the risks arising from hedge accounting operations and structural foreign exchange exposure. The PRA monitors these and other emerging risks to ensure such risks are capitalised adequately.

Aggregation of IRRBB risks

7.25 Individual capital requirements for the different sub-components of IRRBB referenced above are then summed to calculate a firm's IRRBB capital requirement based on the data provided.

7.26 The process also assesses the quality of the firm's management, data and governance of IRRBB under the comprehensive approach and considers any additional capital required to reflect failings in a firm's practice.

Standard methodology for setting Pillar 2A capital for IRRBB

7.27 The PRA reviews the internal policy limits used by a firm. If appropriate (and these are most usually based on the economic impact of a 200 basis point shift in interest rates) the policy limits are used as the basis for determining IRRBB.

Basis risk

7.28 Under the standard methodology, the PRA does not assess Pillar 2A capital requirements against basis risk. Nevertheless, the PRA expects that a bank or building society mitigates its basis risk by setting limits on:

- its exposure to basis risk for each type of basis risk mismatch; and
- the sensitivity of its net interest margin to basis risk.

Behavioural adjustments

7.29 The PRA may allow firms, on a case-by-case basis, to allocate maturities based on behavioural assumptions.

Reporting

7.30 The PRA uses existing data reports, such as the FDSF programme for larger firms, or FSA017 for smaller firms, and works with individual firms to set out additional bespoke data requirements, where needed for the IRRBB assessment. The PRA may also ask firms to submit internal management information relevant to IRRBB.

8 Pension obligation risk

8.1 This chapter sets the methodology the PRA uses to inform the setting of a firm's Pillar 2A capital requirements for pension obligation risk.

Definition and scope of application

8.2 Pension obligation risk is the risk:

- to a firm caused by its contractual or other liabilities to, or with respect to, a pension scheme (whether established for its employees or those of a related company or otherwise); and
- that a firm will make payments or other contributions to, or with respect to, a pension scheme because of a moral obligation or because the firm considers that it needs to do so for some other reason.

8.3 Pension obligation risk relates to defined benefit pension schemes and defined contribution schemes offering guaranteed returns that are not fully matched by underlying investments. Hybrid schemes are considered to be defined benefit pension schemes. Pension obligation risk includes the risk arising from overseas pension schemes.

8.4 A sponsoring firm is a firm with contractual or potential commitments to one or several defined benefit pension schemes covering its employees or the employees of another entity within the same group.

8.5 Under CRD IV, the accounting deficit of a firm's pension scheme is deducted from Common Equity Tier 1 (CET1). Any surpluses are de-recognised. Firms are therefore exposed to pension obligation risk because a material increase in the pension scheme's deficit under adverse conditions will have a negative impact on their CET1.

8.6 A firm that does not deduct its pension scheme deficit from CET1 (eg because another company within the group recognises the deficit on its balance sheet) may still be exposed to indirect pension obligation risk, where the UK Pensions Regulator (TPR) has the power to require the firm to support the pension scheme, or where the failure of the company that recognises the deficit could destabilise the group, leading to the risk of contagion.

8.7 The PRA does not have a remit to protect members of defined benefit pension fund schemes against the failure of those plans. Nevertheless a firm must at all times comply with the overall financial adequacy rule. Accordingly, the PRA aims to ensure that firms are adequately capitalised against their defined benefit pension obligations.

Methodology for setting Pillar 2A capital for pension obligation risk

8.8 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.

8.9 The firm's own assessment and the PRA stress tests on the accounting basis can be reduced by offsets and management actions, and any pension scheme deficit deducted from CET1.

8.10 The PRA uses the results of two scenarios it prescribes to assess the adequacy of the firm's own assessment of the appropriate level of capital and to inform the setting of the Pillar 2A capital requirements for pension obligation risk. The higher of the two prescribed stress scenarios will form the starting point of the assessment.

8.11 The two scenarios applicable from 1 January 2016 are set out in **Table D**.

Table D PRA pension obligation risk stress scenarios (applicable from January 2016)

Per cent

	Scenario 1	Scenario 2
Fall in equity values	15	30
Fall in property values	10	20
Percentage reduction in long-term interest rates	10	15
Absolute increase in assumed inflation	0.5	0.75
Percentage change in credit spreads	-25	+25
Increase in liabilities due to a longevity stress	3	6

8.12 The PRA recognises that the assumptions underpinning the stress scenarios may not be appropriate for the risk profile of all pension schemes. Where the PRA believes that the risk profile of a firm's pension scheme deviates significantly from the assumptions underlying the published scenarios, it will use other models to inform the appropriate level of Pillar 2A pension obligation risk capital to compare against the firm's own assessment.

8.13 For the purposes of the stress scenarios, the PRA expects the valuation measure of liabilities to be the same as that used for IFRS reporting. Firms' approaches to setting the valuation assumptions should be stable over time and any changes to the approach should be justified in the ICAAP. The PRA will review the robustness of the valuation assumptions and may adjust the surplus or deficit in the capital requirements calculations where the assumptions are found to be out of line with other firms, or where an alternative set of assumptions better satisfies the capital adequacy rules.

8.14 The stress scenarios have been designed to produce an appropriate level of capital for a typical pension scheme. From time to time, it may be necessary to update the scenarios to ensure that they continue to remain appropriate. This may be done, for instance, where significant movements in market conditions mean that the scenarios produce inappropriate levels of capital or where the average risk profile of the pension schemes sponsored by PRA-regulated firms deviates from the risk profile the PRA has assumed when calibrating the stress scenarios.

8.15 The scenarios described in **Table D** are distinct from the multi-year firm-wide scenarios the PRA expects firms to develop in their ICAAP in accordance with the general stress test and scenario analysis rule in Internal Capital Adequacy Assessment 12.1 in the PRA Rulebook.

8.16 The PRA reviews the scenarios on an annual basis, but only expects to make changes to them every few years. Any changes will be consulted on before being implemented.

Offsets and management actions

8.17 The firm's own assessment of the appropriate level of capital and the results of the PRA stress scenarios may be reduced by eligible offsets and management actions recognised by the PRA. Offsets are reductions in a firm's Pillar 2A capital requirements to reflect factors present at the ICAAP effective date which would reduce the impact of a stress on the firm. Management actions are steps the firm could, and would, take when a stress occurs in order to reduce its impact.

8.18 To be accepted by the PRA, offsets and management actions must comply with the following eligibility criteria:

- financial performance — the efficacy of offsets and management actions should not depend on assumptions as to the future financial performance of the firm, either before or after a stress;

- independence from the decisions and actions of third parties — the efficacy of offsets and management actions should not depend on assumptions as to the future agreement or behaviour of third parties, either before or after a stress; and

- immediacy — recognised offsets should reflect a risk mitigation benefit that is already effective when the offset is taken. Management actions should be capable of taking effect quickly enough to mitigate the stress to which they are the proposed response.

8.19 The PRA expects firms to explain any offsets or management actions they propose. Where practical, management actions will be formulated after discussion with pension scheme trustees. The PRA will apply the eligibility criteria in a strict manner on a case-by-case basis. Offsets and management actions that do not meet the eligibility criteria will not be accepted.

Reporting

8.20 All PRA firms with defined benefit pension schemes are required to report the data contained in the pension risk template in accordance with SUP 16.20.12R. Firms are expected to submit the template for pension risk as part of their ICAAP submission.

Section II: Pillar 2B

9 The PRA buffer

9.1 The PRA buffer is an amount of capital that firms should hold, in addition to their capital requirements, to cover losses that may arise under a severe stress scenario, but avoiding duplication with the CRD IV buffers. Its purpose is to increase firms' resilience to such stress, in line with the PRA's risk appetite, so that firms can continue to meet their minimum capital requirements during a stress period.

9.2 Where the PRA assesses a firm's risk management and governance (RM&G) to be significantly weak, it may also set the PRA buffer to cover the risks posed by those weaknesses until they are addressed. This will generally be calibrated in the form of a scalar applied to the amount of CET1 required to meet Pillar 1 plus Pillar 2A. Depending on the severity of the weaknesses identified, the scalar could range from 10% to 40%. Where the PRA sets additional capital to cover the risks posed by weaknesses in RM&G, it will not offset the CRD IV buffers for the purposes of that part of the PRA buffer assessment.

The PRA buffer assessment

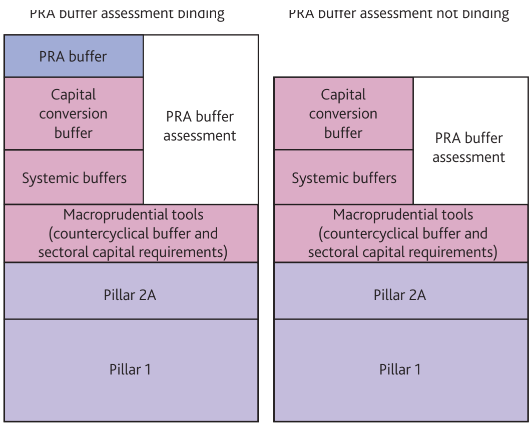
9.3 The PRA carries out a PRA buffer assessment for all firms. This is informed by the concurrent stress testing (CST) results[(1)] for those firms participating in the exercise as well as the results of each firm's own stress testing. Stress testing and scenario analysis requirements are set out in Chapter 12 of the Internal Capital Adequacy Assessment rules and in Chapter 3 of the supervisory statement, *The Internal Capital Adequacy Assessment Process (ICAAP) and the Supervisory Review and Evaluation Process (SREP)*.

9.4 The PRA reviews a firm's buffer assessment annually for firms participating in the CST exercise. For all other firms the PRA approach is aligned to the SREP and the frequency of review depends on a number of factors, including the firm's size, complexity, business model and growth plans.

9.5 The PRA may carry out PRA buffer assessments more often when firms' circumstances change, in particular when RWAs change more rapidly than assumed previously.

9.6 When setting the PRA buffer, the PRA considers the extent to which the CRD IV buffers already capture the risks identified in the PRA buffer assessment. Where the PRA concludes that there is potential overlap between the CRD IV buffers and the PRA buffer assessment, the PRA buffer is set as the excess capital required over and above the systemic risk buffers (SRB) and the capital conservation buffer (CCoB).

Figure 2 The Pillar 2 Capital framework



9.7 **Figure 2** illustrates a firm's total capital requirement and its relationship with the PRA buffer. In some instances, the PRA does not set a buffer if the CRD IV buffers are deemed sufficient, as illustrated in the right-hand column of the chart. Capital that firms use to meet their minimum requirements (Pillar 1 and Pillar 2A) cannot be counted towards meeting their buffers. All buffers are in CET1 capital.

9.8 For macroprudential policy decisions to be transmitted effectively, capital needs arising from the deployment of macroprudential instruments, including the countercyclical buffer and sectoral capital requirements, must be additive to the PRA buffer assessment.

9.9 The PRA buffer assessment is carried out in two steps.

(i) First, the PRA considers the maximum change in capital resources and requirements from the stress testing results (from CST or the firm's own stress test scenarios). These results are a function of the severity of the stress scenario and the PRA's starting assumption as to the amount of capital that it expects banks to maintain in a stress scenario.

(1) In October 2013 the Bank of England published DP10/13, a discussion paper setting out the main features of the proposed stress testing framework over the medium term, also known as the Concurrent Stress Testing Framework. The discussion paper stated that this framework would apply to 'the major UK banks as well as significant UK subsidiaries of foreign global systemically important banks'. Currently, eight firms are covered by concurrent stress testing. Over time, medium-sized banks may also be covered by the framework, though subjected to a proportionate version of the exercise.

(ii) Second, the PRA takes into account other factors that may influence the vulnerability of a firm to a stress.

9.10 In addition to carrying out an assessment as to whether a firm needs to hold additional capital to ensure it meets its minimum requirements in a stress, the PRA may also, if necessary, require a firm to take actions to strengthen its capital position over a specified time period.

Severity of the stress scenario

9.11 Each firm's PRA buffer assessment depends partly on the severity of the stress scenario, but will be determined finally following the review by supervisors of a range of factors detailed further below.

9.12 The PRA publishes a scenario to serve as a guide and, where relevant, as a severity benchmark, for firms designing their own stress scenarios.

9.13 In April 2014 the PRA announced(1) that the scenario approved by the Financial Policy Committee (FPC) and PRA Board as part of CST (the UK variant scenario) should be used as the scenario published by the PRA. The PRA uses the FPC and PRA Board scenario framework to inform the published scenario.

9.14 The PRA may also ask firms to run additional sensitivity analyses, the purpose of which will be to explore the impact on portfolios and/or regions, which are not covered in the common scenarios (the CST scenario or the PRA published scenario as appropriate) or the firms' idiosyncratic scenarios. The results of these sensitivity tests may be used to adjust the impacts of the firm's chosen scenarios or the common scenarios.

9.15 The results of all relevant stress tests and sensitivity analyses will be used to inform the PRA buffer assessment.

9.16 The PRA evaluates the key assumptions adopted and management actions recognised in firms' stress testing. Where they have a material impact on the stress test results, or the results are uncertain, the PRA may also take this into account as part of the PRA buffer assessment.

Starting assumption as to the amount of capital a firm is expected to maintain under stress

9.17 All firms should be able to meet Pillar 1 plus Pillar 2A CET1 capital requirements under a stress. This is the amount of CET1 capital the PRA considers firms should hold at all times to meet the overall financial adequacy rule in Internal Capital Adequacy Assessment 2.1 of the PRA Rulebook.

9.18 Using the stress test results, the PRA sets the PRA buffer assessment to reduce the risk that a firm's capital ratio will fall below the sum of Pillar 1 and Pillar 2A CET1 requirements in a stress.

9.19 Additionally, the PRA expects a firm to hold a larger buffer or strengthen its capital position where necessary based on other factors. These include but are not limited to: the firm's leverage ratio; the extent to which the firm has used up its CRD IV 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. This proposed hurdle rate framework is consistent with the approach adopted in *Stress testing the UK banking system: key elements of the 2014 stress test*,(2) where the Bank of England set out a non-exhaustive list of factors the PRA might take into consideration when deciding if action is needed to strengthen a firm's capital adequacy.

Other factors affecting the PRA buffer assessment

9.20 Here, the PRA sets out other factors it can take into account when carrying out the PRA buffer assessment.

Holding systemically important firms to a higher standard

9.21 The PRA reflects a firm's systemic importance in its PRA buffer assessment.

9.22 There are a number of reasons why the PRA holds systemically important firms to a higher standard, in line with its primary objective of promoting safety and soundness of firms, including:

- these firms should be safer than other firms because their distress or failure is particularly associated with negative effects on the wider economy: in particular adverse feedback loops created when these firms are too capital constrained to continue to lend;

- to reduce the moral hazard created by their systemic importance, such as funding cost advantages caused by perceived implicit subsidies;(3)(4) and

(1) www.bankofengland.co.uk/financialstability/Pages/fpc/stresstest.aspx.
(2) www.bankofengland.co.uk/financialstability/Documents/fpc/keyelements.pdf.
(3) See Basel Committee on Banking Supervision (2013), 'Global systemically important banks: updated assessment methodology and the higher loss absorbency requirement'; Alfonso, G, Santos, J and Traina, J (2014), 'Do 'Too-Big-To-Fail' Banks Take on More Risk?', *Federal Reserve Bank of New York Economic Policy Review 2*; International Monetary Fund (2014), *Global Financial Stability Report*, Chapter 3; and Acharya, V, Anginer, D and Warburton, A (2013), 'The End of Market Discipline? Investor Expectations of Implicit State Guarantees', *mimeo*.
(4) International initiatives have been agreed that are expected to reduce expectations of taxpayer support for firms that are perceived to be 'too big to fail'. These are targeted at significantly reducing implicit subsidies over time.

- given the uncertainty associated with stress testing outcomes the PRA wants additional comfort that these banks will not fall below their capital requirements.

Management actions

9.23 By 'management actions' the PRA refers to the steps that firms could take in response to capital or liquidity inadequacies in a given scenario. They are not intended to capture 'business as usual' responses that firms would expect to take in that scenario.

9.24 Management actions are recognised when setting a firm's PRA buffer if they meet the principles specified below.

- The PRA only recognises a limited set of credible management actions that firms could realistically take in a stress.

- Firms should include management actions in the modelled impact of a scenario only if they could, and realistically would, take such actions. In doing so, they should take into account factors such as market conditions in the stress scenario and any effect those actions would have on the firm's reputation with its counterparties, investors and customers.

- Firms should be able to present their results gross and net of these management actions, focusing in particular on the impact on the capital position. Additionally, they should indicate the triggers for taking management actions, the main risks to executing them and the time necessary to implement the actions and to see their results coming into effect.

- The PRA only permits limited recognition of deleveraging, especially for large firms (relative to firms' baseline plans) in particular if it leads to a material decline in aggregate credit supply.

Impact of projections under the base case

9.25 Firms are expected to run a base case or expected scenario in conjunction with the stress scenarios and to be able to meet their CRD IV and PRA buffers[1] under the base case.

9.26 If a firm falls into its PRA buffer under the base case, this would point to the PRA buffer being used for a different purpose than that intended (for instance to support a growth strategy). This could lead to the PRA buffer being insufficient to ensure a firm can meet its capital requirements should a stress scenario materialise.

9.27 Where a firm falls into the PRA buffer in the base case, the PRA's response will depend on the situation. For example, the PRA may require the firm to review its base case capital plan or may subject the firm to enhanced supervision.

Weaknesses in stress testing processes and data quality

9.28 The PRA looks at the adequacy of a firm's stress testing processes and the quality of its data. Where shortcomings are identified, the PRA can have less confidence in the results of stress testing and may set a higher PRA buffer assessment in such circumstances.

Shortfalls in other projected capital ratios

9.29 The PRA takes into consideration the ability of a firm to meet its Tier 1 and total capital ratios under a stress scenario.

New entrants and expanding banks

9.30 The PRA will continue to apply a more flexible approach to new entrants and expanding smaller banks when setting the PRA buffer as set out for the CPB in the July 2014 FCA and PRA publication *A review of requirements for firms entering into or firms expanding in the banking sector: one year on*.[2]

(1) This would include the CCoB, the countercyclical capital buffer and the systemic risk buffer, if any.
(2) July 2014; www.bankofengland.co.uk/pra/Documents/publications/reports/2014/barriers2014.pdf.